

Management of the school nutrition programme at primary schools in Tembisa

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Management of the school nutrition programme at primary schools in Tembisa

by

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This study is dedicated to two people who are very important in my life.

*The one is Jerry Madiba, who has been a brother, friend,
colleague and counsellor to me throughout the study.*

*The other person is my mother, Lydia Moshidi Dibakwane,
who unwaveringly stood beside me during all my years of study.*

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DECLARATION OF AUTHENTICITY

I declare that this dissertation titled: *Management of the school nutrition programme at primary schools in Tembisa*, submitted for the degree of Master in Education Management at the University of Pretoria, is my own work and it has never been submitted for any examination at any other institution. All the sources consulted have been acknowledged.

M.M. Maja

Margaret Malewaneng Maja

March 2011

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SUMMARY

The purpose of this study was to explore the extent to which principals and school nutrition programme coordinators (nutrition coordinators) manage the responsibility of ensuring that the nutrition programme is implemented at their schools without interfering with the process of teaching and learning. The study includes a literature review and an empirical investigation. The specific knowledge gained from this research may add to the body of knowledge in the field of Education Management and should inform educators, principals, policy makers and individuals concerned with the management of school nutrition programmes on strategies that could be applied in managing the primary school nutrition programme. The data was collected by administering semi-structured interviews and observations. Five public primary school principals and five coordinators from Tembisa on the eastern outskirts of Johannesburg (Gauteng, South Africa) were interviewed. The results showed that the majority of principals and coordinators admitted that the programme enhanced learners' performance at school, but felt that there were specific challenges in managing the programme.

Some of the principals and coordinators experienced the programme as an additional burden to the educators who were already overloaded with curriculum lessons. Most of the schools indicated that feeding time sometimes overlapped with the learners' class time, due to the large number of learners being served by one food handler. This study recommends that the SGB should reconsider the installation of food preparation facilities at schools. Other mechanisms should be sought to relieve the already overburdened educators from running the programme. Measuring scales should be available at all schools to ensure that the weight of delivered food items agree with the kilograms stated on the delivery invoice. The Department of Education should involve experts when planning the menu to warrant better nutritional value and effective delivery of the school nutrition programme. Regular seminars and workshops should be arranged for food suppliers, programme committee members and food handlers to ensure effective management and implementation of the programme.

KEY WORDS

Feeding time	Learners' class time
Food gardens	Management
Food handlers	Menu
Food storage	School nutrition programme
Impoverished learners	Strategies

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CASE	Community Agency for Social Enquiry
CSO	Civil Society Organisation
DoE	Department of Education
DoH	Department of Health
DORA	Division of Revenue Act
DoSF	Department of School Food
ECPR	Eastern Cape Provincial Report
FSPR	Free State Provincial Report
GDE	Gauteng Department of Education
GOB	Government of Bangladesh
GPR	Gauteng Provincial Report
HOD	Head of Department
HIV	Human Immunodeficiency Virus
HST	Health Systems Trust
INP	Integrated Nutrition Programme
KZNP	KwaZulu-Natal Provincial Report
LPR	Limpopo Provincial Report
LED	Local Economic Development

MoE	Ministry of Education
MPR	Mpumalanga Provincial Report
NAfE	National Agency for Education
NGO	Non-Governmental Organisation
NSNP	National School Nutrition Programme
NWPR	North West Provincial Report
OECD	Organisation for Economic Co-operation and Development
PED	Provincial Education Department
PSNP	Primary School Nutrition Programme
RDP	Reconstruction Development Programme
SAGI	South African Government Information
SANR	South African National Report
SASA	South African Schools Act
SFC	School Feeding Committee
SGB	School Governing Body
SMC	School Management Committee
SMMEs	Small, medium and macro enterprises
SNPC	School nutrition programme coordinator
SP	School principal
STD	Sexually Transmitted Diseases
The Charter	African Charter
The Constitution	Constitution of the Republic of South Africa
UK	United Kingdom
UN	United Nations
US	United States
WFP	World Food Programme



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CHAPTER 1

BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Conditions of impoverishment have escalated over a long period in most communities in South Africa. Unfortunately those who are the most severely affected by these conditions are the children. Children go to school without breakfast, without shoes and wearing shabby school uniforms (Graham, 2006:1). These conditions tie in with Maslow's (1970) theory of human motivation based on a hierarchy of needs. According to Castle and Bialobrzeska (2008:14), physiological needs at the lowest level of the hierarchy, such as hunger and thirst, must first be satisfied before safety needs (the need for protection and security) even come into play. The next three levels of Maslow's hierarchy relate to the higher-order needs of love, affection, belonging and esteem. At the top of the hierarchy is the need for self-actualisation, for becoming what one has the potential to become.

From the above it is clear that meeting the primary human need for nutrition is the foundation for ensuring development and learning. Lack of nutrition may be the most important factor hindering effective learning in some schools in South Africa (Castle & Bialobrzeska, 2008:14). Numerous authors (Murphy, 2009; Devaney & Stuart, 1998; Bhattacharya, Currie & Haider, 2004; Ahmed, 2004; Castillo, 2008; Fleisch, 2008; Grantham-McGregor, 2005; Kallman, 2005; Bundy, 2005) are convinced that learners who are experiencing hunger have slower memory recall, score lower in cognitive tests, are more likely to repeat a grade, have emotional and academic problems and are more likely to be absent and tardy. It is for this reason that I was motivated to explore the management of school nutrition programmes in selected primary schools as one of the ways of supporting impoverished learners.

In support of Castle and Bialobrzeska's (2008:14) argument that nutrition is an essential contributing factor for effective learning, Statistics South Africa (2003; 2007) presented the following details about households that were troubled by child hunger:

TABLE 1.1: GENERAL HOUSEHOLD SURVEY 2003 AND 2007 (STATISTICS SOUTH AFRICA, 2008:1)

Region	2002		2007	
	%	Total	%	Total
Eastern Cape	47,4	1,346,000	21,4	635,000
Free State	29,2	290,000	10,3	118,000
Gauteng	17,0	465,000	12,4	357,000
KwaZulu-Natal	30,9	1,186,000	15,2	610,000
Limpopo	27,9	698,000	8,6	215,000
Mpumalanga	33,4	437,000	16,1	238,000
North West	30,5	436,000	17,5	227,000
Northern Cape	25,4	77,000	11,0	48,000
Western Cape	16,3	260,000	17,4	273,000
SOUTH AFRICA	29,7	5,203,000	14,9	2,723,000

Due to the rapid increase of hungry learners in some schools, the democratic South African government was challenged to introduce a comprehensive school nutrition programme to serve as a vehicle for combating temporary hunger in primary schools (Health Systems Trust (HST), 1997:1).

According to the Gauteng Provincial Report (GPR) (2008:2), the Primary School Nutrition Programme (PSNP) was introduced in 1994 as one of the presidential lead projects under the Reconstruction and Development Programme (RDP). Its aim was to enhance the educational experience of impoverished primary school learners through promoting punctual school attendance, alleviating short-term hunger, improving concentration and contributing to general health development. In its ten years of existence the PSNP was jointly managed at the national level by the Department of Health (DoH) and the Department of Education (DoE). The DoH was responsible for nutritional and health aspects and the DoE for school and educational elements. In September 2002 Cabinet resolved that the school nutrition should be transferred from the DoH to the DoE, which would assume full responsibility by April 2004 and the programme was renamed the National School Nutrition Programme (NSNP). Cabinet's decision was based on the inclusion of Grade R and secondary

schools and the consideration that school feeding should be housed in the DoE given the important education outcomes of the intervention. An additional consideration was that it would facilitate the inclusion of school feeding in the broader context of education development, a prerequisite for successful and sustainable school-based programmes (GPR, 2008:2).

The NSNP was funded by a conditional grant distributed by the national government to the provincial departments of education. In terms of the Department of Education (2008:10), the programme had a budget of approximately R1, 6 billion. The programme was not intended for every school in South Africa, but was meant for schools with the poorest learners. It would provide meals to about six million learners in approximately 18 000 schools nationally. Eventually the number of learners benefiting from the project was well above the DoE's target of 60% of the poorest learners (DoE, 2008:10).

In order to ensure the success of the programme policy and operational guidelines, systems and procedures were put in place by the DoE (Sangweni, 2008:4). Monitoring and evaluation tools were also introduced and personnel was recruited and trained to manage the programme. Furthermore, community participation was one of the core facets in the implementation of the project and structures such as school governing bodies (SGBs) were brought on board to monitor the programme implementation. Aspects of local economic development (LED) were factored in through the tendering system that promoted the contracting of small, medium and macro enterprises (SMMEs) as food suppliers to schools. Women volunteers were recruited to be food handlers (known as helpers at schools) during the preparation of food at the respective schools and were paid a monthly stipend (Sangweni, 2008:4). However, despite all the policies, guidelines, systems and procedures that were put in place, the operational system did not run smoothly. Problems such as late food delivery, insufficient food preparation facilities and food storage facilities hampered the implementation of the programme.

According to the DoE (2008:10), the National School Nutrition Programme's *Implementation, Monitoring and Reporting Manual* of January 2004 (national guidelines) shows that all schools participating in the NSNP were encouraged to

keep a food garden, no matter how small. At the end of the 2006 school year, 7 429 food gardens had been established to supplement the school meals provided as part of the programme. Provincial departments of education worked in close co-operation with the Department of Agriculture, Water Affairs and Forestry in training school communities to establish and manage food gardens, as well as to plant fruit trees. Nutrition education booklets and charts were produced to assist in promoting health and hygiene among learners. Food gardening was intended to add nutritional value to the programme (DoE, 2008:10).

Thus, at the 48th International Conference on Education that was held in Geneva, Switzerland, from 25 to 28 November 2008, the South African National Department of Education reported that it believed access to good nutrition for primary school learners was crucial to ensure effective primary education. The NSNP was an important means of mitigating the impact of poverty on primary school learners. It promoted not only good health by addressing certain micronutrient deficiencies, but also had an impact on learning by enhancing primary school learners' active learning capacity, alleviating short-term hunger and providing an incentive for children to attend school regularly (DoE, 2008:10).

In addition to the above, the DoE stated that NSNP had contributed towards local economic development and job creation. A total number of 1 709 service providers, 572 community-based small, micro and medium enterprises and 1 059 community-based co-operatives were contracted throughout the nine provinces. Each school employed at least two food handlers per 200 learners to be managed by school nutrition coordinators (DoE, 2008:10).

To examine the process of delivery of the NSNP, several evaluations of the programme were made between 1996 and 2003. The overall purpose of these evaluations was to provide a comprehensive assessment of the main problems, weaknesses and strengths of the programme, as well as of its management and implementation. This was done in order to make recommendations to the DoH on how to improve the effectiveness and efficiency of the programme and how it could best become part of the DoH's Integrated Nutrition Programme (INP). A host of

issues such as the management and beneficiaries of the programme were identified and needed to be factored in to improve the programme (Sangweni, 2008:4).

It was found that each and every province in South Africa implemented and managed its own school nutrition programme. Interestingly, Wildeman and Mbebetho (2005:6) argue that the NSNP was implemented at provincial level because the RDP policy was an attempt to limit national government spending. The provinces had to target their nutrition interventions at poor primary school learners, but at the same time had to ensure that the overall cost involved did not exceed budgeted levels. Provinces not only selected different mechanisms for targeting the learners in need in their schools, but also adopted different ways of implementing their school nutrition programmes. Despite the fact that the NSNP was a presidential lead project, it unfortunately received weak funding prioritisation, as evidenced by a 15, 4% drop in the number of participating schools between 1995 and 2003 (Wildeman & Mbebetho, 2005).

In support of the argument by Wildeman and Mbebetho (2005:6), Brand (2004) admits that the primary school nutrition programme was the only programme that was explicitly (even if only partially) intended to directly advance children's right to basic nutrition. However, if government were to acknowledge the school nutrition programme as the premier programme that realised children's right to food, the implementation of such a feeding policy would impose a cost on the national budget that would be virtually unaffordable. Brand (2004:114) further argues that the absence of a comprehensive social security net weakened the impact of the school nutrition programme. The fact that it targeted only a small portion of impoverished learners further weakened its claims as a comprehensive and national nutrition programme. Brand (2004:14) advocates the continuation of narrow targeting and insists that instead of increasing the number of beneficiaries, the emphasis should be placed on improving delivery to the present beneficiaries. In the current study, the researcher argues that the school nutrition programme is an extra-curricular activity for educators. As an educator teaching in a school where the nutrition programme is implemented, the researcher knows that the programme activities sometimes overlap with learners' class time. According to the Employment of Educators Act, Act 76 of 1998, an extra-curricular activity is a school activity outside the classroom and outside the teaching hours; hence, it should not disrupt teaching and learning. The

researcher's assumption is that the inadequate funding of the nutrition programme has caused the government to utilise educators to manage the programme instead of bringing in service providers.

1.2 BACKGROUND AND RATIONALE

The 1949 Universal Declaration of Human Rights established adequate health, including adequate food, as a basic human right. The right to health and nutrition was reiterated in the 1989 Convention of the Rights of the Child, adopted by all but two United Nations (UN) member countries. The right to adequate nutrition is enshrined in the constitutions of many countries (World Bank, 2006:37). South Africa is among these countries.

The Constitution of the Republic of South Africa (the Constitution), Act 108 of 1996, contains the Bill of Rights in Chapter 2. The Bill of Rights protects the rights of all people in the country and affirms the democratic values of human dignity and equality that the state must respect, protect, promote and fulfil. Section 28(1) (c) states that every child has the right to basic nutrition, shelter, basic health care and social services. Section 29(1) (a) also indicates that everyone has the right to basic education, including adult basic education.

Consistent with section 28(1) (c) of the Bill of Rights, Tomlinson (2007:4) points out that health and education help to keep a country's economy healthy and create a literate society. He further states that there is considerable evidence that education plays a central role in empowering women, which in turn is linked to numerous long-term benefits such as smaller family sizes and increased agricultural production. Nevertheless, levels of education remain low worldwide: at least 113 million children do not attend school. Most of these children come from developing countries where this problem is particularly severe. In Africa alone, more than 46 million children do not attend school (Tomlinson, 2007:4). Many of them suffer from malnutrition, display stunted growth or experience short-term hunger, which seriously affect their ability to learn. Children's right to basic nutrition entitles them to state guarantees that they will receive at least a level of nutrition that enables their dignified survival and basic physical and mental development (Kallman, 2005:3).

From the researcher's experience as an educator, she knows that most of the impoverished primary school learners are unable to cope with learning, not only because they have intrinsic barriers to learning, but also simply because they are hungry. From her perspective, administering the NSNP is demanding. Because there is only one food handler serving more than 200 learners, the process sometimes interferes with lessons after lunch as learners do not finish eating in time. The Health Systems Trust (1997:23) points out that the problems associated with school feeding programmes are well known worldwide. These programmes are expensive and logistically complicated. Supplies are received on an irregular basis and food is lost through spoilage or black market theft. The rations and nutrients are inadequate. At the school level, the monitoring and preparation of meals are burdensome to the educators and often disrupt teaching.

Some schools have impoverished learners who come to school being hungry. These learners are expected to learn effectively and efficiently during the teaching and learning process. The government has introduced the NSNP to alleviate the short-term hunger of these learners. The programme has to be implemented and managed by principals and nutrition coordinators who have their teaching responsibilities. Therefore, the purpose of this study is to explore how do the principals and nutrition coordinators implement and manage the nutrition programme without it interfering with the process of teaching and learning.

Since school principals and school nutrition programme coordinators are responsible for the management of the NSNP, it is significant to explore their experiences, expectations and views regarding the NSNP and to find out the strategies they use to implement and manage the programme. There is always the possibility that the NSNP may be viewed and interpreted in different ways. The specific knowledge gained from this research may add to the body of knowledge that constitutes this field of study. By helping the educators, researchers, policy makers and individuals participating in the study to find better strategies to manage the implementation of the programme effectively, interference with the process of teaching and learning may be reduced.

1.3 STATEMENT OF THE PROBLEM

After 1994, the democratically elected government of South Africa made a number of commitments that relate to the well-being of children. South Africa also ratified the Convention of the Rights of the Child, and the African Charter ratified the Rights and Welfare of the Child. Therefore it is the responsibility of the government to see to the well-being of all children. In trying to mitigate the conditions that cause impoverished learners to go hungry, the government initiated the NSNP. As a result, the NSNP serves as a vehicle for alleviating the temporary hunger of impoverished primary school learners. However, the programme has to be properly managed at school level in order to be effective; its implementation should not interfere with teaching and learning.

According to the GPR (2008:13), all schools participating in school nutrition programmes have appointed educators as school nutrition programme coordinators (nutrition coordinators) and supervisors of the NSNP. Having educators in this position is not always a good idea, as the programme frequently interferes with their teaching responsibilities and teaching time. The administration involved is an additional responsibility for educators who are already overloaded. The problem that is stated in this study is how school principals and nutrition coordinators manage the responsibility of ensuring that the nutrition programme is well implemented, without it interfering with the process of teaching and learning.

1.4 RESEARCH QUESTIONS

The following critical questions are asked in this study:

1. How do school principals and nutrition coordinators manage the school nutrition programme?
2. What are their expectations of and views on the programme?
3. What strategies do principals and nutrition coordinators use to manage and implement the school nutrition programme?

1.5 CONCEPTUAL FRAMEWORK

According to Vithal and Jansen (2007:19), a conceptual framework is a less well-developed explanation for events in which key concepts or principles are linked.

This study is based on the concepts shown in Figure 1.1.

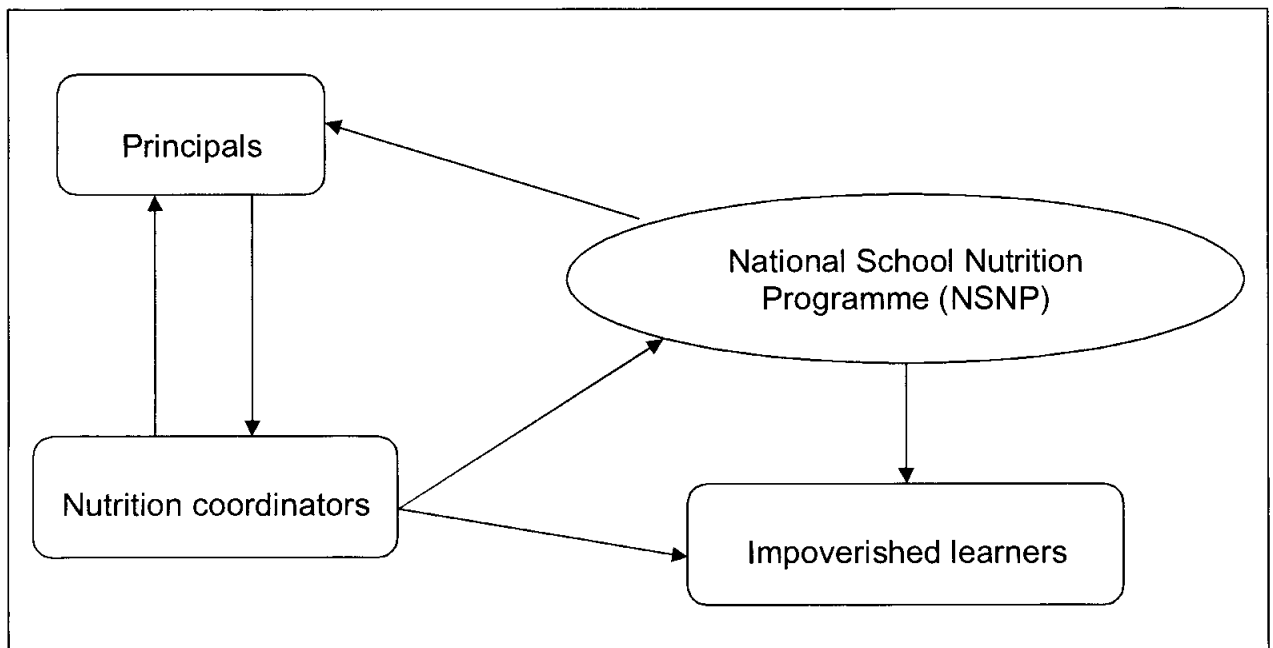


FIGURE 1.1: CONCEPTS IN THE STUDY

The principals and nutrition coordinators at the schools involved have to ensure that the NSNP is well implemented and effective, but that it does not interfere with teaching and learning. The principal's role is to give instructions to the nutrition coordinator concerning the programme. The nutrition coordinator has to verify the number of impoverished learners and ensure that they are fed, that food delivery is done in time, that products' expiry dates are checked, that supplied items are counted and that the food preparation facilities, food storage and food handlers are managed.

This study focuses on the strategies that school principals and nutrition coordinators implement to manage all the tasks involved in the smooth running of both the nutrition programme and the process of teaching and learning.

1.6 CONCEPT CLARIFICATION

1.6.1 NATIONAL SCHOOL NUTRITION PROGRAMME (NSNP)

The Gauteng Department of Education (GDE) (1997:4) defines the NSNP as a presidential lead project that emphasises the alleviation of temporary hunger among identified impoverished primary school learners. Initially only farm schools were targeted, but the programme has been expanded to urban schools.

For the purpose of this study, the NSNP is defined as a programme that alleviates the temporary hunger of impoverished primary school learners.

1.6.2 IMPOVERISHED LEARNERS

Mhlanga and Mphisa (2008:10) define impoverished learners as learners who come to school hungry and also do not bring food to eat at school, resulting in their inability to pay attention in class. Some of these learners live with parents who are sick or with grandparents or other relatives, but sometimes they even live on their own. Most of them are not properly cared for at home and have emotional problems (they bully others, cry a great deal, are quick to get angry and are sad). They cannot manage their work well and they lack confidence.

For the purpose of this study, an impoverished learner is defined as a child who is deprived of the constitutional right to basic needs due to poverty. This child lacks the necessary food to stay healthy and to enhance his/her concentration span at school.

1.6.3 PRIMARY SCHOOL

The South African Schools Act (1996:4) defines a primary school as an institution that enrolls learners in one or more grades between Grade 0 and Grade 7. It caters for the first years of formal, structured education that occurs during childhood. In South Africa it is compulsory for children to attend primary school where they receive primary education. Primary education generally begins when children are between four and seven years of age.

For the purpose of this study, a primary school is defined as an institution providing education for learners from Grade R to Grade 7.

1.7 RESEARCH METHODOLOGY

A review of the literature that was studied as a background to the current research is presented in Chapter 2. According to Maree and Van der Westhuizen (2007:26), the purpose of a literature study is to provide an overview of all relevant research appropriate to the research and salient facets of the topic. The researcher conducted a literature review to find out what has already been written on school nutrition programmes. Key documents that were reviewed as part of data collection in this study include White Papers, journal articles, books, computerised databases, press releases, conference proceedings, dissertations and government reports.

Empirical research was conducted after the literature review in order to:

- determine the experiences of the principals and nutrition coordinators involved;
- explore the expectations and views of the principals and nutrition coordinators regarding the nutrition programme;
- find out what strategies the principals and nutrition coordinators use to manage and implement the school nutrition programme.

A qualitative approach was adopted for this research so as to obtain in-depth knowledge on the lived experiences of the participants in the study. According to Nieuwenhuis (2007:5), qualitative research is research that attempts to collect rich descriptive data in respect of a particular phenomenon or context with the intention of developing an understanding of what is being observed or studied. The principals and nutrition coordinators in this study were able to describe their experiences relating to school nutrition programmes.

Purposive sampling was applied in the study. According to Cohen, Manion and Morrison (2005:103) researchers handpick the cases to be included in the sample on the basis of their judgment of their typicality. Five principals and five nutrition coordinators were sampled from five public primary schools in Tembisa.

The researcher used interviews and observations to collect the most usable data and information with a direct bearing on the research aims. Conducting an interview was considered to be a more natural form of interacting with people and collecting data than if the researcher were to ask respondents to complete a questionnaire, write a test or perform some experimental task (Terre Blanche, Durrheim & Painter, 2006:297). Interviews fit the interpretive approach used in this study. White (2002:76) is of the opinion that during the interview the interviewer can probe for more specific answers and can repeat a question when the response indicates that the participant misunderstood. Thus, interviews enhance and reinforce the information assembled from diverse literature studies.

Observations were used as a follow-up procedure after the interviews to confirm or deny what had been said in the interviews. Nieuwenhuis (2007:84) indicates that observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them. He further points out that observation is used to enable the researcher to gain a deeper insight into and understanding of the phenomenon being observed and that it allows the researcher to learn mostly by participating and/or being immersed in the research situation. In this study, observations assisted the researcher to gather the practical information regarding how the principals and nutrition coordinators managed to ensure that nutrition programmes were implemented without interfering with the process of teaching and learning.

According to Creswell (1994, 154) data analysis involves reducing and interpreting data. A very large amount of information was reduced to themes and interpretation of information was done.

Schwandt (2007:299) defined the trustworthiness as the quality of an investigation that made it noteworthy to audiences. In the current study, trustworthiness has been established by applying four criteria for naturalistic inquirers proposed by Lincoln and Guba (1985:296-300) namely credibility, transferability, dependability and confirmability.

1.8 OUTLINE OF CHAPTERS

This study is structured as follows:

CHAPTER 1

An introduction and overview of the study is provided. The chapter includes the research problem and the research questions. An indication is given of the research design that was followed.

CHAPTER 2

The chapter presents a review of the literature on the topic.

CHAPTER 3

Chapter 3 describes the research methodology that was used, namely the research design, population and sample, data collection and data analysis.

CHAPTER 4

This chapter presents the findings of the research.

CHAPTER 5

Recommendations based on the main findings of the study are presented in this chapter, while recommendations for additional research are also discussed.

1.9 CONCLUSION

To conclude, Chapter 1 has outlined a brief background to the area of study and the rationale for it. The problem statement was formulated and the key questions were posed. The research method was also indicated. In the next chapter the discussion is based on the findings that emerge from the international and South African school nutrition programmes literature. A comparison of school nutrition programmes in South Asia, South America, the United States of America and South Africa is presented.

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CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Chapter 1 presented an overview of the research problem, key research questions and research methodology, whereas this chapter explores school nutrition programmes in South Africa and other countries. Creswell (2007:82) points out that a good literature review is representative of sources on the phenomenon being studied. It provides justification for the study by reflecting on how the research will extend past research, fill a gap in research or explore the views of an under-represented group. Nieuwenhuis (2007:82) further states that a literature study provides an overview of scholarship in a certain discipline through the analysis of trends and debates; it describes past and current research on a particular topic and is typified as being critical and integrative, using mainly inductive reasoning.

Potterton (2004:50) created a scenario of what is happening in some schools in South Africa and points out significant features of schooling in the developing world. He states the following:

Imagine yourself on a mountain dirt road. It is 7:30 in the morning and laughing learners walk past you on their way to school. The learners carry their books in plastic bags in one hand and in the other they have bottles of water, as there is no running water at school. You can see the school at a distance, and as you get closer you see girls sweeping out the classroom. After prayers outside in the cold, the learners take their places in the crowded classroom. Three learners and sometimes four squash into a desk made for two. The educator can't move around and check what the learners are doing because there is no space to do so. During the lesson, some of the learners you passed on the way are dozing off now. Nomsa is gazing out of the window, and Dumisani is punching Philani. James is hungry, as he hasn't eaten yet.

This kind of situation is really happening in some South African schools. Educators have to work in these conditions and are expected to create an environment conducive to teaching and learning. They work on their own without any

management support from their education authorities. With lack of resources it becomes hard to produce quality education and to promote and respect the learners' right to dignity.

To know the learners better in order to know whether their physiological needs, including hunger, are satisfied, Asmal (2000:1) made the following suggestions during the Health Conference in 2000 at Stellenbosch University in Cape Town.

When the learners they are dealing with do not come from 'conventional' homes, educators should make an effort to come to grips with the realities of these learners. Educators will not be able to do this if they are not cognisant of the domestic practicalities. Many parents do not have phones or are illiterate and would not be able to read letters from school staff. So, by going into the communities and taking account of where the learners live and sleep, educators will hopefully be able to better understand the real needs of the learners they are working with as well as provide for parental needs of greater support, empathy and understanding. By making this contact with parents, educators will be forced to go out to the communities in which they work and experience the poverty first.

To add to this, Worsley (2005:136) indicates that if staff members are to provide useful services for learners, they need first to consider the nature of these learners.

The above scenario illustrates that educators' responsibilities extend beyond the classroom and school grounds. In this situation, educators have to implement what is pointed out by Landman, Van der Merwe, Pitout, Smith and Windell (1990:92), who articulate that to be a true and understanding educator, the educator must have good knowledge of the features of the learners he/she works with. Above all, the educator must have a love for learners. Love, empathy and understanding make the educator acceptable to a learner. The educator who is able to put him-/herself in the learner's situation will be able to judge and help the learner with his/her needs.

All that has been said so far culminates in the seven roles of an educator, namely: learning mediator; interpreter and designer of learning programmes and materials; leader, administrator and manager; scholar, researcher and lifelong learner; community, citizenship and pastoral role; assessor and learning area/subject/discipline/phase specialist. The educator's particular role as citizen and pastor

indicates that he/she will uphold the Constitution and promote the democratic values and practices in schools and society. Within the school, the educator will demonstrate an ability to develop a supportive and empowering environment for learners and respond to their educational and other needs. Furthermore, the educator will develop supportive relations with parents and other key persons and organisations based on a critical understanding of community and environmental development issues (National Education Policy, 1996:47).

There are many incentives for improving the health of school learners. Apart from directly addressing an unmet health need, improvements in health lead to improved educational outcomes. According to the Health Systems Trust (1997:10), health and education have traditionally been perceived as separate issues rather than two interactive components of child development. There is now recognition of the link between health and the child's ability to participate and succeed at school. Health and nutrition interventions are strongly recommended as methods for achieving better education outcomes and studies suggest that the potential gain in education through nutrition and health interventions is substantial. This, in turn, has a number of other substantial side-effects. For example, improvements in the levels of female literacy are associated with declining fertility, infant mortality and sexually transmissible disease (STD) rates. Studies have shown that one additional year of schooling for a mother results in a reduction of almost one percent in infant mortality rates. In addition, optimising educational outcomes has been shown to have a positive impact on agricultural productivity and economic growth (HST, 1997:8).

The improvement of learners' health could lead to healthy and fit bodies that may perform learning activities productively (Mwiria, 2005:168). Mwiria also states that if we agree that one must be physically fit to engage in any productive work, then it is easy to appreciate why children need to be well-fed, not only to grow but also to concentrate on learning while at school. In any case, health, even more than education, is a basic need. It is accepted that access to both food and education is a basic human right and in 2000, all member states of the United Nations committed themselves to the eradication of hunger (Mwiria, 2005:168).

Bundy (2005:186) is in agreement with other researchers that the prerequisites for effective learning are good health and nutrition. Since the provision of quality schools, text books and educators can result in effective education only if the child is present, ready, and able to learn, ensuring that the poorest learners, who suffer the most malnutrition and ill health are able to both attend and stay in school and learn while there will help them to complete a basic education of good quality. Moreover, investing in people is valuable in itself and ensuring universal access to health and education alleviates suffering, enriches the quality of life and empowers people with wider opportunities (Denning, 1994:17). Therefore the effective management of NSNP will enrich the quality of education.

Glewwe (2005), Levitsky (2005), Denning (1994) and Mwiria (2005) generally agree that education is essential for a country's development and that effective education requires learners to enjoy adequate nutrition. School nutrition programmes constitute a tool that enables hundreds of millions of poor primary school learners worldwide to attend school in developed and developing countries alike. Nutrition programmes improve learners' health, increase their school attendance and knowledge retention, enhance learning, improve education and contribute to high school enrolment as well as to social equity and economic growth. The programmes further enhance learners' classroom and school participation, which is important not only for academic but also for the social development of children. They also free resources that otherwise would have to be spent on treating illness. In areas where poverty is severe, providing school meals may greatly reduce the cost for parents to send their children to school.

The significance of the quoted studies (Glewwe, 2005; Levitsky, 2005; Denning, 1994; Mwiria, 2005) is that almost all demonstrate the fact that poorly nourished learners benefit cognitively from school feeding programmes. Although we have heard of many brilliant attempts at quantifying the intellectual or cognitive benefits of school feeding programmes, clearly the most robust finding that has emerged is that school feeding programmes increase school attendance. It seems that poor health and nutrition among school-age children have a negative impact on their education. This implies that programmes or policies that increase children's health status will also improve children's education outcomes.

Evidence from the literature supporting and emphasising the importance of nutrition programmes has motivated the researcher to select a number of primary schools in which to explore exactly how principals and nutrition coordinators manage the implementation of the nutrition programme without having it interfere with teaching and learning at these schools.

2.2 THE DEVELOPMENT OF SCHOOL NUTRITION PROGRAMMES

The school nutrition programme has its origins in the 1930s when schemes were introduced in the United Kingdom (UK) and the United States (US), with the explicit aim of improving the growth of children. In the UK, a programme that subsidised milk for school children was initiated in 1934 and milk was provided free from 1944 onwards. In the late 1960s and early 1970s, this benefit was withdrawn from all, except those children who were considered as particularly needy. School feeding was introduced in South Africa in the early 1940s, with a programme to supply free milk to white and coloured schools. Since then, school feeding has broadened to include the provision of fortified biscuits, nutrient supplementation or full meals. These meals are provided either at full or subsidised cost (mostly in the UK and US), or for free (more typical of countries in the developing world) (Tomlinson, 2007:4).

Passmore and Harris (2005:222) point out that school meals were first introduced in elementary schools in the UK due to the problem of underfed learners. Because of malnutrition some learners were unable to learn effectively. Basic meals were therefore provided to feed these learners and the feeding was regarded as the responsibility of the school. Thus school meals started out as an education issue. In this way a national school meals service was established with the aim of enabling undernourished and impoverished learners to benefit fully from their education.

Although the programmes were in place in South Africa, Saitowitz and Hendricks (2005:1) argue that they were not very effective in reducing malnutrition for a number of reasons. The programmes focused primarily on providing food to the impoverished and thus only addressed the immediate causes of malnutrition. The programmes did not address the underlying causes of malnutrition, and hence, today malnutrition has remained a problem in South Africa to this day.

2.3 EFFECTS OF SCHOOL NUTRITION PROGRAMMES

During the forum held in Philadelphia from 17 to 22 July 2008, it was agreed that school feeding programmes are a lifeline to millions of disadvantaged learners across the globe. In many cases these learners are able to attend and stay in school only when food is provided. Research-based information from many countries shows that school feeding programmes alleviate hunger, improve learners' nutrition and ability to learn, increase enrolments by motivating parents to send their children to school and promote community development and linkages between schools and feeding programmes (Global Child Nutrition Forum, 2008:21)

2.3.1 GOOD NUTRITION IS VITAL FOR LEARNING

The advantages of school nutrition programmes and school feeding are that, in addition to enabling education, they have positive direct and indirect benefits relating to a number of other developmental goals such as the reduction of hunger and poverty, gender equity, HIV/AIDS care and prevention, and improvements in health (Glewwe, 2005:1). The nutritional supplementation helps to reduce infections and iodine and iron deficiencies, which are also implicated in poor cognitive performance. Improvements in cognitive performance and development (particularly of girls) are linked to the micro-nutrient supplementation of iodine and iron (Tomlinson, 2007:9). Fleisch (2008:35) supports the statement of Glewwe by mentioning that studies have shown that providing learners with fortified biscuits and special juice supplements their intake of iron, vitamin A and iodine. This improves short-term memory and reduces the number of days learners miss school as a result of respiratory and diarrhoea-related illness.

Castillo (2008:25) indicates that school feeding programmes have far-reaching, transformative benefits for learners, families, communities and local economies. Meals offering the micro-nutrients, vitamins and minerals that food-insecure families cannot provide, help children learn, grow and stay healthy. School feeding promotes patriotism and loyalty to the community (a learner fortunate enough to pursue higher education opportunities may return to help his/her community). Meal programmes can transform schools into centres that promote the health of the entire community

and also increase demand for the products of small local farmers, thereby strengthening the local economy.

2.3.2 TIME IN SCHOOL

School meals could increase learners' time in school (Grantham-McGregor, 2005:145). Enrolment at the correct age and punctual daily arrival at school both contribute to time in school, which is a critical predictor of attainment levels. Providing food to take home is likely to be an even greater incentive to extremely poor communities and in some countries it has been used successfully to get parents to send girls to school earlier (Murphy, 2009:1). If breakfast rather than lunch is provided, learners are likely to get to school earlier.

Grantham-McGregor (2005:146) further explains that although learners are in school, they may not pay attention to learning tasks if they are hungry. Holding constant the teaching quality and learner's aptitude, the actual time spent concentrating on the task is probably the next most critical component of learning. The relief of hunger may improve a learner's ability to concentrate, which should facilitate learning. Learners' memory may also improve, so they are more likely to learn. If school meals are of a good nutrient quality and quantity and the supply is efficient and continues for some time, learners' underlying nutrition status should improve. Improved nutrition status may lead to improved cognition and alertness over time.

Mullen (2006:3) supports the idea that school feeding programmes throughout the world have successfully attracted impoverished learners to school and retained them by offering what they would probably not get elsewhere, like hot food or nourishing snacks. As a result, the primary objective of a school feeding programme of providing meals or snacks to alleviate short-term hunger, thus enabling learners to learn, has been met.

For this reason good nutrition is a key factor contributing to the learners' performance at school, especially for orphans, impoverished learners and learners living with HIV/AIDS. Educators in several schools have noted that learners look more alert and participate better in class after a meal. Equally, the DoE Report on Absenteeism

(2007) prepared by the Community Agency for Social Enquiry (CASE) confirms the benefits of school nutrition programmes and cites food as a key motivating factor in school attendance (Castle & Bialobrzeska, 2008:14).

2.3.3 BREAKFAST

Breakfast is considered as the first meal of the day, usually eaten in the morning. According to Breuner, Berry and Kemper (1998:1073) a study of school learners conducted in 1990 found that learners who ate breakfast not only performed better academically, but also behaved better. The learners who ate breakfast functioned intellectually at almost a grade level higher than those who did not, and were less likely to fall asleep at their desks or disrupt class because of hunger.

Grantham-McGregor (2005:146) also indicates that there is particularly good evidence that an appropriate early morning snack has some educational impact. Fleisch (2008:36) agrees with Grantham-McGregor by stating that in the United States and Mexico it was found that missing breakfast had a detrimental effect on cognition in the late morning and learners who ate breakfast performed better on tests and memory. Hunger, which reduces the ability to perform school tasks, is readily reversed by feeding. Learners aged 11 to 13 years in Jamaica improved their scores on arithmetic tests after one semester of receiving breakfast at school, because they attended more regularly and studied more effectively (Bundy, 2005:189).

Grantham-McGregor (2005:146) furthermore suggests that eating school meals together may improve learners' social behaviour and their attitude towards school. If the food constitutes a well-balanced diet, it may not only improve learners' nutrition status but also help to develop good dietary habits for the future. There is a need for greater interaction between researchers and policy makers because most studies abroad have focused on providing breakfast, whereas many schools in developing countries provide lunch.

2.4 EFFECTS OF POOR NUTRITION

Many children are not properly fed before attending school. Some of them faint in school, especially when they are required to take part in physical education and other practical learning situations. Poor nutrition leads to poor health, which again leads to poor body stamina and hence low interest in performance in extra-curricular activities (Mwiria, 2005:168). It is in the classroom and school yard that the effects of adverse environments are seen by educators and other staff, and consequently they are in a good position to recruit additional services, if these are available (Worsley, 2005:137).

A learner who suffers from any disorder of nutrition, whether it is under-nutrition or over-nutrition, is likely to attend school irregularly due to nutrition-related disorders (Moumakoe, 2004:50; Vasta, Haith & Miller, 1995:202). Malnutrition therefore impairs the learning and development of the learner. Learners who suffer from frequent or serious ill health will not grow up and when they do, they may suffer irreversible harm. For instance, nutritional deficiencies and malnutrition strongly correlate with delayed motor development, impaired cognition, poor school performance, problems regarding reproductive health in later life and even low adult wages and productivity. Under-nourishment in children makes them uninterested, which reduces their energy for social interaction and the development of social bonds.

A noteworthy comment made by Del Ross (1999:14) indicates that learners who lack certain nutrients in their diet, particularly iron and iodine, or who suffer from protein-energy malnutrition, hunger, parasitic infections or other diseases, do not have the same potential for learning as healthy and well-nourished learners. Poor health and nutrition among school-age learners diminish their cognitive development either through physiological changes or by reducing their ability to participate in learning experiences – or both (Kallman, 2005:7).

In this way, poor nutrition among school learners contributes to the inefficiency of the educational system. Learners with diminished cognitive abilities and sensory impairments perform less well and are more likely to repeat grades and drop out of school than learners who are not impaired in this way. They also enrol in school at a

later age, if at all, and finish fewer years of schooling. The irregular school attendance of malnourished and unhealthy learners is one of the key factors in poor performance. Even temporary hunger, common in learners who are not fed before going to school, can have an adverse effect on learning. Those who are hungry have more difficulty concentrating and performing complex tasks, even if otherwise well-nourished (Del Ross, 1999:15). Research shows that improved nutrition and health can lead to better performance, fewer repeated grades and reduced drop-out rates (Kallman, 2005:7).

In addition, Aldelman, Gilligan and Lehrer (2007:1) indicate that although many developing countries have made dramatic improvements in primary school enrolment rates, primary school attendance remains low. Reasons for low enrolment rates in primary schools are that school-age learners in poor households are often needed to work on the farm or to care for younger siblings so that parents can work. Poor health and short-term hunger cause learners to miss school and learners who are hungry during school hours also learn less effectively. It can thus be concluded that food insecurity negatively affects school achievement (Ashiabi, 2005:6). Ashiabi (2005:6) further argues that food insecurity could affect a learner's energy levels, resulting in feelings of hunger which could be destructive or have a negative effect on the learner's psychological and emotional well-being. The World Bank (2006:25) expands Ashiabi's view by indicating that malnutrition leads to indirect losses of productivity due to poor cognitive development and schooling.

According to Galal, Ismail, Gohar and Foster (2005:275) educators in Egypt have perceived that a learner who goes to school without a breakfast is more lazy and inactive and participates less in class. They also feel that their position as educator is significant, because they often have more influence than the learner's parents and can easily encourage the learner to maintain good nutrition habits such as eating breakfast daily. Most of the educators believe that the current school lunch programme (fortified school biscuits) is insufficient, inadequate and ineffective in providing learners with sufficient dietary needs. Some educators observe that the quiet learners in class often have family problems or are hungry, and that they frequently become active after eating. They describe the characteristic features of malnutrition in learners as being easily fatigued, inactive in class, showing general

weakness and poor concentration, as well as experiencing recurrent headaches. These educators are of the opinion that they need to be trained in the subject of nutrition so that they could identify malnourished learners and teach them about ways to maintain good health status. In South Africa, the evaluations indicated that educators perceive school feeding as contributing to learners' cognitive attentiveness, improved school attendance, reduced absenteeism and household food security (Kloka, 2003:20).

2.5 NATIONAL SCHOOL NUTRITION PROGRAMME IN SOUTH AFRICA

2.5.1 POLICY FRAMEWORK

Article 11(1) of the African Charter (The Charter) (1990:4) on the rights and welfare of the child states that state parties to the present Charter shall take all appropriate measures with a view to fully realising children's education rights. Furthermore, they shall in particular take measures to encourage regular attendance at schools and the reduction of drop-out rates. The Charter (1990:13) continues by stating in Article 14(2a) that the Charter shall undertake to pursue the full implementation of health and health services rights and in particular shall take measures to ensure the provision of adequate nutrition and safe drinking water.

To keep the learners at schools, the state should take measures to enable even impoverished learners to be at school and to learn by providing them with food that they do not have at home. The special needs of these impoverished groups must be recognised and deliberately addressed. According to Tomlinson (2007:13), the NSNP attempts to redress the imbalances and inequities of the apartheid era. At inception, the NSNP aimed to intervene at two crucial points in the future development of South Africa, namely nutrition and education. Its objectives were to improve the health and nutritional status of South African primary school learners. Improving school attendance and the learning capacity of the learners would in turn improve the quality of education.

According to South African Government Information (SAGI) (1994:46), the NSNP would contribute by educating learners about nutrition and improving their nutritional status through micro-nutrient supplementation. The scope of the programme was the

provision of an early snack that would meet 30% of the energy requirement of 3.8 million learners (50% of primary school learners) in areas targeted on the basis of poverty criteria, particularly rural areas and peri-urban informal settlements. Project committees at identified schools would submit proposals to provincial teams for appraisal and approval. Training and capacity building would be included to ensure effective implementation, and to link to other education quality improvement and community development initiatives (SAGI, 1994:46). These objectives have since been realised because the programme was implemented in more than 50 schools.

2.5.2 TARGETING STRATEGY

The NSNP is funded from a conditional grant allocated to provinces according to the Division of Revenue Act (DORA) (2003) as well as other directives from the DoE and National Treasury. The targeting strategy for school feeding involves the identification of geographic areas where poverty levels are high, the prioritisation of selected geographic areas according to the severity of poverty and the identification of needy schools within the selected geographic areas (focusing on schools from rural and informal settlements). Since the inception of the NSNP, the minimum norms set by the National Department of Education require that all the learners in schools in Quintiles 1, 2 and 3 (the Quintile System is the classification of South African public ordinary schools according to the poverty of the community around the school (SASA, 1996:16 as amended)) be provided with a cooked meal every week day of the school term. Provinces receive their grants on the basis of the number of learners registered in schools located in these Quintiles (Marneweck, Bialobrzaska, Mhlanga & Mphisa, 2009:150).

According to Castle and Bialobrzaska (2009:15), the schools in Quintiles 4 and 5 may apply to the Provincial Education Department (PED) when the school believes that it warrants special consideration. The school has to provide a list containing details of all learners considered needy. Information such as the full names, birth certificate numbers, the parents' name and home address, identity numbers, state of employment and income, etc., must be furnished. The department may then allocate a budget for school nutrition based on the specific number of learners identified as needy in a particular school.

2.5.3 PROVINCIAL DISCREPANCIES

The programme is guided by the national guidelines of the DoE and is operated in all provinces of South Africa. Operational and delivery models among the provinces sometimes differ, based on special circumstances or challenges that are unique to a given province. These challenges are explored in the provincial business plans on which funding allocation is based. Each province therefore develops its own operational guidelines that are reviewed from time to time. Areas of difference among provincial policies usually cited pertain to meal cost per learner per day; menu selection according to season; availability; food costs and supply of eating utensils (KwaZulu-Natal Provincial Report, 2008:2).

In 2008 the national guidelines for Quintile 1, 2 and 3 schools provided that the nutrition grant be allocated on the basis of R1, 50 per learner per day. This figure has not been increased since 2004, a sore point among provinces. Of the R1, 50 allocated per learner, provinces typically spend 80c on food, 30c for administration and 40c pays for preparing and cooking the food. The guidelines go on to elaborate that the learners should be provided with at least four cooked meals and one uncooked meal a week (Marneweck *et al.*, 2009:15). According to the Mpumalanga Provincial Report (2008:6) the allocated cost per learner per day is insufficient and does not cover transport and food distribution costs. The inadequate funding also causes insufficient quantities to be delivered to schools. The food handlers are committed to feeding the learners but the stipend is extremely meagre.

2.5.4 OPERATING THE NUTRITION PROGRAMME AT SCHOOLS

Each school has to keep records of invoices from suppliers, payments to food handlers, the number of learners who are fed every day, and the facilities needed to run the nutrition programme. This includes storage space for food, a stove, fuel, pots and utensils for cooking, crockery and cutlery. The school has to nominate a senior educator (nutrition coordinator) to oversee the management of the nutrition programme. This person has to ensure that the correct quantity and quality of food is supplied to the school. The nutrition coordinator collects and authorises the suppliers' invoices to facilitate payment by the DoE. The principal or deputy principal may also be involved in quality control of the food and administration of the programme.

Although the operation of the nutrition programme is not a function of the school governing body (SGB) per se, members of the SGB play active roles in the nutrition programme in many of the schools, for instance by identifying impoverished learners in the community, nominating food handlers, acting as signatories for payments and collecting wood for cooking purposes in rural contexts (Bialobrzeska, 2007:15).

The following table shows how the NSNP was managed in nine provinces in South Africa in 2007 and the different performance areas discussed.

TABLE 2.1: MANAGEMENT OF THE NSNP IN SOUTH AFRICA

Performance area	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
Targeted learners	Only Grades R to 4 in Quintiles 1-3 schools.	All primary schools learners from Grades R to 7 excluding former Model C schools.	Rural and farm schools in Quintiles 1-3 from Grades R to 7, urban not considered needy.	All primary learners in Grades R to 7 in Quintiles 1-2.	Grades R to 7 in Quintile 1-3 schools.	All primary learners in Grades R to 7 in Quintiles 1 and 2.	Grades R to 7 in Quintiles 1 and 2.	All primary learners in Grades R to 7 in Quintiles 1 and 2.	Grades R to 7 in Quintiles 1 and 2
Cost per learner per day	R1,19	Not indicated.	R1,22	R1,10 Not increased since 2004/5	R1,00 increased in 2007.	R1,10 not increased since 2004/5.	R1,39	R1,50 for rural schools and R1,30 for urban schools.	Not given.
Payment of food handlers	Not indicated.	R500 per month.	In some schools R42 per day, some R28 per day, some R420 per month.	R20 per feeding day, in turn reimbursed by the DoE.	R300 per month.	R20 per feeding day.	Not indicated.	Not indicated.	R250 per month.
Done by ...	Provincial office.	Provincial office.	Suppliers.	Suppliers.	Suppliers.	Schools and wait for the DoE to pay back.	Schools.	Suppliers.	Suppliers.
Funding	Provincial office.	Provincial office.	Provincial office.	Decentralised to district office.	Provincial office.	Provincial office.	Decentralised to schools.	Provincial office.	Provincial office.
Fundraising			Fundraising from local businesses; establishing food gardens on school property; networking with Civil Society Organisations (CSOs) in their communities.						
Menu compliance	Prescribed menu was not complied with.	Prescribed menu was not complied with.	Most schools complied but no fruit and vegetables.	Not all the schools complied.	Most schools complied but no fruit and vegetables.	Designated menu per day but no vegetables in other schools.	Most schools complied	Not all schools complied.	Most schools complied.
Food quality	Poor quality	Poor quality, no	Valid expiry dates.	Valid expiry dates.	Poor quality,	Poor quality,	Valid expiry	Poor quality	Valid expiry dates

Performance area	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
		expiry dates.			valid expiry dates.	valid expiry dates.	dates		
Food quantity	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.	No measuring scales.
Feeding time	Not completed before 10:00.	Not completed before 10:00.	Not completed before 10:00.	Not completed before 10:00.	Not completed before 10:00.	Not completed before 10:00.	Comply 100% with feeding time.	Not completed before 10:00.	Not completed before 10:00.
Number of feeding days	156 days.	156 days.	182 days.	156 days.	156 days.	156 days.	156 days.	Reduced to three days per week in 2006/7.	156 days.
Storage facilities	No proper food storage	No proper food storage.	Not all schools have proper storage and preparation facilities.	In some schools food supplies are stored at food handlers' residences.	Poor storage facilities.	Poor storage facilities.	Poor storage facilities.	In some schools food is stored in private homes close to schools.	Poor storage facilities.
Kitchen	Not all schools have kitchens.	Not all schools have kitchens.	Not all schools have kitchens.	Not all schools have kitchens.	Not all schools have kitchens, cooking is done outside.	Not all schools have kitchens.	Not all schools have kitchens.	Not all schools have kitchens.	Not all schools have kitchens.
Cooking done on ...	Gas stoves.	Gas stoves.	Gas stoves.	Gas stoves or wood fires.	Wood fires.	Gas and electric stoves.	Gas stoves.	Gas stoves	Gas stoves.
Security	Lack of security.	Lack of fencing.	Most schools have tight security.	Lack of fencing.	Lack of fencing.	Lack of fencing.	Lack of fencing.	Lack of fencing.	Lack of fencing.
Food theft	Fraud by provincial officials.	Not mentioned.	Not mentioned	Not mentioned.	Burglary at schools.	Not mentioned.	Not mentioned.	Not mentioned.	Not mentioned.
Food gardens	Not all schools have food gardens.	Most schools have food gardens.	Most schools have food gardens.	Not all schools have food gardens.	Most schools have food gardens.	Not all schools have food gardens.	Not all the schools have food gardens.	Not all schools have food gardens.	Not all schools have food gardens.
Food gardens managed by ...	Learners.	Learners.	Difficult to get community participation.	Difficult to get community participation	Educators and learners.	Educators and learners.	Difficult to get community participation.	Learners, parents, service providers.	Difficult to get community participation.

Performance area	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
Vegetables from the garden ...	Supplement the food served to learners.	Supplement the food served to learners or are taken home by learners	Supplement the food served to learners.	Supplement the food served to learners.	Supplement the food served to learners.	Supplement the food served to learners.	Supplement the food served to learners.	Supplement the food served to learners or are taken home by learners.	Supplement the food served to learners.
Monitoring by district officials	Visit only when delivery problems are experienced.	No inspection due to shortage of vehicles.	Visit only when the school has complained.	Some schools are visited quarterly, some have never been visited.	Quarterly because of lack of transport.	Not all schools are visited on a monthly basis.	At least once per quarter.	At least once per quarter.	At least once per quarter.
Hygiene	Unavailability of water causes unhygienic conditions.	No cleaning materials.	Not always complied with.	Hygienic conditions in most schools.	Hygienic conditions in most schools.	Mostly hygienic conditions.	Not always complied with.	Not always complied with.	Not always complied with.
Principals	Check that quantities delivered agree with orders, check expiry dates, check food served to learners and compliance with the menu, taste food to ensure it is edible.	Check, sign, stamp delivery notes	Recruit food handlers.	Check and sign claims before sending to district office, accept supply proposals, nominate one supplier and forward to district office; attend NSNP workshops.	Check, sign, stamp delivery notes.	Check, sign, stamp delivery notes.	Check, sign, stamp delivery notes.	Monitor the implementation of the programme.	Check, sign, stamp delivery notes.
SGBs	Not involved	Not involved	Not involved	Identify food suppliers, monitor service and sign claim forms, check records, encourage community involvement, resolve conflicts regarding NSNP.	Recruit food handlers.	Not involved	Not involved	Not involved	Not involved
Coordinators	Check that quantities delivered agree with orders, check expiry dates; check food served to	Check that quantities delivered agree with orders; check expiry dates; check food served to	Monitor menu compliance and quality of food.	Check that quantities delivered agree with orders, check expiry dates, check food served to learners and compliance with	Check, sign, stamp delivery notes.	Check that quantities delivered agree with orders; check expiry dates; check food served to	Check that quantities delivered agree with orders; check expiry dates; check food	Monitor quality of food, time of feeding, number of meals served.	Check that quantities delivered agree with orders; check expiry dates; check food served to learners and compliance with the

Performance area	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
	learners and compliance with the menu; taste food to ensure that it is edible.	learners and compliance with the menu; taste food to ensure that it is edible.		the menu; taste food to ensure that it is edible		learners and compliance with the menu; taste food to ensure that it is edible.	served to the learners and compliance with the menu; taste food to ensure that it is edible.		menu; taste food to ensure that it is edible.
Food handlers	Cook and serve food to learners.	Cook and serve food to learners.	Monitor menu compliance and quality of food; cook and serve food to learners.	Cook and serve food to learners.	Cook and serve food to learners	Cook and serve food to learners.	Cook and serve food to learners.	Cook and serve food to learners.	Cook and serve food to learners.
Key references	ECPR, 2008.	FSPR, 2008.	GPR, 2008.	KZNPR, 2008.	LPR, 2008.	MPR, 2008	SANR, 2008	NWPR, 2008.	SANR, 2008

Source: Adapted from the Eastern Cape Provincial Report (ECPR), 2008; Free State Provincial Report (FSPR), 2008; Gauteng Provincial Report (GPR), 2008; KwaZulu-Natal Provincial Report (KZNPR), 2008; Limpopo Provincial Report (LPR), 2008; Mpumalanga Provincial Report (MPR), 2008; North West Provincial Report (NWPR), 2008 and South Africa National Report (SANR), 2008.

2.5.4.1 Targeted learners

In most provinces the targeting policies of Quintile 1 and 2 (and sometimes 3) schools were followed with targeted learners from Grades R to 7. The Eastern Cape managed to feed Grades R to 4 learners in Quintiles 1 to 3. With regard to the cost per learner per day, a major discrepancy emerged between funding per province. For instance, in KwaZulu-Natal it was reported that the spending per child on the nutrition programme was R1, 00 and not R1, 50 as set out in the national guidelines (KZNPR, 2008:6). In North West, only schools in Quintiles 1 and 2 received food from the nutrition programme (NWPR, 2008:16), and not also schools in Quintile 3 as per the national guidelines. Payment to food handlers was quite meagre and the highest payment was made in the Free State. In most provinces the delivery of the programme was centralised. The provincial DoE requested each school to identify people in the community who would be responsible for supplying food and preparing daily meals for the learners. The DoE paid the service provider directly, who in turn paid the food handlers a stipend per month (Bialobrzeska, 2007:15). In Limpopo the funding of the programme was decentralised to the district office (LPR, 2008:10) while in the Northern Cape the money was deposited directly into the different schools' bank accounts and the schools were responsible for paying the suppliers and the food handlers (SANR, 2008:13).

It appears as if most schools in the different provinces did not raise funds for nutrition programmes, except for some schools in Gauteng where fundraising occurred through the local businesses, food gardening and networking with Civil Society Organisations.

2.5.4.2 Menu compliance

In most provinces the prescribed provincial menus were not complied with, due to late food delivery. The poor quality of food also hampered the smooth running of the programme in most provinces. In general, the service providers often delivered incorrect quantities to schools and food handlers served incorrect measurements due to a lack of measuring scales (FSPR, 2008:7).

2.5.4.3 Feeding time

In most provinces there was generally poor compliance with the prescribed 10:00 feeding time. It appears that many key role players in the provinces were not sufficiently aware of the importance of early feeding to ensure the optimal impact on learners' active learning capacity. According to the FSPR (2008:20), the reasons for failing to comply with the prescribed feeding time were generally related to the fact that the actual time of serving was determined by the schools' break time, the educators' reluctance to change the timetables, and general ignorance about the importance of early feeding.

2.5.4.4 Storage and food preparation facilities

In most provinces the schools had no proper storage facilities. In some schools food supplies were stored at the residence of the food handler due to the risk of theft from schools and the lack of security fencing. Cooking was done outside, irrespective of the weather conditions (LPR, 2008:7).

2.5.4.5 Food gardening

The DoE also initiated the keeping of food gardens by schools, no matter how small. The aim of developing food gardens was to create a source of food to supplement the diets of learners in the school and to benefit others in the surrounding communities (Castle & Bialobrzaska, 2008:9). This was a justification of the old Chinese proverb, *'Give a man a fish and you feed him only for a day. However, if you teach a man to fish, you feed him for the rest of his life'*.

In some schools, officers of the Department of Agriculture were called in to run workshops, to test the soil and water and to provide fencing, poles, seedlings and fertiliser to assist the schools in starting gardens. According to the Organisation for Economic Co-operation and Development (OECD) (2008:60), food gardens are currently operational. Workshops on gardening skills were conducted from January to March 2007, during which time educators, parents and learners were trained on how to set up gardens (OECD, 2008:60).

In the workshops, educators and interested parents were trained in preparing a seed bed, methods of sowing and planting, caring for food gardens by watering, fertilising, weed control, pest control, crop rotation, harvesting and marketing. Schools that have good soil and a secure water supply would be able to benefit from the training and run successful gardens (Marneweck *et al.*, 2009:16). According to the findings listed in Table 2.1 not all schools had food gardens and some schools reported that it was difficult to get community participation in this regard (SANR, 2008:11).

2.5.4.6 Monitoring roles

The reports for most provinces pointed out that it was hard for district officials to monitor the programme at schools due to a lack of transport. At the school level, principals, coordinators and food handlers were responsible for monitoring the programme. SGBs were not fully involved in most provinces (SANR, 2008:20).

2.6 PROBLEMS WITH THE NSNP IN SOUTH AFRICA

Tomlinson (2007:17) outlines a number of problems experienced with school nutrition programmes in South Africa. These programmes are vertical programmes implemented by outside agencies and not linked to other aspects of school health; they are expensive and logistically complicated, and beset by significant administrative difficulties and problems related to corruption.

Other problems that generally hamper the running of the programme involve a lack of vehicles for district officials to monitor the programme at schools and the suspension of officials due to fraud in the Eastern Cape. Generally, food gardening is a thorny issue in most provinces due to a lack of water, a lack of care when the schools are closed, a lack of cooperation from the community, problems with the availability of land, poor fencing, theft and vandalism. From Table 2.1 it seems that the unavailability of scales for weighing food quantities resulted in incorrect quantities delivered to schools and the incorrect measurement of food items by food handlers. Payment of the food handlers was often delayed and resulted in demoralising them and making them unwilling to serve the learners. Educators often had to take over, resulting in an added-on responsibility for them (SANR, 2008:9-12). Despite the challenges experienced in many schools in the different provinces, it is the

researcher's conviction that the objectives of the NSNP were partially met, seeing that the impoverished learners targeted were fed and short-term hunger was alleviated.

According to van Struijvenberg (2005:214), targeting directives are generally not adhered to. Feeding time is compromised because only in a few schools learners are fed before 10:00. In most schools they are fed only after 11:00. There are inconsistencies in the number of feeding days, food quality is inferior and there is poor control of food safety. The storage facilities are inadequate and unhygienic, whereas basic hygiene is often compromised due to lack of water and inadequate infrastructure in terms of utensils and equipment. Inadequate human resources are available at provincial and district level and this results in the insufficient involvement of intra- and inter-sectoral partners to deliver the broadest range of feeding services in the most efficient and effective way.

Kallman (2005:11) points out that she found the NSNP unreasonable because of the reduction in the targeted number of learners who should benefit from the programme. Despite increasing numbers of learners enrolled at schools, the NSNP only reached 4.5 million learners in Grades R to 7, which was more than 100 000 learners fewer than the year before. Kallman further suspects that the drop in the number of learners who were reached is related to the fact that the government reduced its target from 5.4 million learners in 2001/2002 to 4.9 million learners in 2002/2003 – possibly because of rapid increases in the cost of food procured for the programme. Unfortunately, there is not sufficiently accurate or regularly monitored data available on the nutritional status and needs of learners in South Africa to indicate whether this decline in the number of learners targeted by the NSNP is related to changes in the current nutritional situation of learners.

2.7 SCHOOL NUTRITION PROGRAMMES IN OTHER COUNTRIES

School nutrition programmes are implemented in several countries across the globe. These programmes were introduced in response to the particular needs that the respective countries sought to address. The researcher focused mainly on countries in South Asia and South America and some of the American states where school

nutrition has been successfully implemented and well managed. Through this comparison, South Africa might learn about the management of school nutrition as implemented in other countries of the world.

The management of school nutrition programmes in Bangladesh, Brazil, Arkansas and South Africa is next depicted and compared in Table 2.2:

TABLE 2.2: MANAGEMENT OF SCHOOL NUTRITION PROGRAMMES IN OTHER COUNTRIES COMPARED TO IN SOUTH AFRICA

Performance area	Bangladesh	Brazil	Arkansas, USA	South Africa
Objectives	To increase enrolment, improve attendance, reduce dropout rate, improve the attention span and boost the learning capacity of learners by reducing short-term hunger and micro-nutrient deficiency, sensitising local communities and building their capacity to operate the School Feeding Programme (SFP).	To attend to the nutritional needs of children through a meal per day, to form healthy nutritional habits and provide nutrition education, to improve learning capacity and prevent school drop-out as well as grade repetition.	To provide hunger relief to schools.	To enhance the educational experience of impoverished public primary school learners through promoting punctual school attendance, alleviating short-term hunger, improving concentration and contributing to general health development.
Schools supplied with food	Intervention schools.	Day-care centres, pre-schools and public schools.	All schools.	Public primary schools.
Targeted learners	All learners in the intervention schools.	All learners attending day-care centres, pre-schools and public schools.	Learners experiencing hunger, exhibiting problems related to food-insecurity or complaining about not getting enough to eat at home.	Impoverished learners in public primary schools.
Menu	Biscuits providing 300 kcal and meeting 75% of need for vitamins and minerals.	Fresh locally produced meat, salad, chicken stew and juice four days a week and a snack on the fifth day.	Cereal, shelf-stable milk, granola bars, cereal bars, cheese crackers, peanut butter crackers, little sausages, baked beans, spaghetti, ravioli, canned soup, chilli, fruit cups, dried fruits and pudding cups. Fresh fruits and vegetables.	Selection according to season; availability of food and costs.

Performance area	Bangladesh	Brazil	Arkansas, USA	South Africa
Number of school days	Every school day.	Every school day.	Schools are afforded flexibility in deciding how frequently and when to allocate the food.	156 targeted schools.
Quantity	One packet of biscuits per day.	Not mentioned.	Learners take food home, backpacks every week.	No measuring scales.
Cost	R4,05 per packet.	R5,52 per day per child.	No charge.	Minimum R1,00 and maximum R1,50 per child, depending on the province.
Provider and delivery	Private sector.	Wholesalers.	Non-profit organisations.	Service providers.
Organisations responsible	World Food Programme (WFP) acts in advisory capacity to improve hygiene and quality control; Non-governmental organisation (NGO) is responsible for delivery, distribution, storage and hygiene. NGO reports to WFP.	National Agency for Education (NAfE) linked to the federal Ministry of Education (MoE) transfers federal funds to states, the federal district and municipalities. Department of School Food (DoSF) responsible for menu, food procurement, storage, and for sending nutritionists and cooks to school.	Non-profit organisations.	DoE, service providers and schools.
Storage	Regional warehouse before sending to schools.	DoSF.	Rice Depot Centre.	Schools.
Food procurement	NGOs.	Decentralised and largely school-based; school procures fruit, vegetables, meat and bread from local producers.	Rice Depot Centre.	Service providers.
Monitoring process	The School Management Committee (SMC) (comprising parents, educators and school	School Feeding Committee (SFC) (comprising local government, legislative and civil	School nurses, counsellors and principals.	NSNP school committee (comprising the principal, a senior educator as nutrition

Performance area	Bangladesh	Brazil	Arkansas, USA	South Africa
	officials) oversees distribution process.	society representatives, educators and parents) monitors resources, quality, and hygiene, addresses complaints of fraudulent actions, improves menu and sensitises communities about environmental issues.		coordinator and other educators).
Training	Provided to SMC, NGO and government of Bangladesh (GOB).	Provided to educators, food service staff, dieticians, managers and school feeding committees; cooks trained twice a year on menu variation; small producers trained to become suppliers of the feeding school programme.	Arkansas Rice Depot members.	Principals and nutrition coordinators.
Funding	Government and WFP.	Municipality.	Arkansas Rice Depot.	National government.
Key references	Ahmed, 2004.	Shirley, Herwig, Frattini & Arnold, 2009.	Rodgers & Milewska, 2007.	SANR, 2008.

Source: Adapted from Ahmed (2004); Shirley, Herwig, Frattini & Arnold (2009); Rodgers & Milewska (2007) and SANR (2008)

2.8 CONCLUDING COMMENTS

Those who grew up and now teach in these impoverished conditions can share their painful experiences and understand the adverse state the educators and impoverished primary school learners are in. Fortunately the hope still remains that the NSNP will be operated appropriately to achieve its main purpose.

South Africa should learn from other countries that have successfully implemented effective strategies to improve the management of school nutrition programmes. Policies aimed at alleviating the impoverished conditions of primary school learners and ensuring the effective management of the NSNP must take account of these realities if they are to have any hope of success.

The next chapter presents the research methods used in this study, as well as a step-by-step discussion of the process that the researcher employed to conduct her research.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter presents the research methodology and procedures that were employed to conduct the study. A qualitative approach was used because this study focuses on the daily experiences of principals and nutrition coordinators in managing the school nutrition programme.

According to Slavin (2007:122) qualitative research uses the natural setting as the direct source of data and the researcher as the key instrument. The approach is descriptive and concerned with process rather than outcomes or products. Knowledge is created by exploring the subjective meaning of the lived experiences of the participants. Creswell (2005:43) adds that qualitative researchers need to listen to the views of participants in their studies, ask general open questions, collect data in places where people live and work, and acknowledge that research has a role in advocating for change and bettering the lives of individuals. In the present study the researcher strove to listen carefully to the participants with the intention of obtaining in-depth information based on their experiences, expectations and views concerning the management of the nutrition programme. The perspectives and the reactions of the participants were considered to ensure the credibility of the study. The researcher as a qualitative researcher was expected to look at her participants' settings holistically, try to understand their own frame of reference and set aside her own beliefs, perspectives and predispositions (White, 2002). A qualitative approach was considered an appropriate method for collecting rich data so as to understand how principals and school nutrition coordinators managed the nutrition programme and kept it from interfering with teaching and learning.

3.2 RESEARCH DESIGN

3.2.1 CASE STUDY RESEARCH

Nieuwenhuis (2007:70) defines the research design as a plan or strategy that moves from the underlying philosophical assumption to specifying the selection of participants, the data-gathering techniques to be used and the data analysis to be done. In this research a case study research design was decided on. Fouché (2002:272) states that case study research involves the study of an issue explored through one or more cases within a bounded system (i.e. a setting, a context). Yin (1994:23) further defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident and multiple sources of evidence are used.

Since this study concerns the school nutrition programme, the researcher decided to conduct a case study of nutritional programmes in the selected schools. A case study offers insight into the views of participants and the interaction between them. Although a case study could be time-consuming and the research might generate large quantities of data that may be hard to analyse (Wimmer & Dominic, 1991:150), this often does not imply a limitation to qualitative interpretive studies. Nieuwenhuis (2007:76) states that critics of case study methodology claim that case study research is incapable of providing a generalisable conclusion, but this is not the main purpose of case study research. Case study research aims at gaining a better insight into and understanding of the dynamics of a specific situation. For example, the data collected from participants in this study would inform the government of what is practically happening at schools regarding the nutrition programme.

Interviews, observations and document analysis were used to gather the data and gain an understanding of how principals and nutrition coordinators manage the nutrition programme while keeping teaching and learning intact.

3.2.2 SAMPLING METHOD

Purposive sampling was applied in this study. This means that participants were selected because of certain defining characteristics that made them the most appropriate holders of the data needed for the study (Nieuwenhuis, 2007:79). The principals and the nutrition coordinators were chosen as participants because they were the ones who engaged directly with the nutrition programme at school level. They knew what was happening on a daily basis regarding the programme and were able to provide the information needed for this study.

3.2.3 COMPOSITION OF THE SAMPLE

A sample is a special subset of a population observed in order to make inferences about the nature of the total population itself (Babbie & Mouton, 2001:203). Sampling refers to the process used to select a portion of the population for study (Nieuwenhuis, 2007:79).

The participants involved in this study were school principals and nutrition coordinators. They were sampled from five public primary schools in Tembisa: two were from Quintile 1, one from Quintile 2, one from Quintile 3 and one from Quintile 4. The reason for choosing schools according to quintile classification was that most of the schools in Quintiles 1, 2, 3 and 4 participated in the nutrition programme.

Table 3.1 below lists the different groups of people involved in the NSNP in each of the sampled schools in Tembisa. It shows the organisation of the available workforce and, among other things, the enormous number of learners that had to be fed by the food handlers in schools A, B and E.

TABLE 3.1: DIFFERENT GROUPS OF PARTICIPANTS IN EACH OF THE SAMPLED SCHOOLS

School	Classified quintile	Number of learners from Grades R to 7	Number of learners fed	Number of food handlers	Number of educators	Number of Heads of Department (HODs)	Number of deputy principals	Number of administrative personnel	Number of general workers		
									Watchmen	Handymen	Cleaners
A	4	986	415	1	26	4	1	2	2	1	1
B	1	1835	1835	4	51	5	2	4	3	3	3
C	3	761	234	1	20	3	1	2	2	1	1
D	1	245	245	1	6	1	-	1	1	1	1
E	2	966	966	1	26	4	1	4	2	1	1

As stated earlier, in each school the study focused on the school principal and nutrition coordinator as officials participating in the study. The researcher obtained a resource targeting list of all the ordinary public schools, sorted from poorest to least poor, from the provincial DoE and this served as the basis for sampling. The principals of the five targeted primary schools classified under quintiles 1 to 5 who were willing to be involved in this study were approached personally and briefed on the study and its purpose.

School principals (SPs) were selected because they were the key source of information about the management of school affairs, including the NSNP. Of the five principals who were selected, two were from Quintile 1, one from Quintile 2, one from Quintile 3 and one from Quintile 4 primary schools in Tembisa.

School Nutrition Programme Coordinators (SNPCs) were selected because they were appointed to coordinate the NSNP at school level and their input regarding the implementation of the programme was vital. Five nutrition coordinators were selected, two from Quintile 1, one from Quintile 2, one from Quintile 3 and one from Quintile 4 primary schools in Tembisa.

Table 3.2 below provides the biographical information of these two sets of official participants in the study.

TABLE 3.2: Biographical information of official participants in the study

School	SPs	SNPCs	Total number of participants	Years of experience of SPs	Years of experience of SNPCs	Gender of SPs	Gender of SNPCs	SPs Age	SNPCs Age
A	1	1	2	31	24	Female	Female	55	48
B	1	1	2	29	26	Male	Female	52	50
C	1	1	2	32	23	Female	Female	56	49
D	1	1	2	29	24	Male	Female	53	49
E	1	1	2	29	14	Male	Female	51	38
TOTAL	5	5	10						

The above table gives a breakdown of the participants for each category per school. As indicated earlier, participants were selected from five public primary schools in Tembisa.

3.3 DATA COLLECTION PROCEDURES

Slavin (2007:129) indicates that an investigator who conducts qualitative research pulls together the 'ingredients' (data) to create an original 'meal'. A study of this nature therefore required a combination of data-collection methods, namely interviews and observations. These were conducted during the first school term, in January and February 2009.

3.3.1 INTERVIEWS

Conducting an interview is a more natural form of interacting with people than making the participants complete a questionnaire, do a test or perform some experimental task (Terre Blanche *et al.*, 2006:297). The interview technique fitted in well with the interpretive approach to this research, a paradigm that underpins the study. During the interview process the interviewer was able to probe for more specific answers or for the clarification of answers, and could repeat a question when the response indicated that the participant had misunderstood the question. The interviewer was also present to observe non-verbal behaviour and to assess the validity of the participants' answers (White, 2002:76). The interviews were semi-structured and involved the school principals and nutrition coordinators from selected public primary schools in Tembisa on a one-on-one basis.

Open-ended questions were asked during the interviews. White (2002:68) states that open-ended questions are used for complex questions that cannot be answered in a few simple categories and that require more detail and discussion. The use of open-ended questions in this study gave the participants an opportunity to formulate responses in their own words. Prior to the interviewing process, the researcher carefully prepared the interview questions and rehearsed the interview techniques with peers, making sure the vocabulary level was appropriate and that questions were easy for the participants to understand.

A tape-recorder was used during the interviews for the sake of accuracy and the recorded interviews were later transcribed for data analysis. Obtaining the participants' consent was a first priority. After that a brief introduction followed and the purpose of the study was presented to the participants. The participants were encouraged to share their experiences, views and expectations regarding the school nutrition programme in primary schools. When the participants asked to have a copy of the recording after the interviews, the researcher obliged.

The Seidman (1985:21) process was followed during the interview, which means that the researcher listens more and talks less, follows up on what the participant says, asks questions when not understanding and does not interrupt. The researcher took caution not to ask leading questions. The participants were kept focused and the researcher encouraged them to elaborate on their responses. The interviews lasted between 20-45 minutes. Field notes were also taken during the interview.

3.3.2 OBSERVATIONS

By actually observing the process involved, the interview data can be corroborated as a benchmark of truth. Nieuwenhuis (2007:84) indicates that observation is the systematic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning or communicating with them. He further points out that observation is used to enable the researcher to gain a deeper insight into and understanding of the phenomenon being observed and that it allows the researcher to learn mostly by participating and/or being immersed in the research situation.

In this study the researcher immersed herself in the situation by observing the food storage and food preparation facilities, food quality and quantity, menu and portion size, feeding time, as well as hand-washing facilities and practices during break times at schools. Managing records like nutrition school plan in school E, schools feeding schedule and schools present menu were also observed. (See Appendices C, D and E).

During her observations the researcher began to build a relationship with the principals and the nutrition coordinators and made sure that the purpose and focus of the observations was clear to them. The researcher adopted a relatively passive role and never aggressively sought the data by forcing the participants to show documents needed if they were not willing to do so. Events were observed as they occurred in a natural setting. The researcher observed the way in which participants normally dealt with the situation and was open about her role as an observer. Field notes were taken during the observations. Photographs were also taken to show the differences in the management of food gardening by the schools.

3.4 DATA ANALYSIS

White (2002:82) emphasises that qualitative data analysis is primarily an inductive process whereby data is organised into categories and patterns and relationships are identified among the categories. Data analysis can be described as bringing order, structure and meaning to a mass of information so that conclusions can be made and communicated (Clark, 1999:531). The interviews were video-recorded so that the participants' reactions could be seen to assist later in data interpretation and transcribing. Non-verbal cues were included in the transcription and verbatim transcriptions were provided. The transcribed data was open-coded. Nieuwenhuis (2007:105) explains that coding is defined as marking the segments of data with symbols, descriptive words or unique identifying names. Co-occurring codes were also considered if they occurred in the segments. During the coding process a master list was kept where all the codes used were recorded. In the axial coding stage a comparative method was used where related codes were grouped together into categories. Categories were given names. The researcher discussed the categories with colleagues to see whether they made sense and enhanced the credibility of the study. Themes were also identified from the categories.

3.5 TRUSTWORTHINESS OF THE STUDY

According to Lincoln and Guba (1985:305, 314) trustworthiness and credibility in naturalistic inquiry can be addressed by the triangulation of methods and member checking. Triangulation is a technique whereby different methods are used for accumulating data that has a bearing on the same issue (Gillham, 2000:13). In this

study interviews and observations were used to corroborate and enhance the trustworthiness of the data. Semi-structured interviews and observations were conducted and what was heard and seen in the research setting constituted the data. Documents utilised in the study and records collected from the participating schools were also used to generate reliable data.

The term *trustworthiness* refers to the extent to which the inquirer is able to persuade the audience that the findings in the study are worth paying attention to and that the research is of high quality (Poggenpoel, 1998:349). To establish the trustworthiness of the study, the four criteria for naturalistic inquirers proposed by Lincoln and Guba (1985:296-300) were applied, namely credibility, transferability, dependability and confirmability.

3.5.1 CREDIBILITY

A qualitative study can be considered credible when it presents such accurate descriptions or interpretation of human experiences that people who also share the experience would immediately recognise the description (Poggenpoel, 1998:340). Credibility can also be referred to as the assurance that the researcher's conclusions stem from the data (Durrheim & Wassenaar, 2002:57).

The researcher established credibility by applying a technique of triangulation to improve the probability that findings and interpretations would be found credible. White (2002:18) points out that data triangulation refer to data sources such as the researcher, informants, interviews, observations and documents. The researcher strove to produce findings that were believable and convincing by exposing the research to criticism by peers. She also presented negative or inconsistent findings that emerged from the research in order to add to the credibility of the study. In this study the interview transcripts were shown to the interviewees so that they could verify the data.

3.5.2 TRANSFERABILITY

Research meets the transferability criterion when the findings fit into a context outside the study situation that is determined by the degree of similarity or goodness

of fit between the two contexts (Krefting, 1991:216). As qualitative research is contextual and because each situation is unique, the findings may be transferred to similar circumstances and context, but not generalised. Lincoln and Guba (1985:298) assert that if there is to be transferability, the burden of proof lies less with the original investigator than with the person seeking to make an application elsewhere. Transferability is achieved by providing a detailed, rich description of the setting studied so that the readers are given sufficient information to be able to judge the applicability of findings to other settings which they know (Seale, 1999:45). With this in mind, the researcher provided sufficient descriptive data by presenting the social structure of the five primary schools in the current study to enable the reader to decide about the transferability of the findings.

3.5.3 DEPENDABILITY

By this strategy, the researcher attempted to account for changing conditions in respect of the phenomenon chosen for research, as well as changes in the design created. This was done by increasingly refining the understanding of the setting (Poggenpoel, 1998:351). Dependability was also achieved by using the process of auditing. Seale (1999:45) states that auditing involves auditors in examining an audit trail for adequacy. Hence the documentation of data, research methods used and decisions made during the study were audited. The verbatim interview transcripts were documented in the findings to expose the raw data.

3.5.4 CONFIRMABILITY

Confirmability focuses on whether the results of the research can be confirmed by another (Krefting, 1991:216). Auditing was used as it is useful in establishing confirmability. For the same reason, member checking was employed. Furthermore, triangulation exercises were conducted by using multiple sources of data such as interviews, observations, written records collected from the interviewees and field notes. Finally, feedback and confirmation of accuracy was obtained from the interviewees by sending the findings of the study to them before they would be published.

3.6 ETHICAL CONSIDERATIONS

In terms of the Helsinki Declaration of 1972, it is imperative to obtain clearance from an ethics committee when human subjects are involved in any kind of research of an empirical nature (Hinckley, 2005:298). Firstly, application was made for ethical clearance from the Ethics Committee of the University of Pretoria, who granted such clearance. Secondly, permission was obtained from the DoE, the district office, the school governing bodies, the principals of the primary schools and the educators who were involved in the research project.

Strydom (2005:56) emphasises that anyone involved in research needs to be aware of the general agreements about what is proper and improper in scientific research. It was therefore essential for the researcher to follow and abide by ethical guidelines throughout the research process. For working with people, the following principles were considered:

3.6.1 INFORMED CONSENT AND VOLUNTARY PARTICIPATION

According to Piper and Simons (2006:56), those interviewed or observed should give their permission in full knowledge of the purpose of the research and the consequences that taking part in it would have for them. At the start of the interviews, participants in five different primary schools were presented with a letter of consent in which the research process was described. Participants were requested to read the letter, ask questions to obtain clarity and sign the consent form if they were willing to be involved in the research. Participants were also reminded repeatedly of their right to withdraw at any time if they wished to do so.

3.6.2 PROTECTION FROM HARM

An important principle to be adhered to is that the researcher should never injure the people being studied, regardless of whether they volunteer for the study or not (Babbie & Mouton, 2001:522). In the present study the researcher strove to be honest, respectful and sympathetic towards all participants and she gave a clear explanation of the confidentiality of the results and findings of the study.

3.6.3 CONFIDENTIALITY

Section 10 of the Constitution states that “everyone has inherent dignity and the right to have their dignity respected and protected”. Participants were assured that the research process would be confidential and that the anonymity of individuals would be guaranteed. Pseudonyms were used. Participants were also ensured that before any findings were published, they would be given an opportunity to read the research report to see whether it complies with the above legislation.

3.7 CONCLUDING COMMENTS

The research methodology that was used in this study (i.e. the research design, population and sampling, data collection procedures and data analysis), as well as how the trustworthiness of the study and ethical considerations were dealt with, was described in detail in Chapter 3. Chapter 4 presents the data that was produced by using the research methodology explained here.

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CHAPTER 4 FINDINGS

4.1 INTRODUCTION

The results of the study are presented according to the themes that emerged from the research questions.

4.2 FINDINGS WITH REGARD TO HOW PRINCIPALS AND NUTRITION COORDINATORS MANAGE THE SCHOOL NUTRITION PROGRAMME

4.2.1 THEME 1: MANAGEMENT OF THE NUTRITION PROGRAMME

4.2.1.1 Sub-theme 1a: Experiences

Both the principals and nutrition coordinators perceived the NSNP as useful and reported positively on their different experiences. Four principals (schools A, B, D & E) and four nutrition coordinators (schools A, B, C & E) pointed out that learners who did not have food at home, ate at school, while principal C and nutrition coordinator D emphasised that poor parents knew that their children would get food at school. Nutrition coordinators B and E stated that poor learners got food parcels on Fridays for taking home.

The programme makes learners happy at school (Principal C).

Principals C and D and nutrition coordinator A reported that learners were working more effectively, that school performance had improved and children concentrated on their learning.

According to principals and nutrition coordinators of the schools in the study, absenteeism was no longer a major issue.

Learners do not want to absent themselves from school even when they are sick because they know that they will not have anything to eat at home, so they just come to school to have a plate for a day (Principal D).

Nutrition coordinator B concurred with principal D by stating that learners also have a saying that “even if I do not have anything to eat at home, at school there is someone who will give me food. I will come back home being full.”

Nutrition coordinators A and B stated further that there was no more yawning and sleeping in class and that learners were active. Principals B and C stated that the learners in their schools were healthy and fit.

If we did not have the programme at school, the school with limited funds would have been forced to find some means to feed the learners (Principal D).

When there is no food, learners become sad and passive (Nutrition coordinator D).

The principal of school D and nutrition coordinators in schools A and B agreed that learners enjoyed eating at school and the number of those being fed had increased.

4.2.1.2 Sub-theme1b: Roles

When the principals and the nutrition coordinators were asked about their roles, the five principals concurred with one another by stating that they monitored the nutrition coordinators and only intervened where there were any flaws in the process. The nutrition coordinators of the five schools also agreed with one another about their role:

I monitor the food handlers, check expiry dates on food items, see to it that foods are stored and well cooked in a clean place. I also ensure that foods are prepared on time, learners are fed, delivery invoices are signed and stamped (Nutrition coordinator A).

It appeared that in schools A, C and E the SGB was not involved in the feeding programme, while in schools B and D the SGB sometimes came and helped by controlling the queues. Four out of five nutrition coordinators in schools A, B, C and E stated that they were trained as nutrition coordinators.

I have not been trained as I am still new in managing the programme (Nutrition coordinator D).

a. Administrative duties

When nutrition coordinators were asked when they fulfilled their administrative duties and reported to superiors, their responses were the following:

At the beginning of the year and on a monthly basis, that is where I communicate with the district and check whether the number of learners is still the same and send the report to the district office as is required on a monthly basis (Nutrition coordinator A).

Nutrition coordinators in schools C and E pointed out that they did the general administrative work involved with the NSNP after school. Nutrition coordinators B and D stated that they usually performed administrative duties during lunch time and after school. Three nutrition coordinators indicated that committee members helped in doing the administrative tasks.

The school clerk also assists with administrative duties (Nutrition coordinator A).

All the educators assist with administrative duties (Nutrition coordinator D).

b. Ensuring that learners are fed

At all the schools it was agreed that the identification of learners was the responsibility of the class educators. Nutrition coordinators in all five schools mentioned that the identified learners felt free to get their meals during lunch time. When nutrition coordinators were asked what was done when the identified learners' financial status improved, their responses were the following:

Parents do not report when they get jobs (Nutrition coordinators A & C).

Learners automatically get out of the programme (Nutrition coordinator B by showing of hands).

Even when the parents are working their salaries are quite meagre and learners just stay in the programme (Nutrition coordinator D).

Most of the learners are from the informal settlement. That is why our school is under Quintile 1, so it is not necessary to take them out of the programme (Nutrition coordinator E shaking her head).

When the school has bought meat bones to add to the soup, learners who are not in the programme, just come and claim to be in the programme and want food to eat (Principal A).

c. Payment of food handlers

Participants from all the schools mentioned that it was the responsibility of the service providers to pay the food handlers. Schools A, C and E were certain that the food handlers were paid R600 per month. For the other two schools the nutrition coordinators reported as follows:

The food handlers were paid R500 plus, depending on the number of school days per month (Nutrition coordinator B).

I do not want to divulge the amount because it is a personal matter (Nutrition coordinator D).

The nutrition coordinators in schools A and C complained that there were no fixed dates for payment, while those in schools B and E stated that the food handlers got paid in time.

I do not know when she gets paid (Nutrition coordinator D).

4.2.1.3 Sub-theme 1c: Challenges

a. Unsuitable environment for serving meals

All the principals and nutrition coordinators complained about not having a proper place for learners to have their meals.

We are still struggling to get a container where learners could sit and dine (Principal A).

We do not have a dining hall. Learners use a sports field for eating (Principal B spreading his hands).

Learners use the veranda for eating (Principal C).

All the schools indicated that on rainy or windy days learners used the classrooms to have lunch.

Learners have their meals in the open field next to a dumping site (pointing at the sports field). This worries us and we have tried to speak to the community but they keep on dumping next to the school fence. We are really concerned about this because our learners can get sick (Nutrition coordinator A).

b. Logistical problems in delivering the service

Principals A and C and nutrition coordinators B and C explained that at times the gas company was irregular in terms of delivery.

There is late delivery of food and sometimes there is no delivery at all (Principal C indicating helplessness).

c. Lack of human resource capacity

Educators have to run the programme and at the same time have to teach, so the load of work is overwhelming and it is not easy to get the parents to serve learners on a voluntary basis (Principal E).

Schools A, B and C mentioned that they used the orphans or learners lists of those children in the programme to recruit their parents/guardians as food handlers.

We have a problem in recruiting the food handlers because the community is not willing to help (shrugging her shoulders). At times when they come to feed learners they come being dirty (Nutrition coordinator D).

According to the guidelines, one food handler is supposed to feed 200 learners (SANR, 2008:3). Principal E and nutrition coordinator E indicated that the actual number of learners being fed was overwhelmingly huge for a single food handler. This food handler had to feed 966 learners alone.

The previous year we had 415 learners being fed. We recruited the second food handler as it has been indicated that one food handler has to feed 200

learners. But the DoE decided that we should keep one food handler. The school had to settle the second food handler's payment and stopped her services because there was no money for payment. The nutrition committee members sometimes do not have time to eat during lunch because they have to help with the feeding (Nutrition coordinator C).

The programme is not operating well because the food handlers are trained by the nutrition programme committee but they do not follow the training process. As they get used to the school, they befriend some of the staff and take orders from them (Nutrition coordinator A – expressing a feeling of disappointment).

The school recruited a lady who sells food in her tuck shop at school to feed the learners (Nutrition coordinator D).

The food handler volunteered to feed the learners (Nutrition coordinator E).

d. Food storage and food preparation facilities

Most of the schools had a food storage room and a kitchen except for school A, where the sick bay was used as a kitchen and school C where the staffroom was used as a kitchen.

There is no kitchen. We use the staffroom for cooking which is not safe and when there is a meeting, the food handler has to leave the food preparation and this is inconvenient (Nutrition coordinator C).

It was observed that in schools A and B hygiene in the food storage room and the kitchen was good. In the other schools, the food storage rooms and kitchens were unhygienic and the storage facility in school A was very small. There were no hand-washing facilities in schools A, B, C or D; the exception was in school E where only Grade R had a single hand-washing basin and the learners washed their hands before eating.

The nutrition coordinators of schools A, B and D declared that they had the necessary cooking utensils. The opposite was true for the other two schools.

There are no big bowls for serving food (Nutrition coordinator C).

There is a shortage of plates, spoons and whisks. Learners scatter the plates and spoons around the schoolyard after eating (Nutrition coordinator E).

e. Food quality, menu and DoE's non-consultation

Regarding the experiences of the principals and nutrition coordinators in terms of the nutrition programme at schools, three principals (A, B & C) and nutrition coordinator E confirmed that the food was not tasteful; some learners would vomit after eating and the supplied foods did not conform to the standards of a balanced nutritional meal.

In all the schools the food was served to learners according to the menu plan, except in winter months. The nutrition coordinators in all the schools indicated that the bean soup had never been supplied.

Learners have to eat the same menu all the time (Principal C).

My cry is only the menu. If the DoE can change the menu I will be happy (Nutrition coordinator B).

The DoE just gives orders; it does not consult and provides starchy foods only. There is no consultation when planning the menu (Nutrition coordinator E – said with much frustration).

The size of the food portions was large in all the schools but in school A, towards the end of the queue, learners got small portions compared to the first ones in the queue. The snack indicated by the GDE (1997:4) document policy was served as porridge, samp and maize rice complemented by soup.

f. Time management

According to the guidelines, feeding was supposed to take place before 10:00 in the mornings (SANR, 2008:3). In schools A, C and E, learners were fed after 10:00. Feeding time was observed and it was exactly as it was indicated in the interviews in schools B and D. In schools C and E there was interference with teaching and learning because in school E a single food handler had to feed 966 learners. Feeding time frequently overlapped with teaching time by ten minutes. In school C the food

arrived very late and the food handler consequently started cooking very late. Time for lunch was not adhered to in school C and all the learners were fed at the same time. This was not according to the schedule, where learners in the Foundation Phase were supposed to be fed between 11:20 and 12:00 and the Intermediate and Senior Phase had to eat between 12:20 and 13:00 (see Appendix D).

When asked about the extent to which the nutrition programme interfered with learners' class time, two principals (C & D) and nutrition coordinators of the same schools stated that there was no interference. However, in the other schools this was not the case.

Feeding overlaps with learners' class time because there is only one food handler feeding more than 200 learners (Principal E & nutrition coordinator E).

It depends on the delivery of food in the classes. With me (patting her chest) when time for lunch is over, I let them close their lunch boxes and we carry on with our work (Nutrition coordinator B).

Principals A and B also agreed that sometimes interference did occur.

The 30 minutes lunch break is too short for having a full meal (Nutrition coordinator A).

The nutrition coordinators of all five schools stated that food was delivered during school hours. In schools A, B, C and E, the nutrition coordinators mentioned that there was no one who managed their classes when the nutrition committee members attended to the food suppliers, as they did the attendance in turns. Only in school D the situation was different.

The food handler and the security man attend to the food suppliers (Nutrition coordinator D).

j. District officials' monitoring and support

District officials are expected to carry out spot inspections to ensure compliance with the rules of the programme (GPR, 2008:11). Nutrition coordinators in schools A and

C indicated that the district officials visited their schools twice a year for inspection. In schools B and E it was mentioned that the district officials came once a year, while in school D the visits happened four times a year. The nutrition coordinators were asked whether they got any support from the district officials and their responses were as follows:

I would say support because the district officials analyse the situation and at times recommend what should be done (Nutrition coordinator A).

The district officials assisted in doing a follow-up on food handlers' non-payment (Nutrition coordinator B).

The district official was told that we do not have a kitchen but there was no action taken (Nutrition coordinator C – shaking her head).

The district officials wanted to know how the tuck shop lady can sell and also feed learners. I explained to them that there was no one to feed the learners (Nutrition coordinator D).

I am not happy about the way the district officials approached the food handler. She was harassed and no support was offered (Nutrition coordinator E).

4.3 FINDINGS WITH REGARD TO THE EXPECTATIONS AND VIEWS OF THE PRINCIPALS AND NUTRITION COORDINATORS

4.3.1 THEME 2: EXPECTATIONS AND VIEWS

4.3.1.1 Expectations

To find out what the principals and nutrition coordinators expected of the programme, they were asked about their expectations. The principals of schools A, B and C and as well as nutrition coordinators of schools C, D and E indicated that they expected that the DoE would supply nutritional foodstuff like vegetables, fruit, meat and eggs. Coordinators A and B hoped that the menu would attract the learners.

I expected the programme to appease poor learners' hunger (Principal B).

Learners should not just get food here at school. The government should make sure that these learners get food at home (Principal E).

I expected the programme to improve learners' school attendance (Principal D).

4.3.1.2 Views

To determine what the principals and nutrition coordinators thought about the programme, they were asked to express their views on it. The principals of schools A and E and nutrition coordinator of school E were of the opinion that the current menu should be replaced by the previous menu (see Appendix F).

The programme is welcomed but there is room for improvement. There should be appetising and healthy food. (Principal B).

The schools should recruit food handlers who are well trained in cooking and they should serve for a longer period than the prescribed six months term at schools (Principal D).

Schools should not rely on the government only. They should raise funds and develop food gardens (Nutrition coordinator A).

Learners should be provided with food on weekends and during school holidays (Nutrition coordinator C).

Vegetables and fruit should be added to the supply as we do not produce enough in the garden (Nutrition coordinator D).

The DoE should provide mobile kitchens and dining halls (Nutrition coordinator E).

4.4 FINDINGS WITH REGARD TO STRATEGIES USED BY PRINCIPALS AND NUTRITION COORDINATORS TO MANAGE AND IMPLEMENT THE SCHOOL NUTRITION PROGRAMME

4.4.1 THEME 3: STRATEGIES FOR SUPPLEMENTING THE NUTRITION PROGRAMME

4.4.1.1 NGOs

According to the principals of schools B and D, as well as the nutrition coordinator of school B, the NGOs assisted with food parcels and some vegetables.

The NGO also bought spoons, plates and a gas stove for which fuel was provided for three months free of charge (Principal D).

The NGO delivered biscuits, rolls, meat and bean soup to the school (Nutrition coordinator D).

Nutrition coordinator D was satisfied that the programme was operating well because of the sponsors.

I am still planning to apply to the local shops for sponsorship (Principal A).

As a committee, we share days to help in feeding and there are some learners selected as leaders to help with the feeding during lunch time (Nutrition coordinator A).

The NGO sometimes brings fruit, minerals and bread to supplement the programme (Principal C).

At times the local shops contribute some vegetables (Nutrition coordinator C).

The NGO provided the garden tools and seeds. Learners were taught how to plant vegetables and to preserve the moisture in the soil (Nutrition coordinator E).

4.4.1.2 Food gardens

Most of the schools had developed food gardens which operated very well, except in school A where the garden had been developed but was not functional. All five of the schools had garden tools. In schools B, C, D and E the learners benefited from the food gardens. In schools B, C and E the nutrition coordinators stated that learners had to work in the garden after school on specific days as an extra-curricular activity. The community also helped by working in the garden.

We have a flourishing garden and our learners benefit from it. I have a team of learners who work in the garden and enjoy this (pointing at the garden). I have realised that the team has gardening skills. They know how to dig up the soil, how to plant the seeds, how to water the garden and how to harvest the vegetables (Nutrition coordinator B).

Learners who work in the garden have developed self-esteem, confidence and even vocabulary that can help in the class. So, I see gardening as a teaching tool because it makes learners happy (Nutrition coordinator C).

In school D the coordinator pointed out that only the security officer worked in the garden at school.

Our garden is so dry. We cannot use water from the tap because the water bill is so high and the school cannot afford it. We are just waiting for the rain. If it does not rain, our plants will die. I also hope that we will get help from the NGO as the representative was invited to the garden and promised to help with big tanks where rain water can be stored (Nutrition coordinator E).

The nutrition coordinators in schools B, C, D and E indicated that on Fridays learners got vegetables to take home.

The following photographs show the establishment of food gardens in schools A, B, C and D.



FIGURE 4.1: FOOD GARDENING AT SCHOOL B



FIGURE 4.2: FOOD GARDENING AT SCHOOL B

Figures 4.1 and 4.2 show the flourishing food garden mentioned by the coordinator in school B. The garden was well maintained and the tenderness of the spinach was proof of the fertile soil. The garden was wet and some of the community members were at the garden helping by harvesting the spinach in preparation for the next school day's meal.

Learners eat a variety of vegetables like carrots, cabbage and beetroot (Nutrition coordinator B).

As it was Wednesday after school, the gardening day, learners changed into their casual clothing and began to dig in the garden and water their plants.

The compost prepared by learners was used (Nutrition coordinator B).



FIGURE 4.3: FOOD GARDENING AT SCHOOL C



FIGURE 4.4: FOOD GARDENING AT SCHOOL C

Figure 4.3 illustrates the well-established food garden at school C that has been well cared for. It was only a week since the spinach was transplanted.

The fence is surrounding the beds to protect the seedlings from wandering dogs. Learners who work in the garden are equipped for challenges of adulthood because they do planting on their own (Nutrition coordinator C).

Figure 4.4 also displays the skilful beds preparation in the garden at school C. The green peppers were well spaced. The other beds had been prepared as the transplantation of seedlings was still in progress (Nutrition coordinator C).



FIGURE 4.5: FOOD GARDENING AT SCHOOL D



FIGURE 4.6: FOOD GARDENING AT SCHOOL D

Figure 4.5 shows that old tyres had been used for planting beetroot because of a lack of planting space at school D.

Much of the produce from the garden is supplementing the programme. Learners benefit during their meal time. On Wednesdays, every learner knows that they will have beetroot as a salad and a delicious morogo (a traditional Sotho plant like spinach that is grown as a food crop (South African Oxford School Dictionary, 2004:291) in their meal. The beetroot leaves and spinach are mixed together to make morogo. Since the establishment of the food garden, learners look healthy and well nourished (Nutrition coordinator D).

Figure 4.6 confirms that school D is really supplementing the feeding programme with its food gardening. Tyres had also been used for planting spinach.



FIGURE 4.7: FOOD GARDENING AT SCHOOL E



FIGURE 4.8: FOOD GARDENING AT SCHOOL E



FIGURE 4.9: FOOD GARDENING IN SCHOOL E

Earlier (par. 4.4.1.2) the nutrition coordinator in school E explained about the high water bill that the school could not afford page 66, and Figures 4.7 and 4.8 confirm this condition. The spinach and cabbage were very dry and the maintenance was lacking. Although the nutrition coordinator was keen and determined to see a fruitful result from the garden, drought had destroyed her wishes. However, she did not despair. The available land was big enough for growing the vegetables but due to a lack of water, the school was forced to grow only few vegetables. The nutrition coordinator stated that the harvested vegetables nevertheless supplemented the learners' meal. Figure 4.9 shows how the learners were taught to secure moisture in the soil. Paper was placed on the wet garden to prevent water evaporation.

4.4.1.3 Security

Security was tight in all five schools. Burglar proofing and alarm systems had been installed and food theft had never been experienced – except at school C.

We did experience food theft in the past before the installation of an alarm (Principal C).

4.5 CONCLUSION

This chapter describes the findings that emerged from the researcher's empirical investigation. Chapter 5, the next and final chapter, contains a conclusion of the study's findings and recommendations, suggests aspects for future research and presents a number of concluding statements.

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CHAPTER 5 OVERVIEW OF THE STUDY

5.1 INTRODUCTION

This chapter provides a summary of the study. It focuses on the information that emerged from a survey of the available literature and that gained from the empirical data. It highlights the main findings, makes recommendations and draws a conclusion. It also indicates aspects of the study that need further research.

5.2 MAIN FINDINGS

According to Rothbauer-Wanish (2009:1) there are four tasks of management – planning, organising, leading and controlling – all of which play an important role in achieving management’s vision. Each task is important and neither can function well unless the others are properly attended to. Against this background, the main findings of the present study have been categorised according to these four tasks.

Figure 5.1 depicts the order of the management cycle.

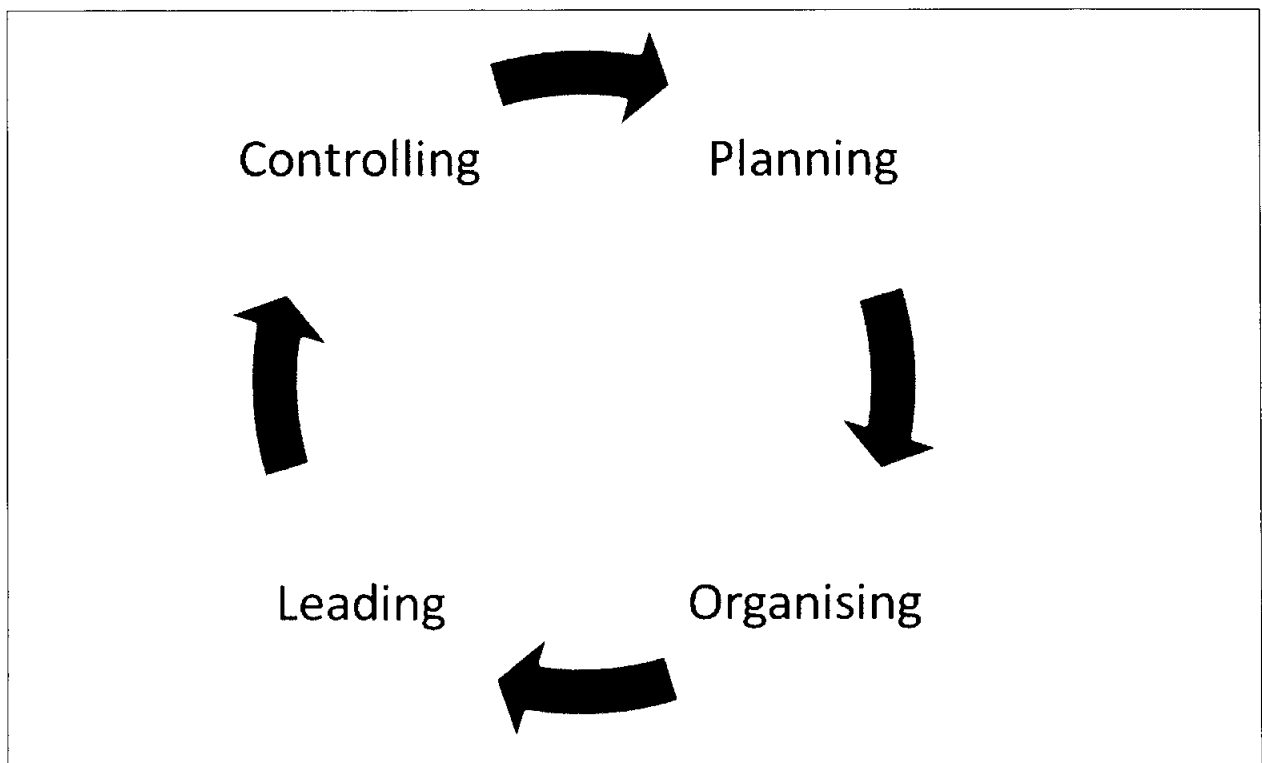


FIGURE 5.1: THE MANAGEMENT CYCLE

5.2.1 THE PLANNING FUNCTION

A manager must determine what an organisation's goals are and should design the implementation plan to achieve these goals (Rothbauer-Wanish, 2009:1). Bateman and Snell (2007:1) indicate that planning involves the logical thinking through of goals and making the decision as to what exactly needs to be accomplished in order to reach the organisation's objectives. In this study the DoE determined the objectives of the NSNP and set the implementation plan aimed at achieving the objectives of the programme.

According to the principal of school E and the nutrition coordinator of the same school, some learners vomited after having eaten and the served menu did not comply with the requirements of a nutritional balanced diet. This finding is in line with that of the GPR (2008:22), which reveals that the main concern of the schools was the lack of fruit and vegetables in the menu. What seems lacking was proper planning of the menu by the DoE. Nutrition coordinator B also stressed the lack of menu planning.

The findings of the study revealed poor planning of the timetable in all the schools with regard to food delivery times and feeding times. There were no set dates and times for delivery (see Appendix G). In this study, four of the five schools had nobody to manage the classes in the place of the educator when one of the nutrition committee members had to attend to the food suppliers, as the deliveries were made during school hours. Learners were left on their own in class during food delivery except for one school where the nutrition coordinator used the food handler and security officer to attend to the suppliers.

Two weeks after the schools had reopened school C had still not received any supplies. (Incidentally, food was eventually delivered during one of the researcher's observation sessions.) The general conclusion reached was that there was often late food delivery at some schools. Learners had to go hungry due to late food delivery that resulted from poor planning. For instance, in school C the nutrition coordinator

mentioned that learners did not have breakfast because the food handler was alone and could not prepare breakfast and lunch. Learners had to learn on an empty stomach up to lunchtime. In school E the nutrition coordinator claimed that learners did not like the instant porridge. The instant porridge was given as food parcels for taking home.

According to Bateman and Snell (2007:1) an organisation must live by its values since these values clarify the organisation's objectives. However, the DoE deviated from its own guidelines, according to which one food handler should feed only 200 learners. This deviation was pointed out by the nutrition coordinator in school A who stated that her school recruited a second food handler as the number of learners to be fed exceeded 200 (see Table 3.1). The district official responsible for the nutrition programme simply turned around and instructed the school to stop the second food handler because the service provider would not pay her. Such a clear deviation from the own values and guidelines could easily ruin the trust between management and subordinates.

The study also found that the food handlers did not have a consistent date of payment. The researcher assumed that the DoE did not plan for monitoring sessions to determine whether the goals of the programme had in fact been met – for instance, were the food handlers paid on regular dates each month?

5.2.2 THE ORGANISING FUNCTION

Managers are responsible for organisation and this includes the function of organising people and resources (Rothbauer-Wanish, 2009:1). Structuring the tasks involved in the programme is very important with a view to accomplishing the objectives outlined during the planning process (Bateman & Snell, 2007:1).

The study revealed that the DoE had assigned the principals as overseers of the nutrition programme. The principals as the managers of the schools who knew their staff members delegated the coordination of the nutrition programme to the appropriate people. In most of the schools being studied, the nutrition committees had been well structured. In order for the nutrition committees to be knowledgeable

about the programme, the DoE had set training for the nutrition committees members. Nutrition coordinator A indicated that the nutrition committee took turns to manage the daily feeding in each school (see Appendix G).

Recruiting and retaining food handlers, the most valuable resource of the nutrition programme, was still a challenge to all the schools in the study.

Table 3.1 confirmed the poor organisation of the workforce for feeding learners in the five schools. In most schools, an unrealistically large number of learners had to be fed by one food handler. In fact, from the findings it was apparent that in every one of the schools in the study, food handlers found the number of learners to be fed daunting, to say the least.

It was also found that the pure bean soup had never been supplied in any of the five schools during winter months. This confirmed the non-adherence to the menu by the suppliers, which resulted in a disorganised menu planning process. What was observed in all five schools was that the portion size of the meal was frequently bigger than indicated on the menu. This led to a situation in school A where some learners inevitably got smaller portions than prescribed towards the end of the queue (see Appendix E).

Despite the fact that the nutrition programme enhanced the general condition of poor learners, it was observed that in two schools learners' class time had been diminished by the feeding process. It appeared that educators simply used their own discretion when feeding sessions overlapped with learners' class time. No structures and procedures were prescribed for ensuring that feeding sessions did not take up class time intended for teaching and learning.

The study also revealed that there was no suitable place for learners to have their meals in any of the schools involved in the case study. On windy days learners had to use their classrooms or seek other places where they could sit and eat. This shows negligence from management's side in organising a suitable feeding area. In addition, it also emerged that there were no proper food preparation facilities in some schools – for example, one of the nutrition coordinators indicated that they did not

have big bowls, etc. In other schools it was observed that food preparation facilities were unhygienic. The GPR (2008:15) contains a similar finding, namely that in some schools storage facilities were unhygienic. Hand-washing facilities were limited and many learners had to eat with dirty hands. Improved hygienic processes were needed in the schools in the study.

A serious drawback for the schools in the study was that educators had to teach and run the nutrition programme. Educators who were managing the nutrition programme had no time for lunch, which suggests a poor distribution of tasks and inadequate delegation of responsibilities.

There was a well-organised food garden at both schools B and C. Learners worked together in dynamic teams and the community also teamed up for effective and productive gardening. In Schools A, D and E, however, ineffective teamwork caused inadequate care for the vegetables planted in the gardens. In school D the gardening was good, but the security man worked there alone. It could be assumed that if he had not been present, the entire gardening project would have collapsed.

In general the research revealed that there was a need for greater involvement and participation in the food gardening project to ensure long-term success.

5.2.3 THE LEADERSHIP FUNCTION

Leadership is defined as one person's power of persuasion over others to inspire them into action towards achieving the goals of the organisation (Allen, 1998:1). The current research revealed that the majority of school principals and nutrition coordinators played a leadership role in managing the nutrition programme. The success or failure of the nutrition programme was determined by the quality of their leadership.

Despite leadership in the schools involved in the study, innovative measures in time management were never introduced. Food delivery was done during class time and learners simply had to be left on their own while educators in charge attended to the suppliers. Only in school D was the security man utilised to attend to the suppliers.

The poor management of the nutrition programme contributed to the mismanagement of eating utensils in school E. Plates and spoons were not returned by the learners and this attitude confirms poor leadership that was displayed by coordinators in terms of caring for the facilities used in the nutrition programme.

The research findings also revealed a lack of leadership commitment in school A where the food garden had been developed but was not functional. The school had all the necessary resources such as adequate land for gardening, tanks for storing rain water, a tap installed in the garden and garden tools, but there was no inspiration towards fulfilling the objective of enhancing the general health of impoverished learners.

5.2.4 THE CONTROLLING FUNCTION

The controlling function involves the monitoring of programme performance to make sure that all goals are met (Nel & Scheun, 2004:53). Bateman and Snell (2007:1) propose that controlling is a process that guarantees that plans have been properly implemented and that allows for performance standards to be set and communicated. In the present study, district officials conducted inspections to control the successful implementation of the NSNP in the schools involved in the study.

The researcher established that in schools where NGOs were involved, the operation of the nutrition programme was not very stressful at all, due to the extra food supplements received from these organisations. In schools B and D it was found that NGOs assisted in providing food parcels and vegetables. School D was very fortunate in that spoons, plates, gas stoves and fuel, biscuits, bread rolls, meat and bean soup were provided by different NGOs. Fruit, minerals and bread supplied by NGOs supplemented the nutrition programme in school C.

It was furthermore evident that food gardens played a major role in schools B and C in as far as supplementing the nutrition programme was concerned. Tasks had been delegated well, because both teams of learners and community members were

involved in the gardening process. School E was given garden tools and learners were taught how to preserve moisture in the soil.

District officials involved in this programme were regarded as partners to the principals and nutrition coordinators in achieving the NSNP objectives. Quality control was carried out by the nutrition coordinators who checked the expiry dates of food items. Hygienic conditions remained a challenge as it was clear that food storage and food preparation facilities were not always in a good condition. Food handlers' payment was another problem that had not been controlled properly. According to nutrition coordinators A, B and C, food handlers often did not get paid on time. Nutrition coordinator C indicated that occasionally she had to phone the district officials to speed up the payment process. Haverkort (2008:7) study contains the same finding, that irregular and low payment of cooks causes low motivation and now and then cooks have to be begged and persuaded to continue with their work even though they have not being paid.

In school A, the principal indicated that she had a problem with learners who did not qualify for inclusion in the feeding programme, but nevertheless joined the food queues whenever soup containing bones as an ingredient was served. The researcher concluded that this problem was due to the fact that school A did not have a code of conduct that spelled out unacceptable or unethical behaviour, and consequently it was difficult to keep control of the nutrition programme.

5.3 RECOMMENDATIONS

The following recommendations are made in the light of the main findings mentioned above:

- School principals and nutrition coordinators should draft a nutrition programme policy for schools in line with the NSNP guidelines. The policy should address issues such as fulfilment of daily responsibilities, supplementation of the learners' diet, the improvement of hygiene, time management, delivery schedule, distribution of tasks, fund raising, the involvement of the community in the supplementation of the nutrition programme, and creating an environment conducive to learning for

impoverished learners. In addition, schools should have a code of conduct that prohibits non-qualifying learners whose parents are affluent from interfering with the nutrition programme. Time management should accomplish the objective of learners' punctual school attendance by serving breakfast before school starts every morning. For instance, at school D learners are served instant porridge between 07:40 and 08:00 (see Appendix D). The school timetable should make provision for a free period before lunch for those educators involved in the feeding process for that specific day. Likewise, a free period after lunch for those educators involved in the administrative processes pertaining to the feeding programme will ensure that no interference occurs with learners' class time. The policy should also emphasise the common delivery schedule between the school and the service providers. This will stop regular interference with teaching time when learners have to be left on their own while the educator in charge of delivery has to leave the classroom to attend to the suppliers. The schedule will also commit the supplier and help the school to know when the delivery should be expected. If the delivery does not occur on time, the school will be able to contact the service provider to find out what is causing the delay. This will also prevent a situation where learners are left without food for a prolonged period. Every educator should monitor his/her learners making sure the class time is not compromised. The policy should be drafted or revised at the end of each year and responsibilities and time management should be taken into account.

- The SGBs, assisted by the community at large, should consider the provision of food preparation and serving facilities at their schools. Mobile structures could be provided and should have built-in hand-washing facilities to encourage food handlers and learners to wash their hands before touching the food, in order to promote a hygienic lifestyle and avoid illnesses. The community should also be involved in the school gardening. The food gardening should benefit the learners. Learners must also be encouraged to work in the school garden because gardening enhances science learning, future career skills and an exploration of nature. Gardening supplements the nutrition programme and can be done as a hobby and for enjoyment, while

healthy eating habits are cultivated at the same time (Woolner & Tiplady, 2009:3). By acquiring the gardening skills, learners can also keep their own food gardens at home and the whole family can benefit from healthy eating. School E should try organic gardening where the biodegradable substances like dead plants, recyclable paper and peels from the kitchen are thrown into a dug hole. As soon as the hole is full, soil is laid on top and the material starts decomposing and forming organic compost. Woolner and Tiplady (2009:7) confirm that compost makes plants to grow better because it provides all the food that the plants need and effectively limits water consumption. This study therefore strongly suggests that community involvement should be encouraged by organised training by DoE based on how to improve their schools conditions.

- Schools should seek to implement other mechanisms that will relieve the already overburdened educators from also running the nutrition programme. The school may work in collaboration with NGOs that will be responsible for food delivery, storage, the recruitment of food handlers, the actual feeding of learners and other administrative duties. If the nutrition programme is managed by NGOs, food delivery times can be agreed upon by the NGO and the service provider, and no precious teaching time will go to waste. The nutrition committee's role should be to identify impoverished learners and to monitor that learners are properly fed. This concern should also be appraised when developing the national school policy.

- Schools should ensure that they have measuring scales available so that the delivered food items can be weighed. In many cases delivered items cannot be measured to verify the stipulated weight of the items on the delivery note. When supplies have been weighed, the food handlers will also be able to use the correct quantities when preparing the food. Furthermore, scales will help to measure the food portions so as to comply with the NSNP guidelines. In some cases learners' food portions can also be determined by using a suitable utensil (for instance a cup), provided that the measurement is constant.

- To minimise problems with the menu, the DoE should acknowledge inputs from other stakeholders when planning the menu to ensure efficiency and effectiveness in delivering the nutrition programme. The involvement of other stakeholders will promote teamwork to reach the objectives of the nutrition programme. Nutritionists and the nutrition programme committees should be involved when the menu is planned. Seminars and workshops for all stakeholders should be organised as to train all stakeholders to manage the NSNP effectively. The trained food handlers should be convinced to stay in the service of schools for longer periods – at least for a period of five years, so that they can get used to the feeding system and continuously improve their services. The food handlers should be managed by the service providers. It should be stated in the national guidelines that food handlers should be managed by the service providers.
- Monitoring of the nutrition programme should be a continual process that takes place regularly. The programme should be overseen at least once a term in all the schools and not only when the problems arise. Communication lines between the DoE, the schools, the community and learners should be kept open to prevent issues from forming. The frequent sharing of ideas in a positive way might motivate all stakeholders. Regular monitoring might also build trust and establish a feeling of involvement for every stakeholder at the school level. The monitors should also set, communicate and apply a standard performance process. The schools that performed best in supplementing and managing the nutrition programme should be rewarded. This initiative will encourage other schools to find innovative means of supplementing and managing the nutrition programme effectively. The standard performance process should be stipulated in the national guidelines.

5.4 POSSIBLE LIMITATIONS AND CHALLENGES OF THE STUDY

The study was limited to the Tembisa township, a predominantly black settlement situated on the eastern outskirts of Johannesburg (South Africa). Tembisa has a population of about 600 000, with a high influx rate (My 1632, 2010:1). There are 43 schools in the township, of which 32 are primary schools. The study was conducted

from a public primary school perspective only, although there are secondary schools where school nutrition programmes are implemented.

Arranging appointments for interviews was quite a difficult task, because participants had to arrange suitable times after school.

5.5 ASPECTS FOR FUTURE RESEARCH

Although some basic work has been done for this research, a more in-depth study should provide greater insight into the topic. The following aspects need further exploration:

- What are learners' perceptions of nutrition programme?
- What are the challenges related to the drawing up of nutrition policies?
- What are the educators' attitudes towards the nutrition programme?
- What strategies should be applied to enhance the nutritional value of the feeding programme?

5.6 CONCLUDING STATEMENTS

There is no doubt that the principals and nutrition coordinators concerned experienced the nutrition programme as a useful programme, though one with some challenges. What evidently needs to be reconsidered and redefined is the following:

- Planning in terms of the menu, time management and payment of food handlers;
- Organising structures that can coordinate activities, resources, suitable facilities for having meals, proper hygiene and food gardening;
- Leadership that can motivate, display role modelling and take responsibility;
- Controlling of coordinated activities of the nutrition programme.

Challenges that hamper the smooth operation of the nutrition programme need to be addressed. This study has hopefully highlighted some of these problem areas and could lead to the introduction of intervention strategies to improve the school nutrition programme in South Africa.

The researcher's main recommendations are presented in the following table:

TABLE 5.1: MAJA'S PROPOSED ACTION MODEL FOR IMPROVING THE IMPLEMENTATION OF THE NSNP

Responsibilities of Management	Responsibilities of the School Principal	Responsibilities of the School Nutrition Programme Coordinator
Planning	<ul style="list-style-type: none"> • Implement the vision of the NSNP • Recruit and employ food handlers 	<ul style="list-style-type: none"> • Clean the storage room, utensils and eating area • Prepare food • Draw up a timetable for eating and overseeing of learners
Organising	<ul style="list-style-type: none"> • Arrange for free time before break for the educator who is in charge of the nutrition programme • Rotate nutrition coordinators to empower all educators 	<ul style="list-style-type: none"> • Have food ready • Get prefects to distribute food • Have chairs and tables for eating • Clean up eating place • Provide basins for washing of hands
Leading	<ul style="list-style-type: none"> • Act as role model by eating with the learners to demonstrate the value of the nutrition programme • Be involved in the garden • Motivate educators to be involved 	<ul style="list-style-type: none"> • Be prepared to assist food handlers in preparing food • Check on learners' health habits
Controlling	<ul style="list-style-type: none"> • Oversee stock control • Ask learners to write their experiences • Improve food delivery • Check learners' performance on term basis • Arrange regular meetings with the nutrition programme committee 	<ul style="list-style-type: none"> • Keep a stock register and have storage facilities neatly labelled • Use gloves for hygiene • Have variations in the menu • Arrange for food gardens to be handled by responsible people • Be consistent with food parcels

5.7 SUMMARY

The aims of the study were to

- determine the experiences of the principals and nutrition coordinators in respect of the NSNP;

- explore the expectations and views of the principals and nutrition coordinators regarding the nutrition programme;
- find out what strategies the principals and nutrition coordinators employ to manage and implement the school nutrition programme.

These aims were met by conducting a study of the international, national and local literature regarding school nutrition programmes, which was followed by an empirical study. In Chapter 1, it was stated that the objectives of the NSNP were to enhance the educational experience of impoverished primary school learners through promoting punctual school attendance, alleviating short-term hunger, improving concentration and contributing to general health development. Therefore, this study also assessed whether these objectives have been met or not.

The report on the study in hand consists of five chapters. The following is a summary of the contents of each chapter.

CHAPTER 1

Chapter 1 gives an introduction to the study, outlines the background to the research, and states the research problem, the aims of the research and the research design. It also clarifies the concepts used and the layout of the research. A brief sample, how the data has been analysed and the issue of credibility and trustworthiness have been elucidated.

CHAPTER 2

This chapter provides a literature study regarding aspects relevant to school nutrition programmes. Document analysis has been demonstrated by studying the international and national documents. A comparison of school nutrition programmes in other countries and South Africa has been given.

CHAPTER 3

Research considerations that receive attention in Chapter 3 are the approach used to conduct the study, the research instruments used, the purpose of qualitative research the data analysis and the trustworthiness of the study.

CHAPTER 4

Chapter 4 presents the findings of the study based on interviews with five principals and nutrition coordinators on how they implement and manage the nutrition programme and observations.

CHAPTER 5

Chapter 5 comprises main findings, recommendations aspects to be considered in future research and Maja's proposed action model for improving the implementation of the NSNP.

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Adelman, S., Gilligan, D.O. & Lehrer, K. (2007). *How effective are food-for-education programs?* Washington: International Food Policy Research Institute.

African Charter on the Rights and Welfare of the Child. (1990). OAU Doc. GAB/LEG/24.9/49: Government Printers.

Ahmed, A.U. (2004). *Impact of feeding children in school: Evidence from Bangladesh.* Washington: International Food Policy Research Institute.

Allen, G. (1998). *In supervision.* Retrieved on 26 November 2010, from <http://ollie.dcccd.edu/mgmt1374/contents.html>.

Ashiabi, G. (2005). Household food insecurity and children's school engagement. *Journal of Children & Poverty*, 11(1), 3-16.

Asmal, K. (2000). *Address by the Minister of Education, at the 11th International Mobility Conference.* Stellenbosch: Ministry of Education. Retrieved on 15 May 2007, from <http://www.info.gov.za/speeches/2003/03040109461001.htm>.

Bateman, T.S. & Snell, S. (2007). *The four functions of management.* Retrieved on 26 November 2010, from <http://www.freeonlineresearchpapers.com/funtions-management>.

Babbie, E. & Mouton, J. (2001). *The practice of social research.* Cape Town: Oxford University Press.

Bhattacharya, J., Currie, J. & Haider, S.J. (2004). *Evaluating the impact of school nutrition programmes.* United States: Department of Agriculture.

Bialobrzeska, M. (2007). *Systems for managing HIV/AIDS in schools in diverse contexts*. Paper presented at the TEP conference. Teacher development and institutional change in an evolving education context.

Brand, D. (2004). Budgeting and service delivery in programmes targeted at the child's rights to basic education. In: E. Coetzee & T. Streak (Eds.), *Monitoring child socio-economic rights in South Africa: Achievements and challenges*, (pp.87-126). Cape Town: IDASA.

Breuner, C.C., Berry, P.J. & Kemper, K.J. (1998). *Alternative medicine used by homeless youth*. Archives of paediatric and adolescent medicine: New Delhi.

Bundy, D. (2005). School health and nutrition: policy and programs. *Food and Nutrition Bulletin*, 26(2), 186-192.

Castle, J. & Bialobrzeska, M. (2008). *School based nutrition programmes*. An introduction for mitigating the impact of HIV/AIDS on vulnerable learners.

Castillo, J.A. (2008). *United Nations World Food Programme*. Philadelphia: Pennsylvania.

Clark, A. (1999). Qualitative research: data analysis techniques. *Professional Nurse*, 14(8), 531-533.

Cohen, L., Manion, L. & Morrison, K. (2000). *Research methods in education*. London: Routledge Falmer.

Creswell, J.W. (1994). *Research design: qualitative and quantitative approaches*. Thousand Oaks: Sage Publishers.

Creswell, J.W. (2005). *Educational Research. Planning, Conducting and Evaluating Quantitative and Qualitative Research*. (2nd edition). Upper Saddle River: Merrill.

Creswell, J.W. (2007). *Qualitative inquiry and research design: choosing among five approaches*. Thousand Oaks: Sage Publications.

Del Ross, J.M. (1999). *School feeding programs: Improving effectiveness and increasing the benefit to education. A guide for program managers*. London: The Partners for Child Development.

Denning, S. (1994). *Marketing the art and business method*. Boston, Mass: Irwin/McGraw-Hill.

Department of Education. (2008). *The development of education. National Report of South Africa*. 48th International Conference on Education. Cape Town: Department of Education.

Devaney, B. & Stuart, E. (1998). *Eating breakfast: Effects of the school breakfast programme*. Alexandria: Food and Nutrition Service.

Durrheim, K. & Wassenaar, D. (2002). Putting design into practice, writing and evaluating research proposals. In: M. Terre Blanche & K. Durrheim (Eds.), *Research in practice: applied methods for the social sciences*, (pp.54-71). Cape Town: University of Cape Town Press.

Eastern Cape Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Fleisch, B. (2008). *Primary education in crisis. Why South African school children underachieve in reading and mathematics*. Cape Town: Juta.

Fouché, C.B. (2002). Research strategies. In A.S. De Vos (Ed.), *Research at grass roots: For the social sciences and human services professions*. (2nd edition), (pp.270-277). Pretoria: Van Schaik.

Free State Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Galal, O.M., Ismail, I., Gohar, A.S. & Foster, Z. (2005). Schoolteachers' awareness about scholastic performance and nutritional status of Egyptian schoolchildren. *Food Nutrition Bulletin*, 26(2), 275-280.

Gauteng Department of Education. (1997). *Gauteng Primary School Nutrition Programme Policy Document*. Pretoria: Government Printer.

Gauteng Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Gillham, B. (2000). *Case study research methods*. London: Continuum.

Glewwe, P. (2005). The impact of child health and nutrition on education in developing countries: Theory, econometric issues, and recent empirical evidence. *Food and Nutrition Bulletin*, 26(2), 235-250.

Global Child Nutrition Forum. (2008). *Building the link: Sustainable school feeding and local farm production*. Philadelphia, Pennsylvania.

Graham, A. (2006). *No simple answers*. The Colgate Scene. Retrieved on 15 May 2007, from http://www4.colgate.edu/scene/sept2004/south_africa.html.

Grantham-McGregor, S. (2005). Can the provision of breakfast benefit school performance? *Food and Nutrition Bulletin*, 26(2), 144-158.

Havekort, A (2008). Ghana school feeding programme. Ghana: Upper East region.

Health Systems Trust. (1997). *An evaluation of South Africa's primary school nutrition programme*. Durban: Health Systems Trust.

Hinckley, C. (2005). Explaining the use of television for guidance to expectant fathers. Unpublished research proposal. In: K. Maree (Ed.), *First steps in research*, (pp.284-302). Pretoria: Van Schaik.

Kallman, K. (2005). *A review of the National School Nutrition Programme*. Children's Institute: University of Cape Town.

Kloka, D. (2003a). *Integrated Nutrition Programme: School feeding*. Republic of South Africa: Department of Health.

Krefting, L. (1991). Rigor in qualitative research: the assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 215-222.

KwaZulu-Natal Provincial Report (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Landman, W.A., Van der Merwe, I.J.M., Pitout, D.N., Smith, A.G. & Windell, J.H.J. (1990). *Teachers' handbook for education*. Pretoria: Academica.

Levitsky, D.A. (2005). The future of school feeding programs. *Food and Nutrition Bulletin*, 26(2), 286-287.

Limpopo Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Lincoln, Y.S. & Guba, E.G. (1985). *Naturalistic inquiry*. Beverley Hills: Sage Publications.

Maree, K. & Van der Westhuizen, C. (2007). Planning a research proposal. In: K. Maree (Ed.), *First steps in research*, (pp.24-44). Pretoria: Van Schaik.

Marneweck, L., Bialobrzaska, M., Mhlanga, E. & Mphisa, P. (2009). *Enhancing school leadership: Meeting the challenges of HIV/AIDS*. Research paper prepared by the African Institute for Distance Education (SAIDE) for the teacher conference.

Mhlanga, E. & Mphisa, P. (2008). *Enhancing school leadership: Meeting the challenges of HIV/AIDS*. Research paper prepared by the South African Institute for Distance Education (SAIDE) for the teacher conference.

- Moumakoe, R.L. (2004). *The impact of poverty as a socio-economic barrier to learning and development of rural learners*. Published M.Ed. Dissertation. Pretoria: University of Pretoria.
- Mpumalanga Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.
- Mullen, S. (2006). *School feeding programs: Their role in developing countries*. Canada: St Francis Xavier University.
- Murphy, J. (2009). *Child nutrition fact sheet: Breakfast for learning*. Washington: Food Research and Action Centre.
- Mwiria, K. (2005). Crucial role of nutrition in education: The Kenya experience. *Food and Nutrition Bulletin*, 26(2), 168-169.
- My 1632. (n.d.). *A brief history of Tembisa*. Retrieved on 2 November 2010, from <http://my1632.com/tembisa.php>.
- Nel, D. & Scheun, B. (2004). *Learning economic and management sciences can be fun*. Pretoria: Nasou Via African.
- Nieuwenhuis, J. (2007a). Introducing qualitative research. In: K. Maree (Ed.), *First steps in research*, (pp.47-66). Pretoria: Van Schaik.
- Nieuwenhuis, J. (2007b). Qualitative research design and data gathering techniques. In: K. Maree (Ed.), *First steps in research*, (pp.70-92). Pretoria: Van Schaik.
- North West Provincial Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Passmore, S. & Harris, G. (2005). Education, health and school meals: a review of policy changes in England and Wales over the last century. *Nutrition Bulletin*, 29, 221-227.

Piper, H. & Simons, H. (2006). Ethical responsibility in social research. In: B. Someck & C. Lewin (Eds.), *Research methods in the social sciences*, (pp.56-63). London: Sage Publications.

Poggenpoel, M. (1998). Data analysis in qualitative research. In: A.S. De Vos (Ed.), *Research at grassroots: A primer for the caring professions*, (pp.334-353). Pretoria: Van Schaik.

Potterton, M. (2004). *Standards – a couple of steps back*. Amalusi: University of the Witwatersrand.

Republic of South Africa. (1994). *Government Information*. Pretoria: Government Printers.

Republic of South Africa. (1996). *National Education Policy Act, No. 27 of 1996*. Pretoria: Government Printers.

Republic of South Africa. (1996). *South African Schools Act, No. 84 of 1996 (as amended)*. Pretoria: Government Printers.

Republic of South Africa. (1996). *The Constitution of the Republic of South Africa Act, No. 108 of 1996*. Pretoria: Government Printers.

Republic of South Africa. (1998). *Employment of Educators Act, No. 76 of 1998*. Pretoria: Government Printers.

Republic of South Africa. National Report. (2008). *Evaluation of the school nutrition programme*. UNICEF, South Africa: Department of Education.

Republic of South Africa. (2008). *Organisation for economic co-operation and development*. Pretoria: Reviews of National Policies for Education.

Rodgers, Y.V. & Milewska, M. (2007). Food assistance through the school system. *Journal of Children & Poverty*, 11(1), 3-16.

Rothbauer-Wanish, H. (2009). *All managers must plan, organise, lead and control*. Retrieved on 10 September 2010, from <http://www.suite101.com/content/four-Functions-of-management-a113463#ixzz10xPE7CQJ>.

Saitowitz, R. & Hendricks, M. (2005). *Policy summary – The National Integrated Nutrition Programme*. National Nutrition Directorate: Department of Health.

Sangweni, S.S. (2008). *Report on the evaluation of the National School Nutrition Programme*. Pretoria: The Public Service Commission.

Seale, C. (1999). *The quality of qualitative research*. London: Sage Publications.

Seidman, E. (1985). *In the words of the faculty. Perspectives on improving teaching and educational quality in community colleges*. London: Jossey-Bass Publishers.

Shirley, C., Herwig, C., Frattini, M. & Arnold, R. (2009). *Learning from experience*. Brazil: World Food Programme.

Slavin, R.E. (2007). *Educational research in an age of accountability*. United States of America: Pearson Education.

South African Oxford School Dictionary. (1994). (2nd edition). Southern Africa: Oxford University Press.

Statistics South Africa. (2008). *General household survey 2007*. Pretoria, Cape Town.

Stydom, H. (2005). Ethical aspects of research in the social sciences and human services professions. In A.S. De Vos (Ed.), *Research at grassroots: For the social*

sciences and human services professions (2nd edition), (pp.56-69).. Pretoria: Van Schaik.

Terre Blanche, M., Durrheim, K. & Painter, D. (2006). *Research in practice*. (2nd edition). Cape Town: UCT Press.

Tomlinson, M. (2007). *School feeding in east and southern Africa: Improving food sovereignty or photo opportunity*. EQUINET Discussion Paper number 46. EQUINET: University of the Western Cape.

Van Struijvenberg, M.E. (2005). Using the school feeding system as a vehicle for micronutrient fortification: Experience from South Africa. *Food and Nutrition Bulletin*, 26(2), 213-219.

Vasta, R., Haith, M.M. & Miller, S.A. (1995). *Child psychology: The modern science*. (2nd edition). New York: John Wiley & Sons.

Vithal, R. & Jansen, J. (2007). *Designing your first research proposal*. A manual for researchers in education and the social science. Juta: Cape Town.

Wildeman, R.A. & Mbebetho, N. (2005). *Reviewing ten years of the school nutrition programme*. IDASA: The Budget Information Service.

Wimmer. R.D. & Dominick, J.R. (1991). *Mass media research: an introduction*. Belmont: Wadsworth.

White, C.J. (2002). *Research methods and techniques*. Pretoria: Van Schaik.

Woolner, P. & Tiplady, L. (2009). *School gardens as a potential activity for improving science learning in primary schools*. Paper presented at BERA. United Kingdom: Newcastle University.

World Bank. (2006). *Repositioning nutrition as central to development: A strategy for large-scale action*. Washington: The World Bank.



Worsley, A. (2005). Children's healthful eating: from research to practice. *Food Nutrition Bulletin*, 26(2), 135-143.

Yin, R.K. (1994). *Case study research: design and methods*. Thousand Oaks: Sage.

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APPENDICES

Appendix A:

- (a) Interview schedule
- (b) Observation schedule

Appendix B:

Interviews summary table

Appendix C:

School E - nutrition programme plan

Appendix D:

Schools' feeding timetable

Appendix E:

Schools' present menu

Appendix F:

Schools' previous menu

Appendix G:

School A - management schedule

Appendix H:

Letter to Gauteng Department of Education

Appendix I:

Letter of consent to participants

Appendix J:

Consent form

Appendix A

(a) Interview schedule

1. How do the principals and nutrition coordinators manage the school nutrition programme?
 - What is your role concerning nutrition programme?
 - What is the role of the SGB concerning the programme?
 - What is the role of the food handlers?
 - Were you trained or work shopped on what is required as a coordinator?
 - When do you do your administration duties?
 - Who helps you with your administration duties?
 - When is the food delivery made?
 - Do you choose food suppliers?
 - Do they adhere to the menu?
 - Do you experience any interference created by the programme with the learners' class time?
 - Who manage your class when you attend food suppliers?
 - How many food handlers do you have?
 - How do you recruit them?
 - Who pays the food handlers?
 - How much do they earn per month?
 - Do they get their money on time?
 - How many needy learners do you have?
 - How do you identify them?
 - Do they feel free to get food from the programme?
 - What do you do when their financial status improve?
 - Did the DoE decrease its subsidy in relation to the school roll?
 - Do the district officials come for inspection? How often?
 - Do you have nutrition team?
 - Do you hold meetings? How often?
 - What factors make it difficult to implement the programme?
 - Do you have food storage?

- Is it appropriate for storing food?
 - Do you have any kitchen?
 - Do you experience any food theft?
 - Do you have any proper place where learners have meals? Where?
 - If no, what do you do during rainy days?
 - Do you have cooking utensils?
 - How do you get fuel?
 - Do you get any support from the DoE concerning the programme?
 - Instead of food, is there any alternative for supporting impoverished learners?
2. What are their expectations and views?
- What are your expectations?
 - What are your views?
3. What strategies do the principals and nutrition coordinators use to implement and manage the nutrition programme?
- What strategies do you use to implement and manage the programme?
 - Do you have any food garden?
 - Who work in the garden?
 - When do you work in the garden?
 - Do you have any garden tools?
 - Who takes care of the garden during the holidays?
 - How is the security?

(b) Observation schedule

- Cleanliness and security -----
- Food quality and quantity -----
- Menu, food portion and feeding time -----
- Hand washing facilities -----
- Food gardening -----

Appendix B

Interviews summary table

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
Management of the programme										
Experiences	Learners turned not to like served food because of the same menu, late food delivery	Learners enjoy eating, rely on the programme	Department used to provide nutritious food, now only starchy foods, no salt, no oil, food not tasty	Number of learners served has increased, parents notice impact of the programme	Food being served not ok	Food not delivered in time during schools reopening	Learners do not want to absent themselves from school even when sick	Food do not conform to balance diet	Some learners not happy of served food, do not like soup and vomit after eating	District officials just give orders, provide starchy food only, no fruit and vegetables
Importance of the programme	Help parents who cannot afford, Learners rely on the programme, attracts learners to school	Give learners food parcels on Fridays	Five days eating at school helps child headed families and unemployed parents	Helps with concentration in class	Empty stomach cause miseries, make learners strong to comprehend studies	Poor learners have an opportunity to eat at school	Helps learners to work effectively at school	Poor parents know that their children will come home full	Learners performance improved	Benefits needy learners
Effects on learners' performance	Learners are getting healthy, Participate in extra curricular		Encourage school attendance		Parents no more worried of what learners will eat at school		Concentration in class		Learners are active in class	
How do you know	When no food learners become sad and passive		Parents praise the initiatives taken by the school, Learners' attendance improved		Learners working in totality, level of fitness improved		No more yawning and sleepy in class		Absenteeism no more an issue	
Any interference with learners' class time	Sometimes	In some classes	Sometimes	There is an interference	No interference	No	No	Sometimes	Feeding overlaps to learners' contact time	Feeding does overlaps to learners' contact time

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
Operation of the programme		Operating well		Not operating well because of workload, food handler not following training		Teachers responsible have no time for lunch		Well operating because of sponsors		Not well because of large number of learners fed by one food handler
Roles	Monitor and see is properly implemented, food stored in clean place, every hungry learners are fed in time,	Expiry dates on food items, food well cooked, well delivered to learners, clean storage and utensils	Monitor the process, take initiatives to have tasteful food	Coordinate with district Fill in forms, identify needy learners, control the stock, ensure the helper is following menu	Monitor coordinator and where are flaws have to intervene, programme is correctly implemented,	Check expiry dates on food items	See to it food is delivered, check instant porridge flavours	Instruct food handler and security man to check food items expiry dates	Delivery invoices being signed, monitor the committee	Make sure learners are fed, food is delivered in time, stock taking is done
SGB		Control lines during lunch, check expiry dates on food items		Not involved		Not involved		Sometimes come and help		Not fully involved
Training		Yes three times and booklets given		Yes		Yes		No still new as coordinator		Yes
Administration duties		During break and after school		Beginning of the year, monthly basis, morning and after school		After school		During break, after school		Everyday after school
Who is assisting		Committee		Committee, school clerk		Committee		All the teachers		Committee
Challenges in implementation	Late delivery, Same menu, Storage of food, no dining hall	Same menu	Increase of number of learners during bones soup, no dining hall	Learners getting food in the open next to dumping side	Irregular in terms of gas, late food delivery	No kitchen	Not well arranged break times	Recruiting food handlers	Teachers have to teach and run the programme	Recruiting food handlers, one helper for more learners

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
The programme worthwhile	If it was not the programme the school has to make some means		Increased the school roll, learners would be staying the whole day with an empty stomach		Makes learners happier		Learners come to school even when sick just to get a plate for a day		No more dropouts	
Food storage	Yes but small		Yes		Yes but not hundred percent		Yes		Yes bought containers to store food	
Food theft	No		No		Happened in the past before alarm installation		No		No	
Place to have meals	No	No	No	No	No	No	No	No	No	No
Where	Sport field	Anywhere	Any open space	A space next to a dumping side	Any where	Grade R in class others anywhere	Open space	In classes	Use veranda	Grade R in class
Rainy or windy days	In classes	In classes	In classes	In classes	In classes	In classes	In classes	In classes	Use veranda	Use veranda
Cooking utensils		Yes		Yes		Need big bowls		Yes		Shortage of plates and spoons
Fuel for cooking		Just phone gas company delivers		Gas company if delayed school buys		Gas company if delayed school buys		Gas company if delayed school buys		Gas company if delayed school buys
Feeding days		Five school days		Five school days		Five school days		Five school days		Five school days
Cooked meals		Every school day		Every school day		Every school day		Every school day		Every school day
Menu		Indicated in the menu table		Indicated in the menu table		Indicated in the menu table		Indicated in the menu table		Indicated in the menu table

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
Menu compliance		No		No		No		No		No
Quality of food		Good		Good		Good		Good		Good
Feeding time										
Number of food handlers		4		1		1		1		1
Recruiting food handlers		Use an orphan list		A list of parents not working and their children in the programme		A list of parents not working and their children in the programme		Recruited a lady working in her tuck shop		Volunteered
Who pay food handlers		Service provider		Service provider		Service provider		Service provider		Service provider
How much		R500 + depending on number of days		R600		R600		Did not want to tell		R600
Get payment on time		Yes		No		No		Did not want to tell		Yes
Number of needy learners		1835		126		400		245		966
Identification of needy learners		Educators identify learners in class		Educators identify learners in class		Educators identify learners in class		Educators identify learners in class		Educators identify learners in class
Feel free to get food		Yes		Yes		Yes		Yes		Yes
Learners financial status		Learners automatically get out of the programme		Parents do not report when they get jobs		No one report that the finance has improved		Even when parents are employed get meagre salaries		Parents are unemployed
Decrease of subsidy		No		No		No		No		No

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
Nutrition team		Yes		Yes		Yes		Yes		Yes
Choosing food suppliers		No		No		No		No		No
Adherence to the menu		No		No		No		No		No
Time of food delivery		Twice per month		Twice per month		Once in a month		Twice per month		Once or twice per month
Class management		No one		No one		No one		Security man and food handler check delivery		No one
Inspection		By district officials		By district officials		By district officials		By district officials		By district officials
How often		One in a year		Once or twice a year		Twice a year		Four times a year		Once a year
District Support		Assisted in follow up for food handler's payment		Analyse the situation and recommend what should be done		The official was told that there is no stove but no respond		Raised concern why tuck shop lady feeding the learners		Not happy about how an official spoke to the food handler
Support for impoverished learners	NGO issue uniform	Speak to them	Speak to them	Speak to them and NGO supply blankets in winter	Help with donations that may come	NGO helps with counselling	NGO helps with counselling, brings winter clothing and teachers buys them uniform	Speak to them and NGO buys groceries for them	NGO still proposing to help and also speak to them	NGO counsel the learners and take them out for holidays programme
Expectations and views										
Expectations	Providing nutritious foods, Consistency in supply and delivery	Not providing starchy foods only	Stick to the menu used to be served	Parents to be involved in the food gardening	Learners eating food bearing certain vitamins	Nutritional foods like meat, vegetables, and eggs	Improve learners' attendance	Learners to love and enjoy the food, food of balanced diet	Stakeholders be involved in the menu planning	Serve menu that attract learners and benefit nutritionally

Questions	Principal A	Coordinator A	Principal B	Coordinator B	Principal C	Coordinator C	Principal D	Coordinator D	Principal E	Coordinator E
Views	Welcome what the programme is doing but there is a room for improvement	Change of menu, going back to old menu	Present menu not good	Schools not rely on the government, establishing food gardening, fundraising	Addition of more food, learners should have something to eat at home	Provide learners with weekend or holidays food	Recruit food handlers who are well trained and stay longer at schools	Vegetables and fruit to be added to supply	Improvement of the present menu	Provision of mobile kitchens and dining halls
Strategies used to supplementing the programme										
Strategies	NGO helps with food parcels	The school sometimes buys vegetables to supplement soup	Need to talk to community to establish food garden, to apply support from local shop	Share days to help as committee, chose learners help with feeding, committee sacrifice their lunch time and monitor	NGO supplement with fruit and minerals, sometimes NGO brings bread	Sometimes local shops bring vegetables to school	NGO brings food parcels and bought gas stove, plates and spoons	NGO brings rolls, biscuits, meat and soup	NGO provided garden tools	NGO bought seeds and were taught how to reserve moisture in the soil
Food gardening		Yes		No		Yes		Yes		Yes
Working in the garden		Community, sometimes learners		No one		Community		Security man		Community
Any garden tools		Yes		Yes		Yes		Yes		Yes
Security	Alarm and burglar-proofs		Alarm and burglar-proofs		Alarm and burglar-proofs		Alarm and burglar-proofs		Alarm and burglar-proofs	

Appendix C

School E - nutrition programme plan

Objectives/Activities	Responsibility	Time frame	Target group	Indicator	Budget
Identification of learners & filling of forms	Educator A	Whole month	NSNP committee	Lists	
Meeting problems encountered	Educator B	14.01.2010	NSNP committee	Minutes	
Cleaning material	Educator C	Monthly	NSNP committee	Receipts	R200.00
Buying utensils	Educator D	18.02.2010	NSNP committee	Receipts	R1400.00
Daily report	All the educators	Daily	NSNP committee	Report	
Stock control	Educator E	January – April Monthly	NSNP committee	Report & List	
Monthly report	Educator A	Monthly	NSNP committee	Reports	
Meeting	Educator B	17.05.2010	NSNP committee	Minutes	
Stock control	Educator C	May – August Monthly	NSNP committee	Receipts & List	
Fundraising, selling vegetables	Educator D	28.05.2010	NSNP committee	Receipts & Reports	
Monthly reports	Educator E	Monthly	NSNP committee	Income & Reports	
Daily reports	All the educators	Daily	NSNP committee	Reports	
Cleaning material	Educator A	Monthly	NSNP committee	Receipts	R200.00
Meeting	Educator B	22.07.2010	NSNP committee	Minutes	
Buying of seeds	Educator C	27.07.2010	NSNP committee	Receipts	R300.00
Daily report	All the educators	Daily	NSNP committee	Report	
Monthly report	Educator D	Monthly	NSNP committee	Report	
Meeting	Educator E	10.08.2010	NSNP committee	Minutes	
Policy reveal	Educator A	20.10.2010	NSNP committee	Policy	
Stock control	Educator B	August – December Monthly	NSNP committee	Receipts/ Report	
Cleaning material	Educator C	Monthly	NSNP committee	Receipts	R200.00
Daily report	All the educators	Daily	NSNP committee	Report	
Monthly report	Educator D	Monthly	NSNP committee	Report	

Appendix D

Schools feeding time table

School	Breakfast/Instant porridge	Lunch
A	10:00	11:45 -12:15
B	9:45	12:15 – 12:45
C	Coordinator stated that the instant porridge is not served because the food handler is alone and cannot afford to prepare breakfast and lunch. Instant porridge is given as food parcel for home taking.	Foundation phase 11:20 – 12:00 Intermediate & senior phase 12:20 -13:00
D	7:40 – 8:00	Foundation phase 11:30 – 11:50 Intermediate & senior phase 12:15 – 12:15
E	Coordinator mentioned that instant porridge is not served because learners do not like it. Instant porridge is given as food parcel for home taking.	11:45 – 12:15

Appendix E

Schools present menu

Day	Menu	Quantity
Monday	Instant porridge (Vanilla)	30g
	Super maize meal	90g
	Soya Chunks with vegetable fat (beef flavoured)	40g
	Pure Bean soup flavoured (Relish) in winter months	20g
Tuesday	Instant porridge (Banana)	30g
	Maize rice	90g
	Soya Chunks with vegetable fat (mild curry flavoured)	40g
	Pure Bean soup flavoured (Relish) in winter months	20g
Wednesday	Instant porridge (Strawberry)	30g
	Samp	90g
	Soya Chunks with vegetable fat (chicken cream flavoured)	40g
	Pure Bean soup flavoured (Relish) in winter months	20g
Thursday	Instant porridge (Vanilla)	30g
	Super maize meal	90g
	Soya Chunks with vegetable fat (steak & onion flavoured)	40g
	Pure Bean soup flavoured (Relish) in winter months	20g
Friday	Instant porridge (Strawberry)	30g
	Maize rice	90g
	Soya Chunks with vegetable fat (beef flavoured)	40g
	Pure Bean soup flavoured (Relish) in winter months	20g

Appendix F

Schools previous menu

Day	Menu	Quantity/Child	%of
Monday	Fortified biscuits	4x24	70%
	Vitamin C enriched cool drink	200ml	30%
	Total		100%
Tuesday	Bread	2 slices (80g)	30%
	Peanut Butter	30g	24%
	Jam	20g	16%
	Vitamin C enriched cool drink	200ml	30%
	Total		100%
Wednesday	Bread	2 slices (80g)	30%
	Jam	20g	16%
	Margarine	20g	24%
	Milk	100ml fresh Full Cream	30%
	Total		100%
Thursday	Bread	2 slices (80g)	30%
	Fish	30g	16%
	Margarine	20g	24%
	Vitamin C enriched cool drink	200ml	30%
	Total		100%
Friday	Bread	2 slices (80g)	30%
	Maas	200ml	46%
	Margarine	20g	24%
	Total		100%

Appendix G

School A - management schedule

Day	Menu	Quantity	Educator responsible
Monday	Instant porridge (Vanilla) Super maize meal Soya Chunks with vegetable fat (beef flavoured) Pure Bean soup flavoured (Relish) in winter months	30g 90g 40g 20g	Educator A
Tuesday	Instant porridge (Banana) Maize rice Soya Chunks with vegetable fat (mild curry flavoured) Pure Bean soup flavoured (Relish) in winter months	30g 90g 40g 20g	Educator B
Wednesday	Instant porridge (Strawberry) Samp Soya Chunks with vegetable fat (chicken cream flavoured) Pure Bean soup flavoured (Relish) in winter months	30g 90g 40g 20g	Educator C
Thursday	Instant porridge (Vanilla) Super maize meal Soya Chunks with vegetable fat (steak & onion flavoured) Pure Bean soup flavoured (Relish) in winter months	30g 90g 40g 20g	Educator D
Friday	Instant porridge (Strawberry) Maize rice Soya Chunks with vegetable fat (beef flavoured) Pure Bean soup flavoured (Relish) in winter months	30g 90g 40g 20g	Educator E

Appendix H

Letter to Gauteng Department of Education

4 Aalwyn Street
Cresslawn
Kempton Park
1619

28 August 2009

The District Director
Ekurhuleni North
Manpen Building
78 Howard Avenue
Benoni

Dear Mr Tau

RE: PERMISSION TO CONDUCT A RESEARCH STUDY

I am a registered student in the **Department of Education Management and Policy Studies** at the **University of Pretoria**. I am currently doing a **Masters Degree in Education Management, Law and Policy** under the supervision and guidance of **Dr. Keshni Bipath**. Writing a research report is one of the requirements for the completion of this degree. My research topic is: **The management of school nutrition programme at primary schools in Tembisa, Gauteng Province.**

I hereby request your permission to conduct this research in five primary schools in your region. I intend to interview principals, school-based support team coordinators, and National School Nutrition Programme (NSNP) coordinators. I can assure you that whatever is discussed in the interviews will remain absolutely confidential and that all participants will remain anonymous.

I am prepared to share my findings with you and your department, if you so wish. I would appreciate a reply to this request by letter at your soonest convenience so that I can start with the research process during the school year 2009.

Thanking you in anticipation.

Margaret Malewaneng Maja (Mrs)

Cell: 076 541 8805

Appendix I

Consent letter to participants

4 Aalwyn Street
Cresslawn
Kempton Park
1619

31 August 2009

Dear participant

RE: CONSENT TO PARTICIPATE IN RESEARCH STUDY

I am a registered student in the **Department of Education Management and Policy studies** at the **University of Pretoria**. I am currently doing my **Masters Degree in Education Management, Law and Policy** under the supervision and guidance of **Dr Keshni Bipath**. Writing a research essay is one of the requirements for the completion of this degree. My research topic is: **The management of school nutrition programme at primary schools in Tembisa, Gauteng Province of South Africa**.

I would like to invite you to form part of this study by consenting to be interviewed and for me to observe your documents. The interview will be tape-recorded for data analysis. Pseudonyms will be used in both the original tape and the transcripts to protect your identity. I guarantee that all the information will be kept absolutely confidential. You are also free to withdraw from the study at any time without any pressure from me. You will also find this study beneficial, as you too will have made a contribution to the transformation of former management practices. Your contributions will inform the study.

Please indicate on the attached form that you give your consent to participate in the observation and interview, and agree that any information you give may be used in this research study.

Thanking you in anticipation.

Margaret Malewaneng Maja (Mrs)
Cell: 076 541 8805

Appendix J

Consent form

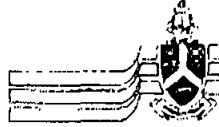
I (name of participant) _____
consent to be a participant in the research data gathering process for the research
essay being prepared by Mrs. Margaret Malewaneng Maja.

I understand that her research is on the investigation of: **The management of
school nutrition programme at primary schools in Tembisa, Gauteng Province
of South Africa.** I understand that pseudonyms will be used for both the participants
and the schools. I also understand that whatever is discussed will remain absolutely
confidential.

I therefore give Mrs. Maja my consent for the use of the outcome found in the
observation and use of the comments that I make during the interview, in her study.

Signature _____ Date _____

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UNIVERSITY OF PRETORIA
FACULTY OF EDUCATION
RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE

DEGREE AND PROJECT

INVESTIGATOR(S)

DEPARTMENT

DATE CONSIDERED

DECISION OF THE COMMITTEE

CLEARANCE NUMBER :

EM09/11/01

MEd

Management of the school nutrition programme at primary schools in Tombisa

Magaret Malewaneng Maja

Department of Education Management and Policy Studies

13 October 2010

APPROVED

Please note:

For Masters applications, ethical clearance is valid for 2 years

For PhD applications, ethical clearance is valid for 3 years.

CHAIRPERSON OF ETHICS COMMITTEE Prof L Ebersohn

DATE

13 October 2010

CC

Dr K Bipath

Ms Jeannie Beukes

This ethical clearance certificate is issued subject to the following conditions:

1. A signed personal declaration of responsibility
2. If the research question changes significantly so as to alter the nature of the study, a new application for ethical clearance must be submitted
3. It remains the students' responsibility to ensure that all the necessary forms for informed consent are kept for future queries.

Please quote the clearance number in all enquiries.