

# UNIVERSITY OF ZULULAND



For the degree of

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in the field of

.....Educational Psychology.....

with the provisional title:

CHALLENGES EXPERIENCED BY LEARNERS BENEFITTING FROM NUTRITIONAL  
PROGRAMMES IN URBAN PRIMARY SCHOOLS IN EMPANGENI

FACULTY OF EDUCATION

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## **DECLARATION OF ORIGINALITY**

I, Mrs. Soloshini Pather, herewith declare that the work entitled *Challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni* is my own work, both in conception and in execution, and that the sources I have used or quoted have been indicated and acknowledged by means of complete reference.

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Soloshini Pather

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Date

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## **DEDICATION**

**This work is dedicated to:**

My father, the late Mr. V. M. Naicker, and my mother, Mrs. Coopama Naicker, for  
their unconditional love and support, and for always inspiring me to uplift  
children and society through education.

Words cannot express my love and gratitude to you both!

## LIST OF ACRONYMS

	<b>Acronym</b>
KwaZulu-Natal	KZN
National School Nutrition Programme	NSNP
World Food Programme	WFP
Department of Education	DOE
World Health Organization	WHO
National School Lunch Programme	NSLP
United States Department of Agriculture	USDA
Child Health Professionals	CHPs
Nutrient-Based Standard	NBS
Recommended Dietary Allowance	RDA
General Household Survey	GHS
South African Institute of Race Relations	SAIRR
Public Service Commission	PSC
National Obesity Observatory	NOO
KwaZulu-Natal Department of Education	KZNDOE
Department of Basic Education	DOBE
Africa Institute of South Africa	AISA

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ANNEXURE	TITLE
A	Letter to the principal requesting permission to conduct research involving the educators, learners and facilitator of the school nutritional programme.
B	Letter to the educators requesting their permission to participate in the research.
C	Letter to the learners requesting their permission to be participants in the research.
D	Letter to the facilitators requesting their permission to be participants in the research.
E	Consent form for educators.
F	Informed consent declaration for the learner.
G	Consent form for facilitators.
H	Consent forms for parents/guardians.
I	Application for permission to conduct research.
J	Research questionnaire to learners.
K	Focus group interviews between researcher and educator/facilitator
L	Questionnaire for learners (Isizulu)
M	Consent form for learners (Isizulu)
N	Ministerial Document
O	Permission from DoE to conduct research
P	Certificate from Editor
Q	Tunitin Receipt

## **ABSTRACT**

One of the major obstacles to children's growth and development, including performance in the classroom, is malnutrition. The National School Nutrition Programme (NSNP) is an effective yet essential means of addressing the learners' hunger needs on a daily basis, thereby serving as a tool in boosting learner attendance, academic performance, health and nutrition, and the overall prospects for the children's future.

The present study seeks to examine the challenges experienced by learners benefitting from the National School Nutritional Programme in urban primary schools in Empangeni. An in-depth literature study was followed by an empirical investigation based on a qualitative research design employing questionnaires, focus groups and drawings. The sample consisted of learners, educators and the facilitators of the NSNP. The research findings revealed that learners experienced the following challenges: stigma, problems with transport, scheduling of meals, peer pressure and bullying, inadequate resources, the schools' menu compliance and flexibility, behavioural issues and primary care. The study also proposed a host of possible suggestions and recommendations to improve the nutritional programmes in school for the overall benefit of all learners. Further avenues for research were discussed so that researchers could expand the programme into the future.

**Key concepts:** National School Nutrition Programme, National School Lunch Programme, nutrition, malnutrition,



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# **CHAPTER 1**

## **OVERVIEW OF THE STUDY**

### **1.1 Motivation for the study**

In terms of The United Nations Millennium Development Goals, governments are required to consider robust initiatives to reduce poverty and promote health and human development as keys to social and economic progress. Poverty and hunger have plagued mankind for many centuries, and have restricted an economy's growth and development. Within this context, childhood hunger is a crisis in many economies. The United Nation's World Food Programme (WFP) indicates that 66 million children of primary school age go hungry every day, with 23 million of these children in Africa alone (World Food Program [WFP], 2015). The patterns of responses by governments and individuals seeking to cope with these constraints need to be considered.

The World Bank defines school feeding programmes as “targeted social safety nets that provide both educational and health benefits to the most vulnerable children, thereby increasing enrollment rates, reducing absenteeism and improving food security at the household level.” (The World Bank, 2013, p1). Almost all countries in the world have school feeding programmes, and approximately 368 million children receive food at schools daily (WFP, 2015).

Whether a National School Nutrition Programme (NSNP) provides school children with a good incentive to stay at school and focus on their studies needs to be empirically tested.

Research evidence suggests that the provision of meals to school children has many varied benefits (WFP, 2015). However, the challenges associated with the NSNP need to be formulated and empirically tested. If one accepts that school nutritional programmes are intended to improve nutrition, alleviate hunger, increase children's cognition, and ultimately eradicate poverty by transferring income to families, the challenges associated with the programme have rarely been a focus of study.

Upon becoming President in 1994, the late Nelson Mandela immediately called for the introduction of a primary school nutrition programme in South Africa. Based upon this benevolent gesture, a programme was put into place, although it was not given adequate thought in the face of many challenges including logistics, funding, and behavioural and psychosocial issues. Consequently, schools are providing meals to their learners daily. In Empangeni, 612 schools have adopted the programme. Within this context this study evaluates the learners' behavioural, psychosocial and other challenges associated with the NSNP in urban primary schools in Empangeni.

According to studies conducted by Bele, Bodhare, Valsangkar and Saraf (2012), seminal work associated with emotional and behavioural disorders among children in an urban slum of Karimnagar in Andhra Pradesh in India identified some of the variables associated with such disorders when free meals were made available. This study has allowed the researcher to explore and consider the possibility of comparisons between the urban slum in India and the South African context both which represent developing countries. Data analysis has proven that gender, undernutrition or malnutrition, low socio-economic status,

a nuclear family, the working status of the mother, the young age of the mother at the birth of her child, and financial problems were the risk factors that were most predictive of emotional and behavioural problems among children (Bele et al., 2012). In this study the researcher hopes to explore whether these risk factors are also most predictive of emotional and behavioural problems, as well as other issues, among children in the South African context.

According to the World Health Organization (WHO), 2001) it is estimated that 10 to 20% of all children globally have one or more mental or behavioural problems (Bele et al., 2012). There are many factors that determine the prevalence, onset and course of mental and behavioural disorders. These are social, economic and demographic factors. Poverty, accompanied by associated conditions of unemployment, low education levels, deprivation and homelessness are not only widespread in poor countries but also effect a sizeable minority of rich countries. In the United States children from the poorest families were discovered to be at an increased risk in the ratio of 2:1 for behavioural disorder. (WHO, 2001). It is for this reason that this investigation might offer informative insight in the South African context.

Blom (2013) reveals that in its latest Global Competitiveness Report the World Economic Forum rates South African primary schools 132<sup>nd</sup> out of 144 countries. If one considers this statistic, one must assume that South African primary schools are not meeting world standards, and as a nation we are struggling to compete globally. Most learners attending government schools come from homes where poverty is rife (Gaza, 2012). This

investigation could explore the possibility for further research being conducted hereafter into comparisons between the behavioural, psychosocial and other challenges associated with learners benefitting from school nutrition programmes and the standard of education in South African schools.

The School Nutrition Programme is a means of providing meals to hungry learners to enhance their physical and psychosocial well-being in their academic environment (Lazuta, 2013). However, it is vitally important that research and studies on the programme, be conducted so as to determine the challenges experienced by these learners receiving a meal at school and to improve the programme as a whole.

Many schools in Empangeni participate in the NSNP, and this ensures that the learners do not have to go hungry. There are schools in the area, like Samangu Primary, Mvuzane Primary, Mxosheni Primary, Mabodla Primary and Nqgamzana Primary which are sponsored complete mobile kitchens and equipment by a corporate social investment programme through Game Discount Stores. The corporate works closely with the NSNP to ensure that the daily nutritional requirements of the learners are met (van Rijswijk, 2012). Van Rijswijck (2012) explains that South Africa uses the quintile system of ranking and funding of schools, which takes into account the socio-economic circumstances of pupils, with only quintile one and two schools receiving funding from the NSNP. However, learners in other schools may also come from lower socio-economic conditions and may require support from the NSNP.

The impact of low standards of living, as a result of low levels of household income, on learners cognitive, emotional and behavioural health is presented in numerous research findings. This study examines the issue in a somewhat different vein. The influence of the South African NSNP on learners' behavioural and psychosocial well-being need to be addressed. In doing so a clearer understanding of the mechanisms of the impact of poverty-associated issues on school children, particularly on their cognitive, emotional and behavioural health, becomes valuable in designing preventive interventions.

One of the biggest challenges is that many learners come from homes that are affected by poverty, hunger and parents with little or no education. One of the solutions put forward is that the South African government should provide bursaries and school feeding programmes to learners in rural townships (Gaza, 2012). However, most schools in South Africa, both urban and rural, have fully functioning feeding schemes (The Public Service Commission [PSC], 2008). Even though the NSNP is nearing 21 years of existence, the deterioration of the basic education system in South Africa is a widely written and debated topic (Rezelman, 2013). In addition to nutrition there is a myriad of other factors that contribute to the challenges facing South African education. According to the Africa Institute of South Africa (AISA), poor school infrastructure, lack of learning materials and poor learning conditions are just some of the challenges facing the education system in South Africa (Legotlo, 2014).

These facts bring into question the impact of the NSNP on learners. It allows the researcher to investigate at grassroots level the learners' behavioural and psychosocial challenges associated with the NSNP in urban primary schools in Empangeni.

Kapp (2001) states that the premise is that behaviour is influenced by genetic, developmental, nutritional, neurological and biochemical factors. According to Mrs. K. Alberts (personal communication, June 5, 2014), the facilitator of a school nutrition programme, some learners, especially the older boys and girls, are often embarrassed to be seen at the feeding scheme centre. This observation brings an important point into consideration: do these children feel 'different' from 'normal' children because they have to go to a feeding scheme to receive a daily school meal? Even though parents and teachers feel that the child's nutritional needs are being attended to by his or her receiving meals daily at school, is this actually done at the expense of the child's psychological and psychosocial needs? In the system as a whole, has this very important point been overlooked by all stakeholders?

The behaviour of children at school is crucial, as the school is the place for learning and student behaviour (Overby & Hoigaard, 2012). Those authors' article entitled "Diet and behavioural problems at schools in Norwegian adolescents" proved that having breakfast regularly was significantly associated with a decrease in behavioural problems at school. There were numerous benefits of having breakfast, such as the positive impact on mental health. This was a result of energy intake after a night-time fast. This should improve mood and memory as a result of the intake of essential micro-nutrients which have a positive



effect on hyperactivity, and other behavioural problems. Breakfast also reduces mental distress and improves school attendance and academic performance (Overby & Hoigaard, 2012). Despite the fact that many schools offer this service, many learners struggle to access it owing to a variety of challenges. Many learners come to school using public transport and reach school just as the bell rings for the beginning of the first period. As a result, they are unable to sustain themselves with this essentially important meal of breakfast.

According to Pretorius (as cited in Kapp, 2001, p. 127), “The modern world is intensely socially conscious and concerned about the education of young people in general and of the environmentally deprived child in particular.” Some children, with unemployed parents, a low socio-economic status, or coming from homes where the parents are too busy to prepare food such as breakfast and lunch for their children, experience numerous psychosocial problems as they try to assimilate into the norm of the school environment. Some learners do not integrate easily into a group and are inclined towards isolation and alienation.

Kholwani Primary School is situated in Soweto, and most of the children rely on the school’s feeding programme as it is the only meal that they receive for the day. The scheme’s coordinator, Victoria Qoyi, says that the children come from very poor backgrounds with a single parent home, and because they are hungry they find it extremely difficult to concentrate. However, the school also experiences problems from

parents who do not want their children receiving food from the feeding scheme as it would show people that they are poor (Molatlhwa, 2010).

It would seem that the NSNP has a variety of benefits for the large majority of South African learners who receive daily meals at school. However, little research has been conducted on the flaws in the programme that retard cognitive and social development. The literature confirms that learners experience behavioural and psychosocial challenges associated with the NSNP. It is for this reason that conducting this research with primary school learners in the Empangeni region should prove beneficial in improving the programme for future learners.

## **1.2 Problem statement**

Most government schools in South Africa have fully operational nutritional programmes. For many learners throughout the country, the meal received at school is the only form of nutrition they have for the day (Lazuta, 2013).

In urban schools in Empangeni, there are children who come from different socio-economic groups, an amalgamation of affluent, middle-class and indigent learners. In order to ensure that there are no hungry children at school, nutritional programmes have been developed. According to Chief Education Specialist of Governance and Management, in the Empangeni district there is a total of 612 schools benefiting from the NSNP. There are 173 311 primary school learners in the Empangeni district who receive a meal at school daily. (personal communication, September 15, 2014),

This study seeks to investigate the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni. It would benefit the school, the DOE and this community to know the challenges experienced by learners benefitting from nutritional programmes, and it would benefit the schools to find ways of improving the nutritional programmes in order to overcome these challenges.

The research thus intends to answer the following questions:

- 1.2.1 What are the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni?
- 1.2.2 How do educators perceive challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni?
- 1.2.3 How do facilitators of the nutritional programme perceive challenges experienced by learners benefitting from the nutritional programmes in urban primary schools in Empangeni?
- 1.2.4 What interventions can be implemented in order to improve the nutritional programme in urban primary schools in Empangeni?

### **1.3 Aims and objectives**

The purpose of the study is as follows:

- 1.3.1 To determine the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.
- 1.3.2 To establish the educators' perceptions of the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.

1.3.3 To identify the facilitators' perceptions of the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.

1.3.4 To formulate certain recommendations and intervention strategies to improve the nutritional programme in urban primary schools in Empangeni.

## **1.4 Methodology**

The mixed method approach has been selected in order to adequately address the research questions as well as to provide rich data. Hence both quantitative and qualitative research methods were utilized.

### **1.4.1 Research design**

A research design informs the structure in which the research will be conducted with the aim of addressing the research questions. A mixed methods approach has been selected in order to adequately address the research questions as well as to provide rich data. Thus both qualitative and quantitative research methods will be used to obtain a complex understanding of the phenomena, the extent to which the objectives have been met and to understand the possible barriers to reaching these objectives.

#### **1.4.1.1 Qualitative research design**

Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a

nature setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflectivity of the researcher, and a complex description and interpretation of the problem.

(Schumacher, James, McMillan & Sally, p.37)

Qualitative research is suitable to this proposed field of study due to the following factors: the behavior of participants can be studied as it occurs naturally, there is no manipulation or control of settings or behavior and there are no externally imposed constraints. The situational context is also very important in understanding behavior as it is based on the belief that human actions are strongly influenced by the settings in which they occur and in this instance it is on site where the NSNP is conducted.

#### **1.4.1.2 Quantitative research design**

A quantitative research design will assist in providing descriptive data that will allow the researcher to address the research questions. The quantitative data from this research were analyzed using descriptive statistics with the help of tables, charts and graphs (McMillan & Schumacher, 2010). A Microsoft Excel programme was used whereby the figures were inserted into a data dump. Thereafter mathematical formulas were attached which converted the raw data into applicable percentages for analysis.

### **1.4.2 Sampling**

The study utilized purposive sampling and therefore participants that were directly involved in the NSNP were selected. Purposive sampling was used to select ten schools from the Empangeni district that had nutritional programmes to identify the learners who benefitted from the programme, and to select the educators who taught the learners who benefitted from the programme. The researcher aimed to distribute questionnaires to ten intermediate (grade 4-6) learners from each of the selected schools. From each school the facilitator was selected to form part of the focus groups. Purposive sampling was also used to identify an educator from each school who taught learners that benefitted from the NSNP. This resulted in two focus groups of ten educators each. Finally, three foundation phase (grade 1-3) learners from each school were included in the sample that used drawing as a data collection method.

### **1.4.3 Data collection instrument method**

The researcher employed the following methods to collect data; questionnaires, focus groups and drawings.

### **1.4.4 Data analysis and interpretation**

The quantitative data from this research were analyzed using descriptive statistics with the help of tables, charts and graphs (McMillan & Schumacher, 2010). A Microsoft Excel programme was used whereby the figures were inserted into a data dump. Thereafter

mathematical formulas were attached which converted the raw data into applicable percentages for analysis.

An essential early step in analysis is organizing the large amounts of data so that coding is facilitated. The large volume of data can seem overwhelming, and it is easier to separate it into a few workable units. Creating these units gives the researcher the confidence to make sense of them (McMillan & Schumacher, 2010). The following steps will be used in the analysis of the qualitative data: planning for recording of the data, data collection, organizing the data, reading and writing the memos, generating categories and themes, coding the data, testing the emergent understandings, searching for alternate explanations, and finally writing out of the results into a report.

## **1.5 Definition of key terms**

### **1.5.1 Challenges**

The term challenges are used in this study to mean the problems, difficulties, hindrances and limitations that schoolchildren experience.

### **1.5.2 Learners**

The term learners refer to learners from Grades 1 to 7 attending primary schools.

### **1.5.3. Facilitators**

The term facilitators refer to the persons who take control of the nutritional programme at the school. In some instances, a facilitator may be an educator employed at the school; in others, it could be an individual employed by the school in another capacity. The facilitator's role is to ensure the smooth operation of the nutritional programme.

### **1.5.4 Stigma**

The term stigma refers to the feelings of disgrace or embarrassment experienced by some learners in eating their meals via the nutritional programme at school.

## **1.6 Value of the study**

Learners benefitting from nutritional programmes in other countries also experience challenges. However, continual international research ensures that positive interventions are implemented so as to minimize the challenges experienced by their students. This research will provide the relevant South African government departments with important data for developing policies and strategies to address these challenges so as to ensure the continued growth and sustainability of the programme. In addition, it will provide important suggestions and recommendations based on the experience of participants directly involved.



## **1.7 Plan of study**

### **1.7.1 Chapter One**

The first chapter provides an introduction to the research study, and includes a motivation for the research. The problem statement, aims, objectives and purpose of the study are included here. This chapter also includes definitions of key terms, and a statement on the value of the study.

### **1.7.2 Chapter Two**

This chapter focuses on a previous literature review which has been documented on topics relevant to this research. The focus will be on research surrounding the challenges experienced by learners benefitting from nutritional programmes. The challenges experienced by learners are identified, and the literature is indicative of that. A theoretical perspective is also examined, allowing the researcher to understand the inexorable link between the challenges experienced by learners benefitting from the NSNP and the theories underpinning these behaviors.

### **1.7.3 Chapter Three**

The chapter will discuss the methodology implemented to complete this research. This will include methods of data collection and analysis that were used to obtain information from the participants.

#### **1.7.4 Chapter Four**

This chapter will focus on the interpretation of the collected data. The findings of the research will be presented and discussed in detail.

#### **1.7.5 Chapter Five**

This chapter will include a summary of the study, discussions of the research findings and recommendations which the schools or the DoE may implement in the future. It will also discuss whether any avenues for further research are available.

#### **1.6 Conclusion**

This chapter provides the basic outline for the study by presenting the research questions, aim, objectives and purpose of the study. The following chapter will comprehensively review the literature and theoretical framework pertaining to the study.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The impact of a low standard of living as a result of low levels of household income on learners' cognitive, emotive and social health is presented in numerous research findings (Mayer, 2002). According to Savage, Fisher and Birch (2008), for most of human history, food scarcity has created a profound threat to survival. As a result, human eating habits and child feeding practices have evolved to adapt and cope with this threat. One of the biggest challenges is that many learners come from homes that are affected by poverty, hunger, and parents with little or no education. KwaZulu-Natal has a population of 10.3 million, of which 33% are under 15 years of age, and it has been categorized as the population with the largest percentage of orphans in the country, i.e. 26.9%. HIV and AIDS have eroded family and social structures, and led to a rise in the number of orphans and child-headed households. Hence the massive challenges faced by the provincial government of caring for the support needs of a generation of children who will be raised as orphans, chronically ill, living in extreme poverty and prone to risky behaviour (KwaZulu-Natal Department of Education [KZN-DOE], 2014).

Gaza (2012) reports that one of the resolutions put forward is that the South African government should offer bursaries and school feeding programmes to learners in rural townships. However, most schools in South Africa, both urban and rural, have fully functional feeding schemes (National School Nutrition Programme, 2009).

This study examines the issue in a somewhat different vein. The challenges experienced by learners benefitting from the NSNP need to be addressed. In doing so a clearer understanding of the mechanisms of the impact of poverty on learners' cognitive, emotional and behavioural health becomes valuable in designing preventative interventions.

## **2.2 National School Nutrition Programme (NSNP)**

Worldwide issues such as poverty and hunger underline the fact that school feeding programmes should be an integral part of policy in every country in the world. School feeding programmes were introduced in many European countries to ensure population and nutritional deficiencies. In the United States of America, the National School Lunch Act was passed in Congress in 1948, and is now the forerunner of all child nutrition programmes operational today (Gunderson, 2015). School feeding is a tool which allows hundreds of millions of poor children worldwide to attend school in both developed and developing countries. Even in the most developed countries there are hungry children who can be helped by school feeding programmes (WFP, 2015).

In South Africa the late President Nelson Mandela called for a Primary School Nutrition Programme to be introduced in 1994 (Department of Basic Education. [DOE], 2009). In 1994 only the poorest schools from Grades 1 to 7 were involved in the programme. According to Kloka (as cited in Kallman, 2005), the NSNP was initially designed predominantly as an educational intervention aimed at improving children's ability to learn,

rather than a health intervention to improve their nutrition. Over the years the NSNP has expanded to include more schools. By 2012 the programme was designed to include all schools in poverty quintiles one, two and three at the primary and secondary levels, and are now catering for learners from Grades R to 12, which include roughly three-fifths of the system (UNICEF, South African Human Rights Commission, 2014). The allocation per learner is R2.90 and R3.20 in primary and secondary schools respectively (KwaZulu-Natal Department of Education [KZNDOE] , 2012). Soeketsa (as cited in Dei, 2014) mentions that the aims of the NSNP were to develop the learning ability of school going children, alleviate poverty and empower women; and to achieve these aims the scheme was rolled out in both urban and rural areas in all nine provinces in South Africa.

According to Langsford ( 2012), the NSNP is a three-pronged approach to nutrition:

1. School feeding schemes
2. Food gardens
3. Nutrition education

It is aimed at identifying and reaching areas where poverty is most extreme

It aims to provide one meal or snack a day by 10 am through one of the 22 approved menu options which the provinces can select on the basis of social acceptance, availability and cost. The Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape and North-West provinces follow a warm menu which comprises pap and beans, or soya, samp and beans, or soya with vegetables

wherever possible. The Eastern Cape and Western Cape follow a cold menu that comprises brown bread, margarine, peanut butter and a nutritious drink (Kallman, 2005).

For children that are living in the country's informal rural areas undernutrition is very common. Children arrive at school on an empty stomach and go to bed hungry, and this results in children being very irritable in class and dozing off, or even avoiding school (Christie, 2015). A progressive move is that many children are now receiving daily meals through the NSNP and the Department of Basic Education. Buhl (2011) states that food is often not enough for the poor at home, and most schools in developing countries do not have canteens and cafeterias where food can be bought or served. Therefore, school feeding programmes are an appropriate means by which essential nutrition can be provided for the needy children in schools. It is estimated that approximately seven out of 12 million public school students in the 2008/2009 year benefited from the programme (Buhl, 2011).

An investigation conducted by Berg (2011) in a rural school in Stellenbosch revealed the importance of food in schools. Poverty and unemployment force parents to send their children to schools. Many parents work on wine farms, and they do not have any food at home. Since food has been served at this school learners' attendance has improved, and so has their concentration. With their limited income many parents send their children to school just to get something to eat. The meal they get is the only one they receive, and many children have to wait for the next day before they get any food at all. A shocking revelation was that at weekends, when there is no school, some of the hungry pupils resort

to selling their bodies to obtain money to buy food, or steal food in order to survive. The NSNP helps families that are living in poverty by offering food at school, and in this way the financial situation may be improved at home (Berg, 2011).

According to Molathwa (2010), Kholwani Primary School is situated in Soweto and most of the children rely on the school's feeding programme as it is the only meal that they receive for the day. The scheme's coordinator, Victoria Qoyi, says that children come from very poor backgrounds with single parent homes, and they find it extremely difficult to concentrate because they are hungry. Sangweni (as cited in Dei, 2014) believes that school feeding programmes play an important role in improving the educational outcomes of schoolchildren, and a lack of nutrition is likely to create a void in the process of improving education. Children who lack certain nutrients in their food, especially iron and iodine, and suffer from hunger and lack of energy, will not have the same chance of being able to learn as their friends who are well nourished. Learners who go to school without food will find it challenging to concentrate, and thus feel under pressure to drop out. Steyn and Labadios (as cited in Qila & Tyilo, 2014) found that the availability of school nutrition is associated with both dietary and educational benefits.

In April 2004, the responsibility of the NSNP was transferred from the Department of Health to the Department of Basic Education (KZNDOE, 2012). The NSNP is now reaching more than eight million learners in more than 21 000 schools daily. According to Mrs. Gugu Ndebele, (KZNDOE, 2012) the Director of General Social and Enrichment, since the launch of the programme great progress has been made.

- The menu consists of daily hot cooked meals instead of cold ones.
- The school feeding programme targets all the learners instead of just the poorest.
- The programme has expanded to include needy secondary schools in addition to primary schools. The original 156-day feeding programme has been expanded to include all schooldays.

It would seem that the NSNP has many benefits for the large majority of South African learners receiving daily meals at school. However, little research has been conducted on the challenges experienced by learners benefitting from the programme. This research will also expose the limitations in the programme, and this will assist in improving the programme as a whole.

### **2.3 Scheduling of meals: Breakfast**

Overby and Hoigaard (2012) concur that the behaviour of children at school is important; in fact, it is crucial, as the school is a place for learning how to behave. The article entitled “Diet and behavioural problems at school in Norwegian adolescents” proves that having breakfast regularly is significantly related to a decrease in behavioural problems at school. There were numerous benefits to having breakfast, such as an improvement in mental health. This was a result of energy intake after a night-time fast. Having breakfast may improve mood and memory, and the intake of essential micronutrients can have a positive effect on disorders such as hyperactivity and other behavioural problems. Breakfast also reduces mental stress, and improves school attendance and academic performance (Overby & Hoigaard, 2012).



Breakfast is widely acknowledged to be the most important meal of the day. Having breakfast has various advantages in terms of diet quality, micronutrient intake, weight and lifestyle (Adolphus, Lawton & Dye, 2013).

Breakfast has been pronounced to improve children's behaviour, cognition and school performance. Professor Terril Bravender of Duke University explains (Aubrey, 2006) that without glucose our brain does not operate as effectively. In a recent study of 4 000 elementary school students, researchers measured the effects of eating breakfast by conducting a series of attention tests. The results proved that breakfast eaters performed better than those children who did not have breakfast (Aubrey, 2006).

Richter, Rose and Griesel (1997) state that approximately one third of children in developed countries do not have breakfast regularly, and the figure is probably higher among poor children in developing countries. The chances of children from developing countries not having a substantial or nourishing supper the night before are greater than those of children in developed countries. As a result, they might be hungry during the morning, or even hypoglycemic (Richter et al., 1997). This hunger will reduce their ability to pay attention, concentrate and learn, and thereby diminish the benefit of their attending school. Jooste et al. (as cited in Richter, 1997) discovered that in South Africa nearly a quarter of the children they studied did not have breakfast regularly.

The cognitive and behavioural effects of a school breakfast were explored in a study of 55 learners at a farm school outside Johannesburg. Widespread undernutrition and

micronutrient deficiencies had been confirmed in a previous study among the learners. For comparative purposes 55 learners at an inner city school who showed no signs of undernutrition were assessed in the same way. The learners at the farm school (the experimental group) were examined in respect of a number of psychological measures before the introduction of the school breakfast. After six months into the intervention the learners were re-examined. The second group of learners from the inner city Johannesburg school (the comparison group) were examined with the same psychological measures, but they were not given breakfast (Richter et al., 1997). The study conducted by Richter et al. (1997) offered evidence of the beneficial effect of having breakfast on children in the experimental group. They participated more in classroom activities, there was less out-of-seat behaviour and more attention to classroom activity as compared to the comparison group.

### **2.3.1 Transport and schooling**

In South Africa, despite the implementation of the NSNP and the provision of daily, healthy breakfasts many learners struggle to access this programme owing to a variety of challenges. Many learners come to school using public transport and reach school just in time, as the bell rings, for the start of the first period. As a result, they are unable to sustain themselves with this important meal of breakfast.

According to Hall, Woolard, Lake and Smith (2012), the school that a child attends is defined as “far” if he or she would have to travel more than thirty minutes to reach it, irrespective of the transport used. In 2009 there were 7,3 million primary schoolchildren

aged between seven and 13 in South Africa, and of these one in six travelled for more than 30 minutes to get to school. The highest proportion of children (26%) living far from the primary school they attend is in KwaZulu-Natal, followed by Gauteng (17%) and the Eastern Cape (16%). Nearly 80% of the children living in rural areas walk to school, and 22% of the learners walk for between 30 minutes and an hour. (Grant, 2014)

KwaZulu-Natal schools comprise a mixture of urban, semi-urban, rural and deep rural schools. The learners attending schools therefore use different means of transport depending on the location of the school. Research conducted by Rogan (2006) on the dilemmas in learner transport at two schools in the Ndwedwe district confirmed the following: 80% of the learners in school A said that the problems of transport, weather and distance sometimes made them late for school, and 56% of learners in School B agreed (Rogan, 2006).

The *Daily News* visited four schools in the Durban area, i.e. Durban High School in Berea, Lakehaven Secondary School in Sea Cow Lake, Burnwood Secondary School in Clare Estate and Mziwamandla High School in Umlazi. The principals from all four schools concurred that learners arriving late for school are a massive problem. The main reasons given by the vast majority of the learners are having to use public transport, traffic congestion and the resulting delays. Many of these learners have to take two taxis to school, and they often have to wait for them to fill up before they can begin the trip (Maluleka, 2011).

At the other extreme there are learners living in deep rural areas who travel long distances to reach school. A Grade 8 pupil, Sphilele Thusini, at Mangeni Secondary School in Nqutu, walks a return trip of 28 kilometres to school and back home. John (2015) reveals that many children walk for more than three hours, climb mountains, cross rivers and face the threat of crime to go to school. If these children do not time their journey carefully they arrive at school late, and are locked out of the classroom or beaten by the teacher. Potterton and Dawjee (as cited in Dei, 2014) explain how the long distances that children walk to school can exacerbate the already appalling levels of hunger and nutrition, and therefore providing breakfast to these learners can help alleviate short-term hunger.

#### **2.4 Stigma attached to receiving “free” meals**

Research conducted by the Department of Education in England revealed that 161 400 children who are eligible for free school meals are refusing to claim them. Many children fail to register because of the stigma attached to free lunches (Paton, 2013). In Newark, New Jersey, the universal school breakfast was launched as a programme that offers breakfast free to all students regardless of their income. Sonino and Morgan (2013) have revealed that research shows that one of the barriers to school breakfast participation is the stigma attached to eating breakfast at school as being something only poor students will do.

It is for this reason that many of the students who are eligible for free or cheap school breakfast do not participate. Hence one of the benefits of the universal school breakfast is that it reduces the stigma attached to eating breakfast at school. In New York City school

lunches are traditionally stigmatized as “welfare’ food, and trying to boost participation is an important but very challenging task (Sonnino & Morgan, 2013).

The National School Lunch Programme (NSLP) was launched in 1946 as an intervention and prevention programme to alleviate malnutrition and to promote healthy development during school by providing a nutritional safety net for low-income children in the United States (Hernandez, 2010). Almost 50% of schoolchildren in the United States participate in the NSLP, which requires the meals served to be consistent with the dietary guidelines (Birch, Savage, & Ventura, 2009). Research has found that many children do not claim their entitlement to the free meals because of teasing, bullying and fear of stigma (Royston, Rodrigues & Hounsell, 2012). The stigma would be eliminated if the children were in schools where the beneficiaries of the free meals could not be identified. According to Nancy, a parent of a child that receives a free meal: “If every child had a free school meal then there would be no stigma because everyone would be the same. You feel embarrassed to say that you are on free school meals – the children see the differences” (Royston et al., 2012,p 3).

In Washington DC recent steps have been taken by the United States Department of Agriculture (USDA) in the NSLP to protect low-income students from having their low-income status revealed to their classmates (Public Advocates, 2012). According to Colleen Kavanagh, the spokesperson for the campaign for better nutrition, these new guidelines are a significant step towards ensuring that at lunchtime these low-income students do not have to choose between going hungry or enduring the embarrassment and discrimination

that comes with being labelled poor by the other children. The issue at hand is that established cafeteria practices can separate, label and stigmatize students who receive these free meals. There are two lunch lines: in one of them stand mostly low-income students to receive a free lunch as part of the NSLP. The other line consists of peers who buy more alluring, “competitive” foods. This practice has separated students by income. The problem is exacerbated by the fact that low income students are required to use an electronic payment method at the cash register while most of their peers pay in cash. This means that low-income students are easily identified, and it is for this reason that many students choose to skip lunch and make up stories about why they are not hungry rather than endure the stigma attached to receiving free meals. The effects of this stigma on reducing participation in the NSLP is well documented (Public Advocates, 2008).

The writer of an article in the *New York Times* entitled “Free Lunch isn’t cool, so some students go hungry” interviewed students who stated that being seen with a subsidized meal lowers one’s status (Pogash, 2008). The problem is a common one, with only 37% of eligible high school students using the subsidized meal programme. Schools in the United States are looking for inventive ways of encouraging more poor students to accept government-financed meals. In New York regular promotions are held whereby popular football players are invited to eat the subsidized meals in their team jerseys. School officials have discovered that most of the elementary schoolchildren enjoy receiving the free lunches, but by the time they enter middle school, social status intervenes. An interesting point to consider is that foreign-born students have fewer problems accepting the free food, in fact they appreciate it (Pogash, 2008).

Kapp (2001) states that behaviour is influenced by genetic, developmental, nutritional and biochemical factors. According to Mrs. K. Alberts (personal communication, June 5, 2014), the co-ordinator of a school nutrition programme, some learners, especially the older boys and girls, are often “uncomfortable” to be seen at the feeding scheme centre. This observation raises an important question: do these children feel “different” from ‘normal’ children because they have to go to a feeding scheme to receive a daily meal? According to Eric Robinson, lead investigator at the University of Liverpool, people’s food choices are associated with their social identity, and eating behaviour is socially transferred. Robinson says that “norms influence behaviour by altering the extent to which an individual perceives the behaviour in question to be beneficial to them. Human behaviour can be guided by a perceived group norm even when people have little or no motivation to please others” (Dallas, 2013, para.1). Even though parents and teachers feel that the child’s nutritional needs are being met by his or her receiving meals daily at school, is this done at the expense of the child’s psychological and psychosocial needs?

At Kholwani Primary school in Soweto, the school has problems with parents who don’t want their children receiving free food from the school feeding scheme as it would show people that they are poor (Molatlhwa, 2010). According to research conducted on the effects of the NSNP on learners attending schools on the wine farms in the rural areas of the Western Cape, many schoolchildren feel ashamed of eating the food in school, and even talking about it. There are many learners who attend high school and do not eat the food from the NSNP despite the fact that they might be hungry. An educator explained that these learners have their pride: eating the school food means that your parents do not

have any money. Teenagers are ashamed to eat it as they are insulted by other learners (Berg, 2011).

According to Kupolati, Gericke and MacIntyre (2015), the attitudes of some parents have contributed to learners' behaviour. Many parents would boast that they mostly eat meat and not vegetables in their homes, and this attitude is shared by learners benefitting from the NSNP who would prefer meat to vegetables.

## **2.5 Not all children living in poverty are recipients of free meals**

In the United Kingdom not all children living in poverty are entitled to receive free meals. Approximately 70 000 children are not entitled to do so. This is due to the eligibility criterion for free meals which stipulates that parents that work for 16 or more hours per week are not entitled to free school meals (Royston et al., 2012).

In South African schools the same principle applies: not all schools qualify for the implementation of the NSNP. The NSNP targets learners from poor socio-economic backgrounds, primarily those in rural farm schools and schools in informal settlements, i.e., quintile one, two and three. There are also needy learners from a few schools in semi-urban areas that are included in the programme (KZN-DOBE , 2012).

In the Empangeni region there are 612 schools which have been adopted into the NSNP (personal communication, September 15, 2014). These have been categorized as quintile one, two and three schools. On the other hand, quintile five schools, which were previously



advantaged under the apartheid regime, do not meet the requirements for the implementation of the NSNP. However, many of the learners attending these schools come to school with no lunch, and are hungry. According to the facilitator of the school nutrition at a quintile five school, there arose an urgent need to form a feeding scheme at this school because so many learners were hungry. A fully functional feeding scheme has been operational since 2007 to ensure that there are no hungry children on the school premises. It is funded by private sponsors and businesses. The class educators have identified needy learners, and these receive a healthy breakfast and lunch daily.

Some children – those with unemployed parents, from poor homes, or from homes where the parents are too busy to prepare breakfast and lunch for their children – experience numerous psychosocial problems as they try to integrate into the school environment. Some learners do not manage it, and are inclined towards isolation and alienation.

## **2.6 Feelings of “entitlement”**

The feeding scheme programme at the quintile five school was initially created to ensure that there were no hungry children at the school. However, the number of learners that joined the feeding scheme soon increased, and continued to do so, according to the coordinator of the programme, as awareness of the programme spread throughout the community. Educators began to notice that learners who resided in the middle-income area, and whose parents were both employed, were now also visiting the feeding scheme to receive their meals. It became evident from what the school was told that the parents believed that their children were entitled to receive the free meal at school. This seems to

validate the declaration released by the ANC-led alliance summit in which the culture of entitlement among South Africans was highlighted (Stone, 2015).

## **2.7 The school environment and food**

Kubik, Lytle, Hanan, Perry and Story (2003) have identified the school environment as being well known for having a powerful influence on students' eating behaviour. All children and adolescents attend school during the first two decades of their lives, and it is for this reason that schools provide the ideal setting for influencing the nutritional status of children (Saha, Zahid, and Rasheed, 2013). The school environment can have an important impact on children's food choices, and this is especially common in developed countries. Children between the ages of five and 13 spend an average of 6.5 hours a day at school, and almost all elementary children eat at least one meal a day there (Saha et al., 2013).

According to Kubik et al. (2003), in today's schools the students are offered a variety of eating options and opportunities: the government-regulated child nutrition programme (NSLP) and the breakfast programme, snack bars, tuck shops, and in some cases students may even leave the school to buy food. Most of the food and drink sold in school vending machines or school shops, such as chips, sweets and cold drinks, is high in fat or sugar (Saha et al., 2013). An article published in the *Sowetan Live* revealed the fact that although Setile Primary School in Bekkersdale in the Westrand has a fully functional NSNP, many learners still opt to buy bunny chows and vetkoek from the tuck shop when they have money (Nkosi, 2012).

## **2.8 Peer pressure and bullying in the NSNP**

The influence of the social environment, and especially the views of peers and “significant others”, is a common theme as people tend to participate in behaviour which is practiced and valued by their peers (National Obesity Observatory [NOO], 2011).

Amos, Intiful and Boateng (2012) conducted a study of a random selection of 150 students from a population of senior high school students in Ghana on the eating habits of adolescents. The findings showed a significant relationship between peer influence and eating habits, suggesting that the higher the peer pressure the healthier the students' eating habits. This could be the result of students spending most of their time both in school and at home with their peers. At school they gather with their friends and end up choosing the same kinds of food to eat during the breaks (Amos et al., 2012).

A qualitative study conducted in Bronkhorstspuit revealed peer influences were a very strong detrimental environmental influence on the learners' eating behaviour. Thus a school is an inevitable platform from which to exert such influence. Children wanted to do what they saw their friends doing, and when some learners boycotted food from the NSNP, they seemed to influence those children who would not have wanted to be perceived as poor by their peers (Kupolati et al., 2015).

The school environment can also help teach children about diet. Children learn about food by observing the eating habits of others. For example, when children observed those of their peers, their selection and consumption of vegetables increased. In this way positive

social modelling is an indirect but applicable practice for promoting healthier diets in children (Birch et al., 2009). Young children spend a lot of time at school, and careful consideration of the food options and opportunities available at school is clearly needed if healthy eating is to become normative childhood behaviour (Kubik et al., 2003).

The South African Bill of Rights states that everyone has the right to be free from all forms of violence, and not to be treated or punished in a cruel, degrading or inhuman way; it upholds the dignity of all people. One of the issues that challenge school authorities in establishing an ethos of non-violence in schools is bullying (KwaZulu-Natal Department of Education, 2014). According to Hamarus and Kaikkonen (2008), school bullying can be regarded as a global phenomenon which researchers are still trying to define and measure. Bullying is a social and cultural phenomenon with interaction and communication as its core element. The various acts of bullying include teasing, silencing, having fun, fooling and rituals. The school environment is an important consideration in understanding bullying because adult supervision generally decreases as students progress from elementary through to middle and secondary school. Swearer, Espelage, Vaillancourt and Hymel (2009) discovered that areas such as playgrounds, lunchrooms and hallways were rife with bullying. McEachern, Kenny, Blake and Aluede (2005) found that most bullying occurs on the playgrounds amongst elementary and middle school students. It occurs where there is no or very little teacher supervision, for example, during the school breaks when breakfast or lunch is being served.

According to Rigby (2011), bullying has been defined as an abuse of power in which the offender engages in violent behaviour that is intended to harm or threaten the targeted victim. The behaviour may be obvious, such as face-to-face assaults, or verbal abuse, or hidden, as in spreading rumors or deliberate exclusion, or using cyber-technology to upset someone.

Ortega and Smith (as cited in McEachern et al., 2005) hypothesized that children who live in poor areas would have a higher rate of bullying, and they administered a questionnaire to test this. McEachern et al. (2005) in a research study found that 33% of children from poor areas bullied others occasionally.

## **2.9 Nutrition and psychosocial factors**

Nutrition has a profound effect not only on children's physical growth and health but also on their psychosocial and emotional development. A study conducted revealed that food insufficiency has a negative impact on psychosocial outcomes of a child (Alaimo, Christine, Edward & Frongillo, 2001).

It is widely accepted that the normal growth and development of infants and children requires care and nurturing that adequately meets their basic physical, socio-emotional and psychological needs. Psychosocial problems are defined as problems in psychosocial functioning: they may be emotional, but are often visible in the child's behaviour (Theunissen, 2013). In general, psychosocial problems can be divided into three groups:

1. Behavioural/externalizing problems: for example, hyperactivity, aggressive and delinquent behaviour.
2. Emotional/internalizing problems: for example, depression and anxiety.
3. Social problems: for example, difficulty in making or keeping contact with others.

Reijneveld (2004) explains that psychosocial problems, such as emotional and behavioural problems, are highly dominant among children and adolescents, and may seriously interfere with the everyday functioning of children and their families. A study conducted by Murphy, Kelleher, Pagano, Stulp, Nutting & Jellinek. (1998) found that 50% of children from families with a lack of social support were identified as having psychosocial problems. Weitzman (2007) has included cross-sectional and longitudinal observational studies on the effects of poverty. He discovered that there are various reasons why poverty has a negative effect to a child's psychosocial development.

### **2.9.1 Risk factors for psychosocial problems**

Psychosocial problems may have a number of causes, such as parenting style which is unreliable or contradictory, family or marital problems, child abuse or neglect, separation and bereavement (Patient Trusted Medical Information and Support, 2012). In stressful situations young children might react with impaired physiological functions such as feeding and sleeping disturbances. Older children might display relationship disturbances with family and friends, poor school performance, behavioural regression to an earlier developmental stage, and the development of certain psychological disorders like phobias or psychosomatic illnesses.

### **2.9.2 Psychosocial problems: Implications**

The number of children with psychological, emotional and developmental problems has grown dramatically in recent years. According to researchers from the University of Pittsburgh, the rise in poverty and single parent households are partly to blame (Zablocki, 2000). According to a national study conducted by Kelly J. Kelleher, whose research was published in the journal *Pediatrics*, he found that psychosocial problems in children had tripled between 1976 and 1996. Children in single parent households and older boys were more likely to have psychosocial problems. In 1979 research found that 7% of the 21 000 children aged between four and 14 had psychosocial problems. In 1996 this increased to 19%, which meant that almost one child in five had trouble adjusting to problems such as stress, moving, divorce, death, studying, lying, stealing and mental illness (Zablocki, 2000).

Poverty has a major psychosocial impact on a child. According to studies by McLoyd, continuous exposure to poverty affects a child's health, cognitive development and ultimately their school achievement (Lyons, 2011). A person's gender or cultural heritage affects their psychosocial development in a positive or negative way. Discrimination for ethnic or cultural reasons has a bad effect on psychosocial development and behaviour. It also affects academic achievement, self-esteem and psychosocial functioning, and arouses a sense of stigma (Lyons, 2011).

Early detection and treatment may improve the prognosis of psychosocial problems among pre-school children. In the Netherlands, preventive child health care offers an ideal

opportunity for the early detection of psychosocial problems among pre-school children. In this system the child health professionals (CHPs), i.e., doctors and nurses, work in preventive child health care to offer routine child care, including the early detection of psychosocial problems, to the entire Dutch population. The study found that the incidence of psychosocial problems was high among pre-school and school-aged children (Reijneveld, 2004).

A study published in the *Journal of the American Medical Association* suggests that psychiatric problems in childhood are linked to several problems in adulthood. The survey comprised 1 420 children from 11 counties in North Carolina aged between nine and 16. The children were followed over time and assessed annually for common psychiatric problems like depression, anxiety and behavioural issues. Of the initial survey group 1 273 were later re-evaluated three times at the outset of adulthood, aged 19, 21 and 25, to see how the now young adults had fared in the following areas: health, the legal system, personal finances and social functioning. Of those who had had behavioural or emotional issues as children, 60% reported having trouble as adults. This meant that having a diagnosed psychiatric issue as a child made him or her six times more likely to suffer from two or more problems (Basu, 2015).

This brings us to an important question: are things getting better or worse? Watkins and Wagner (2000) state that the public school climate regarding school behaviour is regularly problematic because of its sensational coverage by the local and national media. Good behaviour does not sell newspapers, and sensationalized reports have a role in



intensifying deviance in reinforcing public fears and setting off debates. There is not an available database which could provide us with evidence that pupil behaviour is in fact getting better or worse. However, according to educators they feel that the behaviour is getting worse, and that feeling is real and worthy of concern (Watkins & Wagner, 2000).

Behaviour and psychosocial problems in children are an important concern as the consequences can seriously impair their ability to become useful and productive citizens of tomorrow (Jyoti, Frongillo, & Jones, 2008). It is important to remember that many learners are totally reliant on the NSNP as the their only source of food for the day. Hence it is therefore important that in the context of this research, that the critiques and the challenges of the NSNP be given considerable examination so as to clearly understand the relationship holistically.

## **2.10 Critiques and challenges of the NSNP**

There is considerable room for improvement in the monitoring and evaluating of the NSNP. Dei (2014) discusses the purpose of this programme, as it was initiated by the government to reduce hunger and improve learner attendance. However, it is in fact beset with many challenges, and although the programme was intended to help the children who are in desperate need it may not be serving the purpose it originally set out to, or it could have some detrimental side effects.

A survey of primary schoolchildren from a rural area in KZN where the school feeding has been in operation for almost two years revealed that a large number of learners had

persistent micronutrient deficiencies including Vitamin A (40%) and iron ((97%), and 28% of them suffered from anemia. It was also revealed that not all children entitled to school feeding received it, and there was a great variation in food availability between urban and rural areas. Urban schools often report that their stock is enough, but rural schools do not always have enough. There is also inadequate communication between schools and caregivers as to whether or not children receive meals daily (Buhl, 2011).

The problems experienced by the NSNP are not unique to South Africa. India shares several issues. Children in drought-stricken areas experience a decline in nutrition, which badly affects their health (Langsford, 2012). Environmental factors also play a critical role in the operation of the programme. Quality and quantity may be compromised.

#### **2.10.1 Food quality and safety**

In 2001, the Directorate of Nutrition commissioned a survey of 149 randomly selected schools in all provinces to evaluate the school feeding programme. It was discovered that because provinces wanted to cover as many schools and feed as many children as possible, they compromised the quality and quantity of the food provided. Basic hygiene was also compromised in some schools owing to the lack of water and infrastructure for the preparation of food. 30% of the sample schools did not have water on site: it had to be collected from rivers, streams, tanks and dams in the nearby village (Kallman, 2005). Quality, quantity and hygiene were all compromised, placing the health of the learners in jeopardy in an attempt to ensure that all schools were reached.

A confidential report by the Limpopo Department of Education revealed that pieces of glass and stones were found in the beans that were meant for use in the NSNP. The Department conducted an investigation after pupils in Sekhukhune in Limpopo were hospitalized after consuming food from the programme. The school reported the matter to the Department, who took 238 learners to Jane Furse and St Rita's hospitals for medical checkups ("Glass and stones," 2014). Thabo Mogoaneng, an uncle of one of the victims, told the news channel that this was not the first time such an incident had occurred at the school; it was actually the third time.

Tshehle (2014) argues that some unscrupulous contractors have been supplying food with no expiry date, or that does not meet the requirements of the NSNP, to rural schools in Limpopo, whereby the following incidents were documented:

1. At Makeke Primary School at Lakau village, 271 pupils were hospitalized after eating food that had pieces of glass.
2. At Kwema Tshwena Primary School in Ridgefontein, 150 pupils were taken to hospital after finding crushed glass in their food.
3. At Koster Intermediate School in North-West, 203 were hospitalized after eating tainted samp and beans.
4. Pupils at Ntaki Primary School in Sekhukhune, Limpopo, were rushed to hospital after vomiting blood after they had consumed food from the NSNP.
5. Maserala Primary School in Limpopo committed 360 pupils to hospital after they ate food from the NSNP which contained glass and stones.

6. 203 pupils from Koster Intermediate School were admitted to hospital after experiencing severe stomach cramps, headaches and vomiting. It was found that the samp and beans which were prepared by the school's NSNP contained traces of salmonella bacteria.

The incident at Koster Intermediate School had a fatal impact as it also claimed the life of four-year-old Ditiro Khoni, who ate the leftover food from the school's NSNP that his mother had brought home that day. The postmortem results revealed that the child died of food poisoning. A memo signed by the District Senior Manager, G. Nkadimeng, has called for the strict monitoring of the suppliers of the NSNP. The memo states that the district has been under siege since the Department decided to allocate the programme to larger companies as suppliers instead of small businesses. The memo described the suppliers as arrogant, inefficient and not complying with the Department's service agreements. Suppliers are delivering food such as soya which is not on the 2014 menu. Suppliers refuse to replace foods that schools are not satisfied with, and they do not answer the phone when deliveries are not made (Tshehle, 2014).

Government and non-government organizations could make better use of the publicly available data in assessing programmes and keeping government organizations accountable. There should also be continual checking and verification of service delivery trends by all the stakeholders involved (UNICEF, South African Human Rights Commission, 2014).

### **2.10.2 Menu Compliance**

According to the Department Of Education [DOE], UNICEF, (2008), the portion sizes that were weighed did not comply with requirements. The importance of compliance with the menu items and combinations needs to be emphasized to service providers and school nutrition coordinators as it has a decided impact on the planned nutrient levels. It was recently reported by Talane (2013) that in the Western Cape, the principal of one school had instructed the cooking staff to add more water to the fish curry so that it would seem more abundant. The evaluation by Kallman (2005) found that the national guidelines on menu options were not adhered to at provincial and school levels. The survey showed that eight of the provinces provided less than 20% of the daily energy requirements compared with a minimum of 25% specified in the guidelines. Is the programme as effective as it is meant to be if learners are not receiving the recommended daily requirements in terms of nutrients, vitamins and minerals?

In a study conducted in Bronkhorstspuit, teachers maintained that learners' refusal to eat certain foods in the NSNP could have been avoided if the foods prepared were tastier (Kupolati et al., 2015). The menu should provide a healthy, balanced meal that is tasty and visually appealing at an affordable price; but according to Langsford (2012) this is not an easy task because the food on the menu should address the nutritional needs for learners' age and growth level, and should be affordable enough for the government to provide adequate funding and be able to sustain it. The menu is a challenge to the food handlers as it requires them to prepare the same food but in a variety of ways so as to ensure that the meals are interesting. This requires a range of skills.

### **2.10.3 Nutritional content of the meals**

Buhl (2011) explains that the failure of nutrient-based guidelines to substantially influence dietary patterns in South Africa prompted the development of the now widely used food-based dietary guidelines. Former nutritional recommendations were criticized for being too complicated and Westernized. The ten messages of the food-based dietary guidelines were designed to be more practical, positive and culturally sensitive. However, these guidelines assume adequate access to a staple food supply, and make it difficult to measure nutritional deficiencies. In terms of the school feeding programmes the results of a programme evaluation in 2000 revealed the need for a standardization of nutrient requirements among the programmes. It was agreed that the menu should provide 30% of the recommended dietary allowance (RDA) for energy, protein, calcium, iron, zinc and vitamin A.

Nhlapo, Lues, Kativu and Groenewald (2014) concur that there are no stipulated South African nutritional standards for school meals; so in a study conducted on the hygiene and nutritional content of the NSNP in Bloemfontein, the results of the study were analysed according to the United Kingdom Nutrient Based Standard (NBS). It was found that balanced and wholesome meals should alternate the inclusion of a green and yellow vegetable along with starch and protein portions. Fruit should also be provided for each child. The data revealed that the meal samples did not meet the NBS for carbohydrate and energy intakes.

#### **2.10.4 Feeding times**

Poor compliance with the compulsory feeding time of 10 am has a bad effect on learning capacity, and undermines the overall performance of the entire NSNP. Kallman (2005) found that the national guidelines on feeding times were not followed at both provincial and school levels.

There are, however, many challenges in ensuring compliance, i.e., ignorance regarding the importance of early feeding, inefficient deliveries on the part of stakeholders, reluctance to change the school timetable, and the time taken to prepare the food (DOE, UNICEF, 2008). There are also varied levels of compliance with the guidelines of the NSNP from one province to another. In the Eastern Cape the provision of food to learners is not every day of the week as prescribed by the guidelines. However, in Limpopo learners were provided with meals daily (PSC,2008). It is also pivotal that learners be given sufficient eating time (Manske, 2008). States that provide students with an adequate amount of time to eat lunch are key factors in the development of healthy eating habits, and send the message that the school values mealtimes.

#### **2.10.5 Food gardens**

Currently most schools do not have food gardens (DOE,UNICEF, 2008). The challenges mentioned by the provinces in establishing and sustaining food gardens at schools are;

- Lack of water and poor soil
- Lack of basic resources such as fencing, seeds and garden tools
- Lack of support and commitment from the SGB

- Pests
- Theft and vandalism
- Unsustainability of established vegetable gardens.

#### **2.10.6 Inadequate infrastructure**

The majority of schools do not have the infrastructure to support the effective implementation of the NSNP (PSC, 2008). There is a lack of basic equipment and utensils necessary for preparing and serving meals, although in some areas the community forums or “imbizos” are used to provide these resources through donations (Buhl, 2011).

Many schools do not have infrastructure such as storage facilities, refrigerators and cooking equipment. The lack of these facilities poses a problem because meals are prepared on the school premises. Most schools use classrooms for the storage of perishable goods, and as a result they get spoilt very easily. Many schools in the rural areas are very poorly resourced, and essential equipment that might be regarded as primary for the implementation of the NSNP might be viewed as a luxury. In these rural areas there are more pressing challenges such as the shortage of classrooms, teaching aids, etc. (PSC, 2008). A pleasant eating area encourages students to pay attention to what they are eating, and to enjoy the sensory and social aspects of a healthy meal. Providing students with an appropriate place to eat lunch is another key factor in the development of healthy eating habits (Manske, 2008).



### **2.10.7 Poor record keeping**

Poor record keeping and filing systems have been documented as a major problem in all provinces, and hinder the monitoring and evaluation system (PSC, 2008). The majority of corruption complaints are from the Eastern Cape and KwaZulu-Natal. One of the cases reported that the principal, and not the members of the School Governing Body (as required by law) of a primary school in the Free State signs the cheques, but pays the workers in cash. It was suspected that he inflates the amounts of the salaries on the cheques, which is recorded, but pays the workers less in cash (Talane, 2013). Kallman (2005) explains that the NSNP has been plagued by administrative problems, which the Department of Education has made a commitment to address.

### **2.10.8 Community participation**

There is some resistance by the communities to becoming more involved in the NSNP unless there is some form of remuneration (PSC, 2008). Despite the fact that the programme is there for the benefit of their children, parents wish to be compensated to assist in it.

### **2.10.9 Inefficient stakeholders**

Non-deliveries and/or delayed deliveries of the supplies/food by the relevant stakeholders can pose a serious problem to the overall functionality of the NSNP. Some stakeholders are not timeously informed of the role that they are supposed to play in the implementation of the programme (PSC, 2008). It has also been reported that suppliers often use

ingredients which are cheaper, and do not accord with the requirements of the Department (Talane, 2013).

## **2.11 Suggestions for the improvement of the NSNP**

### **2.11.1 Feeding of all learners**

According to the (Public Advocates, 2008), the stigma attached to receiving free lunches at school is common. However, if there were greater uniformity whereby all learners were given the same meal, then this stigma would be reduced among the learners. In this way they would all would enjoy the same benefits, and some would not feel discriminated against.

### **2.11.2 Improving the content of food served**

Improvement in the quantity and quality of food is an important point for consideration. There also should be more animal proteins, for example, milk, meat and eggs added to the menu (PSC, 2008).

### **2.11.3 Stakeholders and employees**

According to the findings of a study of the NSNP in Limpopo, 91% of principals and 78% of teacher coordinators suggested increasing the wages of food handlers in the programme. The findings also revealed an intensified contracting of local suppliers to ensure local economic development (PSC, 2008). There needs also to be more effective training of all the stake-holders in their respective roles in the programme, and the appointment of permanent staff to the programme at provincial and district level was

recommended. A minimum of one deputy director is necessary for strategic decision making, as well as sufficient financial and clerical support for the programme (DOE-UNICEF, 2008).

#### **2.11.4 Improvements to the infrastructure**

Appropriate infrastructure should be provided to assist with the easier implementation of the NSNP. There is an urgent need for fully functional kitchens with stoves, fridges, freezers, etc. (PSC, 2008). There is also an urgent need for improvements to the record keeping system. The establishment of a simple manual filing system would be beneficial while access to computerized systems are developed (DOE,UNICEF, 2008).

#### **2.11.5 Community Involvement**

There is also a need to actively involve the local communities in supplying food to the schools that are participating in the programme (PSC, 2008).

#### **2.12 A theoretical perspective**

Arising from the researcher's review of the existing literature and theory, key constructs were identified and developed into a conceptual framework. This study will explore behaviourism, Maslow's hierarchy of needs, and the systems theory as a theoretical framework.

### **2.12.1 Behaviourism**

Behaviourism is the study of stimulus-response relationships. Behaviour is a response to the stimulus (Woolfolk, 2001), and is mainly concerned with observable behaviour as opposed to internal events such as thinking and feelings. Observable behaviour can be objectively and scientifically measured. The emphasis of behavioural psychology is on how we learn to behave in a certain way. Lehnert (2015) argues that we are constantly learning new behaviour and how to modify our existing behaviour. Giallo and Little (2003) explain that behaviour is thought to be influenced not only by the belief that a particular action will lead to a desirable outcome, but also by the belief that one has the ability to perform that action.

#### **2.12.1.1 Types of behavioural problems**

Behavioural problems in children and adolescents can be classified into two major domains of dysfunction, namely, externalizing and internalizing behaviours. The externalizing behaviours are categorized by defiance, impulsivity, hyperactivity, aggression and fighting, disobedience or anti-social features. Internalizing behaviours include withdrawal, dysphoria, anxiety, shyness, or inattentiveness (Johnson, 2001).

Bradley and Hayes (2007) agree that the spectrum of childhood behavioural problems varies from very mild to clinically problematic, and their definition and nature often expand beyond the term 'behavioural problems' to incorporate mental and emotional health problems. Very often the behavioural problem is a manifestation of a deeper emotional and mental health problem. There are two key entry points in the development of behavioural problems in early childhood and adolescence, with potentially different risk

factors associated with each. Bradley and Hayes (2007) go on to mention that early behavioural disturbances have been mentioned as one of the strongest predictors of later problems in children who display high levels of externalizing behavioural problems early in their lives. They are at a higher risk for intensifying to lying, bullying, and fighting in middle childhood, and more serious behaviour such as cruelty to animals, vandalism and aggressive criminal behaviour in adolescence.

#### **2.12.1.2 Behaviour in schools**

Student behaviour in a classroom has been observed and reported by both researchers and educators for decades. Gross and Pelcovitz (2003) mention that externalizing and internalizing behaviours are different in their manifestation in the classroom

A growing number of children in the United States displays disruptive or externalizing behaviour, which is also known as antisocial, challenging, defiant, non-compliant, aggressive and acting out behaviour. Such behaviour has become an issue of concern in schools (Dodge, 2011).

Levin and Nolan (as cited in Marais & Meier, 2010) classify disruptive behaviour into four basic categories:

1. Behaviour that interferes with teaching and learning.
2. Behaviour that interferes with the rights of other learners to learn.
3. Behaviour that is psychologically or physically unsafe.
4. Behaviour that causes the destruction of property.

5. A study conducted by Sun and Shek (2012), which aimed to identify the most common disruptive misbehaviour from the teacher's point of view, showed that the most common misbehaviour was talking out of turn, non-attentiveness and idleness. Teachers perceived the most unacceptable problem behaviour to be disrespecting the teacher and rudeness, followed by talking out of turn and aggression.

### **2.12.1.3 The environment: Family dynamics and behaviour**

In the present era, where we are forging ahead to technological advancement with increasing pressure in children to achieve, the breaking up of family life and the rapidly changing socio-cultural paradigm, the behavioural problems in children are also increasing (Jyoti et al., 2008). The way in which emotional and behavioural difficulties develop in children are complex. Children grow and develop within a larger social environment. Their health and well-being is greatly influenced by the people and the conditions to which they are exposed. Research suggests that children who display problematic behaviour need early intervention to find a solution. Ettinger (2008) indicates that when early childhood problem behaviour is not explored or attended to, there is a higher probability of substance abuse, later juvenile delinquency and mental health concerns. Ettinger (2008) argues that early behavioural problems predict later behavioural patterns, and that in fact the more apparent the problem is at an early age, the greater is its severity later on.

Fornby and Cherlin (2011) discuss an Australian study where researchers explain that children who have experienced at least one change in the family structure during their

early childhood are more likely to have increased levels of behavioural problems by the age of five, regardless of the mother's status at birth. It is not surprising to find that if a child's environment is stressful and traumatic, he or she may display problematic behaviour that reflects that unstable environment (Ettinger, 2008). Other studies, where children in elementary schools have experienced two or more changes in the family structure, show that those learners who showed disruptive behaviour at school tended to have poorer emotional adjustment and lower grades and achievement scores as compared to children who had experienced no changes, or just one change in the family unit (Fornby & Cherlin, 2011).

A child's behaviour is inexorably linked to the fundamental stability of his or her family. Ryan, Claessens and Markowitz (2013) inform us that the rates of divorce and non-marital childbearing in the United States has risen dramatically over the last 40 years. According to research conducted by Anderson (as cited in Ryan et al., 2013) most children in the United States will experience one or more changes in the family structure during their childhood: for example, from a two biological parent family into a single parent or stepparent family. Children whose parents have divorced have more behavioural problems than those in intact families. Children who live with stepparents and blended families also tend to have more behavioural problems (Ryan et al., 2013).

According to a report released by Statistics South Africa (2013) based on information collected from the General Household Survey (GHS) in 2012, although 93% of young children have both biological parents still living, only 36% of them live with both biological

parents. Most young children, i.e., 43%, live with only their biological mother, 2% live with their biological father, and 19% do not live with either of their biological parents.

Thutukani Ndebele, a researcher at the South African Institute of Race Relations (SAIRR), says that previous research suggests that children who live without either of their biological parents may be more likely to have behavioural problems, or may even turn to crime (“Only 33%”, 2013). He said that children who live with both parents are statistically less likely to become teenage parents or alcohol abusers, and perform better at school. The absence of parents is a burden to the elderly, and also contributes to an increasing state welfare bill. In 2011/2012 foster care grants cost the South African government R442 million (“Only 33% ”, 2013).

#### **2.12.1.4 Economic factors influence children’s behaviour**

According to the WHO there are numerous factors that determine the prevalence, onset and course of mental and behavioural disorders. Social and economic factors, demographic factors such as sex, age, and the family environment are all contributing factors (WHO, 2001). Research suggests that children who come from “unhealthy” backgrounds such as dysfunctional, abusive homes are less likely to develop physically, academically and emotionally (Ettinger, 2008). Research conducted by Ryan et al. (2013) found that children in low-income families had significantly higher levels of behavioural problems than those in moderate or high-income families.



According to Bradley and Hayes (2007), there is evidence of a close relationship between child behaviour and poverty. The longer a child lives in poverty the more at risk he or she is of behavioural problems as compared to children who are exposed to poverty for a short time. A study in south-east Ireland revealed that the prevalence of significant emotional and behavioural problems was found to be 6% higher for children from lower socio-economic groups (Bradley & Hayes, 2007).

According to Statistics South Africa (2013), 52.4% of mothers living with their young biological children are economically active. Of this South African population, 63.5% were employed and 34.7 % were unemployed. In South Africa 15.4 million people indicated that they received grants from the government. Overall 60.8% of children aged below five received a social grant, of which 60.5% received the child support grant (Statistics South Africa, 2013).

In South Africa approximately 36% of children live in households with no working adults. Working adults refer to people aged 18 or over who are in formal employment, casual employment, or self-employed (Hall & Wright, 2010). According to the South African Child Gauge Report released by the University of Cape Town, there are 58 % of children under the age of nine living below the poverty line in households with an income of less than R604 per adult a month (Nombembe, 2013). The growth of more than 25% of children under the age of three has been stunted by malnutrition. A senior researcher at the Children's Institute, Lizette Berry, says that poverty affects children's health and nutrition.

“The quality of nutrition in the early years affects brain development, intelligence, schooling outcomes and economic productivity in adulthood” (Nombembe, 2013, para. 8).

#### **2.12.1.5 Hunger and behaviour**

There is a direct association between household food insecurity and impaired social skills. A study conducted by the American Study for Nutritional Sciences among girls has reported greater risks of psychosocial dysfunction, behavioural and attention problems among hungry and at-risk-for-hunger children compared with children who are not hungry. The findings among girls are also consistent with cross-sectional studies linking food insecurity with decreased levels of positive behaviour, difficulty getting along with other children, and greater levels of social behaviour problems in children (Prakash, Mitra, & Prabhu, 2008).

A case study conducted at the Appleton Central Alternative Charter High School’s Nutrition and Wellness Programme has proved that students from families that do not have enough food have lower test scores in arithmetic, are more likely to repeat a grade, have difficulty getting along with their peers, and are more likely to be seeing a psychologist (Keeley, 2004).

Schenker, Magill, Guiser and Showers (n.d.) show that there is convincing evidence for a biochemical and/or nutritional etiology in many types of behavioural disorder. Their study reveals that emotional problems of aggression, anxiety and irritability are more prevalent in children who are hungry. A hungry child is more likely to steal than the child who is not.

The prevalence of fighting was seven times higher in hungry children than in those who had adequate food. The hungry child was more likely to receive special education and mental health services than the non-hungry child. Academic failure was also directly linked to hunger (Schenker et al., n.d.).

If one considers these facts, a direct link can be made between hunger and behavioural and psychosocial problems. A five-year study conducted by the University of Cape Town's African Food Security Unit Network has exposed a food crisis that constitutes a death sentence. The United Nations Food and Agriculture Organization has revealed that 870 million people worldwide are chronically undernourished, of which 234 million live in sub-Saharan Africa. The Department of Agriculture, Forestry and Fisheries has revealed that 12 million South Africans are food insecure (Hosken, 2013). Since the passing of legislation banning corporal punishment in South African schools, disruptive behaviour in schools has become an issue of national concern.

#### **2.12.1.6. Unhealthy eating and behaviour**

In the United Kingdom, popular chef celebrity Jamie Oliver challenged the state on the feeding practices at school, and was given a meeting with the Prime Minister, Tony Blair. He launched "The School Food Trust", with its motto "Eat better: Do better". Jamie Oliver argues that what we eat affects everything: our mood, behaviour, health, growth and ability to concentrate. The changes have included swapping fried foods for wholesome vegetables, and is transforming how British children eat (Kennedy, 2008).

The University of Southern California discovered that a lack of zinc, vitamin B and protein in the first three years of a child's life caused bad behaviour later on. Researchers analyzed the development of more than one thousand children in Mauritius over a period of 14 years. They found that anti-social behaviour was prevalent amongst malnourished children, and poor nutrition leads to lower I.Q ("Poor diet", 2004).

A case study conducted in Appleton Central Alternative Charter High School investigated learners who consumed snacks and beverages from vending machines which were high in sugar, saturated fats and sodium (Keeley, 2004). The results revealed that after the breaks the staff would notice that students' irritability increased, and their attention spans decreased. It was deduced that there was most likely a relationship between the bad behaviour and what the students consumed. Students often interrupted their teachers and peers, daydreamed, listened poorly, used profane language, lost their place during reading, made inappropriate comments, visited each other during class, and were not able to settle down easily to the task at hand. A decision was made to adopt a nutrition and wellness programme which allowed for learners to enjoy healthy meals at schools. The school vending machines were removed. Staff at the school have confirmed that student's disruptive behaviour and health complaints have diminished substantially. A social worker, Deb Larson, has explained that a reduction in the amount of sugar and processed foods allows students to be more stable, and this makes mental health and anger management issues easier to manage (Keeley, 2004).

According to Kupolati et al. (2015), school environmental factors such as readily available unhealthy food choices, unpalatable preparation of nutritious meals and limited time for eating are some of the reasons that learners often make unhealthy choices. A study on the dietary habits of schoolchildren in South Africa revealed the widespread availability of foods that are high in fat, sugar and salt (Temple, Steyn, Myburgh & Nel, as cited in Kupolati, 2015).

#### **2.12.1.7 Behaviour and gender**

Yoleri (2014) indicates that the relationship between behavioural problems and gender is important. However, there is a difference between boys and girls in the kinds of relationship observed as regards temperamental and behavioural problems. Boys experience more behavioural problems than girls, and tend to display more aggressive behaviour. Research suggests that boys are at an increased risk of externalizing problems such as anti-social behaviour, attention problems and aggressive behaviour (Yoleri, 2014).

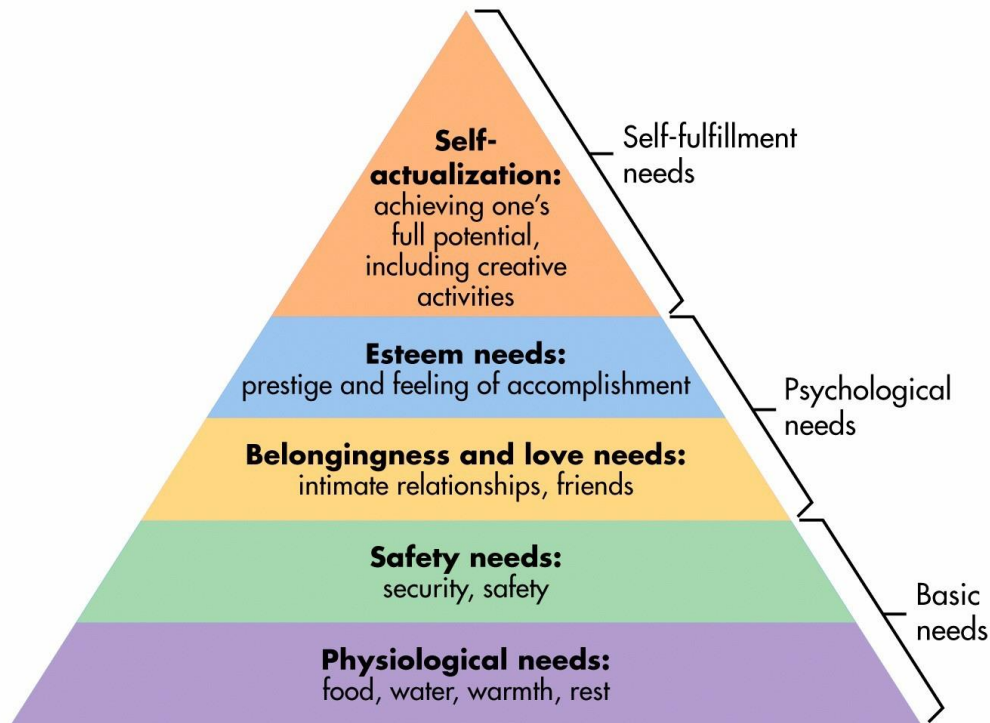
#### **2.13. Maslow's hierarchy of needs**

Abraham Maslow theorized that people generally have five types of need, and that these are triggered in a hierarchical manner. This means that these needs have to be met from the lowest to the highest, and that each need has to be fulfilled so as to facilitate the arousal of the next need (Kaur, 2013). Maslow's theory states that all human beings are motivated by unsatisfied needs. Lower needs take precedence over higher ones. and must be satisfied first. Once a need is mostly satisfied it no longer motivates, and the next higher need will take its place (Kaur, 2013).

The first need is physiological, and refers to the most basic human needs such as food, clothing and shelter. Governments and schools have come to the realization that if a learner's basic needs are not met his or her performance will be impaired. The initiation of free breakfast and lunch programmes were a direct result of such a consideration. Lack of proper nutrition and personal hygiene can adversely affect a learner's performance. In poor areas these problems are clearly visible. Basic physiological needs must be met before the child can progress to the next level (Brickman, 2005).

A study was conducted amongst Grade 7 learners at two primary schools in Chivi, Zimbabwe, to examine the impact of poor nutrition on the academic performance of learners. It was grounded in Maslow's motivational and needs theory, and revealed that malnutrition affected the physical growth, cognitive development, academic performance, health and survival of learners (Chinyoka, 2014).

The hierarchy of needs theory remains instrumental even today in understanding human motivation, and, in this research, the challenges experienced by learners benefitting from the nutritional programmes.



**Source:** <http://www.teach-nology.com/tutorials/teaching/maslow.gif>

It is essential that one also analyses the criticisms of Maslow's hierarchy of needs theory. According to Cunningham (2008) there is very little evidence that supports the idea of a hierarchy in real life and the needs categorized by Maslow do not need to be in the same hierarchical order. It is also evident that a human being can contain more than one of these needs at the same time. Maslow's theories have been criticized for being defined mainly from an American/Western perspective and does not accommodate other cultural backgrounds.

#### **2.14. Bronfenbrenner: Ecological systems theory**

Bronfenbrenner (1994) explains that in order to fully understand human development one needs to examine the growth of an individual within an ecological system. He goes on to propose an ecological model of five levels: microsystem, mesosystem, exosystem, macrosystem and chronosystem. The systems model can be applied to human beings, and considers the individual person as surrounded by a multitude of intertwined existence ranging from the family to the school, neighbourhood and community. The crucial part is that, while there is a common tendency to merely focus on the family and the school influences on human development, it should be remembered that there are other very important influences. The traditional African proverb, “It takes an entire village to raise a child”, fits into this theory and the philosophy of Ubuntu (Bronfenbrenner,1994).

The microsystem is a pattern of activities, social roles and interpersonal relations that individuals experience on a personal face-to-face basis with other people. The child learns that individuals have a direct impact on each other. The microsystem is the layer that is closest to the child and includes the structures which the child has direct contact with. Structures in the microsystem include the family, school and the neighbourhood. Relationships at this level have two directions: both away from the child and towards the child. Bronfenbrenner call these bi-directional influences and he states that they occur among all levels of the environment. At the microsystem level the bi-directional influences are the strongest and have the greatest impact on the child (Paquette & Ryan, 2009).

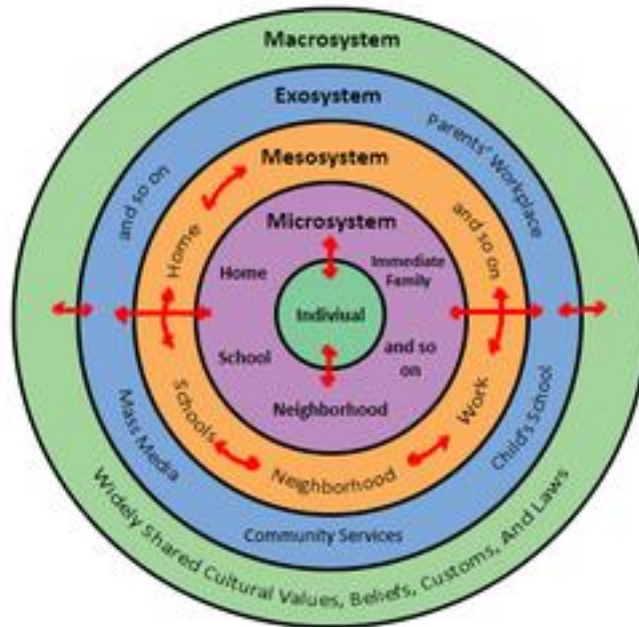


The mesosystem refers to the linkages and processes that take place between these microsystems. This system refers to collaborative relationships between microsystems: for example, the learners, family members, educators and possibly even the facilitator of the NSNP at the school.

The exosystem refers to the environment in which the individual is not directly involved as an active participant, although he or she may be influenced by the happenings and the relationships around them. The development of the learner is affected indirectly by the parent's workplace, his or her family and social networks, and the neighbourhood community.

The macrosystem refers to the views, approaches, morals and philosophies in the systems and culture in which the individual lives. They will include policies and procedures that have an impact on the running and implementation of the programme. Cultural belief systems also have an influential role to play, so learners' refusal to eat owing to the stigma of seeming poor will be a macrosystemic issue.

Finally, the chronosystem refers to the changes that transpire consistently over time, not only in the characteristics of the person but also in the environment in which the person lives. This could refer to changes in the family dynamics, socio-economic status or place of residence (Bronfenbrenner, 1994).



**Source:**<http://psychchick15.weebly.com/psych-journal/journal-8-urie-bronfenbrenners-ecological-systems-theory>

Bronfenbrenner has also raised concern on the “deficit” model which is used to determine the level of support granted by the public to struggling families. It is imperative that parents must declare themselves deficient so as to qualify for help in solving problems that may arise because of cultural independence. A larger degree of failure implies a larger amount of support (Paquette & Ryan, 2009).

## 2.15 Conclusion

Chapter Two has reviewed the literature on the challenges in relation to food insecurity and the implementation of the NSNP in South African schools. The literature has revealed that the NSNP is a means of providing meals to hungry learners to enhance their physical

and psychosocial well-being, not only in their academic environment, but also in their home environment. However, if one considers the challenges experienced by learners benefiting from the programme, one has to question the disadvantages of learners receiving a “hand-out” in terms of meals at school.

Substantial studies and research have been conducted internationally on the school feeding programmes adopted in their schools. Various approaches and techniques have been adapted to help make these more accessible to students, and ensure their sustainability. Internationally, schools are continually striving to improve their school feeding programmes in order to minimize the attached stigma and associated behavioural and psychosocial problems.

The literature review has revealed that the NSNP is presently plagued by vast limitations. However, little research has been conducted on the challenges experienced by learners taking part in the NSNP. This research conducted with primary school learners in Empangeni will expose the flaws in the programme, and this will assist in improving it. The study intends to evaluate the challenges experienced by learners benefitting from the nutritional programmes in Empangeni primary schools. The following chapter will examine the research methodology used in the study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The literature review suggested that there were indeed many challenges experienced by learners using school-based feeding programmes around the world. Because poverty is increasing, more families in South Africa are relying on the NSNP as the provider for children's daily meals. However, it has been found that the way the NSNP works is not as sophisticated as it is in other parts of the world. In highlighting the need for intervention, this research aims to use a mixed method approach to investigate the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni.

Through this research it is envisaged that more substantial knowledge will be gained on the challenges experienced by learners benefitting from nutritional programmes. In future this research may lead to necessary changes for the NSNP, and the consolidation of its present strengths. It may also pilot further studies to promote the development and improvement of the NSNP.

This chapter discusses the research methodology and the procedures that were used in the research. The methodological framework employed will be discussed in greater detail. This chapter will also include mention of other relevant methodological components,

namely: the research instrument, sampling method, explication of the data, and ethical considerations.

### **3.2 Research design**

According to Welman, Kruger and Mitchell (2009) a research design is the plan according to which the researcher obtains research participants (subjects) and collects information from them. Durrheim (2006) suggests that in developing the research design the researcher must focus on four dimensions along which a series of decisions have to be made. These are in relation to the purpose of the research, theoretical paradigm informing the research, context or situation within which the research is carried out and the research techniques employed to collect and analyse the data.

This study by nature of its stated objectives will use a mixed method research design. The merit of the design is that the researcher utilizes both qualitative and quantitative research methods to conduct the research. The quantitative aspect involves the collection and tabulation of section A of an anonymous paper and pencil questionnaire. The questionnaire also included qualitative items where participants were expected to expand their answers on certain questions.

#### **3.2.1 Mixed Method**

Research can be conducted using both a quantitative and a qualitative approach. In qualitative research, the researcher wants to make sense of feelings, experiences and

social settings as they occur in reality, and therefore places emphasis on studying them in their natural surroundings (Terre Blanche, Durrheim, & Painter, 2006). A mixed method design is useful to collecting the best of both quantitative and qualitative approaches. Using a mixed method approach will assist in gaining both descriptive and rich data.

The four major types of mixed methods design are: the triangulation design, the embedded design, the explanatory design and the exploratory design (Creswell, 2003). The triangulation design is the most common and well known approach to the mixing methods. The purpose of this design is to get different but complementary information on the same topic so as to best understand the research problem. The triangulation is a one phase design in which the researcher uses quantitative and qualitative methods during the same time frames with equal weight. The researcher then attempts to merge the data sets typically by bringing the separate results together in the interpretation or by transforming the data to facilitate integrating the two data types during the analyses (Creswell, 2003)

The research design for this study focused on the challenges experienced by learners benefitting from nutritional programmes, and embedded the above characteristics and philosophies. The research was carried out in the natural settings of the school. The social world of the school was viewed as holistic and complex.

The researcher included the following stakeholders in the study: learners who attend the nutritional programme, educators who teach these children, and the facilitator of the programme. This allowed for the triangulation of the data in this research.

### 3.2.2 Trustworthiness

Researchers who generally work in a qualitative research paradigm question the validity and reliability of qualitative research, but Shenton (2004) suggests that the trustworthiness of qualitative research can be increased if one adopts Guba's four basic research principles of: credibility, transferability, dependability and conformability. Some of the ways in which this can be achieved, according to Shenton (2004), are as follows:

Provisions that may be made by a qualitative researcher wishing to address Guba's four criteria for trustworthiness

Quality criterion	Possible provision made by researcher
Credibility	Adoption of appropriate, well recognized research methods Development of early familiarity with culture of participating organizations Random sampling of individuals serving as informants Triangulation via use of different methods, different types of informants and different sites Tactics to help ensure honesty in informants Iterative questioning in data collection dialogues Negative case analysis Debriefing sessions between researcher and superiors Peer scrutiny of project Use of "reflective commentary" Description of background, qualifications and experience of the researcher Member checks of data collected and interpretations/theories formed Thick description of phenomenon under scrutiny Examination of previous research to frame findings
Transferability	Provision of background data to establish context of study and detailed description of phenomenon in question to allow comparisons to be made
Dependability	Employment of "overlapping methods" In-depth methodological description to allow study to be repeated
Confirmability	Triangulation to reduce effect of investigator bias Admission of researcher's beliefs and assumptions Recognition of shortcomings in study's methods and their potential effects In-depth methodological description to allow integrity of research results to be scrutinized Use of diagrams to demonstrate "audit trail"

**Source: Shenton (2004). Strategies for ensuring trustworthiness in qualitative research projects.**

Lincoln and Guba state that ensuring credibility is one of the most important factors in ensuring trustworthiness (Shenton, 2004). The following provisions were made by the researcher so as to promote confidence and ensure trustworthiness.

a) The development of early familiarity and culture of participating organisation's before the first data collection dialogues take place:

The researcher ensured that appointments were made with the principals of all the participating schools so as to provide them with meaningful insight into the nature of the research being conducted. During this initial consultation the researcher ensured that the principal of each participating school were presented with Annexure A: letter requesting permission from the principal to conduct research at their school and with Annexure O: letter from the DOE granting permission to the researcher to conduct the research at their school.

b) Triangulation

Triangulation entails collecting material in many different ways and from as many sources as possible (Terre Blanche et al., 2006). It refers to the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings. Data triangulation entails gathering data through several sampling strategies so that slices of data at different times and social situations as well as on a variety of people are gathered (Bryman, 2004). In qualitative research triangulation is used as a tool for enhancing the credibility and persuasiveness of a research account. The researcher utilized questionnaires, focus groups and drawings as a means of obtaining data.



c) Tactics to help ensure honesty in informants when contributing data.

All participants were informed that participant in this research was on a voluntary basis. They were informed that they had the right to exit from the research at any point and they did not have to give an explanation to the researcher for the reason of their withdrawal. The independent status of the researcher was emphasized to all the participants whereby they could be free to talk of their ideas and experiences to the researcher without the fear of losing credibility.

d) Frequent debriefing sessions

The researcher engaged in regular meetings with the supervisor. These collaborative sessions served as a means for the supervisor to help draw attention to the flaws that were evident in the research.

e) Peer scrutiny of the research project

The researcher made regular attempts to engage with colleagues, peers and academics so as to obtain feedback on the study. The fresh perspective offered by the peers allowed them to challenge the assumptions made by the researcher whose closeness to the study can be an inhibiting factor.

f) Examination of previous research findings

The researcher conducted an extensive study of previous studies that were

conducted on nutritional programmes both internationally and locally. Some of the research findings were mentioned in the study and this was done to assess the degree to which the research results are congruent with those of past studies.

Transferability refers to the extent with which findings of one study can be applied or related to other situations. The information must be considered before any attempts at transference are made (Shenton, 2004).

a) Number of organisations taking part in the study and where they are based.

Ten primary schools from the Empangeni district were included in the research.

b) Any restrictions in the type of people who contributed to the data.

In each of the ten school the research was restricted to the following; the facilitator of the NSNP, learners who attended the NSNP and educators who taught the learners who attended the NSNP.

c) Number of participants involved in the fieldwork

The fieldwork was conducted mainly by the researcher. However, the researcher enlisted the help of Mr. Neville Thomas and Mr. Alfred Ndwandwe to assist with the location and transportation of the schools that were situated in the outskirts of Empangeni.

d) Data collection methods

The following methods were used to collect data; questionnaires, focus groups and drawings.

e) Number and length of data collection sessions

Questionnaires were administered to ten intermediate phase (grades 4-6) learners from the nine schools and these learners were given a week to complete it. This was done so as to ensure that the learners had sufficient time to complete Annexure F: Child participant consent form and to ensure that the parents completed Annexure H: Participant informed consent declaration by the parent. The learners had to complete Annexure J: Research questionnaire to learners and all these documents were collected by the researcher after a week. The focus groups were conducted at a central school which could be conveniently accessed by the facilitators and educators in the area. Two focus groups were held with ten educators each while one focus group was held with the ten facilitators of all the schools. The focus groups lasted about thirty minutes each. Drawings as a data collection method was done by 31 foundation phase (grades 1-3) learners and the time period allocated for this was thirty minutes.

Confirmability was achieved as a means of ensuring trustworthiness by the role of triangulation. The data was derived from various stakeholders and this served as a means of inhibiting researcher bias (Shenton 2004).

### **3.3 Sampling**

According to Forrester (2010, p. 52), qualitative research frequently makes use of purposeful sampling, as it is not “attempting to statistically generalize certain

characteristics of our sample to the population and thus participants are selected on individual characteristics.” The participants were chosen through identification from prior information so as to enhance data quality. In purposive sampling the researcher must initially think about the parameters of the population, and then choose the sample accordingly. Clear identification and formulation of the criteria for the selection of respondents is therefore of vital importance (de Vos, Strydom, Fouché and Delport, 2005). The participants are information rich in that they attend schools where the nutritional programmes are fully functional.

At the outset, the researcher had a meeting with the Chief Education Specialist in Governance and Management in the Empangeni District, so as to discuss the selection of the sample schools. In the Empangeni District, there are 612 schools that are presently benefiting from the NSNP, with a total of 173 311 learners receiving meals daily at school (personal communication, September 15, 2014).

The sample consisted of learners, educators and the facilitator of the NSNP. Purposive sampling was used to select 10 primary schools from the Empangeni District, which has a fully functional NSNP in place. The participants were selected because they had first-hand information regarding the nutritional programme, and could therefore provide relevant information which was rich in content, and would increase the value of the data. Purposive sampling was used to identify the learners who benefitted from the NSNP to also be included in the sample. In each school 10 learners from the intermediate phase (grades 4-6) were given questionnaires. However, one school had an enrollment of foundation phase learners only. This resulted in the exclusion of this school for the administration of the questionnaire. Hence 90 learners received questionnaires to complete.

Purposive sampling was once again used to identify the educators who teach the learners who benefit from the NSNP. One educator from each school was selected which resulted in ten educators forming part of one focus group and the facilitator of the NSNP at each school also formed part of the other focus group. These educators and facilitators were included in the focus groups.

Purposive sampling was also used to identify foundation phase (grades 1-3) learners to be included in the sample for the drawings as a data collection tool. In each of the 10 sample schools, three foundation phase learners were included in this sample which resulted in a total of 30 drawings. However, 5 out of the 30 drawings were included in this study.

### **3.4 Data collection and analysis**

#### **3.4.1 Instruments used to collect data**

Qualitative research begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem (McMillan & Schumacher, 2010). In this research, the instruments used were as follows:

##### **3.4.1.1 Questionnaire**

This study will use a questionnaire which, according to McClure (2002), is used to measure attitudes, facts or values that are held by individuals. Questionnaires allow the researcher

to obtain information directly from the group of individuals participating in the research. The research instrument used in this study will comprise questionnaires which will be administered to intermediate and senior phase learners in the NSNP.

The questionnaires needed to be worded to foster understanding by all three levels of participants, i.e. learners, educators and the facilitator. The questionnaire for the learners has been translated into isiZulu so as to assist learners who are second language English speakers. After obtaining permission from the various authorities, the researcher hand-delivered the questionnaires to each school so as to ensure that all the participants received them.

Questionnaires were administered to learners in NSNP, educators who teach the learners in the NSNP, and facilitators of the NSNP in each selected school. The first section of the questionnaire asks for the respondent's biographical details. This information gives the researcher an indication as to the characteristics of each respondent. The second section consists of questions that are intended to gauge the challenges that are experienced by learners benefitting from the nutritional programmes in urban primary schools in Empangeni. The questionnaire comprises 90% of closed-ended questions. The open-ended questions have been included to allow the respondents the freedom to include options that are not mentioned, and to suggest ways of improving the nutritional programme as a whole.

### **3.4.1.2 Focus groups: Educators and facilitators**

According to de Vos et al. (2005), focus groups are carefully planned discussions that are designed to obtain perceptions on a defined area of interest in a permissive and non-threatening environment. Morgan, as cited in de Vos et al. (2005), describes focus groups as a research technique that collects data through group interaction on a topic which is determined by the researcher.

A focus group entails sampling that is often purposive in that one is looking for particular types of participant according to what one already knows about the field. The researcher will then proceed to ask individuals to participate, and if necessary provide some kind of incentive. It might be that certain individuals are motivated to participate because the issues at hand are important to them. However, it is sometimes necessary to provide an incentive such as refreshments to show that their participation is appreciated (Terre Blanche et al., 2006). With regard to focus groups, the following are considered as important reasons to select focus group interviews as a data collection method.

- Members of the group can raise ideas and opinions not foreseen by the interviewer, and this broadens the scope of the relevant data applicable to the phenomenon of the study.
- Interviewees can often be challenged by other members of the group about their replies, thus deepening the scope of the relevant data applicable to the phenomenon of the study:
- Owing to members' interactive discussions, focus group interviews often enhance the possibility of understanding why people think the way they do.

- Focus group interviews generate discussions and reveal both the meaning that they read into the discussion topic and how they negotiate those meanings.
- The interaction found in focus group interviews is closer to real-life processes of sense-making and acquiring understanding.
- Focus group interviews stimulate and support participants to remember events, which can result in data leading beyond the answers of the single interviewee.
- Focus groups encourage participants to be free in engaging in discussion.
- Focus group interviews generate diversity either within or between the groups. Six to 10 participants should usually be included in a focus group as groups of this size allow everyone to participate while still eliciting a range of responses (de Vos et al., 2005). There are four basic components to a focus group: procedure, interaction, content and recording.

Morgan and Krueger (as cited in de Vos et al., 2005) provide a traditional three-step strategy for the recruitment of the focus group:

- Two weeks before conducting the actual group, the researcher should make contact with all the participants.
- One week before meeting the participants should receive a confirmation letter from the researcher.
- On the day of the group meeting the researcher should make a follow-up phone call to all the participants to ensure their participation.



Focus groups require the facilitator/researcher to be skilled in group processes as well as feeling comfortable and familiar with this process. The facilitator must be able to direct discussions, encourage participation and probe participants without biasing responses (de Vos et al., 2005). It is important that the facilitator be aware of the interpersonal dynamics at work within the group. These include the sidelining of certain participants, the avoidance of certain topics, and the concentration span and comfort levels of the group through the entire process (Terre Blanche et al., 2006).

The focus group interview usually follows a semi-structured interview format, thereby giving the group an opportunity to talk about what is most pressing, but at the same time allowing a meandering discussion (Terre Blanche et al., 2006). According to de Vos et al. (2005), perhaps the most distinctive feature of a focus group is the open-ended question technique. Participants could be asked to “think back” or to “reflect” on a personal experience, and then to give a response.

The focus group should be held in a relaxed and non-threatening setting as the session could last from one to three hours, and the comfort of participants is important. For the researcher, the key concerns are the ability to hold the discussion and to capture the data. However, for the participant’s comfort is the main concern. Locations could include professional facilities, existing meeting rooms or people’s homes (de Vos et al., 2005).

The analysis and interpretation of data from focus groups can be very complex. The aim of analysis is to look for trends and patterns that recur within single focus groups, or among

various focus groups (de Vos et al., 2005). Focus groups are usually recorded by note-taking, and while audio and video recordings are sometimes used, this can be problematic owing to the background noise, often making the recordings incomprehensible (Terre Blanche et al., 2005).

By considering everything which has been discussed here with regard to the skills required, the arrangement, purpose and advantages of focus group interviews, and the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni, three focus group interviews were conducted in this study. Two focus groups were conducted with ten educators each who teach learners in the nutritional programmes. This focus group concentrated on the educators' perceptions of the challenges experienced by learners in the nutritional programmes, and suggestions for their overall improvement. The other focus group interview comprised of the ten facilitators of the nutritional programmes from the sample schools. In this group the key issues were the facilitators' perceptions of the challenges experienced by learners benefitting from the nutritional programmes, and recommendations for their overall improvement.

The focus groups were held at an easily accessible school which was convenient for the educators and facilitators. However, there were numerous educators and facilitators who encountered transportation problems and the researcher had to arrange transport for them to attend the focus groups. All the essential protocol pertaining to the arrangement of the focus groups were followed. The focus groups were arranged in an appropriate venue at the school premises and the seats were arranged in a circular pattern. The researcher was involved in the focus groups by engaging the participants in a discussion. Hence the focus

groups were recorded via a recording device which could be later viewed. The recording of the focus groups allows the researcher to go back to these recordings to verify and extract the relevant data.

#### **3.4.1.3 Drawings: Learners**

According to Driessnack (2005) there is a renewed interest in the use of drawings in research as the traditional methods often fail to elicit the socially silenced voices of the vulnerable and the marginalized youth. Data were also obtained from the drawings of foundation phase learners (Grades 1, 2 and 3). Ogina (2012) mentions that the reasons for choosing drawings as a data collection technique is that it allows children to take control of the research process by determining what they want to share with the researcher. Drawings are a bottom-up approach which enhances the children's participation in the research, and it presents opportunities to explore the meaning of their experiences in order to understand their views. Some researchers consider drawings as a relaxing exercise whereby an individual's defensiveness is reduced, and communication is enhanced (Ogina, 2012).

Three foundation phase learners from the sample schools were selected to participate in the drawings. The facilitator of the various nutritional programmes assisted with the administering of the drawings. This was done at the nutritional programme dining hall immediately after the learners ate their meal. All three learners were asked to remain behind at the nutritional programme after the feeding time was over for the rest of the school. The researcher had made prior arrangements with these learner's educators as

well as the facilitator of the programme. The learners were asked to draw as well as write key words about their experiences at the school nutritional programme. The facilitator could explain these instructions to the learners in their home language so as to help learners to understand the task given correctly. The learners then drew a picture of their experience at the school nutritional programme. There were no discussions between the facilitator and the learner about the content of the drawing except for the instructions given. Thereafter the facilitator collected the drawing and handed it over to the researcher. A total of 30 drawings were completed and submitted. The researcher chose five suitable drawings to be included in the analysis of data as there was some repetition of themes, and these were categorized accordingly.

### **3.4.2 Procedure and administration of instrument**

It is imperative that all the relevant protocols and procedures are complied with so as to ensure that the instrument is administered in an ethical and methodical manner. This was accomplished by following the following procedures:

- Receiving approval and permission from the ethics committee at the University of Zululand.
- Written permission had to be sought from various stakeholders to conduct research. This included providing information on the outline of the intended research, and the manner in which the data would be collected and disseminated. For this particular research: The Department of Education Research Department

and the Empangeni District Office were all contacted to gain permission to conduct the research.

- Information regarding the research was given to all the stakeholders, i.e., the facilitator of the school nutrition programme, educators and learners.
- Written consent was obtained from all parents and guardians permitting their children to participate in the study. All adult participants signed the consent form, and were then given the questionnaires to complete. The questionnaires were also available in isiZulu for learners who struggled with the English questionnaire.
- All participants were informed that their participation in this research was voluntary, and that their response to the questionnaires was anonymous.
- The return dates of the questionnaires were discussed with the participants and the researcher ensured that all questionnaires were collected timeously in sealed envelopes.
- Consent forms were issued to participants involved in the focus groups.
- Participants were also informed that they were free to withdraw from the study at any time.

The researcher observed that many learners chose to complete the questionnaire in English even though they were given the opportunity to choose an Isizulu copy. The researcher also experienced challenges whereby learners failed to complete the form granting parental consent. This resulted in the researcher making numerous trips to visit the schools so as to ensure that all the completed forms were returned. Some principals of certain schools were also reluctant to participate in the study as it posed as an inconvenience to their planning. The researcher was also denied access to the school

nutrition programme and data could only be extracted via the facilitator and educators at the school.

### **3.4.3 Explication of the data**

The questionnaire comprised a Section A, which entailed biographical details, and a Section B with closed-ended questions which could be tabulated to reflect figures that were meaningful to the research. The quantitative data from this research were analyzed using descriptive statistics with the help of tables, charts and graphs (McMillan & Schumacher, 2010). A Microsoft Excel programme was used whereby the figures were inserted into a data dump. Thereafter mathematical formulas were attached which converted the raw data into applicable percentages for analysis.

The questionnaire also comprised a small number of closed-ended questions, and a statistical method of data analysis will be used for collating this data. This data will assist the researcher in identifying percentages and numbers, and graphs and tables will be used to reflect this data.

An essential early step in analysis is organizing the large amounts of data so that coding is facilitated. The large volume of data can seem overwhelming, and it is easier to separate it into a few workable units. Creating these units gives the researcher the confidence to make sense of them (McMillan & Schumacher, 2010).

The researcher utilized open coding to analytically decompose the data. The first step in open coding is to analyse single short textual messages line by line and there-after longer paragraphs may be coded. Axial coding was used in the middle and later stages of the analysis whereby a main category was identified at the centre and a network of relationships were developed around it (Bohm, 2004). The following steps will be used in the analysis of the qualitative data: planning for recording of the data, data collection, organizing the data, reading and writing the memos, generating categories and themes, coding the data, testing the emergent understandings, searching for alternate explanations, and finally writing out of the results into a report.

Data analysis in qualitative research is a twofold approach. The first aspect involves analysis of data at the research site during the collection of data, whereas the second aspect involves analyzing the data away from the site. The second step entails organizing the data into file folders, index cards or computer files. The researcher had to create folders for each school. Within the folders further divisions were created separating the learners, facilitators and educators. Transcribing interviews, notes and focus groups is an important point of transition between data collection and analysis. Transcribing offers the researcher an opportunity to get immersed in the data, and this experience allows for the generation of emergent insights.

The researcher used both the video camera to record the focus groups and the transcribing of notes. An important aspect of the focus group is that the researcher needs

to facilitate and direct the discussion among the participants. During the discussion the researcher many tend to become passionately involved in the discussion and may omit to transcribe all the spoken words. It is for this reason that the video camera allows for important aspects not to be overlooked. The video camera served as a means of allowing the researcher to “go back” to these recordings and carefully scrutinize the crucial elements raised during these discussions in the focus group. The researcher explained to all the participants that the video recording would not be used by the media and confidentiality would be maintained at all times. An important part of this process is reading through the data several times. This allowed the researcher to sift out prominent key themes that featured throughout the interviews. Transcribing the data into segments involved noting regularities in the setting or people chosen for the study.

The emergence of these segments allows the researcher to search for those that have internal convergence and external divergence. This means that the categories should be internally consistent but distinct from one another, and the data should be examined and reduced into small manageable themes that can be written into a final narrative.

The researcher then generates categories and themes, applies a coding scheme to them, and methodically marks passages in the data using the codes. There are several forms of code, such as abbreviation of key words, colored dots and numbers. In this study the key words, along with colored pens to clearly separate the themes, were used. The researcher then begins the process of evaluating the credibility of his/her developing understandings,



and exploring them through the data. She needs to determine how useful is the data in shedding light on the questions being explored, and how central they are to the story that is unfolding about the social phenomenon being studied. The discovery of categories and patterns in the data will allow the researcher to engage and critically challenge the patterns that seem so evident. She should also search for possible explanations for the data and the linkages among them. The final step is writing the report, whereby the researcher presents the data in a narrative style which is personal, friendly and familiar. The report comprises an amalgamation of factual evidence, subtle descriptions and multiple perspectives, which will assist the reader to gain a feel for the subjective world of the respondents, and in this way transport him or her directly into the world of the study (Terre Blanche et al., 2006).

#### **3.4.4. Ethical considerations**

The researcher needs to be cognizant of the sensitivity attached to the nutritional programme, and tread lightly so as to respect the human dignity of each participant, especially the learners. Research was implemented and begun only after many procedures that considered the ethics of the research had been completed.

The researcher explained the participants' voluntary role in the research, and that they had the right to exit the research at any stage without any repercussions. Participants were informed that their identity would be respected by ensuring confidentiality and anonymity throughout the study. All stakeholders were informed that once the research was

complete, the researcher would make the results available should participants wish to review the findings.

### **3.5 Conclusion**

This chapter has explained the steps implemented in the research design in order to conduct research in an ethical manner, thereby supplying data which could be analyzed in an attempt to answer the research questions. The chapter that follows will discuss the analysis and interpretation of the data.

## **CHAPTER 4**

### **RESEARCH RESULTS**

#### **4.1 Introduction**

In this chapter the research findings will be analyzed and discussed. The researcher will interpret both the quantitative and qualitative data collected from the questionnaires, focus groups and drawings. This investigation intends to answer the following research questions as set out in Chapter One:

1. What are the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni?
2. How do educators perceive challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni?
3. How do facilitators of the nutritional programme perceive challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni?
4. What interventions can be implemented in order to improve the nutritional programme in urban primary schools in Empangeni?

#### **4.2 Characteristics of the sample**

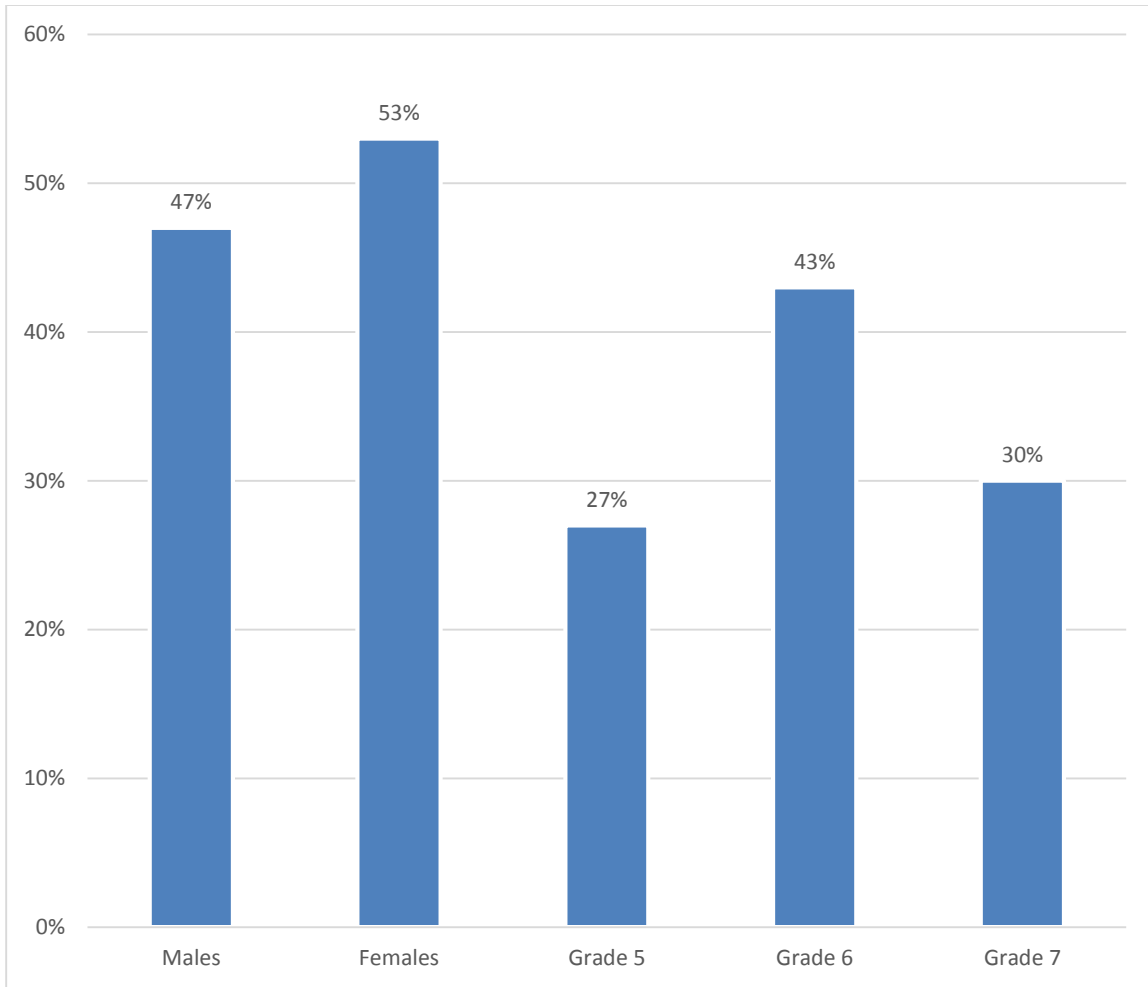
The target population for this research study is 10 primary schools in the Empangeni region which are benefiting from the NSNP. The researcher used purposive sampling to identify the schools. Hence two of the schools from the sample were in quintile five, and therefore did not qualify for benefiting from the NSNP. However, these two schools were

still used in the sample as there were indigent learners who benefited from a privately run nutritional programme. Questionnaires were designed which could only be administered to learners in Grades 5 to 7. These criteria resulted in the exclusion of one school from this process owing to the enrolment at that school being limited to foundation phase learners. This school was therefore included in the focus groups and learners' drawing sample. A total of 90 questionnaires were administered to the grade 5 to 7 learners of which 85 were returned.

### **4.3 Analysis and interpretations of findings from the questionnaires administered to learners**

#### **4.3.1 Profile of the learners benefitting from the NSNP**

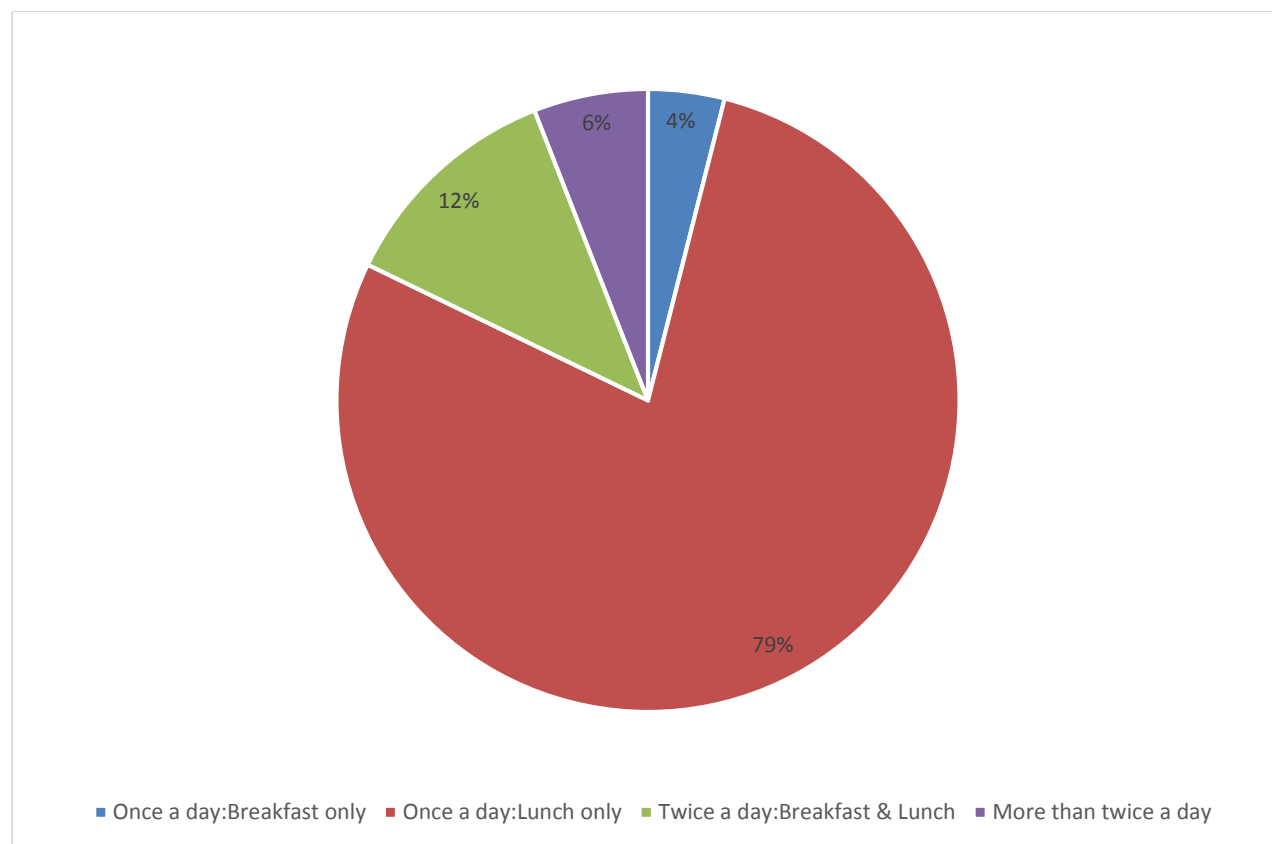
Section A of the questionnaire included biographical details of the learners so as to allow the researcher to better understand the demographics of the sample group. Figure 1 shows the percentages of males and females and the grades of the learners in the nutritional programmes.



**Figure 1: Percentages of male and female learners and their grades.**

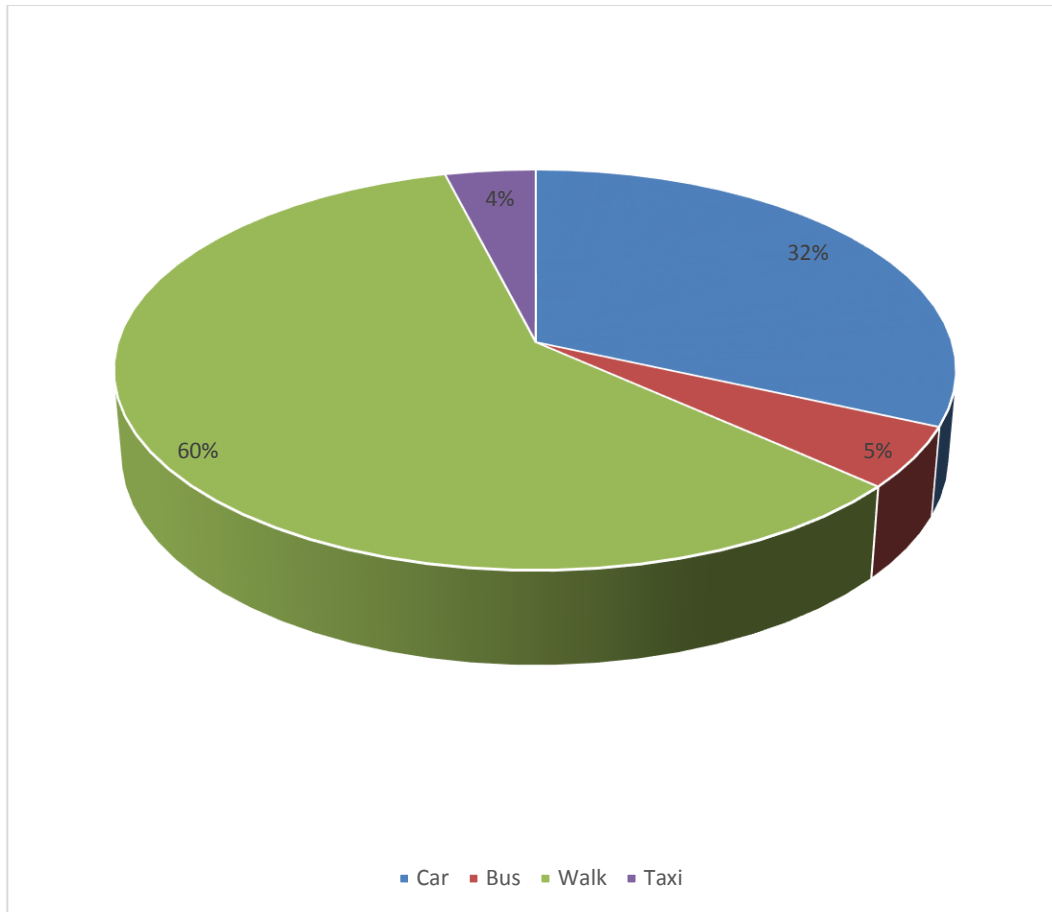
The results reveal that 47% of male and 53% of female learners were participants in the research questionnaires. The distribution of learners according to grades was as follows: 27% were Grade 5 learners, 43% were from Grade 6, and 30% were from Grade 7.

#### 4.3.2 Results obtained from the questionnaires



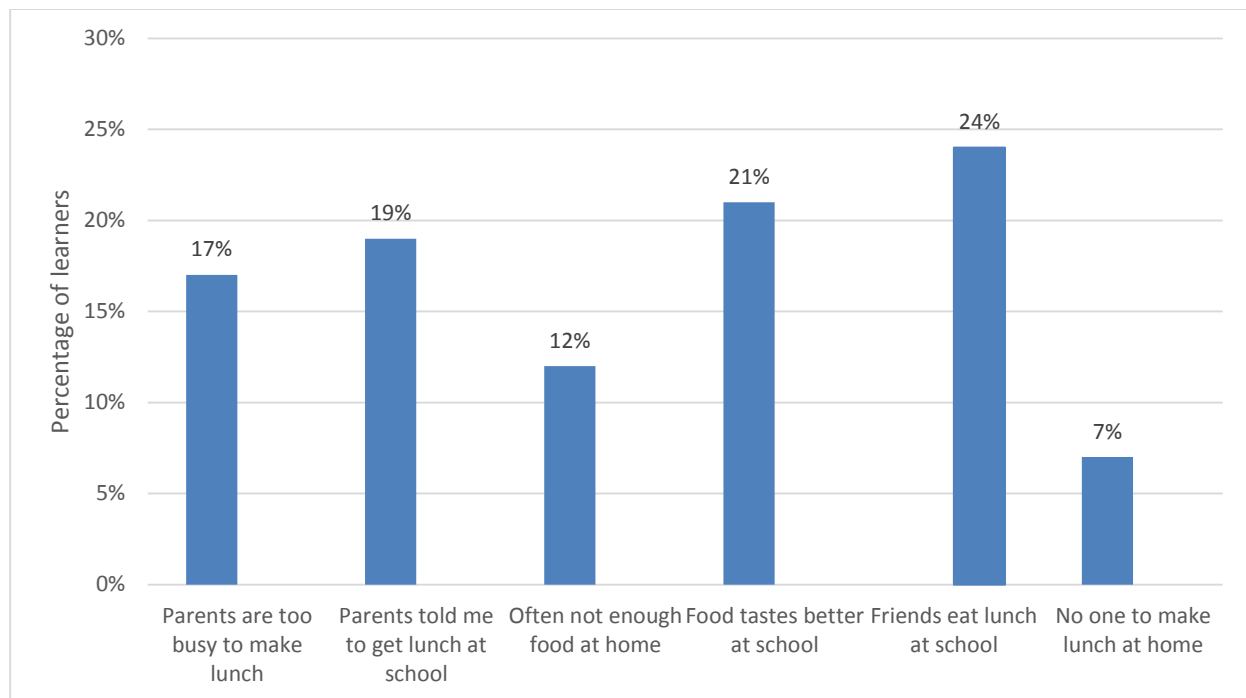
**Figure 2: How many times a day learners attend the NSNP.**

The questionnaires revealed that 84% of the learners attended the nutritional programmes daily from Monday to Friday. The pie graph above shows that 79% of the learners visited the nutritional programme once a day for lunch only. This was because lunch was the only meal served at school. Breakfast was served only at the two quintile five schools in the selected sample, of whose learners 4% visited for breakfast only, and 12% visited the programme twice for breakfast and lunch. According to the sample, eight out of the 10 schools served lunch only. The pie graph reveals that 79% of the learners from these schools visited the programme to receive this meal.



**Figure 3. Mode of transport used to school.**

The mode of transport used to school also poses a challenge to learners. Figure 3 reveals that 60% of the learners walk to school, 32% travel by car, 5% use a bus and 4% use a taxi. These statistics have a significant impact on the study as the large majority of learners walk to school (60%), and this is a challenge already mentioned.



**Figure 4: Learners' reasons for attending the NSNP**

Figure 4 reveals that 17% of the learners attend the NSNP as their parents are too busy to make lunch in the mornings. It was found that 19% of the parents told their children to get lunch at school. 12% of the learners said that there was not enough food at home, and 21% said that the food tastes better at school. The influence of friends eating lunch at school accounted for 24% of the results. In the sample, 7% of the learners said that there was no one at home to make lunch. The two main reasons provided for learners benefitting from the NSNP are: food tastes better at school, and friends eat lunch at school. The two reasons provided by this data once again reinforce the challenges mentioned earlier.



#### 4.4 Demographics of the focus groups

Three focus groups were conducted. One consisted only of the facilitators of the nutritional programmes. In this group there were four males and six females.

0 -12 months	1
1-2 years	3
2-3 years	2
4-5 years	3
More than 5 years	1

**Table 1: The employment period of the facilitators at the NSNP**

A further two focus groups were conducted which comprised educators who taught learners that were involved in the NSNP. Each group comprised 10 educators. There were 11 females and nine males in the groups. These were from the intermediate and senior phases, teaching Grades 5 to 7. There was an even distribution of educators from urban, township and semi-rural schools in each focus group.

#### 4.5 Discussion of findings

Ten themes emerged from an analysis of the encoded data collected via the focus group interviewing. The data were analyzed as outlined in paragraph 3.4.2. The researcher used pattern matching logic to analyse the encoded data. This involved the organization of the relevant facts in logical order. Thereafter the data were categorized, and patterns and

themes were identified. After unravelling the themes and patterns, the overall research questions were discussed. The researcher advanced further by drawing conclusions that may have implications for further research.

The 10 themes that emerged highlight the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni. The themes relate to the following challenges: stigma, transport, scheduling of meals, peer pressure and bullying, resources, menu compliance and primary caregivers, time constraints, motivation and behavioural issues. The themes will be discussed in detail.

#### **4.5.1 Stigma**

The literature has revealed that the stigma attached to receiving free meals at school is a worldwide problem that has existed since the inception of the programme. The effects of this stigma on reducing participation in the NSLP is well documented (Public Advocates, 2008). Even in South Africa, where the NSNP is an essential need for the vast majority of learners, the stigma attached to poverty is a fundamental concern.

**Learners:** It was evident from the data obtained from the questionnaires that many learners were embarrassed to eat at the NSNP. They said that those children who do not participate in the programme “tease those who eat at school.”

**Educators:** Results from interviews with the focus groups established that many educators observed that learners were often embarrassed to eat at the NSNP. At quintile one and two schools where the NSNP is fully operational educators observed that not all

the learners at the school ate their meals via the programme. As a result, the learners who did not participate in the programme often teased and laughed at the learners who did. The educators admitted that teasing was more common among the bigger learners, and was not visible amongst the foundation phase learners. Very often, these educators would eat the same meals with the learners so as to encourage them to feel that the meals are “good enough” to be eaten by all.

**Facilitator:** The facilitators based at quintile five schools revealed that many learners would hide the sandwiches received at the nutrition programme in their jackets so as not to be seen with them. The bigger learners, especially the boys, would lie to their teachers that they were going to the toilet, but they would very secretly come to the nutrition programme to receive their food. The learners who ate breakfast via the programme would often hide their heads so as not to be seen by passing friends and educators. The facilitators at quintile one, two and three schools observed that some learners would rush through their meals so as to finish quickly and join their friends who were not eating the meal.

**Discussion:** It is evident from the results obtained that stigma poses a challenge to learners benefitting from the NSNP, and this is not often addressed, especially in the South African context. This stigma has significant implications for learners if one considers Miller and Kaiser (2001), who state that people who are stigmatized respond in different ways to the stressors resulting from their reduced or devalued social status. These include emotional, cognitive, biological and behavioural responses. The most important feature of stigma is that the stigmatized person has an attribute that reflects a devalued social identity

within a certain context. In the case of this research, does this imply that learners benefitting from the NSNP who feel stigmatized possess a devalued or reduced social identity within the school context? Many theoretical viewpoints explain that stigmatized people might suffer psychological consequences such as ego defenses, low self-esteem and depression (Miller & Kaiser, 2001).

The stigma attached to receiving free meals at school affects learner's behaviour and their social skills with their peers and educators. Marais and Meier (2010) agree that disruptive behaviour continues to be the most common and consistent problem that is discussed in South African schools. South African educators are becoming increasingly distressed by the behavioural and disciplinary problems they experience.

#### 4.5.2 Transport

A survey conducted by the National Household Travel Survey in 2013 revealed that about two million of the eight million children from Grades R to 12 who walked to school may have walked more than three kilometers (Grant, 2014). In the case of this research, the table drawn below categorizes the schools according to their location relative to the CBD.

Key	Description of school location in relation to the central business district of Empangeni	Number of schools
S1	Urban schools situated in Empangeni	3
S2	Township schools surrounding Empangeni	6
S3	Semi-rural school on the outskirts of Empangeni	1

**Table 2: Location of schools in relation to the central business district of Empangeni.**

**Learners:** In S1 schools it was found that a large majority of learners that attend the NSNP travel to school using public transport such as buses and taxis. Two of the S1 schools have privately funded nutrition programmes where breakfast is served. However, many of the learners do not reach school in time to have breakfast.

**Educators:** The socio-economic background of these learners makes it very difficult for them to afford the cost of transport, and many learners from S2 and S3 schools walk approximately four kilometers to school every day. Educators believed that this exacerbated the hunger problem that learners experienced, and makes it very difficult for them to concentrate at school. The learners at schools S2 and S3 do not receive breakfast via the NSNP, and have to wait until 10 am before they have their first meal of the day.

**Facilitators:** The facilitators at S1 schools where breakfast is served informed the focus group that learners travelling via taxis and lift clubs left home very early in the morning. Some children leave home as early as 5 am, and cannot eat breakfast at home. These learners take advantage of the nutrition programme because of these transport problems.

**Discussion:** Everywhere in the universe hierarchies of systems exist. Lewthwaite (2011) asserts that Bronfenbrenner's bio-ecological systems theory takes into consideration the influences on a child's development within the context of the complex system of relationships that form his or her environment. The learners in the NSNP cannot be viewed in isolation as a host of factors are inextricably operational. Using Bronfenbrenner's theory,

the learner is considered a 'developing' person, and the school and home are the microsystem. The transport that the learner uses to commute between the home and school is regarded as the mesosystem. The transport which learners use is determined by the parent's income, which exists as the exosystem. The policies of the NSNP can be identified as the macrosystem. The macrosystem (NSNP) has failed to address the issue of learner transport and its effects on learners. Many learners walk long distances to school after leaving their homes very early in the morning. They arrive at school tired and hungry, and the NSNP should cater to this critical need.

#### **4.5.3 Scheduling of meals: Breakfast and after school.**

Breakfast is widely acknowledged to be the most important meal of the day. The benefits of eating breakfast are especially important for children attending school so as to have a positive effect on cognitive development, behaviour and attendance (Adolphus et al., 2013)

**Learners:** One learner's response extracted from the questionnaire was "We don't have breakfast at home as there is nothing to eat, but we have to wait until 10 o' clock to eat food." Learners also responded that there was nobody at home in the morning as their parents had already left for work, so they left home without eating breakfast. These responses suggest the importance of providing breakfast at the start of the school day.

**Educators:** During the focus groups the issue at hand was analyzed whereby many educators from S1 schools suggested that parents were irresponsible in failing to ensure that their children ate a healthy breakfast before they left home. The parents expected little children as young as eight to help themselves to breakfast daily. As a result, the children skip this important meal and end up eating their lunch by 8 or 9 o' clock in the morning; but this food is not enough to sustain them for the rest of the day. Educators from groups S2 and S3 revealed that learners began to get very restless close to the break. This was because the learners were hungry and had not eaten breakfast.

**Facilitators:** Facilitators from all three groups concurred that breakfast was an essential meal that should be included at all schools. The facilitators also showed concern for the plight of these learners, especially after school and during holidays. At some schools, the facilitators help learners by packing up extra leftover food for them to take home. In the quintile five schools an afternoon sandwich is given to learners to sustain them. The facilitators also expressed concern for these learners during the school holidays. It was interesting to note that some facilitators go beyond the call of duty by linking up with these children's families and even offering help during the weekends and school holidays.

**Discussion:** Findings reveal that learners are attending school without having breakfast at home. This key theme can be linked to Maslow's hierarchical theory of basic needs. As has been explained above, he proposed a theory with the most basic needs at the bottom and the higher needs at the top. Chinyoka (2013) asserts that the four most basic layers of the pyramid comprise the deficiency or d-needs. If these deficiency needs are met, the individual does not feel anything; But if they are not met the individual feels anxious. The

crux of Maslow's theory is that people tend to satisfy their needs systematically, starting with the most basic needs, and moving up the hierarchy. If learners are not meeting their most basic needs of eating breakfast regularly it means that they arrive at school feeling anxious, and will not feel motivated to self-actualize until this hunger is satisfied. Learners are arriving at school feeling hungry, and eagerly await the NSNP meal at school which is served at 10 am. While they wait learners are not using their full potential during the instruction time. According to Chinyoka (2013), hungry and undernourished Grade 7 learners are not able to take on physical work, are less able to attend school, and if they do are less able to concentrate and learn.

#### **4.5.4 Peer pressure and bullying**

Peers play an important role in the emotional and social development of both children and adolescents. Their influence begins at an early age, and increases through the teenage years. The bar graph in Figure 3 reveals that 24% of the learners said that they eat lunch at school because of their friends. Peer pressure and bullying are a common feature of this research.

**Learners:** Some learners revealed that they were bullied for their food by bigger learners. One learner said "You don't want to be different from the other children, so if everyone is eating the food then I don't feel bad about eating it." Some learners admitted that they did not eat at the NSNP owing to feeling 'uncomfortable' and embarrassed, especially if they were seen by their friends. These feelings reflect the feelings of belonging experienced by the child, and this is indeed a common pattern amongst humans.



**Educators:** It was found that bullying is evident when some learners tend to laugh at learners who dish up and eat more food. The learners ridicule the quantity of food eaten by some learners. Educators revealed that “begging” is a new type of bullying which is common among learners. Some learners would beg that they need the food. It was also revealed by some educators from a quintile five school (S1) that there were many learners who came from affluent homes, but they joined the nutritional programme at school because of the influence of their friends.

**Facilitators:** The focus group discussion revealed that many of the facilitators filled the maternal roles for these learners at school. They argued that bullying was not a common occurrence as they managed to control the process efficiently. Many facilitators admitted that the learners confided in them about their personal problems and experiences both at home and at school. It was agreed by facilitators in S1 schools that a large majority of senior primary learners benefitting from the NSNP feel embarrassed to be seen using the feeding scheme. A facilitator said “some learners, especially the bigger boys and girls, would hide their heads in shame and sit in the corner of the room so as not to be seen by other learners.” Another facilitator revealed that “some learners would rush through their meals so as not to be seen by their friends.”

**Discussion:** Erik Erikson states that adolescence is the age in which people must set up an identity so as to escape their identity. Boujlaleb (2006) argues that it is during this stage that adolescents give much importance to their peers and friends, who then assume control over them. This is known as peer pressure. The sense of belonging is the most

pivotal aspect that pushes adolescents to conform to a group and share thoughts and beliefs that sometimes harm a youth's identity.

Peer pressure can also be identified as an important challenge that learners benefitting from the NSNP experience. Learners are constantly striving to feel a sense of belonging and to conform to the behaviour displayed by their peers. In some cases, learners even go hungry because of the pressure they experience. Ajzen (2006) argues that behaviour is guided in three very important respects as to belief, Firstly, behavioural beliefs refer to those concerning the likely outcomes of the behaviour, and the evaluation of these outcomes. Secondly, normative beliefs refer to the beliefs of others, and the motivation to comply with these expectations. Lastly, control beliefs refer to those about the presence of factors that may facilitate or impede performance of the behaviour, and the perceived power of these factors. Peer pressure and bullying can be categorized as normative behaviour whereby learners benefitting from the NSNP are deeply influenced by the beliefs of their friends and try to conform to these beliefs, even if it means sacrificing their meals.

#### **4.5.5 Resources**

**Learners:** Many learners complained that they had to bring their own resources such as plates and spoons in order to eat the meals at school. If they forgot the plate or bowl at home, they would not be able to receive the meal, and they would be hungry for the whole day. If this happened they would try to borrow a friend's bowl, but this was not always possible in the available time.

**Educators:** According to the educators, at the start of the NSNP resources such as plates and spoons were provided to all learners. However, learners had to wash the utensils after using them. This was time-consuming, and very often learners did a poor job. This caused a further backlog next day when the meals were served. Hence this system was altered, and learners now have to bring their own lunch box and spoon to receive their meals. Many educators agreed that this was problematic when some learners forgot their plates or bowls at home. There were also inequalities in the quantity of food served to each learner because of the differences in size of the learners' Tupperware. This problem would be alleviated if all learners could receive their meals on plates of the same size.

**Facilitators:** A common phenomenon is that learners often forget their equipment at home. There are no extra utensils to serve these learners food.

**Discussion:** This challenge can be linked to the systems theory whereby all stakeholders involved in the NSNP are regarded as components working together as a system. Lewthwaite (2011) explains that the systems theory suggests that a child's development is a product of a variety of dimensions such as context, process, time and individual attributes. Tamas (2000) argues that the boundaries around any system can either be opened or closed. In this instance the NSNP operates as an open system. All organic systems which include human beings and their communities are open systems. There needs to be openness whereby people work together in harmony to share things across their respective boundaries. Even though resources pose a challenge to learners, methods should be devised so as to assist them to receive meals.

#### 4.5.6 Motivation

**Educators:** It was observed by many educators that the NSNP served as an ideal motivation for a large majority of learners to attend school. Since there was no food to eat at home many learners would come to school even if they were ill, or the weather was very bad. It was noticed by many educators that this problem was not unique to their school; they noticed that even in the neighbouring high schools, learners would come to school on non-examination days so as to eat their meals, and once the meal was served they would return home.

**Facilitators:** It was discussed by the facilitators that if the NSNP is a drawcard to attract and entice learners to attend school then it should definitely be improved and upgraded so as to fully serve its purpose. There is ample room for improvement to the NSNP, and this needs to be explored further. The NSNP should be fully incorporated into the Department of Basic Education so that further benefits can be seen.

**Discussion:** According to Maslow (as has been noted above) the first and most basic need people have is the need for survival: their physiological needs for food, water and shelter. It is essential that people have food to eat, water to drink and shelter before they are able to think about anything else. If for some reason any of these physiological needs are not met, then people are motivated above all else to meet them. Belmont & Wadsworth (as cited in Martin & Joomis, 2007) It is for this reason that free breakfast and lunch programmes have been implemented so as to help children to satisfy these needs.

#### **4.5.7 Menu Compliance/flexibility**

Food likes and dislikes play a pivotal role in food choices by children. Preferences are shaped by a combination of both environmental and genetic factors (Scaglioni, 2011). The importance of children consuming foods from all five food groups is common knowledge. It is extremely important that they receive the correct amount of nutrients and calories so as to grow and function at an optimal level. Eating fruit and vegetables helps to prevent certain forms of cancer and heart disease as they provide various nutrients and fiber that children need.

**Learners:** Learners agreed that fruit should be included daily in the meals. They also felt that fruit juice after the meal should be included. Learners felt that the menu consisted of far too much samp and beans, and more meat should be included. They also believed that more energy-packed foods and bread should be added. The cooks needed to use less spice and oil when preparing the meals. It would also be useful if a nutrition roster could be designed and displayed so that learners would be aware of the meals being served during the week. It was brought to the attention of the facilitators by certain learners that allergic reactions are sometimes due to the quality of the food being served. They felt that their voice was not being heard about this

**Educators:** It was agreed by many educators that a greater variety in the food being served was needed. Educators felt that “It makes one heart sore to see learners eating the same food day in and day out.” They agreed that learners were fed far too much samp and beans. Fruit and juice should be included in the meals. Some learners get sleepy after

having lunch, especially maas. Educators said the menu should be designed to be seasonal, with warm drinks and soups served in winter, and salads in summer.

**Facilitators:** It was agreed that the companies responsible for preparing the meals need to be more creative and innovative. The cooks need to be able to prepare a variety of meals using limited ingredients. This would require great skill and training, which is lacking as the cooks employed are people from the community that are unskilled and offer cheap labour. The facilitators were also aware of the monotony of the menu.

**Discussion:** Brian and Ogden (2002) state that understanding children's eating attitudes and behaviour is imperative for children's health. and evidence suggests that dietary habits acquired in children often persist through to adulthood. Parents use nutritional practices that have evolved over thousands of years to promote patterns of food intake for children's growth and health (Scaglioni et al., 2011). Even though most learners, educators and facilitators agree that the menu needs to be varied, Scaglioni et al. reveal that the extent to which a food is familiar has a strong effect on its acceptability. For many children and adults, unfamiliarity is a reason to avoid novel food. Children and even adults often find safety in familiar food.

#### **4.5.8 Time constraints**

In many American public schools, the time allocated for lunch is far too little. When children eat under time constraints they are forced to rush the meal, and this results in their eating anything they can (Westervelt, 2013). Seattle public schools adopted a policy in 2004 which stipulated that lunch periods should be at least twenty minutes long. After taking into

consideration the time taken for students to walk to the cafeteria, use the toilet and wait in the lunch line, very little time remained for students to eat their meals. When students are given enough time to eat, nutrition improves.

**Learners:** Learners felt that the lunch breaks were far too short. The lines to receive meals were also very long, and sometimes the bell would ring just as they were about to eat. They also complained that no extra time was given, and the teachers would punish learners for coming late to class.

**Educators:** Educators agreed on the point of time constraints, but learners were often to blame for the insufficient time. They argued that learners took too long to line up, and lacked order and discipline. Despite the school rules, such as lining up in an orderly manner, having a water break after eating, and no pushing in the lines, learners disregarded them, and this resulted in the time loss. Educators admitted that they were not prepared to condone late-coming to class after break. They said that learners need to realize the importance of time, and plan accordingly.

**Facilitators:** The facilitators also agreed that time posed a serious problem owing to lack of staff support. They felt overburdened with the responsibilities that the NSNP entailed. It was far too much work to ensure that discipline was maintained, learners were fed, and the overall running of the NSNP looked after. Very few educators played a meaningful role and assisted with disciplining the learners, but were quick to complain about petty issues.

**Discussion:** Scott (2015) asserts that it is common for systems to relate to all of the components thereof that work together to achieve an overall goal or purpose. Ackoff (as

cited in Scott, 2015) identifies a system as a set of two or more interrelated elements with the following properties: each element has an effect on the functioning of the whole, and each element is affected by at least one other element in the system.

In this research the system consists of the learners, educators and facilitators. These three components make up the system, but the system is presently flawed owing to a breakdown amongst these components. The findings reveal that educators are not actively involved as a component of the system. According to the discussions, educators are not playing a constructive role in the feeding scheme at schools, and this results in the time not being sufficient for learners to have their meals.

**4.5.9 Primary care-givers:** Parents provide the foundational role of support, nurturance and guidance for their children. However, according to statistics obtained from Statistics.SA (2013), only 36% of South African children live with both of their biological parents. The rise in divorce rates and moral decay has resulted in children being left uncared for, or with minimal support.

**Learners:** Owing to the sensitivity of this issue with regard to children, it was difficult to gauge how learners felt about the care that they received from their parents and guardians.

**Educators:** This topic aroused much debate and controversy amongst the educators. It was argued that parents shirk their responsibilities as the primary caregivers for children. Educators felt that some parents were even too lazy to attend to their children in the morning, and this resulted in children coming to school without having breakfast. The poor support that parents give the school and their children is manifested when they fail to sign



their children's homework books, or help their children with their schoolwork and projects. Some educators acknowledged those parents that worked long and late hours to earn an income to support their families, but this was often done at the expense of the children, many of whom were left without adult supervision. Many parents were single parents who worked long, late-night shifts, and in these cases the eldest child had to assume responsibility for the household in the absence of the parent. This is not healthy for the child's development. Some parents try to compensate for their absence by spoiling children with technological devices such as cellphones and iPads, but this simply adds to the problem.

**Facilitator:** This group mentioned that the new generation of parents is becoming younger and younger. Teenagers are becoming parents and not assuming responsibility for the children they bring into the world. Very often they leave their children in the care of the grandparents and go off to get an education, or find a job. This results in children growing up without their parents. Many children do not feel secure with their parents owing to abuse in their homes.

**Discussion:** Oswalt (2015) uses Urie Bronfenbrenner's ecological systems theory to explain how everything in a child and the child's environment affects how he or she grows and develops. Bronfenbrenner's theory provides researchers with meaningful insight in explaining and understanding the intertwined relationships of human development. The microsystem refers to the small and immediate environment in which the child lives. This includes any immediate relationships and organizations they interact with such as the immediate family, caregivers, school and aftercare. The child's interaction with these

groups will have an effect on how he or she grows. The more encouraging and nurturing these relationships and places are, the better the child will be able to grow. This research has exposed the limited and unproductive role played by many parents. According to the findings, children are provided by parents only with bare necessities, and are often too busy and preoccupied to play an active role in their children's lives.

In the mesosystem the different parts of the child's microsystem work together for the sake of the child. If the parents and caregivers play an active role in the child's life, this will help ensure the child's overall growth. However, if the parents have conflicting views on the child's development then this will hinder the child's growth. As mentioned earlier, figures released from Statistics South Africa (2013) reveal that 43% of children live with only their biological mother, 2% live only with their biological father, and 19% do not live with either of their biological parents.

The exosystem refers to other people and places that the child might not interact with, but still have a meaningful effect, such as the parents' workplaces and neighbourhood, and the people in them. A parent's employment ultimately has a positive or negative impact in determining the learner's need for and dependency on the NSNP. Learners who come from homes where the parents are unemployed will be more dependent on the NSNP to fulfil their basic hunger needs. On the other hand, learners who come from homes where the parents are employed in middle and higher income jobs will not rely on the NSNP to satisfy these needs.

Bronfenbrenner's final level is the macrosystem which makes up the largest and the most remote set of people and things to a child, but which still has an important influence. These

include the national government, cultural values, the economy and wars (Oswalt, 2015). The policies implemented by the NSNP are developed at the national government level. However, they are enforced at grassroots level, and have a significant and direct impact on the learners benefitting from the NSNP.

#### **4.5.10 Behavioural Issues**

Behavioural problems are common amongst learners today, and educators are constantly challenged by discipline problems. Thutukani Ndebele, a researcher at the South African Institute of Race Relations (SAIRR), says that previous research has suggested that children who live without both their biological parents may be more likely to have behavioural problems, or may even turn to crime (“Only 33%, 2013”). He says that children who live with both parents are statistically less likely to become teenage parents or alcohol abusers, and perform better at school.

**Educators:** many educators felt that learners misbehaved and lacked basic discipline both in the classroom, at the NSNP and even during the breaks. They argued that this stemmed from home and the lack of parental support for their children. Educators felt that children were in desperate need of attention from their parents, and this is not given to them. Hence they come to school and try to get the teachers’ attention. But this is often not possible because of large class numbers and overburdening of responsibilities on the teacher. The child then resorts to getting attention through bad behaviour.

**Facilitators:** It was noticed that some learners steal food from other learners when they have left their food unattended. When these learners are questioned on their actions they

are often remorseful, but will misbehave again a few days later. The facilitators attributed this to peer pressure and the need for attention.

**Discussion:** Children generally seek inappropriate attention when they feel unable to manage their emotions or behaviour. This is an indication that the child is not functioning at his or her best level, and is known as regression. Regression is caused by physiological stressors such as hunger, fatigue or emotional stress. All children will tend to occasionally misbehave for the purpose of eliciting parental response (Lucy Daniels Center, 2009). In this research the findings show that learners do have behavioural problems. The question then remains whether they behave badly to attract attention from their parents and caregivers.

Rinaldi (2005) explains that all children experience behavioural problems in certain transition periods. However, the question one asks is: why do some children move beyond the developmental phase, while other children seem to be stuck in it? Variations in parental warmth and support are important factors in determining the child's ability to master this transition. Most children will exhibit a behavioural disorder occasionally. There are, however, numerous risk factors for the development of a behavioural disorder, such as poverty and single parenthood.

#### **4.6 Analysis of drawings obtained from foundation phase learners**

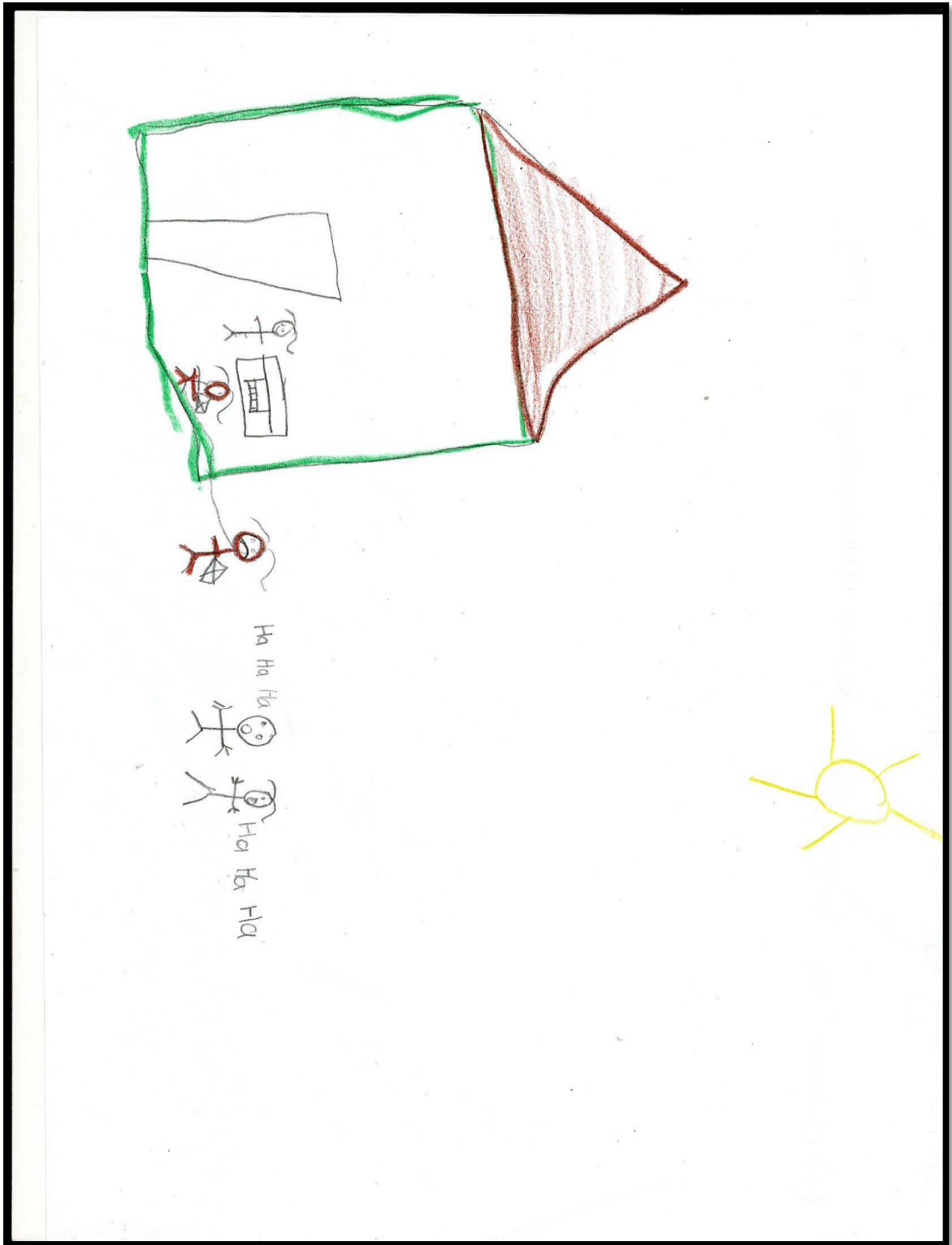
According to Young and Barret, as cited in Ogina (2012), drawings are a very important tool for collecting data as they enable children to take control of the research problem by being allowed to choose what they want to share with the researcher. Drawings allow the

researcher to get an in-depth and less linear understanding of the situation. The researcher also develops a view on the system, and in observing it also inevitably influences it (Zweifel, 2012).

The drawings that were chosen to be included for analysis were selected because of their relevance: each highlighted some of the key themes that were mentioned and discussed above. The table listed below provides further information about the participants involved in the drawings.

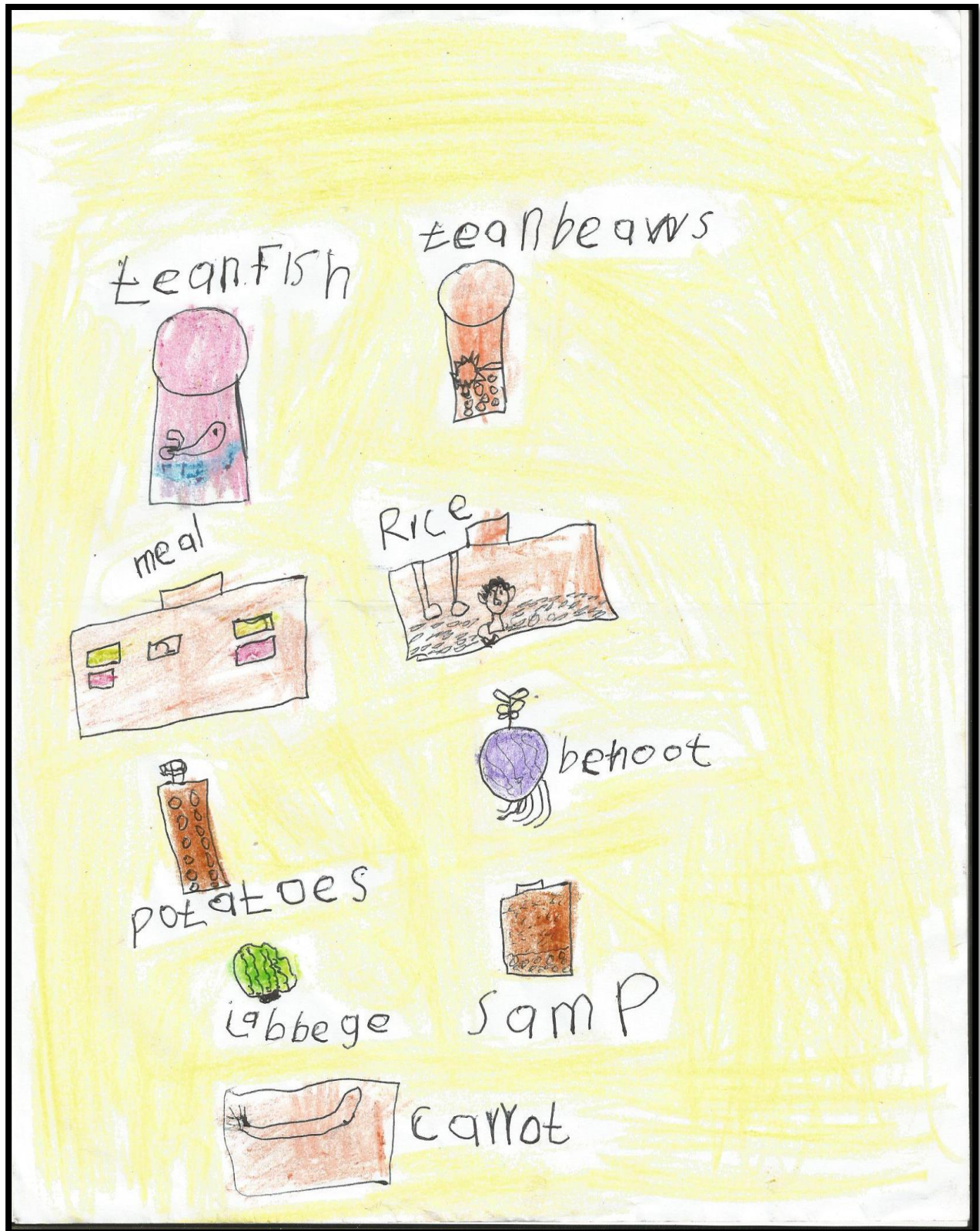
<b>Key</b>	<b>Information of participant</b>
D1	Grade 2 learner from an S1 school
D2	Grade 1 learner from an S3 school
D3	Grade 3 learner from an S2 school
D4	Grade 1 learner from an S1 school
D5	Grade 2 learner from an S2 school

**Table 3: Key for drawings used by foundation phase learners to reflect their experiences in the nutrition programme**

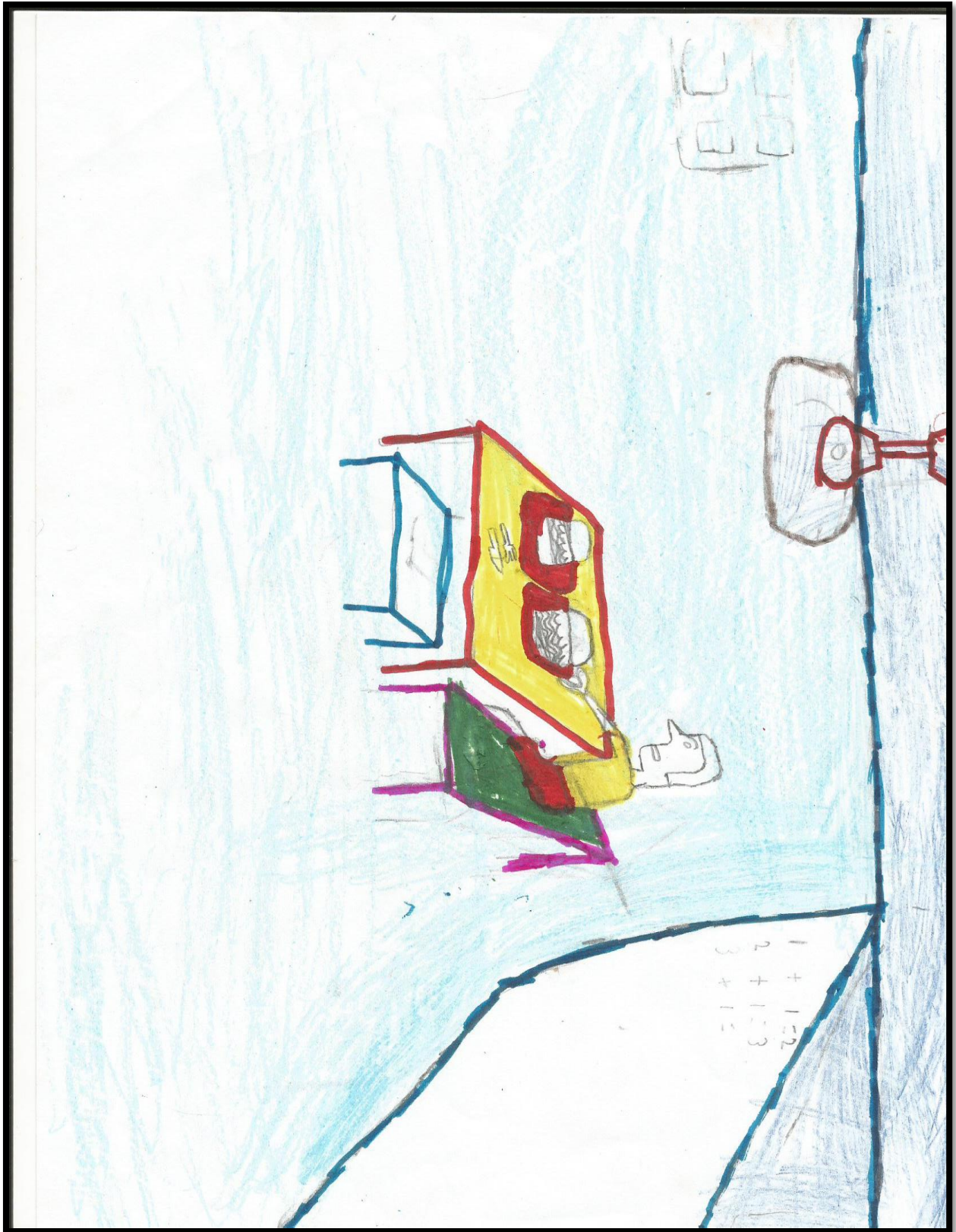


Drawing: D1

Drawing 2: D2







Drawing 3: D3





Drawing 4: D4



Drawing 5: D5

#### **4.6.1 Stigma**

The drawing D1 represents a child walking out of the nutritional programme with food, but the learners outside are laughing at her. The words “Ha Ha” are being echoed by two learners who seem to be happy and enjoying this ridiculing. The child with the food in her hand has a very sad face, and is colored in with brown Koki. This drawing represents the stigma that is attached to receiving a free meal at school. Educators in the focus groups mentioned that stigma was mainly common amongst the older learners; younger learners did not experience it. However, this drawing by a foundation phase child proves that the educators are mistaken, and that stigma is a common thread amongst all learners.

Branscombe and Ellers (as cited in Miller & Kaiser, 2001) have revealed that very often other people’s devaluation of the group can reduce the sense of belonging and security that the group membership normally provides. The learner in this picture has revealed the stigma that is attached to eating at the NSNP, and this learner’s sense of belonging is obviously eroded by other learners who disregard and belittle the feeding scheme at school.

#### **4.6.2 Menu**

Drawing D2 contains a picture of the food provided at the NSNP. The food comprises tinned fish, tinned beans, mealie meal, rice, potatoes, beetroot, cabbage, carrots and samp. It is clearly drawn and labelled, and the fact that a Grade one learner can easily identify the food eaten daily shows that the menu is strictly restricted to these items. This

learner vividly recalls the food he eats daily. The drawing highlights the key theme of the need for menu flexibility and variety.

Elliassen (2011) explains that the development of eating behaviour is a process that starts at infancy and continues throughout life. Parents, caregivers, teachers and family play an important role in influencing children's eating habits. Repeated exposure to new food helps to reduce a child's fear of it, and increase its acceptance. Children are positively influenced by observing their families and teachers enjoying eating a variety of foods. This makes the food more appealing to the children. However, children who are pressured to eat the same foods on a daily basis learn to dislike it. This is obviously the case with the learner who drew this picture.

#### **4.6.3 Motivation**

Learners come to school to satisfy their basic physiological needs. There is often no food at home, and food at the NSNP serves as motivation for this child (D3) to come to school. Maslow's hierarchy of needs is evident in that learners attend school to receive a daily meal. In this instance food is used as a drawcard to entice learners to attend school. Even though the chalkboard is drawn at the back, it is evident that the most important aspect of the school day involves the meals eaten.

McLeod (2007) states that Maslow's hierarchy of needs has an important contribution to make to teaching and classroom management in schools. Maslow adopts a holistic approach to education and learning by examining the entire physical, emotional, social and intellectual qualities of an individual, and how they impact on learning. As noted above,

he states that before a learner's cognitive needs can be met he or she must first fulfil his or her basic physiological needs.

#### **4.6.4 Peer pressure and bullying**

Drawing D4 shows a boy who seems to be smiling. The words "my friend" on the right reveal that the friend is associated with the child and the NSNP. It could be assumed that the child goes to the NSNP with his friend. The influence of peers is particularly important as children will follow the behaviour displayed by their friends more willingly. Above the child's head is a drawing of two types of food with labels. The heading at the top of the drawing, "Funny Food", suggests that the child is either being bullied or laughed at because of the food being eaten at the NSNP.

It was discovered in the literature review that the attitudes of some parents have contributed to learner's behaviour (Kupolati, 2015). Many parents would boast that they ate mostly meat and not vegetables in their homes, and this preference is conveyed to learners benefitting from the NSNP, who would consequently prefer meat to vegetables. The drawing D4 could also be a reflection of this attitude whereby children judge the NSNP to be "inferior" because the menu comprises mainly vegetables.

Drawing D5 reiterates the key theme of bullying. The learners in the picture are mocking the recipient of the meal as the syllables "Ha Ha Ha" indicate. The recipient of the meal is overcome with sadness, and is thinking "I wish they wouldn't laugh." There is one child who is feeling sympathy for the victim, but the picture is dominated by the bullies.

## **4.7 Suggestions for the overall improvement of the NSNP**

The research questionnaire and focus groups encouraged learners, educators and facilitators to suggest ways of improving the NSNP. The following issues were discussed.

### **4.7.1 Scheduling of meals: Breakfast**

Learners, educators and facilitators all favored the inclusion of breakfast in the NSNP. The educators proposed that this would alleviate the restless behaviour that several learners display before having their meals. Educators stated that “breakfast should be included as learners are hungry in the mornings.” It was also suggested that more meals should be included in the programme as this is the only food that many learners eat. In the afternoons, just before home-time, a snack should be provided for learners who go home to no food. Learners also suggested that a holiday programme be implemented as they rely on the food from the NSNP, and during the holidays they end up starving.

### **4.7.2 More time to eat**

Learners felt that the lunch breaks should be extended to give them more time to eat. However, educators were satisfied with the time given for breaks, and did not want the school day to be extended. The facilitators felt that if more support were given to the NSNP by the entire school, the time for eating would be sufficient.



#### **4.7.3 Provision of resources**

Learners felt that resources such as plates and spoons should be supplied by the NSNP. Facilitators agreed that these should be supplied in case learners forget their utensils at home. On the other hand, educators believed that learners should take responsibility for themselves by bringing their own equipment to school, and cleaning up afterwards. There are conflicting data here, and obviously more needs to be done to determine if more time is needed to ensure that all learners are able to access the NSNP.

#### **4.7.4 Improvements to the menu**

It was agreed by learners, educators and facilitators that the menu needs to improve. The inclusion of fruit, juice and meat was mentioned by all. The facilitators suggested “changes to accommodate different food preferences, thereby preventing food wastage.” It was felt that seasonal meals should be included, such as soup in winter and salads in summer. The educators suggested the need for better menus to make the food more appetizing to the learners. Learners also expressed their need for a weekly menu plan being designed and displayed at the NSNP showing the meals being served for the week. This would assist them in preparing for the week’s meals.

#### **4.7.5 More research is needed**

Educators expressed the need for more extensive research into the socio-economic circumstances of learners. Some educators felt that the parents of learners from wealthy homes were either too lazy to feed their children, or assumed that their children were

entitled to be fed daily at school. It was suggested that instead of being used to feed children whose parents could afford the food, the money could be invested in preparing more nutritious food for the learners who really needed it.

#### **4.8 Conclusion**

This chapter has presented the findings from the three groups of respondents. The findings were identified and categorized into themes. The themes were then discussed and elaborated. The respondents' suggestions for improvements to the NSNP were also mentioned. The following chapter will consider recommendations, the limitations of the research, and possible avenues for further research.



## **Chapter 5**

### **Recommendations, Limitations and Possibilities for Further Research**

#### **5.1 Introduction**

The final chapter completes the study of determining the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni. The findings of the research will be discussed in relation to the objectives flowing from the research aims as outlined in Chapter One, which were

- To determine the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.
- To establish the educator's perceptions of the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.
- To identify the facilitators' perceptions of the challenges experienced by learners benefitting from the nutritional programme in urban primary schools in Empangeni.
- To formulate certain recommendations and intervention strategies to improve the nutritional programme in urban primary schools in Empangeni.

The emphasis in this chapter is placed on formulating recommendations and intervention strategies which can be used to improve the nutritional programme in urban primary schools in Empangeni. The limitations of the research will also be considered, as well as possible avenues for further research.

## **5.2 Recommendations**

After an extensive literature study the researcher was unable to locate any previous investigations into the challenges experienced by learners benefitting from nutritional programmes in urban primary schools in Empangeni, so the results of this study are potentially of high interest to all stakeholders of the NSNP, as well as health professionals.

The NSNP, as operated by the DOBE in conjunction with various stakeholders, has proved to be an important component of our education system. The challenges experienced by learners in the NSNP were identified and discussed. The recommendations made are derived from the voices of the three groups of respondents, and from the researcher, who observed areas in need of attention. They comprise the following:

1. The findings revealed that many learners arrive at school without having breakfast at home. The first meal served by the NSNP is only at 10am and children wait anxiously for this meal. The DOE needs to review the NSNP and consider changes which are essential to the overall improvement of the programme. This should include the introduction of breakfast, which has been identified as an urgent intervention as many children are hungry, and do not concentrate on their lessons until they have received their first meal of the day. The DOE should also make special provisions for those learners who only eat meals at school. A take away hamper should be provided for these children.

2. The findings in this research revealed that many learners benefitting from the NSNP are bullied. The DOE needs to conduct more research on ways to minimize bullying especially within the NSNP. Anti-bullying campaigns can be initiated at schools whereby educators and facilitators are workshopped on creating a culture of respect and tolerance and this needs to cascade throughout the school.
3. The findings in this research showed that the menus are very rigid and does not allow for flexibility. Learners are served more or less the same meals day in and day out. Greater consideration needs to be given to the meals served to children daily. The NSNP has allocated the preparation of meals to private enterprises who tender for this process. Very often these stakeholders are remunerated generously, but the meals they prepare lack variety owing to their desire to minimize expense in an effort to maximize profit. Further investigations need to be conducted by the Department so as to ensure that the meals prepared are varied and appealing to the learners. The cooks should perhaps be sent to workshops to develop their skills.
4. Appropriate infrastructure should be provided to assist with the easier implementation of the NSNP. There is an urgent need for fully functional kitchens with stoves, fridges, freezers, etc. (PSC, 2008). There is also an urgent need for improvements to the record-keeping system. This will allow for follow-up and feedback. Currently there is little or no accountability.

5. It has been found that there exists a need for utensils and other resources for learners to eat their meals. The NSNP needs to devise ways of ensuring that these resources are safely cleaned and stored for the next day's use.
6. The findings of this research suggested that learners need more time to eat properly. The lunch breaks that are provided are too short and they rarely have time to complete their food. The time allocated for breaks needs to be reviewed and altered to accommodate the learners needs.
7. The research revealed that many learners come from homes where the primary care-givers are not fulfilling their moral duties and responsibilities as parents and guardians. Hence all members of the school staff, especially educators, need to play a more supportive role in the NSNP. Biehler (as cited in Chinyoka, 2014) mentions that teachers need to be warm, supportive and nurturing to learners who are psychologically unstable as a result of the poor nutrition. The sense of belonging, as suggested by Maslow, motivates the learners to attend school for this reason (Chinyoka, 2014).
8. The study recommends that the nutritional programme should also be implemented on Saturdays, Sundays and during the school holidays so that learners are not left hungry.
9. The DOE needs to play a more concerted role in providing school-based psychologists to help counsel children. On-site psychologists would be of great benefit in aiding educators to help children with difficulties at home or at school.

10. The study indicated that many learners are stigmatized as a result of eating at the NSNP. The DOE need creative innovative ways of alleviating this stigma for learners. The DOE need to look at school nutritional programmes from an international perspective and implement their systems which have already been modified to eliminate stigma.

### **5.3 Limitations of the study**

The following limitations were encountered in the study:

1. The trend observed was that all learners included in the study chose to complete the English questionnaire instead of the isiZulu one. However, the level of English competency amongst the learners differs in each school, and this may have had an impact on the research. Some learners are able to express themselves better than other learners. It is also not clear if the learners understood the questions in the same way.
2. The researcher was refused access to the on-site nutritional programmes at the schools. This opportunity would have allowed the researcher to observe the children in the natural setting of the study.
3. The research would have offered more insight and information if it had been conducted as a case study. This would have allowed the researcher more time to concentrate on one specific school, and explore the challenges further.
4. The researcher failed to include the following matters in the study, which were only revealed during the analysis of the data: the distance that learners lived from the school; the quantity and quality of the food served; the conditions under which the meals were prepared; and the readiness for the lessons after the

meals were served. The exclusion of these issues limited the study as they could have been identified as a key challenge; but the participants could have unintentionally overlooked them.

5. This study entailed eliciting the viewpoints of only the learners, facilitators and educators on the challenges experienced by learners in the NSNP. Other stakeholders could have been included, such as management and parents.
6. A pilot study was not conducted as a means of ensuring trustworthiness of the data collection instrument.
7. The data collection instruments were not piloted.

Although there are limitations to the study, the analysis has revealed key challenges and various stakeholders have much to gain from this research.

#### **5.4 Possibilities for further research**

Internationally a wide range of literature has been written and research conducted on children and nutritional programmes at school. In South Africa, however, the research has been fairly limited. From the current study the following suggestions are made for future research in this area:

1. There is evidence from the literature and the focus groups which suggests that the stigma attached to nutritional programmes is a challenge for many learners. Future studies should explore, amongst other samples, groups of Grade 8 to Grade 10 learners benefitting from nutritional programmes, and specific issues experienced.

2. A national study should be conducted to determine the key challenges experienced by learners benefitting from nutritional programmes in South Africa. This would provide valuable intervention strategies which could be nationally implemented.
3. This research was conducted in an urban area. It would be useful to conduct a similar study in a deep rural area to establish if similar challenges exist.
4. This study considered the views of educators, facilitators and learners. A future study could consider the views of parents, guardians and families on the impact that the nutritional programme has on their lives. This would provide information from a different perspective by illuminating the value of the nutrition programme as it is experienced within the home and family.
5. A comparative study could be made of nutritional programmes as implemented in quintile five schools and the national school nutritional programmes in quintile one schools. This could assist in developing and improving the programmes.

## **5.5 Conclusion**

In this chapter the limitations, recommendations and future research possibilities for researchers who may be interested in similar topics have been discussed. Investing in nutrition is critical and cannot be overemphasized as a means of educating and developing children to become healthy, productive citizens. This study has exposed the challenges experienced by learners benefitting from the nutritional programmes in urban primary schools in Empangeni. The key challenges that have been identified in the research are the stigma attached to receiving a free meal, the exclusion of breakfast from the programme, difficulties with transport, peer pressure and bullying, insufficient time for

meals, limited basic resources such as knives, forks and spoons, menu compliance and flexibility on the part of the meal providers, and the absence of primary caregivers.

The benefits of the nutritional programme are generally evident, and it is therefore of paramount importance that constant research be conducted so as to continually develop and improve the programme. The challenges identified in this research offer valuable information that can be used for the overall enhancement of the NSNP, and the consolidation of its current strengths.



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## **ANNEXURE A**

Letter to the principal of each school requesting permission to conduct research, involving their educators, learners and facilitator of the nutritional programme.

P. O. Box 7311  
Empangeni

3880

01 September 2015

**To: The Principal**

### **REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

I am presently conducting research on the challenges experienced by learners benefitting from nutritional program in primary schools in Empangeni.

I hereby request permission to conduct research in your school. This research involves interviewing 10 learners benefitting from the program, form educators of these above-mentioned learners. I also request permission to interview the facilitator of the nutritional program at your school.

This research intends to establish if learners experience any challenges as a result of receiving meals at the nutritional program in their schools and to thereby determine ways of alleviating this.

The interview will take approximately 30 minutes and all information received will remain confidential and anonymity is assured.

Please find attached copies of the questionnaires which I intend using with all the participants. Please feel free to contact me should you have any queries in this regard.

This study will allow me to fulfill my requirements for the degree of Master in Educational Psychology at the University of Zululand under the supervision of Doctor S. Govender.

Thank You.

Yours Faithfully

---

S.Pather

## **ANNEXURE B**

Letter to educators requesting their permission to participate in the research, of the challenges experienced by learners benefitting from the nutritional program at their school.

P. O. Box 7311  
Empangeni

3880

01 September 2015

**To:** Educators

### **REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

I am presently conducting research on the challenges experienced by learners benefitting from nutritional programs in primary schools in Empangeni.

The research will be conducted in five schools in the Empangeni district. This research involves interviewing the form educators of learners benefitting from the Nutritional Program. A questionnaire will be administered to determine if these learners experience challenges as a result of receiving a meal at the nutritional program at the school. This research intends on finding ways of strengthening the program so as to enhance the learner's dignity and self-esteem.

I hereby request your permission to participate in this research. The interview will take approximately 30 minutes and all information received will remain confidential and anonymity is assured.

Please find attached copies of the questionnaires which I intend using with all the participants. Please feel free to contact me should you have any queries in this regard.

This study will allow me to fulfill my requirements for the degree of Master in Educational Psychology at the University of Zululand under the supervision of Doctor S. Govender.

Thank You.

Yours Faithfully

---

S. Pather

## **ANNEXURE C**

Letter to learners requesting their permission to participate in the research, of the challenges experienced as a result of the nutritional program.

P. O. Box 7311  
Empangeni  
3880

01 September 2015

**To: Learners**

### **REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

I am presently conducting research on the challenges experienced by learners benefitting from nutritional programs in primary schools in Empangeni.

The research will be conducted in five schools in the Empangeni district. This research involves interviewing the facilitators who conduct the Nutritional Program in the above mentioned. A questionnaire will be administered to determine your views regarding the challenges experienced as a result of receiving a meal at the nutritional program at the school. This research intends on finding ways of strengthening the program so as to enhance the learner's dignity and self-esteem.

I hereby request your permission to participate in this research. The interview will take approximately 30 minutes and all information received will remain confidential and anonymity is assured.

Please find attached copies of the questionnaires which I intend using with all the participants. Please feel free to contact me should you have any queries in this regard.

This study will allow me to fulfill my requirements for the degree of Master in Educational Psychology at the University of Zululand under the supervision of Doctor S. Govender.

Thank You.

Yours Faithfully

---

S. Pather

## **ANNEXURE D**

Letter to facilitator requesting their permission to participate in the research, of the challenges experienced as a result of the nutritional program.

P. O. Box 7311  
Empangeni  
3880

01 September 2015

**To: Learners**

### **REQUEST FOR PERMISSION TO CONDUCT RESEARCH**

I am presently conducting research on the nutritional program which you facilitate at your school.

This research intends on finding ways of strengthening the program so as to enhance the learner's dignity and self-esteem.

I hereby request your permission to participate in this research. The interview will take approximately 30 minutes and all information received will remain confidential and anonymity is assured. Your participation in this research is voluntary.

Thank You.

Yours Faithfully

---

S. Pather

## **ANNEXURE E: PARTICIPANT INFORMED CONSENT DECLARATION**

### **INFORMED CONSENT DECLARATION**

#### **(Educators)**

Project Title: Challenges experienced by learners benefitting from Nutritional Programmes in urban primary schools in Empangeni

Mrs. Soloshini Pather from the Department of Psychology, University of Zululand has requested my permission to participate in the above-mentioned research project.

The nature and the purpose of the research project and of this informed consent declaration have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to determine the behavioral and psycho-social characteristics that are operational among learners and to formulate certain recommendations and better managerial structures so that the nutritional programmes can be more effective for learners.
2. The University of Zululand has given ethical clearance to this research project and I have seen/ may request to see the clearance certificate.
3. By participating in this research project I will be contributing towards improving the nutritional programmes so that it can be more effective for the learners.
4. I will participate in the project by completing the research questionnaire.
5. My participation is entirely voluntary and should I at any stage wish to withdraw from participating further, I may do so without any negative consequences.
6. I will not be compensated for participating in the research, but my out-of-pocket expenses will be reimbursed.
7. There may be risks associated with my participation in the project. I am aware that

- a. the following risks are associated with my participation: There are no known risks at the present moment
  - b. the following steps have been taken to prevent the risks: n/a
  - c. there is a .....% chance of the risk materializing/a
8. The researcher intends publishing the research results in the form of an article. However, confidentiality and anonymity of records will be maintained and that my name and identity will not be revealed to anyone who has not been involved in the conduct of the research.
  9. I will receive feedback in the form of statistics regarding the results obtained during the study.
  10. Any further questions that I might have concerning the research or my participation will be answered by Soloshini Pather (0837883370)
  11. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.
  12. A copy of this informed consent declaration will be given to me, and the original will be kept on record.

I, ..... have read the above information / confirm that the above information has been explained to me in a language that I understand and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above-mentioned project.

.....

**Participant's signature**

.....

**Date**

## **ANNEXURE F: CHILD PARTICIPANT'S CONSENT FORM**

### **INFORMED CONSENT DECLARATION**

**(Child participant)**



**Project Title:** ..... (Simplify it if necessary)

**Researcher's name:** .....

**Name of participant:** .....

Has the researcher explained what s/he will be doing and wants you to do?

YES

NO

1. Has the researcher explained why s/he wants you to take part?

YES

NO

2. Do you understand what the research wants to do?

YES

NO

3. Do you know if anything good or bad can happen to you during the research?

YES

NO

4. Do you know that your name and what you say will be kept a secret from other people?

YES

NO

5. Did you ask the researcher any questions about the research?

YES

NO

6. Has the researcher answered all your questions?

YES

NO

7. Do you understand that you can refuse to participate if you do not want to take part and that nothing will happen to you if you refuse?

YES

NO

8. Do you understand that you may pull out of the study at any time if you no longer want to continue?

YES

NO



9. Do you know who to talk to if you are worried or have any other questions to ask?

YES

NO

10. Has anyone forced or put pressure on you to take part in this research?

YES

NO

11. Are you willing to take part in the research?

YES

NO

---

**Signature of Child**

---

**Date**

## **ANNEXURE G: PARTICIPANT INFORMED CONSENT DECLARATION**

### **INFORMED CONSENT DECLARATION**

**(Facilitator)**

Project Title: Challenges experienced by learners benefitting from the Nutritional Programmes in urban primary schools in Empangeni

Mrs. Soloshinini Pather from the Department of Psychology, University of Zululand has requested my permission to participate in the above-mentioned research project.

The nature and the purpose of the research project and of this informed consent declaration have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to determine the behavioral and psycho-social characteristics that are operational among learners and to formulate certain recommendations and better managerial structures so that the nutritional programmes can be more effective for learners.
2. The University of Zululand has given ethical clearance to this research project and I have seen/ may request to see the clearance certificate.
3. By participating in this research project I will be contributing towards improving the nutritional programmes so that it can be more effective for the learners.
4. I will participate in the project by completing the research questionnaire.
5. My participation is entirely voluntary and should I at any stage wish to withdraw from participating further, I may do so without any negative consequences.
6. I will not be compensated for participating in the research, but my out-of-pocket expenses will be reimbursed.
7. There may be risks associated with my participation in the project. I am aware that
  - a. the following risks are associated with my participation: There are no known

risks at the present moment

b. the following steps have been taken to prevent the risks: n/a

c. there is a .....% chance of the risk materializing: n/a

8. The researcher intends publishing the research results in the form of an article. However, confidentiality and anonymity of records will be maintained and that my name and identity will not be revealed to anyone who has not been involved in the conduct of the research.
9. I will receive feedback in the form of statistics regarding the results obtained during the study.
10. Any further questions that I might have concerning the research or my participation will be answered by Soloshini Pather (0837883370)
11. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.
12. A copy of this informed consent declaration will be given to me, and the original will be kept on record.

I, ..... have read the above information / confirm that the above information has been explained to me in a language that I understand and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above-mentioned project.

.....

**Participant's signature**

.....

**Date**

## **ANNEXURE H : PARTICIPANT INFORMED CONSENT DECLARATION**

### **INFORMED CONSENT DECLARATION**

**(Parent)**

Project Title: Challenges experienced by learners benefitting from nutritional programmes in primary schools in Empangeni

Mrs. Soloshini Pather from the Department of Psychology, University of Zululand has requested my permission to participate in the above-mentioned research project.

The nature and the purpose of the research project and of this informed consent declaration have been explained to me in a language that I understand.

I am aware that:

1. The purpose of the research project is to determine the behavioral and psycho-social characteristics that are operational among learners and to formulate certain recommendations and better managerial structures so that the nutritional programmes can be more effective for learners.
2. The University of Zululand has given ethical clearance to this research project and I have seen/ may request to see the clearance certificate.
3. By participating in this research project I will be contributing towards improving the nutritional programmes so that it can be more effective for the learners.
4. I will participate in the project by completing the research questionnaire.
5. My participation is entirely voluntary and should I at any stage wish to withdraw from participating further, I may do so without any negative consequences.
6. I will not be compensated for participating in the research, but my out-of-pocket expenses will be reimbursed.
7. There may be risks associated with my participation in the project. I am aware that
  - a. the following risks are associated with my participation: There are no known

risks at the present moment

- b. the following steps have been taken to prevent the risks: n/a
- c. there is a .....% chance of the risk materializing: n/a
  
- 8. The researcher intends publishing the research results in the form of an article. However, confidentiality and anonymity of records will be maintained and that my name and identity will not be revealed to anyone who has not been involved in the conduct of the research.
  
- 9. I will receive feedback in the form of statistics regarding the results obtained during the study.
  
- 10. Any further questions that I might have concerning the research or my participation will be answered by Soloshini Pather (0837883370)
  
- 11. By signing this informed consent declaration, I am not waiving any legal claims, rights or remedies.
  
- 12. A copy of this informed consent declaration will be given to me, and the original will be kept on record.

I, ..... have read the above information / confirm that the above information has been explained to me in a language that I understand and I am aware of this document's contents. I have asked all questions that I wished to ask and these have been answered to my satisfaction. I fully understand what is expected of me during the research.

I have not been pressurised in any way and I voluntarily agree to participate in the above-mentioned project.

.....

**Participant's signature**

.....

**Date**

## **Annexure I : Application for Permission to Conduct Research in KwaZulu Natal Department of Education Institutions**

### **Applicants Details**

Title: Prof / Dr / Rev / Mr / **Mrs** / Miss / Ms                      Surname: Pather

Name(s) Of Applicant(s): Soloshini                      Email: [pathers@telkomsa.net](mailto:pathers@telkomsa.net)

Tel No: 035 7723370                      Fax:                      Cell: 083 7883370

Postal Address: P.O Box 7311, Empangeni Rail, 3880

1. **Proposed Research Title:** Behavioral and Psychosocial problems experienced by learners attending nutritional programmes in primary urban schools in Empangeni

2. **Have you applied for permission to conduct this research or any other research within the KZNDoe institutions?**

**Yes** **No**

If "yes", please state reference Number: N/A

3. **Is the proposed research part of a tertiary qualification?**

**Yes** **No**


If "yes"

**Name of tertiary institution:** University of Zululand

**Faculty and or School:** Department of Educational Psychology

**Qualification:** Masters

**Name of Supervisor:** Dr. S. Govender

**Supervisors Signature:** 

If "no", state purpose of research: N/A

4. **Briefly state the Research Background :** The researcher aims to investigate the behavioral and psychosocial problems experienced by learners attending nutritional programmes in urban schools in Empangeni. In the Empangeni district there are 612 schools that benefit from the NSNP . There are presently 173 311 learners that receive meals at school daily. In this study the researcher will interview the learners benefitting from the programme, the facilitator of the school nutritional programme and educators of the learners benefitting from the programme. The interview and questionnaires are designed to investigate the behavioral patterns of these learners attending the school nutrition programme as well as the psychosocial problems that they experience.

5. **What is the main research question(s) :**

- 1) What are the behavioral problems that are experienced by learners participating in the school nutrition programme?
- 2) What are the psychosocial characteristics that are operational amongst learners attending the nutritional programmes?
- 3) What interventions can be implemented in order for the nutritional programme to be more Effective to the learners?

6. **Methodology including sampling procedures and the people to be included in the sample:**

Qualitative research is suitable to this proposed field of study. The researcher will utilize random sampling to ascertain which primary schools in the Empangeni district will be subjected to the research. Random sampling will also be used to identify the learners who will be selected to participate in the research. The facilitator of the school nutrition programme as well as educators of the learners attending the school nutrition programme will also form part of the research.

7. **What contribution will the proposed study make to the education, health, safety, welfare of the learners and to the education system as a whole?:** Learners attending school nutrition programmes will be given the opportunity to provide recommendations of ways in which to improve the programme. This opportunity will also be provided to the facilitator of the programme as well as educators of the school. In this way constructive improvements can be implemented which could ultimately lead to better managerial structures to the programme as a whole which would be more effective to the learners.
- By completing this study the researcher could possibly also make valuable contributions to the overall education of learners. This study will assess the behavioral patterns and psychosocial problems experienced by these learners due to receiving a meal at school. These behavioral patterns ultimately have a profound effect on the child's education as a whole.

**KZN Department of Education Schools or Institutions from which sample will be drawn – If the list is long please attach at the end of the form**

Phesheya Primary School		
Wood & Raw Primary School		
Siyakhanisa Primary School		
Empangeni Preparatory		
Thembelihle Primary		
Grantham Park Primary School		
Nkosazana Primary		
Heuwelland Primary School		
Empangeni Primary School		
Dlangiko Primary School		
Inweni Primary School		

8. **Research data collection instruments:** *(Note: a list and only a brief description is required here - the actual instruments must be attached):* The researcher will use interviews which comprise of open ended questions. The interviewing process will be conducted with participants to supply the necessary data.



**9. Procedure for obtaining consent of participants and where appropriate parents or guardians:**

The researcher needs to obtain permission from a variety of organisations and individuals. Formal written permission from the DOE. Once permission is granted the researcher will then make an appointment with the principal of the selected schools so as to inform and present the purpose of the research. Permission will be sought in written form from all participants. Consent forms will be sent to the parents, educators, facilitators and the learners.

**10. Procedure to maintain confidentiality ( if applicable):**

The researcher must ensure that all participants are timeously informed that all activities pertaining to the research will be executed with extreme confidentiality so as to protect the identity of the participants. All learners participating in the research will receive an informed consent declaration which is also a procedure to maintain confidentiality.

**11. Questions or issues with the potential to be intrusive, upsetting or incriminating to participants (if applicable):**

There are no questions which are potentially intrusive, upsetting or incriminating to participants.

**12. Additional support available to participants in the event of disturbance resulting from intrusive questions or issues (if applicable):**

A psychologist is willing to assist if the need arises.

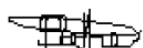
**13. Research Timelines :**

As soon as ethical clearance is obtained the research will commence and should last 3 weeks.

**14. Declaration**

I hereby agree to comply with the relevant ethical conduct to ensure that participants' privacy and the confidentiality of records and other critical information.

I Soloshini Pather declare that the above information is true and correct.



**Signature of Applicant**

17/10/2015

**Date**

**ANNEXURE J: Research Questionnaire to learner**

**UNIVERSITY OF ZULULAND**



**Questionnaire for Learners**

**Research Title**

The challenges experienced by learners benefitting from nutritional programmes in primary urban schools in Empangeni.

The researcher is conducting research on the challenges experienced by learners benefitting from nutritional programs in primary urban schools in Empangeni. The aim of the research is to investigate if learners benefitting from school nutritional programmes in primary urban schools in Empangeni experience challenges

Kindly assist by completing the questionnaire and handing it to the school principal upon completion. This process will take approximately half an hour.

**Researcher:**

Soloshini Pather

Mobile: 083 788 3370

Email: [pathers@telkomsa.net](mailto:pathers@telkomsa.net)

**Supervisor:**

Dr. Sumeshni Govender

Office: 035 902 6442

Email: [govenders@unizulu.ac.za](mailto:govenders@unizulu.ac.za)

## Section A: Biographical Details

School Name: \_\_\_\_\_

Circuit: \_\_\_\_\_

### **Personal Details of the respondent**

**Please mark the appropriate answer with an X**

Please state your gender:

Male	
Female	

Please state your age:

Age	7 years	8 years	9 years	10 years	11 years	12 years	13 years	14 years	Older than 14

Please state your grade:

Grade	
1	
2	
3	
4	
5	
6	
7	

## **SECTION B**

1. How many times a day do you visit the nutrition programme at school?

Once a day for breakfast only.	
Once a day for lunch only.	
Twice a day for breakfast and lunch.	
More than twice a day.	

2. How many times a week do you visit the nutrition programme at school?

Every day from Monday to Friday	
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

3. Why do you go to the nutrition programme at school?

My parents/guardians are too busy to make lunch for me.	
My parents/guardians told me to get my lunch at school.	
There is often not enough food at home.	
There is no-one to make me lunch at home.	
The food tastes better at school.	
My friends eat lunch at school.	

If there is any other reason please mention it:

---



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---

4. Please state if your mother and father are employed/working

Parent or guardian	Employed/working	Unemployed/Not working
Mother		
Father		

5. What mode of transport do you use to go to school?

Car	
Bus	
Walk	
Taxi	

6. Do you usually have breakfast at home?

Yes	
No	

7. Tick what do you usually have for breakfast at home

Cereal	
Bread	
If any other, please state:	

8. Do you usually have breakfast at school?

Yes	
No	

9. If the answer is "NO" to the above question. Give a reason as to why you don't have breakfast at school.

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10. How would you describe your overall behavior at school?

Excellent (I am always well behaved)	
Good (I am mostly well behaved)	
Satisfactory (I am sometimes well behaved)	
Weak (I am hardly ever well behaved)	

11. Please indicate by ticking an (X) if you experience any of the following due to benefitting from the school nutritional programme.

I feel embarrassed.	
My friends tease me.	
I am envious of my friends who bring lunch to school.	
My friends ask me to swop my lunch with them.	
I am comfortable with receiving lunch at the school nutrition programme.	

12. What is your favourite meal that you receive at school?

---

13. Why is this your favourite meal?

---

14.State all the good or positive aspects of eating lunch at the school nutrition programme.

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15.State the bad or negative aspects of eating lunch at the school nutrition programme.

---

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16.Can you give ways in which the school nutrition programme can be improved?

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Thank You

Your participation in this research is highly appreciated.

**ANNEXURE K**

**FOCUS GROUP INTERVIEWS BETWEEN RESEARCHER &  
FACILITATOR/EDUCATOR**

Venue:

\_\_\_\_\_

Participants
1.
2.
3.
4.
5.
6.
7.
8.
9.
10

Starting Time of Focus Groups: \_\_\_\_\_

Focus Group terminated at: \_\_\_\_\_

### **Seating Plan**

### **FOCUS GROUP INTERVIEWS BETWEEN RESEARCHER & FACILITATOR/EDUCATOR**

- Tentative Guide to assist researcher however the semi-structured approach will be followed as the participants will determine the discussions which will follow.

#### **QUESTIONS TO FACILITATE DISCUSSION**

1. What are some of the challenges that learners participating in the NSNP experience at your school?

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2. Can you provide any meaningful suggestions/recommendations so as to minimize or even reduce these challenges for learners?

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3. Do you think that the NSNP can be improved in any way so as to benefit the learners and how can this be done?

---

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4. What are some of the reasons given by learners for coming to school without having breakfast at home?

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5. Can you describe any differences between learners who participate in the program and those learners who don't? In what ways are the participants of the NSNP "labelled" or "stigmatized"

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6. Discuss the many roles that parents play when it comes to providing nutritional meals for learners during a school day

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7. Do you find that there are parents who can afford to prepare lunch for their children but who don't because they have a feeling of entitlement to this meal?

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8. Are there learners at your school who are being bullied for their lunch?

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---

9. If you think back have you observed that learners are influenced by peer pressure when they get food from the NSNP

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10. Can you reflect on your personal experiences /opinions on the following:

10.1 Menu Plans

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10.2 Kitchen Hygiene

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This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## **ANNEXURE L**

### **Imibuzo Ebhekiswe Kubafundi**

(Questionnaire for learners)

#### **Isihloko Socwaningo**

##### **(Research Title)**

Izinkinga eziphathelele nokwenza (ukuziphatha) nokucabanga (nengqondo) emphakathini kubafundi abahlomula ohlelweni lokudla ezikoleni uhlelo oluxhaswe nguHulumeni ezikoleni zamabanga aphansi endaweni yas Empangeni.

Inhloso yalolu cwaningo wukuthola ukuthi zikhona yini (noma cha) izinkinga ngokwenza (ukuziphatha) nangokwengqondo (ukucabanga) ababhekene nazo labo bafundi abathola usizo ohlelweni lokudla lwesikole

Ngicela nsize niphendule lolu luhla lwemibuzo bese niyinika uThishomkhulu uma seniqedile. Le mibuzo ingaphendulwa ngesikhathi esingaba yimizuz engamahumi amathathu.

Umcwaningi

Umpathi

Soloshini Pather

Dr. Sumeshni Govender

Mobile : 0837883370

office: 035 902 6442

[pathers@telkomsa.net](mailto:pathers@telkomsa.net)

[govenders@unizulu.ac.za](mailto:govenders@unizulu.ac.za)

Isigaba A: Imininingwane Yakho

Igama Lesikole: \_\_\_\_\_

Isekethi : \_\_\_\_\_

**Imininingwane Yophendulayo**

**SHAYA /FAKA ISIPHAMBANI KOKUKHETHILE: X**

UBULILI BAKHO:

OWESILISA	
OWESIFAZANE	

IMINYAKA YAKHO:2

7	8	9	10	11	12	13	14	NGAPHEZ U KWA14

IBANGA OLIFUNDAYO:

Grade	
1	
2	
3	
4	
5	
6	
7	

## **Isigaba B**

1. Udla kangaki ngosuku kuloluhlelo lokudla esikoleni?

Ngidla Kanye ukudla kwasekuseni	
Ngidla Kanye ukudla kwasemini	
Ngidla Kabili ekuseni nasemini	
Ngidla Kaningingosuku	

2. Udla kangaki ngesonto kulolu lokudla esikoleni ?

Kusukela ngoMsombuluko kuze kube oLwesihlanu	
NgoMsombuluko	
NgoLwesibili	
NgoLwesithathu	
NgoLwesine	
NgoLwesihlanu	

3. Sizathu sini esenza ukuthi udle esikoleni kwolu Llelo lokudla?

bazali/abanakekeli bami abanaso isikhathi sokungenzela ukudla kwasemini	
Abazali/ababakekeli bami bathi angidle esikoleni	
Akubi khona ukudla okwanele ekhaya	
Akekho ongangezela ukudla kwaemini ekhaya	
Kumnandi ukudla kwasesikoleni	
Abangane bami badla esikoleni	

Uma sikhona esinye isizathi sisholapha

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4. Ngabe abazali/abanakekeli bakho bayasebenza :

	uyasebenza	akasebenzi
Umama/onginakekelayo		
Baba/onginakekelayo		

5. Uhamba ngani uma uya esikoleni ?

imoto	
ibhasi	
iziyawo	
itekisi	

6. Uvamisile ukudka ekuseni ekhaya

yebo	
cha	

7. Yenza uphawu kulokho ovamise ukukudla ekuseni ekhaya

Cornflakes/weetbix/pops	
Isinkwa	
Okunye nje (nika igama lako)	

8. Uvamisile ukufika udle esikoleni ekuseni?

Yebo	
Cha	

9. Uma uphendule ngoluthi CH embuzweni ongenhla, nikeza isizathu sokungadli esikoleni ekuseni?

---



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10. Awuchaze indlela oziphette ngayo esikoleni

Kuhle kakhulu (sonke isikhathi ngenza okufanele)	
Kuhle (kukaningi ngenza okufanele)	
Akukubi kakhulu ( kwesinye isikhathi ngenza othufanele)	
Kubi (Kuyethukeka ngenza okufanele)	

11. Khombisa ngokufaka uphawu (X) uma ngokudla kwakho ohlelweni lweikole unqwamana nalokhu?

Ngiba namahloni	
Abangane bami bayangiqala	
Ngifisa ukuba njengabangane bami abeza nokudlakwabo esikoleni	
Abangane bami baye bacele ukudla kwami	
Anginankinga yokuthola ngidle ukudla kwasesikoleni	

12. Kudla kuni okuthanda kakhulu kulokho enikuthola esikoleni?

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13. Kungani ukukhonzile lokhu kudla?

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14. Yisho konke okuhe noma okuthandayo ngokuthola ukudla kwasemini esikoleni kulolu  
hlelo lokudla

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15. Yisho konke okubi noma ongakuthandi ngokuthola ukudla kwasemini esikoleni kulola  
hlelo lokudla

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16. Nikeza /Yisho izindlela okungenziwa ngcono uhlelo lokudla esikoleni

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Ngiyabonga

Usizo Lwakho lukhulu kimina

**ANNEXURE M:**  
**IMVUME YENGANE EKUSIZENI NGOCWANINGO**

**(Child participant consent declaration)**

**Emvume unolwazi ISIFUNGO**

**(Child umhlanganyeli)**



**Project Isihloko:** .....Ungazikhathazi uma kunesidingo)

**Igama Umcwaningi sika:** .....

**Igama umhlanganyeli:** .....

1. Umcwangi usenichazele yini ukuthi ufuna ukwenzani nokuthi ufuna nina nenzeni?

YEBO

CHA

2. Umcwaningi unichazele yini ukuthi unidingelani

YEBO

CHA

3. Uzwa kahle ukuthi umcwaningi ufuna nenzeni

YEBO

CHA

4. Uyazi yini ukuthi kukhena into embi noma enhle engenzeka kuwe ngesikhathi socwaningo?

YEBO

CHA

5. Uyazi yini ukuthi igama lakho nokushilo kuyo hlala kuyimfihlo kwabanye abantu?

YEBO

CHA

6. Umbuzile yini umcwaningi imibuzo ephathelene nocwaningo?

YEBO

CHA

7. Uyiphendule yonke imibuzo yakho umcwaningi ?

YEBO

CHA

8. Uyazi yini ukuthi ungenqaba ukuba yingxenye yalolu cwaningo futhi kungenzeki lutho kuwe?

YEBO

CHA

9. Uyazi yini ukuthi ungahoxa ekuqhubekeni nalolu phenyo noma yinini uma ungasathandi?

YEBO

CHA

10. Uyazi yini ukuthi ubani ongakhuluma naye uma ukhathazekile noma ufuna ukubuza okuthile?

YEBO

CHA

11. Ukhona yini okuphoqile noma okucindezele ukuthi usize kulolu cwaningo?

YEBO

CHA

12. Uyafisa/Uyathanda ukuba yingxenye yabanikeza ulwazi kulolu cwaningo?

YEBO

CHA

---

**Sayina lapha**

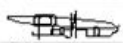
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**Usuku**

## Annexure N: Ministerial Document

- (a) The research objectives cannot be achieved except by the enrolment of minors;
- (b) The research is likely to lead to an improved scientific understanding of conditions, or disorders affecting children;
- (c) Any consent given to the research must be in line with public policy; and
- (d) The research does not pose a significant risk to minors, and if there is some risk, the benefit of the research outweighs the risk.

### 2. INVESTIGATORS' DETAILS

Name of principal investigator	Mrs Soloshini Pather
Title of research protocol	Behavioral & psychosocial problems experienced by learner attending nutritional progs. in urban prim. schools in Emp.
Institutional affiliation	University Of Zululand
Postal Address	P. O. Box 7311 Empangeni Rail 3880
Physical Address	12 Fiddlewood Drive Grantham Park Empangeni 3880
Email Address	bhavanipather@gmail.com
Phone	0837883370
Fax	
Date of Application	09/10/2015
Signature of Applicant	

### 3. APPLICATION

#### 3.1 Condition 1: The research objectives cannot be achieved except by the participation of minors

*Describe the scientific justification for the enrolment of minors. Explain why this research must be done with minors as participants:*

The research aims to find the behavioral and psychosocial challenges experienced by primary school learners in urban schools in Empangeni. Hence this study will have to be conducted on minors as participants. The participants will provide insight into both the negative and positive aspects of the programme as well as means of improving the programme for the benefit of all children.

#### 3.2 Condition 2: The research is likely lead to an improved scientific understanding of certain conditions, diseases or disorders affecting minors

*Describe how the research might, or aims to, advance knowledge affecting the health and welfare of minors as a class. Note that 'condition' is defined in the Regulations as 'physical and psycho-social characteristics understood to affect health' allowing that this research does not only involve children with an illness.*

The school aims to find ways of improving the school nutritional programmes. The knowledge obtained from this study will prove valuable and informative in finding ways of making the programme more accesible, sustainable and productive.

#### 3.3 Condition 3: Any consent given to the research is in line with public policy

*Consent given by authorised persons must be in line with public policy considerations. Describe how consent to the research will be in line with public policy or would be acceptable, for example, show how the research poses acceptable risks and promotes the rights of minors:*

The research is done on a voluntary basis. Consent forms will be given to all learners, educators and facilitators. Parents of the learners will have to give their consent before their child is included as a participant.

**3.4 Condition 4: The research does not pose a significant risk to minors; and if there is some risk, the benefit of the research outweighs the risk.**

*Describe how the potential risks from the research procedures and/or intervention to minor participants will be minimized and describe any possible benefits from the research to society in the form of knowledge:*

The researcher will give participants the freedom to be included in the research or not. There is no obligation and all participants are free to exit the study at any point that they choose. The researcher will maintain a high degree of professionalism throughout the research. The benefits of the study will result in the overall improvement of the national school nutritional programmes in urban schools.

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## **Annexure O: Permission from DoE to conduct Research**



education

Department:  
Education  
**PROVINCE OF KWAZULU-NATAL**

Enquiries: Nomangisi Ngubane

Tel: 033 392 1004

Ref.:2/4/8/556

Mrs S Pather  
PO Box 7311  
EMPANGENI  
3880

Dear Mrs Pather

### **PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS**

Your application to conduct research entitled: **“BEHAVIORAL AND PSYCHOSOCIAL PROBLEMS EXPERIENCED BY LEARNERS ATTENDING NUTRITIONAL PROGRAMMES IN PRIMARY URBAN SCHOOLS IN EMPANGENI”**, in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 28 October 2015 to 31 November 2016.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Connie Kehologile at the contact numbers below.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report / dissertation / thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

UThungulu District

**Nkosinathi S.P. Sishi, PhD**  
**Head of Department: Education**  
**Date: 27 October 2015**

**KWAZULU-NATAL DEPARTMENT OF EDUCATION**

## **ANNEXURE P: Certificate from Editor**

### **CERTIFICATE**

This is to certify that I, Alan Nigel Bell, am the editor of the MEd dissertation by Ms Soloshini Pather provisionally entitled *Challenges Experienced by Learners Benefitting from Nutritional Programmes in Urban Primary Schools in Empangeni*.

A. N. Bell BA (Hons) (Cape Town) MA (Rhodes)

Research Associate, University of Zululand

Member, Professional Editors' Guild

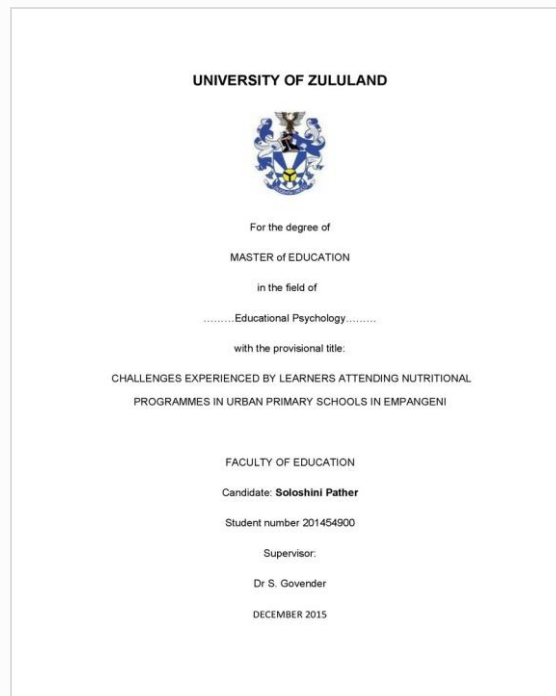


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