

**THE PERCEIVED EFFECTS OF SCHOOL FEEDING PROGRAMME ON
GIRLS' ATTAINMENT OF EDUCATIONAL OUTCOMES: A CASE OF
SELECTED PRIMARY SCHOOLS IN PHALOMBE DISTRICT**

M.Ed. (POLICY, PLANNING AND LEADERSHIP) THESIS

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**UNIVERSITY OF MALAWI
CHANCELLOR COLLEGE**

AUGUST, 2017

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M.Ed. (POLICY, PLANNING AND LEADERSHIP) THESIS

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AUGUST, 2017

DECLARATION

I hereby declare that this thesis is my own original work which has not been submitted to any other institution for similar purposes. Where other people's work has been used, acknowledgements have been made.

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DEDICATION

I dedicate this work to my husband, Bowlander Monjeza, my supervisors, Dr. Bob Chulu and Dr. Symon Chiziwa.

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ABSTRACT

This study investigated the perceived effects of SFP on girls' attainment of educational outcomes in low and high income community primary schools in Phalombe District. It tried to find out girls' trends in academic performance, the difference in academic performance between girls with and without SFP and parents, learners and teachers perceptions on the effects of SFP. The study employed phenomenological research design whereby the qualitative approach was applied. Purposive sampling was employed to select participants in the research. The data was generated through questionnaire, interview guides, focus group discussions and observation checklists. The findings revealed that girls' trends in academic performance from two high-income community primary schools with and without SFP were almost the same. The findings from schools with SFP revealed that out of 20 girls, 13 girls representing 65% performed well with levels: 3=7girls, 2=6 girls, 1=7 girls and 4= no girls. Girls from non-SFP revealed 11 girls representing 55% with levels: 3=3 girls, 2=8 girls, 1= 9 girls and 4none. Girls from low-income schools with SFP performed far much better than without SFP. Their results showed 18 girls representing 90% and their levels: 1= 2 girls, 2 six girls, 3= 9 girls and 4=3 girls and for non-SFP showed 10 girls representing 50% with levels: 1=10 girls, 2=10 girls, 3 and 4 none. The study also revealed that stakeholders have positive views of SFP. The findings showed that SFP has an effect on girls' educational outcomes. This implies that academic performance can be improved through SFP, as such, due attention must be given to girls' need for feeding. Therefore, the study recommends government to sustain the SFP. Hence, conducting this study was necessary.

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LIST OF ABBREVIATIONS AND ACRONYMS

CERT	Centre for Educational Research and Training
EMIS	Education Management Information System
ESIP	Education Sector Implementation Plan
FAO	Food and Agricultural Organization
FFE	Food for Education
IFPRI	International Food Policy Research Institute
MDG	Millennium Development Goal (MDG)
MEVTM	Ministry of Education and Vocational Training of Malawi
MoEST	Ministry of Education, Science and Technology
NGO	Non-Governmental Organisation
NSNP	National School Nutrition Programme
ODL	Open and Distance Learning
PCAR	Primary Curriculum and Assessment Reform
PCD	Partnership Centre for Development
SFP	School Feeding Programme
SHN	School Health and Nutrition
SWET	Story Workshop Education Trust
UBE	Universal Basic Education
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Educational Fund
UPE	Universal Primary Education
WFP	World Food Programme

CHAPTER 1

INTRODUCTION

1.0 Chapter overview

This chapter presents the rationale and genesis of school feeding programme (SFP), statement of the problem, purpose of the study, research questions, significance of the study and summary.

1.1 The Genesis of school feeding programme

As early as 1900, Netherlands became the first country to adopt national legislation specifically to provide school lunches (Gunderson, 2007). In 1905, the Education Provision of Meals Act was passed in England, the aim of which was to secure suitable meals for schoolchildren. This was the culmination of the efforts of 365 private charitable organisations (Gunderson, 2007). In 1906, Switzerland provided lunches to primary school children who lived far from school and were unable to go home for lunch (FAO, 2005:15, Gunderson (2007). This was done to encourage school attendance and performance. In the same year, Switzerland's state funds were authorized for this purpose (Gunderson, 2007).

An experimental programme, taking the form of a mid-morning lunch for elementary schools, was implemented in January 1910 in Boston and Chicago in USA. By 1921,

national school feeding schemes were introduced in the United Kingdom (UK) and the United States (US) with the explicit aim of improving the growth of children (Richter, Griesel & Rose, 2000). In 1934, the United Kingdom, initiated a programme that subsidised free milk for schoolchildren.

In 1940, SFP was introduced in South Africa; where free milk to whites and coloured schools was provide (Tomlinson, 2007, p. 4). In the late 1960s and early 1970s, this benefit was withdrawn from all, except for those children considered particularly needy. This is an early example of the targeted approach in SFP (Tomlinson, 2007, p. 4).

1.2 School feeding programme in Malawi, who benefits and how it works

Malawi does not have a national government-run school feeding programme. At present, SFPs are funded by World Food Programme (WFP) and organisations like GIZ, Mary's Meals and Action Aid. The WFP gives the most support to school feeding activities in terms of both numbers and geographical coverage. The school feeding most target learners as the beneficiaries. It currently supports 410,000 pupils in 489schools in 14 districts. Learners in targeted schools receive a daily midmorning meal of porridge on each school day, while the programme also provides a take-home ration of 12.5 kg of maize per month for girls and for boys that have lost both parents who attend 80% of school days as an incentive to stay in school (WFP, 2006).The WFP and the Ministry of Education, in collaboration with the Ministry of Health, have also provided de-worming tablets for targeted schools. Other donor agencies, such as UNICEF and the World Bank,

also assist the project by providing water and sanitation facilities, as well as establishing school gardens, in about 76 schools (WFP, 2006). There is no direct financial contribution from the Malawian government, although it does provide logistical staff from within various government ministries (WFP, 2006). United Nations World Food programme (UNWFP) began supporting Malawi in 1999, on request from the government because learning outcomes show lower performances especially of females compared to male students whose national examinations were 13 points lower than boys (MoEST, 2013; MVTE). It initially targeted 23,000 pupils in 24 schools in Dedza district.

Following a successful review, it was expanded in 2000 to include a further 31,500 children in 58 schools in Ntcheu and Salima districts. After successful piloting, further expansion followed involving many districts in the country which is replaced by current SFP (WFP, 2014).

1.3 School Feeding Programme, education and learning

Poor nutrition and health among schoolchildren contributes to the inefficiency of the educational system (Grantham-McGregor, 1989 & Pollit, 1990; Simeon, 1989). The irregular school attendance of malnourished and unhealthy children is one of the key factors in poor performance (Politt, 1995). Even temporary hunger, common in children who are not fed before going to school, can have an adverse effect on learning. Children who are hungry have more difficulty concentrating and performing complex tasks, even if otherwise well nourished. Research and program experience shows that improving

nutrition and health can lead to better performance, fewer repeated grades and reduced drop out (Majekodunmi &Wale, 2012), hence continued sustenance of primary SFP should be emphasized for the benefits of the children.

1.4 Effects of school feeding programme on achievement of educational outcomes

For many years now researchers have discovered that SFP has an effect on educational outcomes (Jomaa, McDonnell & Probart, 2011). Klemnan (1998) found that children need regular and balanced diet to learn effectively in school. Klemnan (1998) also said that when learning occurs due to feeding more learners do well academically. The Maslow hierarchy of needs theory states that every human being has several layers of needs. Each layer of need must be met before someone can meet the needs of the next layer (Hoy & Miskel, 2008). The first level of needs is physiological needs which include food. If it is not met, learning cannot take place. Klemnan (1998) concur that when there is deficiency in physiological needs, learning will not occur. Feeding in this case is the correct need where learners respond to resulting to positive effects on educational achievement after the occurrence of learning. Children who do not get enough to eat are likely to have hindered mental development. In addition, Alaimo, Olson, Frongillo & Briefel, (2001) reported that children aged between 6-11 years in food insecure households scored lowering arithmetic tests, were more likely to repeat a grade, and had difficulty getting along with other children. However, when these are provided with food benefit a lot.WFP (2008) found educational achievement possibilities of children to be dependent upon their health and well-being.

1.5 School Feeding in the policy framework in Malawi

Malawi is currently developing a Nutrition and School Feeding Policy, and has proposed an institutional framework for a nation-wide school health and nutrition programme that is intended to operationalise school feeding activities supported and implemented by the Government and other stakeholders. The policy has not yet been implemented. The Framework draws equally on the existing structures and current resource bases of the Ministry of Education Science and Technology and the Ministry of Health. At school level, it is proposed that specific committees should be established for school health and nutrition. Essentially, these committees will consist of members of currently existing school committees and village health committees (WFP, 2007).

1.6 Statement of the problem

No matter how hard learners try to work, there is a limit to how well their brain can function under the stress of hunger. This is in line with Made, (2013) that said hunger is the biggest distraction and demotivator of all, and poor nutrition contributes to limited mental capacity. Made, (2013) believes that in this instance, some needs are objectively more urgent than others. Hunger is one of the most serious problems a child can face, because it is one of the most physically and socially damaging. As Maslow (1954) suggested that the first and most basic need people have is the need for physiological requirement (food). The provision of food is significant in the education especially to the vulnerable children, even though the government has been making attempts of keeping pupils in school through free primary education (FPE), deploy well qualified and

experienced teachers majority are failing to enroll , but instead drop out of school due to hunger (WFP,2010).Parents have continued to provide water, built toilets, classrooms in their school but pupil's participation is going down particularly in poor communities. This is concurred with voluminous research which indicates that children living in poverty and underdeveloped countries remain at high risk for lower academic achievement (Pollitt, 1994). Even after controlling for confounders, studies have significantly correlated food insecurity to poor mathematics and reading performance; long-term food insecurity appears to amplify academic shortfalls while becoming food secure reverses such deficits (Hollar, Messiah, Lopez-Mitnik, Hollar, Almon & Agatston, 2010). Sigman, Neumann, Jansen, Bwibo, (1989) researched on malnutrition and cognition in Kenyan schoolchildren found that children with more adequate diets had significantly higher scores on cognitive skill assessments, “regardless of the social and economic resources of the family” (p. 1471-1472).Therefore, the child who is well fed is more likely to have the energy to participate and concentrate, to grasp her lessons better and to perform well. School feeding was assumed as measure to address the problem of students' academic performance in some hunger prone regions in the country. The available studies show that SFP has positively contributed to students' alertness, cognitive function (Smith, 2010); however, a clear causal link between breakfast consumption and increased academic performance has not yet been established (David, 2009-2010). Although the available studies may show that SFP has contributed to the learners' concentration and academic performance, they are limited in some cases that most of them were done in developed countries (Coleman et al., 2012), and few in Africa

(WFP, 2010). The clearest evidence of the benefit of SFPs is increased school enrolment, particularly of girls (Bundy, 2005). And there is not much literature about SFP in Malawi as the subject is relatively new in the country; much of the literature available is of the same source (WFP, 2006; CERT, 2002 and MoEST, 2008). An evaluation of SFP in Malawi was conducted by Roka in 2004, in a number of districts, though not properly controlled; he came up with an overall increase of 37.7% in the enrollment of girls, which was attributed to the fact that girls and not boys were given take home rations. WFPs 2004 School Feeding snapshot survey provided evidence that school feeding influences students' educational outcomes. However, the survey contained no follow up control questions (open questions) that could have elicited how the focus group reached their judgment (WFP, 2006). As a result of significant methodological shortcomings, Grantham-McGregor (2005) argues that caution must be expressed with regard to the findings of many of the studies that purport to have found an association between hunger and school performance. The World Bank (2006) has argued that the jury is still out on the effectiveness and sustainability of SFPs, and that there is little evidence that SFPs have a positive impact on nutrition and performance for participating children. SFPs have also gained a reputation over the years for being expensive, fraught with implementation problems and ineffective in meeting educational objectives (Del Rosso, 1999). Burbano (2007) also concurs that SFP in Malawi is expensive and the full cost is in the range of US \$59 per child per year for on-site meals. WFP costs are about US \$ 22 per child per year, (Center for Social Research, 2002). This reputation may not be completely groundless and in reality, the effect of SFP is uncertain at best, since little work has been

done on evaluating them (Ahmed, 2004). Until recently, SFPs were viewed as mainly feeding interventions aimed at improving the nutrition status of school children (World Bank School Health, 2002). So the effects of SFPs on educational outcomes were often not emphasized or examined (Del Rosso, 1999). This makes the results of the available studies questionable in Malawi. Apart from that, while they are key beneficiaries of the programme, the available studies did not include the perspectives of the parents, learners and teachers while studying the effectiveness of the SFP on increasing learners' enrollment and addressing learners' dropout rate which can bring about poor academic performance in primary schools (Center for International Education, 2013). In addition, Kallman (2005) observed that teachers were positive about school feeding because they saw it as contributing to greater learner cognitive attentiveness, improved school attendance and reduced absenteeism. However, these teachers' claims have not been empirically supported by well-controlled, large-scale studies. Kallman (2005) concludes that it is virtually impossible to evaluate the extent to which the primary aims of the NSNP have been met, as data on the various factors that affect school performance, dropout rates, enrolment and concentration is not available.

1.7 Purpose of the study

The purpose of this study was to investigate the perceived effects of SFP on girl's attainment of educational outcomes in low in-come community primary schools in Phalombe District.

1.8 Research questions

The study was guided by the research questions below:

1.8.1 Main research question

What is the perceived effect of the school feeding programme on girls' attainment of educational outcomes in low in-come community primary schools in Phalombe District?

1.8.2 Sub-questions:

- a. What trend is there in girls' academic performance in high and low-income community primary schools?
- b. What difference is there in academic performance between girls who are under the feeding programme and those not, in low and high-income community primary schools?
- c. What do parents, learners and teachers perceive as the effects of school feeding programme?

1.9 Significance of the study

Despite the fact that studies on SFP are available, (Janke, 1996), still there is a lack of studies that directly deal with programme beneficiaries like parents, girl-learners and teachers to investigate their perceptions on SFP. Again, most of the available studies were done in developed countries and very few from Asia and Africa. Therefore, there is a great need to conduct more research on SFP in the developing countries where there is a

great problem of poverty and where most of the students' learning gets affected because of their level of poverty. Studies should incorporate perceptions of girl-learners, teachers and parents on what they consider as the effects of the programme on achievement of educational outcomes.

This study hence investigated perceived effects of SFP on achievement of educational outcomes in primary schools in low in-come communities in Phalombe District. It was also the intention of this research study to inform teachers, parents and the society of the role school feeding plays in influencing educational outcomes. Through this study, health and educational planners may be assisted in addressing issues of health and nutrition affecting both high-income community and low-income community school learners and thus improve their quality of education and life. For planning purposes, the results of this study will assist the policy makers and the MoEST to use the information for future planning for the policy implementation. The results of the study will also help policy makers and the MoEST to determine how to make parents, teachers and girl-learners active members of the programme. This is because, in countries like Malawi, the morale of citizens' participation to the development programmes has been reported low just because the planners do not consider them in the planning process (Levinger, 1994). As a result, some of the programmes have been reported as not successful. In addition to that, researchers, policy makers and academicians will find the results of this study useful as both source of information and knowledge. It is hoped, therefore, that this study will add a different dimension to literature on SFP.

1.10 Definition of significant terms as used in the study

Academic performance: Refers to how students deal with their studies and how they accomplish different tasks given to them over a given period in primary school (Hollar, et al., 2010).

Educational outcome: Results after teaching and learning process (PCAR, 2008).

High-income community schools: Refer to schools which are in the communities where the proportion of people whose income is more than US\$1 a day, which are well to do, and it is where particularly rich families live (World Food Programme, 2009).

Low-income community schools: Refer to the schools in communities where the proportion of people whose income is less than US\$1 a day, and it is where particularly poor families live (World Food Programme, 2009).

Perceptions: Views or opinions held by an individual resulting from experience and external factors acting on the individual (Banda, 2005).

Performance: It is the act of how well or badly you do in respect to the attainment of knowledge and skills in comparison with others and usually evaluated through formal examination (Hornby, 2006, p. 1080).

School feeding programme: programmed organised by the school or co-organisations to provide food to the children (WFP, 2006).

1.11 Chapter summary

This chapter has covered what SFP involve, its genesis, SFP in Malawi, School Feeding Programme, education and learning in low and high-income community schools with SFP and without SFP. The chapter has also looked at the impact of SFP on educational achievement outcomes, SFP in the policy framework in Malawi, statement of the problem, purpose of the problem, research questions, significant of the study and definition of terms.

CHAPTER 2

LITERATURE REVIEW

2.0 Chapter overview

This section reviews existing literature about past research studies and perceptions in the field of school feeding. It presents study findings as done by different researchers in different parts of the world (with emphasis on developing countries) on the effects of school feeding and its effects on attainment of educational outcomes of girl learners. The section begins with the SFP, advantages and disadvantages of SFP, trends in girls' academic performance in schools where school feeding is taking place, school feeding programme in relation to girls' academic performance in low and high- income community schools and stakeholders' perceived effects on SFP on achievement of educational outcomes in Malawi. Nevertheless, the study presents and discusses the needs theory of Maslow hierarchy of needs as a theoretical framework for describing and understanding the perceived effects of SFP on the achievement of educational outcomes in low and high income community primary schools in Phalombe district.

2.1 The School-Feeding Programme

School feeding programme is a powerful tool for alleviating day-to-day hunger pains. It is suggested that giving children a daily breakfast at school may improve their scholastic achievement (Grantham-McGregor et al.1998:785). School Feeding Programme provides vital nutrients, and for many children the food they eat at school is the most nutritious

they will get all day (Made, 2013). School Feeding Programmes are effective where children come from rural, relatively low socio-economic backgrounds. However, improving learning and educational outcomes for the learners is not a simple task (Hunt, 2008). It entails many factors that require thorough analysis to achieve objectives.

In low resources context like Malawi, several factors may explain girl-learner achievement outcomes. Some example may include physical environment and infrastructures of the school, socio economic status of the community, teachers' experience and teachers' academic qualifications.

Several studies have shown examples of how lack of toilets cause girls to absentee themselves from school resulting in failure and/or poor performance, just because they lack privacy and safety when they are at school (Hunt, 2008). Despite the fact that those needs explained above may affect levels of learners academic performance in primary schools in Phalombe district, still the government in collaboration with the WFP assume that the provision of food in schools in the country encourage learners performance(WFP, 2010).On the other hand, despite complex nature of SFP, available studies have shown

positive results on the contribution of SFP to learners' academic performance, (Ahmed, 2004).Other studies have also showed that SFP is a need which has positive results in improving students' cognitive abilities and improving performance in learners (Ahmed, 2004). This is so because school children who go to school without breakfast have been reported to not fully participate in the class and in school activities. Therefore,

when they get food at school they become effective and fully participate in school activities. Some researchers through recent control trial studies have proven this. For example, a study by Whaley et al. (2003) in Kenya where school children were given milk, meat or energy supplements for a total of 21 months has shown that children who were given meat improved their arithmetic scores by 0.15 Standard Deviation (SD) and their performance on the Raven's Progressive Matrices Test (a test of nonverbal reasoning) improved by 0.16 SD. A similar study done by Adelman, Gilligan, and Lehrer (2008) in Uganda where they investigated the nutritional benefits of two Food for Education programs for two years (from 2005-2007) from a sample of 2100 primary school-age children found that take-home rations improved mathematics scores for older children and led to an improvement in performance on their primary leaving examinations.

Other studies that have shown positive results on the effects of school meals to schoolchildren's cognitive enhancement and performance include studies done in Jamaica by Jukes, Drake and Bundy (2008), and in Bangladesh by Ahmed (2004). Unfortunately, there is not much literature about school feeding programmes in

Malawi as the subject is relatively new in the country; therefore, much of the literature available is from the same source (WFP, 2006; CERT, 2002 and MoEST, 2008). The first study was carried by the WFP who conducted a small pilot a period of three months in 1996 in Malawi. The study concluded that SFP led to a 5% increase in enrolment and up to 36% improvement in school attendance (WFP, 2006). In 2004, Roka conducted an

evaluation of SFP in Malawi in a number of Districts, though not properly controlled; he came up with an overall increase of 37.7% in the enrolment of girls, which was attributed to the fact that girls, and not boys, were given take-home rations. WFP's 2004 SF Snapshot Survey provided evidence that school feeding influences students' educational outcomes. However, the survey contained no follow up/ control questions (open questions) that could have elicited how the focus group reached their judgment (WFP, 2006).

2.1.1 Advantages of school feeding programmes

The main advantages of school feeding programmes, according to WHO (2001) are to alleviate short-term hunger in malnourished learners. This helps to increase students' concentration, producing higher levels of cognitive function and learning.

In addition, SFP motivates parents to enroll their children in school and have them attend more regularly (World Bank, 2002). Further to this, it addresses specific micronutrient deficiencies in school-age children (Del Rosso, 1999). Most important of these are iodine and iron, which directly affect cognition. Meeting the iron and iodine needs of school-age children can translate into better school performance.

Furthermore, it increases community involvement in schools, particularly where programmes depend on the community to prepare and serve meals to children (Del Rosso, 1999). Schools with their communities behind them are more effective than schools with less community involvement.

Finally, dropout rates and school year repetition diminish with school feeding (WFP, 2006). Various studies (in Benin, Jamaica, and North America) have shown learning achievement to be higher for children receiving school feeding (WFP, 2006).

2.1.2 Disadvantages of school feeding programmes

If not well planned, School feeding may disrupt learning during feeding time (Pollitt, 1994). It can increase the cost of schooling by requiring that communities provide firewood for cooking as well as water for cooking.

Additionally, communities are also expected to provide people who can cook these meals and maintain stores of all of the required food products, as well as kitchens and other fundamentals of meal provision.

2.1.3 Effects of school feeding programme on achievement of educational outcomes

In many cultures breakfast is not provided meaning the child may not have eaten since the evening before that combined with long travel may mean that the child begins school hungry and unable to concentrate. The provision of even a small snack at the start of the day or mid-morning alleviate the short – term hunger and has been linking to an increased awareness activities and learning capacity (Briggs, 2008). School Feeding Program has been successful in increasing pupils' performance (Pollitt, Jacoby & Cueto 1995 and Ahmed 2004). In Kenya, a study conducted in 2008 in Mwala division, Machakos County concluded that SFP improves performance of pupils (Wambua, 2008)

but Obonyo (2009) in Yala division in Busia county contradicted the belief and expectations by concluding that school meals do not affect pupils' performance. Therefore, the last phenomenon warranting more studies to prove whether it is true according to the prevailing conditions that SFP does not influence performance of pupils'. In this study, performance was referred to pupils scoring higher than in the previous examination. Performance had been addressed in much documents including economic recovery strategy for health and employment creation 2003 /2007. This was summarized as "an important exit route from poverty by improving people's ability to take advantage of opportunities that can improve the wellbeing as an individual and enable them to participate more effectively in the community and market", thus guarantee of quality education and training for all was the responsibility of the government and its partners according to Kenya consultative group meeting (WFP, 2003). The study will be

relevant because the class eight examinations were very vital in the life of pupils, when the right marks were obtained, the pupils gained entry to form one, which was equally important. The world food programme (WFP) and other agencies NGOS' operated SFP at the national and the local levels. Most of the organisations are concerned with the wellbeing of the children to ensure their participation in the school system which will lead to improved performance. The researcher based the studies on influence of SFP on curriculum implementation. According to WFP (2000), when SFP is implemented in a school, the attendance rate of disadvantaged and vulnerable children stabilizes as WFP, (2000) found out that providing a meal to school children significantly increases their attendance rates. For instance, a pilot SFP in Malawi resulted to 36 percent increase in

pupils' attendance to school within duration of 3 months(WFP, 1996). Ahmed al Nino (2002) asserted that take home rations programme in Bangladesh increased girls enrolment in programme schools by 44 % and boys enrolment by 28 percent while in non – programmed school's enrolment increased by 2.5 % for 18 girls during the same period .In Mali, SFP has changed schools dramatically, previously some students would go for morning lessons but leave for lunch or at recess at break time and would not come to school at all because they had no food. Levinger (2000) suggest evidence that SFPs may be most active in meeting their attendance related objectives in setting where attendance is already enough and where children come from rural relatively low social economic backgrounds, therefore, school meals influence the attendance of pupils' positively as the studies have proved. An evaluation of a SFP in Burkina Faso found that school canteens were associated with increased school enrollment, regular attendance, consistently lower repeater rates, lower dropout rates, and higher success rates on national examinations, especially among girls (Moore & Kunze, 1994). However, in a study conducted in Kenya, the investigators did not find a difference in the attendance rates between schools with and without the SFP (Meme et al., 1998).

School feeding programmes have also proven effective in reducing the education gap between girls and boys. For example, programme evaluation results from Pakistan, Morocco, Niger and Cameroon show that while food is the initial motivation for sending girls to school, parents of participating girls developed an interest in the education of their daughters(WFP, 2006). This change in attitudes is an important factor in enhancing

parents' commitment to education beyond the duration of food assistance (WFP, 2006). SFPs are likely to improve the nutrient intake of participating children.

A study in Huaraz, Peru shows that for children who received breakfast in schools, dietary intake of energy increased by 2%, protein by 28%, and iron by 4% compared to the control group (Jacoby et al., 1996).

A comprehensive evaluation of the impacts of the SFP by IFPRI (2003) discovered that SFP increases rates of enrollment and attendance, and reduces dropout by 14.2%, reduces the probability of dropping out of school by 7.5%, increases school attendance of participating students by 1.34 days a month, which is 6 percent of total school days a month.

The study conducted in Jamaica investigated the short-term effects of giving breakfast on cognitive performance in primary school children who were mildly undernourished as compared with adequately nourished children. Undernourished children's performance improved significantly when they received breakfast. Adequately nourished children did not experience any significant improvement (Chandler, et al., 1995).

In addition, SFP improves diet in the sense that it adds 75% calories to child's normal diet (Jacoby, et al., 1996). Further to this, SFP improves academic achievement by 15.7% points. School Feeding Program has been successful in increasing pupils' performance (Pollitt, et al., 1995 and Ahmed 2004). In Kenya, a study conducted in 2008 in Mwala

division, Machakos County concluded that SFP improves learners' performance (Wambua, 2008) but Obonyo (2009) in Yala division in Busia County contradicted the belief and expectations by concluding that school meals do not affect pupils' performance. Therefore, the last phenomenon warranting more studies to prove whether it is true according to the prevailing conditions that SFP does not influence performance of pupils'.

2.2 Trend in girls' academic performance in schools where SFP is taking place.

Generally, on learning outcomes in Malawi, studies are showing an emerging trend where girls are outperforming boys in lower grades of primary school (MoEST, 2010). This is concurred with WFP which stated that influence of SFP is greater in girls in terms of enrolment, attendance and completion of school (WFP, 2006). Household surveys

conducted also show that girls are more likely to receive extra tuition support than boys. This was so because girls were given take home ration, which acts as vehicle to success. One study in 1983 examined 115 children aged 12 to 13 years enrolled in a poor rural area school. One class was fed while the other was not. The girl's trends on school achievement after measurements using tests and followed over two semesters, the treatment group showed improved arithmetic scores compared to the control classes. After controlling for school attendance, academic improvement remained significant showing some evidence that reducing hunger during school hours could affect learning of arithmetic (Powell & Grantham-McGregor, 1983).

In Jamaica, providing breakfast to primary school students significantly increased attendance and arithmetic scores. The children who benefited most were those who were wasted, stunted, or previously malnourished (Simeon & Grantham-McGregor, 1989).

A US study showed the benefits of providing breakfast to disadvantaged primary school students. Before the start of a SFP, eligible (low-income) children scored significantly lower on achievement tests than those not eligible. Once in the program, however, the test scores of the children participating in the programme improved more than the scores of non-participants. The attendance of participating children also improved (Meyers, Sampson, Weitzman, Rogers & Kayne, 2005). Niger has one of the five lowest school enrollment rates in the world; the SFP is intended to enhance attendance of nomad and transhumant families, particularly of girls. Beneficiaries receive the equivalent of the total daily recommended food intake (2,079kcal) in three meals per day. In addition, as an incentive for girls' participation in schools, some families receive an additional take-home ration. Evidence from past experience with the SFP shows that it contributes to its objectives: whenever canteens have been closed, even provisionally, immediate and high absenteeism follows and children are withdrawn from school. In areas with nomadic and transhumant populations, the school year cannot commence until food stocks arrive (WFP, 2006; 2007). Although not a SFP in the traditional sense, school-based food distribution has also been used successfully to improve enrollment and attendance among school-age children, particularly girls.

In Bangladesh a programme of school-based food distribution increased enrollment by 20% versus a 2% decline in non-participating schools (Ahmed & Billah, 1994). In

Pakistan, a programme provided an income transfer in the form of one or two tins of oil to families whose girls attend school for 20 days per month. In its pilot phase the oil incentive program demonstrated that, it could make a significant contribution to full attendance. In participating schools enrollment improved by 76% compared to 14% in the province overall. Attendance increased from 73% to 95% among participants (WFP, 2009).

2.3 Academic performance of girls in low-income community primary schools

Low-income communities are the communities, which are poor, and it is where particularly poor families live (World Food Programme, 2009). These are high food insecure areas of the country such as remote rural places and flood-prone areas. Schoolchildren in such places live in hunger, which reduce their ability to concentrate and retain what they have learned in school.

However, several researchers indicate that children living in poverty and underdeveloped communities remain at high risk for cognitive impairment and lower academic achievement (Coates & Hassan, 2002). It is understood that children of low socioeconomic status often lack sufficient food for energy and nutrients for the brains to function properly, therefore, their brains are starved both in short- or long-term. Even after controlling for confounders, studies have significantly correlated food insecurity to poor mathematics and reading performance; long-term food insecurity appears to amplify academic shortfalls while becoming food secure reverses such deficits (Hollar, et al., 2010).

A baseline survey conducted on 2935 children (52% boys and 48% girls, aged between 6 to 13 years) by the National School Health and Nutrition (NSHN) in Malawi revealed that poor health and nutrition among the school-going children in low-income communities in Malawi negatively affecting them. According to the survey, 30% of school aged children are stunted thus are chronically malnourished and 18% are underweight. It also shows that one third of the children never eat breakfast, one third sometimes eat breakfast and one third always eat breakfast when going to school (WFP, 2009). These problems can lead to poor academic performance of girls since malnutrition affects brain functioning.

2.4 Academic performance of girls in high-income community schools

High income communities are the communities, which are well to do, and it is where particularly rich families live (WFP, 2009). Children in high-income community schools with more, adequate diets had higher scores on cognitive skill assessments; “regardless of the social and economic resources of the family” (Obayan, 2001). Well-fed children are stronger, brighter and more cooperative (Roche 2000:2; Kruger et al. 2002:8-9) and as a result of consuming school meals together, Children’s social behaviour and their attitude to school may improve (Grantham-McGregor 2005:S156). Results of the Cochrane review on school feeding, including 18 studies, of which nine were performed in higher income countries and nine in lower income countries, indicated that children who were fed at school gained weight, increased their achievement in mathematics and improved in the performance of short-term cognitive tasks (Kristjansson et al., 2007). Breakfast is expected to provide a renewed energy and necessary drive to children to perform better in

their academic pursuit (Klemnan, 1998). More recent research supports this finding; with those, increasing their participation in school breakfast lead to higher mathematics and reading scores (Wahlstrom, 1999). Participation in the SFP increases test scores by 15.7 percentage points (MoEST, 2005).

Another evaluation of a school feeding programme in Burkina Faso found that school canteens were associated with consistently lower repeater rates, and higher success rates on national examinations, especially among girls (Moore & Kunze, 1994).

Florence and Michelle (2008) stated that children perform better on standardised tests when given adequate amount of food on the day of the test. It is then likely that giving children a daily meal at school may improve their scholastic achievement (Grantham-McGregor, et al., 1998).

2.5 Stakeholder's perceived effects of school feeding programme on educational outcomes

Teachers, school management committee, parents and students consider school feeding as an effective tool to improve academic performance in primary school. The United Nations and the governments in collaboration with the WFP, perceive that, provision of food in schools in the developing countries improve students' academic performance and relieves short-term hunger (WFP, 2010).

An extremely high percentage of mothers from Bangladesh reported that they notice several positive effects of the SFP on their children (IFPRI, 2003). SFP improves energy, attitudes, health and children's interests in attending school and concentration on studies. Nevertheless, some mothers from Bangladesh still wonder if school feeding is really a vehicle to influence academic performance (IFPRI, 2003; Del Rosso, 1999).

2.6 Theoretical framework

Abraham Maslow: Hierarchy of needs theory

Abraham Harold Maslow (1908- 1970), an American psychologist, developed a theory called 'the hierarchy of needs.' Abraham researched on people's needs and theorized that people are influenced by five broad groups of needs. Maslow introduced five levels of basic needs through his theory. The central point of Maslow's theory is that people tend to satisfy their needs systematically starting with physiological needs then moving up the hierarchy (Cole, 2004). Therefore, the theory the researcher used is Maslow's Hierarchy of Needs theory. Maslow's theory is applicable in an educational context and more specifically to children.

Maslow believed that every human being has several levels of needs, beginning from basic to sophisticated levels (Woodhouse, 2012). Each level's need must be met before someone can meet the needs of the next level (Hoy & Miskel, 2008). Maslow (1954) in Woodhouse (2012) explained that the hierarchy was a five-stage model and the basic needs arrange themselves in a fairly definite hierarchy on the basis of the principle of relative strength. Therefore each stage is based on the way human beings develop.

All children have a set of needs that if met with the help of parents, friends and teachers can help mould a child and build a good foundation for adulthood (Craig, 2002). If there is a deficiency in the needs, it can result in hindering a child's performance and behaviour in school (Ryan, Richard & Deci, 2000). If the hierarchy has been broken down into its five stages, the five stage impact in the lives of children and their learning can be evaluated (Refer figure 1).

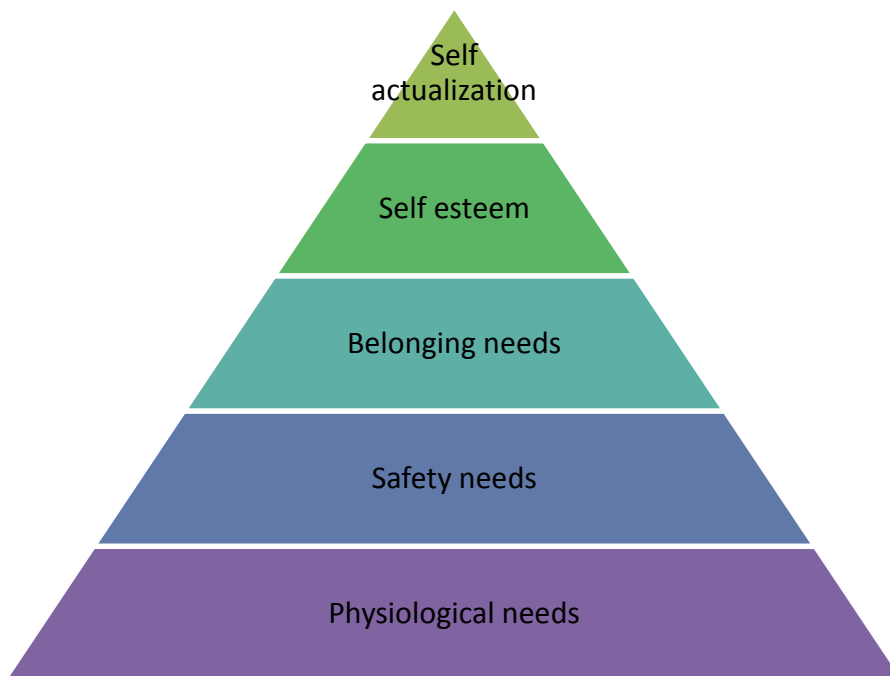


Figure 1:Maslow's Hierarchy of Needs: Five stage model

Source: Abraham Harold Maslow (1908- 1970)

The first stage is physiological needs, whereby children require breathing, excretion, food, water and sleep just as adults do. The other element of this stage is sex, but for schoolchildren, this is not yet relevant. When we further study the need for sleep and food, we can see how seriously this stage can affect child's performance in school.

Woodhouse (2012) concur, great academic performance cannot be expected from students experiencing basic needs deprivation. Without a proper diet and reasonable amount of sleep, children's concentration will decline and their minds will be focused on other things such as hunger. As a direct result of this, children will lack the energy required to actively participate in activities throughout the school day and this could affect their performance in the classroom. Problems such as these are often linked to children who come from disadvantaged homes where many parents lack the resources to provide adequately for children's basic needs and support that could help them succeed in school. Children come to school hungry and have trouble paying attention in class.

However, the government of Malawi has set up initiatives to combat some problems that can affect the performance of children in school. School Feeding Programme is one where children receive free food before the school day.

Once the physiological needs of a child are met, they can move on to the second level, which concerns "safety. This level of needs comes into play. Children become increasingly interested in finding safe circumstances, stability and protection. Looking at it negatively, children become concerned, not with needs like hunger and thirst, but with their fears and anxieties.

Moving on to the third level of the hierarchy "belonging" this, is the point where a child wants to feel loved and accepted in several areas of their lives (Crag, 2002). It is in this level whereby meals should be served in a comfortable, friendly atmosphere, since

environment does play a role in learner's eating behaviours, they may be more apt to eat a healthy meal if they have enough time to eat, relax and converse with friends (Neumark-Sztainer et al., 2005). Looked at negatively, children become increasingly susceptible to loneliness and social anxieties.

The fourth stage children seek to meet their needs for self-esteem. Maslow noted two versions of esteem needs, a lower one and a higher one. The lower one is the need for the respect of others, the need for status, fame, glory, recognition, attention, reputation, appreciation, dignity, even dominance. At lower version a learner can play to develop physically and will interact with others with a lot of ease and grow in self-esteem. The higher form involves the need for self-respect, including such feelings as confidence, competence, achievement, mastery, independence and freedom. Note that this is the "higher" form because, unlike the respect of others, once you have self-respect, it's a lot harder to lose!

The final stage of the hierarchy of needs is "self-actualisation." According to Sprenger (2008) self-actualisation suggests that someone has achieved "what they were born to do. Maslow states that children set goals for themselves and in some cases; children aspire to achieve something later on in their life from a very young age (Deci et al., 1991; Ryan & Deci, 2002; Reeve, Hamm & Nix, 2003; Wilson & Ladditer, 1982). The theory holds that one would expect SFP to influence academic performance because the purpose of SFP is to improve performance and quality education to every Malawian child graduating from primary school regardless of gender, ethnic background, or socio-economic

background. Using the theory, this study sought to investigate the perceived effects of SFP on achievement of educational outcomes in low in-come community primary schools in Phalombe District.

In conclusion, in this theory, undoubtedly the physiological needs are the most pre-potent of all needs if all needs are unsatisfied, the person is then dominated by the physiological needs, all other needs may become simply non-existent for consciousness is almost completely pre-empted by hunger (Neumark-Sctainer et al., 2005).

This theory has contributed to the researcher's understanding of the effect of food on the process and ability of learners to learn effectively. This theory has also assisted the researcher to simplify conceptual framework of the thesis. It has clearly shown how crucial is the SFP to primary school learner's' educational outcomes. That is, providing learners with food improves academic performance which in turn enhances educational outcomes.

2.7 Chapter Summary

This chapter has reviewed the literature on SFP, which suggests that school feeding is the best way to ensure best educational outcomes over time. In addition, the chapter reviewed literature highlighting advantages and disadvantages of SFP, effects of SFP on educational outcomes, stakeholder perceptions on achievement on educational outcomes, trend in girl's academic performance in schools where school feeding is taking place, the literature reviews the difference to girl's academic performance in low and high-income

community primary schools, stakeholder perceptions on achievement on educational outcomes and theoretical framework and conceptual framework which guide the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Chapter overview

This chapter consists of research design, target population, sampling procedure and sample sizes, instruments for data generation, reliability of the instrument, procedure for data generation, pre-testing the questionnaire, data analysis techniques used in the study and research ethics.

3.1 Research design

The study employed phenomenological research design whereby qualitative approach was applied. Phenomenological study seeks to understand the lived experiences of a small number of people and describing what all participants have in common as they experience the phenomenon (Creswell, 2009). Qualitative research tends to work with small number of participants due to time consuming and labour intensive nature of qualitative data collection and analysis hence qualitative research does not work with representative samples (Creswell, 2009). In addition, qualitative research understands people through multiple methods which are interactive and humanistic (Creswell, 2009). That is, they talk with people; watch and listen as people do their everyday tasks; reads documents and records and look at physical space, clothing and tools (Creswell, 2009).

The methods researcher used were questionnaire, observations, interviews, gathering documents and the researcher own experience of events and processes (Strauss &Lorbin, 1990). It also involves constant comparison of data with emerging categories and theoretical sampling of different groups to maximise the similarities and differences of information (Creswell, 2009).The approach used two groups of subjects from two different community schools. One group was exposed to the feeding programme and the other was not. The one not exposed to feeding programmed was used as the baseline for comparison. Therefore, the study compared the outcomes of feeding programme and non-feeding programme schools using what is known as the "with-without" approach in (Creswell, 1998). The method compared performance of children in schools in low and high-income communities with the programme and in low and high-income communities without SFP. These have been done through descriptive and interpretive. It was descriptive because the researcher described social phenomena and contributed to understanding about them. The researcher also compared and contrasted in order to understand the differences in academic performance and this comparison involved evaluation about effectiveness. At the same time, it was interpretive because the researcher interpreted the world entered (Creswell, 2009). That is, decisions must be clarified so that others may understand how the study was done and can assess the adequacy and trustworthiness.

3.2 Target population

The target population in this study was four school headteachers, four teachers, four School Management Committee members who also stand as parents in four sampled schools and cohort of 80 standard five primary school girl learners from the four sampled primary schools in Phalombe district in Shire Highlands Division. The four schools comprised of two from low-income communities, the other two from high-income communities. From the two schools in the two communities, one school offered SFP and the other did not.

3.3 Sampling procedure and sample sizes

In this study, four schools out of 91 were selected, that is, two schools under feeding programme, one from low-income community, another one from high-income community, the same with remaining two non-feeding. Small sample was chosen because the larger same size for qualitative data generation is more complex, time consuming and multi-layered the analysis will be (WFP, 2009). The high-income community schools were purposively sampled basing on quality since Phalombe district statistical data reveals that there are only 4 high income community schools in the district. Therefore, the researcher purposively chose two schools out of 4. The researcher deliberately chose the two which were easy to reach due to lack of resources. Low-income community schools were selected basing on their vulnerability using maximum variation sampling technique in order to illustrate the range of variation in the selected schools that vary widely in community setting like urban and rural (Miles & Huberman, 1994, p. 28). Only

four schools were selected because it was very difficult for the researcher to collect data from portfolios, progress books for these learners because in many schools, the documents were not well organised and some were not there. Twenty learners were selected from each school. These were girls learning from same schools from 2009 to 2014. Only 20 were selected in each school due to dropouts as they proceeded on their way to upper classes. For example in school B, only 20 reached standard five from 2009-2014. Thus, 60% of primary school children who enter standard 1 are expected to reach standard 5 and only 39% to reach standard 8 (Integrated Household Survey, 2005)in (Phalombe district socio-economic profile, 2006).The schools selected represent 1.1% of all the government primary schools in the district. That is, excluded private primary schools because private primary schools are much better and therefore differ from public primary schools in terms of facilities, number of teachers and teaching quality. Again in developing countries, parents whose children are in private schools are considered having better living standards than those with children in government schools (Hauya, 1993).

The study sample was 104, comprised 4 headteachers, 4 teachers, 16 School Management Committee members representing parents and 80 learners all purposively chosen. Purposive sampling technique is a technique that allows the researcher to use cases that have the required information with respect to the objective of the study (Schumacher and McMillan, 1993). For this study, four headteachers, four teachers, sixteen School Management Committee members were purposely selected because they were informative and poses the required characteristics. The sample was therefore 4

headteachers, 4 teachers, 80 learners and 16 School Management Committee members. One headteacher and one teacher were drawn from each school. Each headteacher and teacher represented a school where standard one to five cohorts also purposively selected. The headteachers were chosen because they were the administrators of the school feeding programme in the day today running of the school; teachers were also targeted because they are in a position to determine the effects of school feeding programme on pupil's academic performance also pupils were chosen because they are direct beneficiaries. The classes 1-5 were selected because the researcher wanted to find the trend in academic performance in five years period in school where SFP is taking place. In addition, Standard one to five cohort was chosen because these girl-learners were often enticed to remain at school by the attractive school environment and nurturing atmosphere, it is only later when they reach standard 4, when academic school work begins to make any sense to them. At fifth year learners have reached the transition of more complex cognitive mechanisms, which occur in education, that is to say, developing internally organized skills that govern behaviour in learning, remembering, and thinking, rather than parroting and memorising which they used to do in infant classes (Hauya, 1993).

The study was conducted in 2015/2016 academic year.

3.4 Instruments for data generation

This research study employed questionnaire, observation checklist, focus group discussions, and interview guide and document analysis instruments.

3.4.1 The questionnaire

The questionnaire was developed based on the objectives of the study and the research questions. The questionnaire had two closed items, which the researcher used. These are shown in appendix 2 and 3. The instrument was administered to four purposively sampled headteachers in two maximum variation sampled schools and two purposively sampled schools.

3.4.2 Document analysis checklist

The researcher administered the document analysis checklist where academic results were obtained from the headteachers who compiled data on girls' academic performance in the course of SFP (appendix 2 and 3). The results were recorded in the document analysis form. The document analysis helped the researcher to have background information level of performance of students as the programmed progressed and to know number of learners who were doing well.

3.4.3 Observation checklists

Observation checklists were selected because the researcher wanted) to discriminate the status of girls from low and high-income communities (appendix 10) ;to discover the living standard of the learners by looking at their vulnerability and quality in their households, that is, the socio-economic data (appendix 10). These were chosen in order to check some contributing variables, which can affect academic performance; and because of their flexibility in the provision of the nature of information to be required by the research study (Coh'en & Marion, 1996).

3.4.4 Focus Group discussions

Focus Group discussions are a widely used methodology in social science researches as they help to tap more in-depth perceptions, attitudes, experiences and belief of the study participants (Creswell, 2009). Since the study focus was to find the perceived effects of the girl-learners and teachers on contributions of the school-feeding programme to girl learners' achievement on educational outcomes in primary schools, the use of focus group interviews as a tool for data generation was very important for this study. Using focus group interview, the researcher was able to collect data that reflected the effects of SFP on achievement of education outcomes of girl learners on the matter.

Two focus group interviews were conducted at two different areas within the selected study location. All selected participants for the focused study group met at one location, which was considered convenient to all participants and with a good venue. In order to enable participants to talk freely and be able to give their insights and views on the SFP, the researcher grouped the girls in four groups of 10's, which were asked individually at a given time. This was done with the view that everyone should be involved and be free to talk. Teachers were interviewed individually in their respective primary schools. Then, the School Management Committee members, who also represented parents, were interviewed together in their respective schools.

In all groups, the researcher had to control the influence of others who might have dominated the discussions. Both girl learners and teachers' groups had five questions that

they answered. (Appendices 4 to 6, Appendices 5 to 7), School management committee members had five and nine questions,(appendices 8 and 9).

3.5 Data generation

The study adopted qualitative approach. The qualitative approach in the study was applied in the sense that it is an approach which seeks to explore and understand the meaning individuals or groups ascribe to a social problem (Creswell, 2009). The researcher-generated data using document analysis checklist (see appendix 2 and 3). These captured quantitative data on classroom performance between girl learners undertaking school feeding and those who were not, in low and high-income community schools. The head teacher provided each girl's academic performance record from the start of standard One up to standard Five. The researcher captured data from the documents such as girl's progress record reports, portfolios and class progress record books provided by the head teacher to validate headteacher's report. The data was analysed using an interpretive nature of the descriptive.

The observations checklist and document analysis data were generated in order to answer the research questions (Creswell, 2009). The document analysis data therefore, has answered research questions concerning trends of girls' academic performance in high-income community schools, and differences of girls' academic performances in the course of feeding and absence of feeding in low and high income community schools (see appendices 2 and 3). This study therefore used document analysis checklist to generate data, which was analysed using Microsoft, excel for further analysis and interpretations.

Creswell (1998) and Merriam (2001) argue that document analysis, as a data source, is as good as observation and interview. However, it could be argued that document analysis has the potential to reveal information that the interviewee is not ready to share and information that may not be available during observations. Observation checklist was also used to differentiate girls of low, and high-income status since socio-economic status is a contributing factor in learning process.

3.6 Reliability

The researcher carried out pilot testing of the instruments to establish their reliability. To establish the instrument reliability, the researcher used test-retest techniques, whereby the same gathering tool was applied on the same respondent at different times. The instrument produced the same results proving its reliability.

3.7 Procedure for data generation

The researcher first sought the authorisation from the Education Foundations Department to carry out the research. The researcher then presented the permission letter to the District Education Manager for Phalombe District who referred her to the Division Manager Shire Highlands Division to authorise her to go to different primary schools in the district. The researcher then visited the participating schools to get permission from the headteachers and arranged for the appropriate days for data generation. The researcher visited the two maximum variation sampled school communities, then, other two purposively selected school communities to critically observe the social economic status of communities, that is, to find out mothers education, houses built of burnt bricks

or mud, houses thatched with grass or iron sheets and other resource present. The researcher filled the observation checklists shown in appendix 10 during the process of observations. Observation was an important tool for data generation in this study since it described the status of the girls. It is necessary therefore, to observe how people survive. Hence, it is an important tool for evaluating and cross checking the data generated using other methods (Creswell, 2009). The researcher used a questionnaire to generate data from headteachers (see appendices 2 and 3). The researcher used close-ended questions during the questioning. The instrument was administered to purposively selected head teachers. The researcher also obtained data from progress record books from the head teachers of different schools in order to assess past five-year academic performance of girls to complement academic performances provided by the headteacher. This kind of assessment had the same level of knowledge, having been taught the same content of curriculum with curriculum objectives designed by the MOEST, under more-or-less similar learning conditions with similar qualified teachers who were trained in similar manner.

3.8 Pre-testing the questionnaire

The questionnaire was pre-tested in two of four sampled primary schools in the district after which the same were repeated after two weeks. The purpose of pilot - testing were to establish whether they could be used to collect the relevant data and to check whether instructions in the questionnaire were clear and understandable to the respondents and the researcher herself.

3.9 Dataanalysis techniques

After data were collected, it was organized, analysed and interpreted accordingly using qualitative approach. In qualitative approach the researcher tabulated data from questionnaire, observation checklist, and document analysis. Data from a questionnaire were analysed and interpreted on bar graphs (figures 1, 2, 3 and 4).The bar graphs made interpretations of data simpler, self-explanatory and helped to show how girls were performing.

3.10 Research ethics

Before generating any data, the headteachers and teachers were informed of all the aspects of the research study. For example, the aim of the research study and its significance. After obtaining an informed consent from the head teacher, the researcher and the subjects established a fair and clear agreement as to the obligations and responsibilities of both parties. For instance, proper behaviour was strictly adhered to throughout the data generation process. This in turn influenced the subjects to willingly participate in the research study. The subjects were also assured of total confidentiality, that is, no one would have access to the data to be collected except the researcher and themselves. This way the participants were protected from physical and mental discomfort, harm or danger and provided the required data unanimously (Creswell, 2009). To accomplish this, the researcher made sure that names of the subjects did not appear on the data collection instruments. In addition to this, no name appeared in any publication that reported the research results instead codes or letters were used to present the subjects.

3.11 Delimitations

This study was confined within the primary schools in Phalombe district that offers SFP. It also focused only on cohort of girls who started schooling in 2009 and in 2014 who were in Standard Five.

3.12 Chapter summary

This chapter has covered the following: research design whereby qualitative approach was applied, target population of learners, headmasters, and community. Sampling procedure and sample sizes, instruments for data generation, data generated by use of observation checklist; document analysis checklist; reliability of the instrument, procedure for data generation, pre-testing a questionnaire, data analysis techniques using qualitative technique and research ethics.

CHAPTER 4

RESULTS AND DISCUSSION

4.0 Chapter overview

The purpose of this study was to investigate the effects of school feeding programme on achievement of educational outcomes in primary schools in low-income communities in Phalombe District. The study has presented a discussion of findings in order of the following themes: Trend in girls' academic performance in high-income community primary schools; differences in academic performance between girls who are fed and those not fed in low and high-income community primary schools, what girl- learners; teachers and headteachers perceive as the effects of school feeding programme in Phalombe district followed by headteachers' responses on other contributing factors which can affect learners' academic performance apart from SFP and what School Management Committee members 'perceive as effects of SFP on achievement of educational outcomes of girls in schools under SFP in Phalombe district.

4.1 Trends in girls academic performance of high income community primary school under SFP and without

The findings indicate that girls from both high-income community schools with and without SFP performed well in their academic performance. Out of 20 girls from the sampled schools, 13 girls representing 65% under school feeding programme are

performing well. That is, 6 of the girls were on level 2 which is average, 7 were on level 3 which is good, other 7 were on level 1 which is need support and none was on level 4 which is excellent. On the other hand, 11 of the girls representing 55% without SFP were also performing well. Their scores were as follows: 8 girls on level 2 (average), 3 girls on level 3 (good), 9 girls on level 1 (need support) and none on level 4.

Nevertheless, there is only a slight difference between learners' academic achievements in high income community schools with and without SFP. The difference shows two girls on Levels 1 and 2, four girls on Level 3 while on Level four; there is none in both schools. (Refer to table 1). This corresponds with Obayan who said that children in high-income community schools with more, adequate diets had higher scores on cognitive skill assessments; "regardless of the social and economic resources of the family" (Obayan, 2001). However, United Nations World Food programme (UNWFP) on request from the government in 1999 recommended that Malawi should be supported because learning outcomes show lower performances especially of females compared to male students whose national examinations were 13 points lower than boys (MoEST, 2013; MVTE). This implies that learners who have taken meals get good grades. Thus, these results in the study findings could be a clear indication that learners in the high income sampled schools are performing well. Additionally, PCAR recommend what the World Conference on Education for all in Jomtien, Thailand in (March 1999) recommended that basic education should be focusing on "actual learning acquisition and outcome" not on one short examination. Therefore, PCAR came up with the levels such as level 1, 2, 3 and 4 so that learners should be considered to have achieved when they pass with levels 2, 3

and 4. This implies that learners who have passed with levels 2, 3 and 4 are considered to have performed well. Thus, these results in the study findings could be a clear indication that learners in the high income sampled schools are performing well.

Table 1: Academic levels and number of girls of high-income community schools under SFP and those not

School type	Academic levels and number of girls				Total passed
Level	1	2	3	4	
High-income community schools with SFP	7	6	7	0	13 out of 20 (65%)
High-income community schools without SFP	9	8	3	0	11 out of 20 (55%)

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support, Level 2 = Average

Level 3= Good, Level 4= Excellent

The analysis given in table one is clearly interpreted in a bar graph in figure 1 which has made the interpretation of the data easier and self-explanatory. The figure indicates that girls in both communities are performing well. They have all reached level 3. There is just a slight difference of 2 on levels 1 and 2, and a difference of 4 on level 3. None of the school reached level 4. (Refer figure 2).

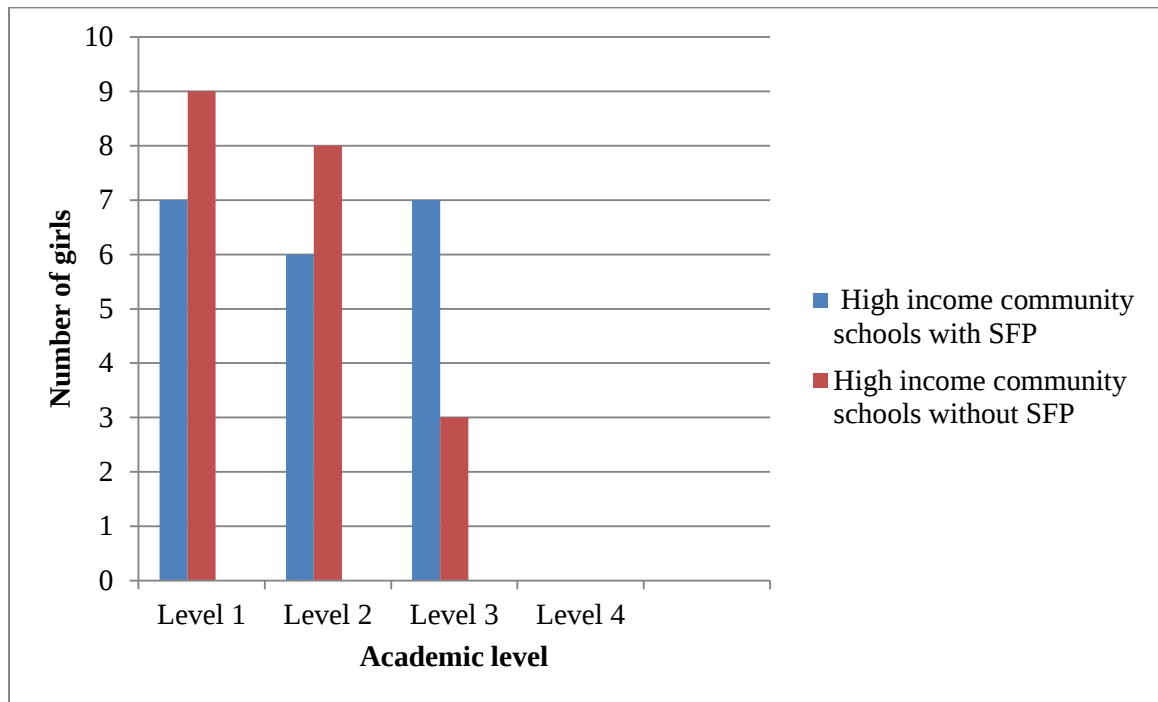


Figure 2: Academic levels and number of girls of high-income community schools under feeding and those not.

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

Correspondingly, the Figure clearly show seven girls under SFP on Level 3, six girls on Level 2, seven on Level 1 and none on Level 4 and a slight difference as indicated earlier on. The difference is due to those not fed take food from home. Results from this study correspond to the findings of Sigman et al; (1989) who researched on malnutrition and cognition in Kenyan schoolchildren. He found that children with more adequate diets had

significantly higher scores on cognitive skill assessments, “regardless of the social and economic resources of the family” (p. 1471-1472). Adequately nourished children did not experience any significant improvement (Chandler, et al., 1995). The provision of even a small snack at the start of the day alleviates the short-term hunger and has been linked to an increased learning capacity. In particular a non-systematic review concluded that overall, the literature suggests that good regular dietary habits are the best way to ensure optimal cognitive and academic performance across time, however, school performance specifically may not be improved for those children who already have good nutritional status (Bellisle, 2004). The findings are also in agreement with Wambua (2008) who concluded that SFP improves performance of pupils. But contradict Obonyo (2009) who concluded that school meals do not affect pupils’ performance. Therefore, the last phenomenon warranting more studies to prove whether it is true according to the prevailing conditions that school feeding does not influence performance of pupils.

4.2 Trends in girls’ academic performance in Low-income community schools with and without school feeding

The findings indicate that girls from both low-income community schools with and without SFP performed differently in their academic performance. Out of 20 girls from the sampled schools, 18 girls representing 90% under SFP are performing far much better. The findings indicate 2 girls on Level 1, six on level 2, nine on Level 3 and three on level 4. On the contrary, more girls from same community without SFP are performing badly. The findings indicate 10 of the girls representing 50% were on Levels 1 and another 10 on level 2. There is none on Levels 3 and 4. This shows that feeding

programmes in schools improve girls' academic performances(Refer to table 2).). However, WFP recommended that Malawi should be feeding learners in order to increase concentration span and learning capacity among school children (MoEST, 2013; MVTE). This implies that learners who have taken meals get good grades. Thus, these findings could be a clear indication that learners who are on SFP are performing well.

Table 2: Academic levels and number of girls of low-income community schools under SFP and those not.

School type	Academic levels and number of girls				Total Passed
	1	2	3	4	
Low income community schools with SFP	2	6	9	3	18 out of 20 (90%)
Low income community schools without SFP	10	10	0	0	10 out of 20 (50%)

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

The results on table 2 is clearly interpreted on figure 2 whereby levels of low income community school girls with SFP has reached level 4, meaning they are performing far

much better than their counterparts who have just reached level 2. Ten of them need support while another 10 are on average. (Refer figure 3)

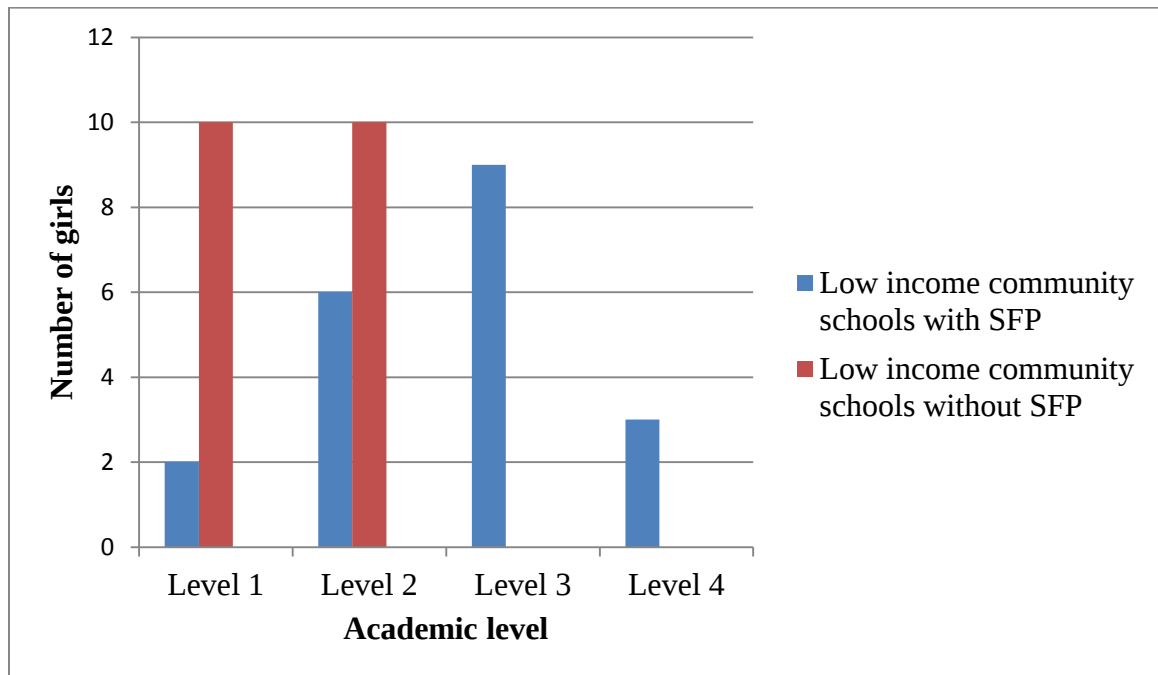


Figure 3: Academic levels and number of girls of low-income community schools who are under feeding programme and those who are not

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

Likewise, Figure 3 made interpretations self-explanatory as it describes girls' performance. The graph easily compares girls' performances from both low-income community schools with and without SFP. It has clearly shown that girls from low-income with SFP are performing very well compared to their counterparts. Their

counterparts are not performing well. The results show: more girls in high levels and few girls in levels for example low-income community primary schools has girls on high levels while their counterparts has more girls on a lowest side of levels. That is ;level 1 and 2. This is due to lack of energy which can make them active and concentrate in class. This contends with Maslow in Woodhouse (2012) who concurred; great academic performance cannot be expected from students experiencing basic needs deprivation. If there is a deficiency in the needs, it can result in hindering a child's performance and behaviour in school (Ryan, Richard & Deci, 2000). Even after controlling for confounders, studies have significantly correlated food insecurity to poor mathematics and reading performance; long-term food insecurity appears to amplify academic shortfalls while becoming food secure reverses such deficits (Hollar et al.; 2010). This is in line with (Wambua, 2008) who concluded that SFP improves performance of pupils. It also corresponds with a research study done in Kenya by Educational Research and Policy studies which found that the schools with SFP had the highest performance compared to those without SFP. This study found that girls from low-income community schools under feeding programme over five academic years are performing well. Conversely, girls from the same community where there is absence of SFP are not performing well.

4.3 Comparison in academic performance of girls under SFP in low and high-income community primary schools

The findings show that 18 out of 20 girls representing 90% in low income community primary schools with SFP did well in their performances while those in high income

community primary schools of the same, only 13 girls representing 65% of the girls did well. The described number of girls and their scores (Levels). The findings indicates two girls from low income community primary schools with SFP on Level 1, six on Level 2, nine on Level 3 and three on Level 4. Conversely, it also indicates seven girls from high income community primary school of the same, on Level 1, six on Level 2, seven on Level 3 and none on Level 4 (Refer to table 3)

Table 3: Number of girls and their academic levels in low-and high-income community primary schools with SFP in Phalombe District

School type	Academic levels and number of girls				Total Passed
Level	1	2	3	4	
Low income community schools with SFP	2	6	9	3	18 out of 20 (90%)
High-income community schools with SFP	7	6	7	0	13 out of 20 (65%)

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 3 = Good

Level 2 = Average

Level 4 = Excellent

The findings in the table has been clearly interpreted in figure 4 whereby the results clearly show a difference between learner education academic achievements in high income community primary school with SFP and low-income community primary school with SFP. (Refer figure 4).

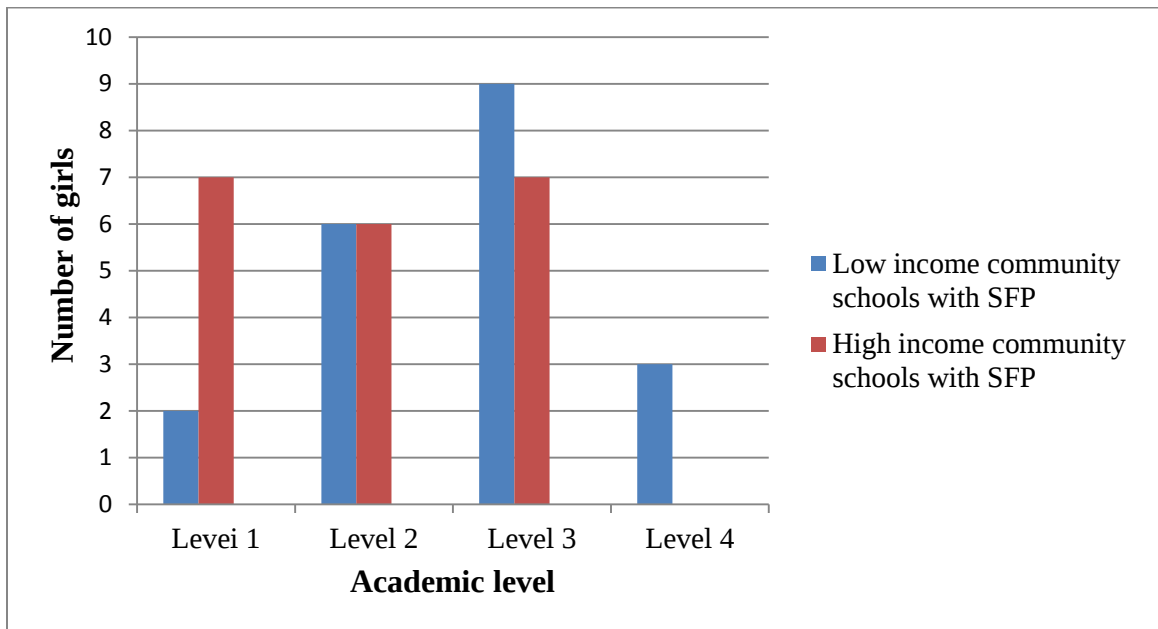


Figure 4: Comparison in academic performance between girls with and without SFP in low and high-income community schools

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

Girls in low income community primary school with SFP outperform those from high income community primary school of the same. As indicated, girls has, high scores on low than high income community primary. Their results show 7 girls on level 1, 6 on level2, 7 on level 3, and 0 on level 4. This was because feeding is not a need. They work

as usual hence they are performing normally. In particular a non-systematic review concluded that overall, the literature suggests that good regular dietary habits are the best way to ensure optimal cognitive and academic performance across time, however, school performance specifically may not be improved for those children who already have good nutritional status (Bellisle, 2004).

Due to the difference in academic levels and number of girls in low and high-income community primary schools with SFP discovered, it could be concluded that girls in low-income community primary schools where SFP is taking place are performing well as compared to girls in high-income community schools of the same. Nevertheless, there is only a slight difference between learner education academic achievements in high income community schools with SFP and those without SFP because those without SFP take food from home. On the other hand, those from low income community primary schools without SFP do not perform well. This is because they lack energy which can make them active and concentrate in class. But there is still confusion however on whether nutritional foods are helpful to school-going children or not. As Bundy et al., (2009) said, “nutritional deficiencies during this period are critical for the child’s future growth, especially for the brain’s development.” Therefore, this fact calls for more studies to prove whether it is true according to the prevailing conditions that “nutritional deficiencies during this period are critical for the child’s future growth.

4.4 Comparison in academic performance between girls without feeding programmed in low and high-income community schools

The findings indicate that 10 out of 20 girls representing 50% of the girls in low income community primary school without SFP did not perform well while 11 (55%) of the girls from high income community primary school did fairly well. However, the performance is not quite different. The results clearly show 10 girls from low income community primary school without SFP on Level 1, ten on Level 2, none on Level 3 and Level 4. Conversely, girls from high income community primary school of the same, nine are on Level 1, eight on Level 2, three on Level 3 and none on Level 4. The information is clearly showed in Table 4.

Table 4: Performance levels and number of girls of low and high-income community schools without SFP

School type	Academic levels and number of girls				Total passed
Level	1	2	3	4	
Low-income community schools without SFP	10	10	0	0	10 out of 20(50%)
High-income community schools without SFP	9	8	3	0	11 out of 20 (55%)

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

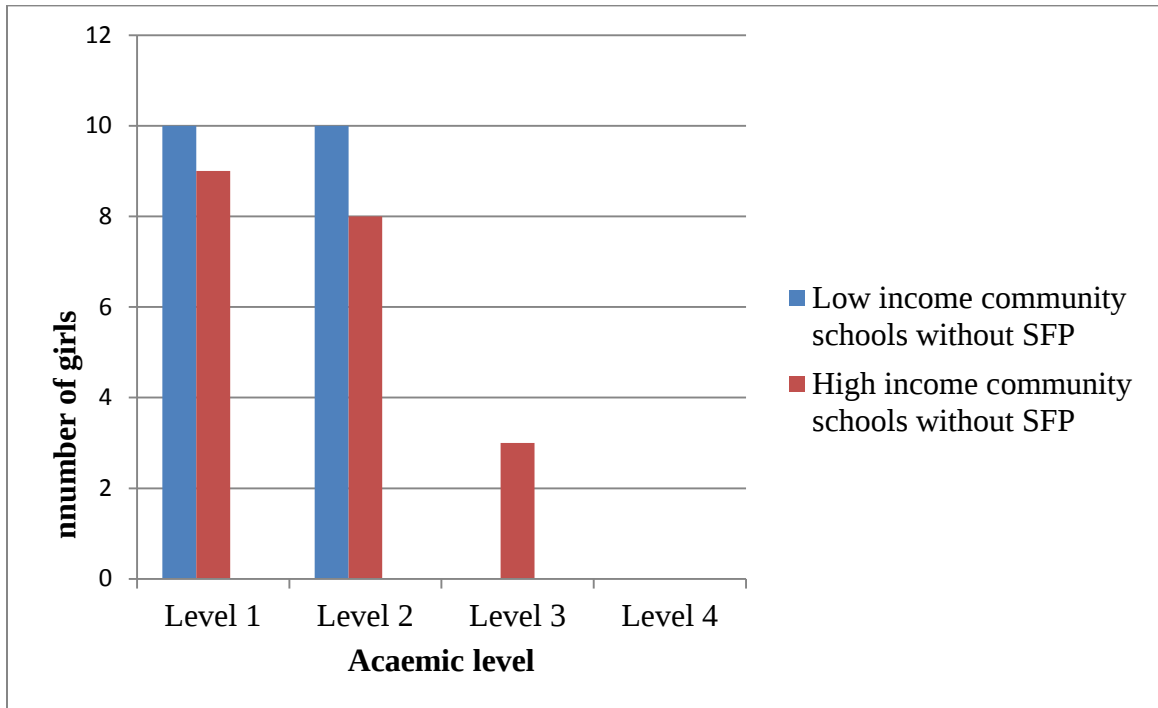


Figure 5: Comparing performance levels and number of girls of low and high-income community schools without SFP

Source: Researcher data analysis (2015)

Key

Level 1 = Needs support

Level 2 = Average

Level 3= Good

Level 4= Excellent

Equally, figure 5 clearly compares performance levels and number of girls of low and high-income community schools without SFP. The results show low-income community primary school more affected than their counterparts. Half of the girls are on level 2 (average) and half are on level one which need support. Their friends have reached level

3 (good). As indicated, girls has higher scores in high-income than low- income community primary. There is a slight difference between girl learner education academic achievements in low-income community primary school without SFP and high income primary school without SFP (Refer to figure 5). The difference comes because those from high-income community primary school take food from home therefore they have energy which makes them concentrate well in class. This correspond with a baseline survey conducted on 2935 children (52% boys and 48% girls, aged between 6 to 13 years) by the National School Health and Nutrition (NSHN) in Malawi which revealed that poor health and nutrition among the school-going children in low-income communities in Malawi negatively affecting them. According to the survey, 30% of school aged children are stunted thus are chronically malnourished and 18% are underweight.

Due to the difference in academic levels and number of girls in low and high-income community primary schools without SFP as revealed in this study, it could be concluded that SFP may help children's educational progress, particularly that of undernourished children.

Overall, from these results, it shows that SFP is a need to learners in low-income community primary schools. This trend is an indication of the success of SFP in encouraging girls to perform well in schools. This also shows how greatly SFP helps in achieving educational outcomes of school learners. From these results, it can be seen that SFP has a strong effect on attainment of educational outcomes. The study is in line with the

study conducted in Jamaica which investigated the short-term effects of giving breakfast on cognitive performance in primary school children who were mildly undernourished as compared with adequately nourished children. Undernourished children's performance improved significantly when they received breakfast. Adequately nourished children did not experience any significant improvement (Chandler et al., 1995). Once in school, a well-nourished child has a greater capacity for learning, with a longer attention span, better concentration and higher retention (Chandler et al., 1995). SFP improves diet in the sense that it adds 75% calories to child's normal diet (Jacoby et al., 1996). Table 4 shows girls' in low income community schools without SFP performing slightly less as compared to their counterparts in high income community schools.

4.5 Girl-learners' perceived effect of SFP on achievement of educational outcomes

The study involved 80 girls to find out what they think on the SFP as the "factor" for learners' academic performance. Seventy-three out of 80 (91.25%) girls reported that SFP is a good programme. For example learner one from school C said, " *when I have taken porridge, I don't become tired in class.*"

Learner four from school D said " *I am always hungry; I don't pay attention to the teacher as she is teaching. I even forget easily what she has taught when I am hungry and I even become aggressive when asked to do something and have anxiety.* This finding reflects the arguments put forth by other researches like of (Powell and Grantham-McGregor 1983) who also found that school feeding, in contrast to fasting, may improve performance on the health breaks.

As some researchers (Lieberman, Spring, & Garfield, 1986) believe carbohydrate foods cause more sleepiness, and therefore academic difficulties, in this study, some of the girl-learners did not agree that school feeding do increase girl learners' academic performance. For example, learner three from school A said, *"when I have taken porridge I become tired and start sleeping. In addition, learner four said, "my mother told me not to eat porridge." When asked, she did not respond.*

When girls were asked as to why they think that school feeding is important to them, they were able to mention some reasons why they think it is important. Some of the reasons mentioned by the girls were that, school feeding helps them to understand lessons much better than if they are hungry, and that they get more time to concentrate on learning. These responses by the students correspond with other study findings in previous empirical studies like by Acham et al. (2012). For example, the (Acham, et al., 2012) study found that, school feeding contributes to improving students' level of attention and concentration in the class and reduces short term hunger.

In these interviews, students had the view that school feeding should continue because "it is helping them to effectively understand lessons in the classroom". They were also worried that, if the programme stops, they "may go hungry again to school" as they thought that some of them "might not get lunch at home". Among all 80 girls who participated in the study, when they were asked if they think school-feeding programme should stop or continue, 73 of them responded that, the programme should continue.

4.6 Teachers' and headteachers' perceptions of the effect of SFP on achievement of educational outcomes

The study involved 4 teachers out of which 3 (75%) had the views that SFP improves learners' academic performance in primary schools. When asked to give reasons, they said that when the pupils had eaten, they are readily available and active for learning; school absenteeism is minimal hence improved performance, good balanced diet provided by school meals enable children to be healthy thus having good cognitive development which enable them acquire concepts well in class thus improving their performance, with school feeding programme the children are stable and can concentrate seriously. They also said that people under normal circumstances have enough energy to do many things when they have eaten to fullness and due to regular feeding the pupils are protected from diseases which are caused by lack of food hence good performance. For example, Teacher X from School reported that: *Since the start of porridge eating, more girls pass with good (Level 3).*

Teacher Y from school C(low income community school under feeding programme) reported that: *"Girls performance is improving since 2009 compared to those who have just joined us from non-feeding schools." She continued saying, "our girls rarely absentee themselves from school."*

Some people may wonder as to why teachers had very strong opinion that learners' academic performance improves. The researcher may still argue that teachers have been dealing with the learners and with issues of learners' progress even before the introduction of the School Feeding Programme; they might have experienced low or poor learners performance before the programme as compared to after the introduction of the

programme. If the performance improved rate after the launch of the programme, this may have influenced teachers' opinions.

Conversely, Teacher Z from School (low-income community school without SFP) reported that, *“our learners do not contribute fully in class work especially when it comes to mathematics because mathematics comes at period three when they are tired and hungry after using remained energy stored during previous evening.”*

Only one teacher out of four schools (Teacher W) said, *“SFP gives headache because learners come late during break time, instead of teaching we go chasing learners so that they come to class. This annoys me very much!”*

Therefore, three of four teachers (teachers X, Y, and Z) from low-income community primary schools with SFP had similar views that SFP helps learners to participate actively in class. These teachers gave the following reasons why they feel SFP is useful to their learners:

- *“A learner is able to remember what s/he learnt and keeps them active and alert.”*
- *“Learners are seriously attentive in class.”*

The headteacher 3 from school C (low income community school) also said *“since the start of SFP, learners have stopped absenting themselves from school. This has contributed to their academic performance.”* But he raised a concern of failure of parents to come and cook porridge which discourages learners from concreting in class. In addition, the head teacher said, *“cooks steal flour therefore they cook watery porridge which affects learners in one way or another,”*

Interestingly, all headteachers have the same views. The responses of these heads show the view that they value the School Feeding Programme much. The data imply that SFP was a factor in improving school performance.

4.7 Socio-economic status of the community

The findings have shown large proportion of population in low-income communities to have poor housing, food insecure and very few parents attended school. On the other hand, table 5 shows high income community school girls have good housing, are food secured, are healthy and more parents attended school (refer table 5). This concurs with Chandler et al. (1995) who said poor social backgrounds and low socio-economic household characteristics are often linked to both poor diet and poor school performance. The evaluation by IFPRI, (2000) found that most of the children academic achievement has proved disappointing in low-income primary schools where hunger is a likely reason. Generally, poor socioeconomic status of the community in these areas in Malawi remains a critical barrier to children's learning.

Table 5: Socio-economic status of the community

Characteristics	Low-income communities		High-income communities	
	Many	Few	Many	Few
Learners well fed		☐	☐	
Parents education		☐	☐	
Parents resources		☐	☐	
Houses built of burnt bricks		☐	☐	
Houses built of unburnt bricks	☐			☐
Houses thatched with grass	☐			☐
Houses thatched with iron sheets		☐	☐	

4.8 School Management Committee members' perceived effects of SFP on achievement of educational outcomes

Sixteen School Management Committee members who were involved in the study, 13 of 16 (81.25%) said that SFP helps to achieve educational outcomes. For example,

- One member (a man) said, *“my daughter’s performance keeps on improving since she started taking porridge at school.”* He continued saying; *“porridge should continue, our children are relieved from hunger. They are doing well in their class work.*
- Another parent (man) said, *“my child always complain of hunger at school, when I check his notebooks they are full of zeros”* when I ask him why getting zeros, he said, *“dad I do not concentrate in class because I am always hungry and tired.”*

This reveals how SFP affects learner's educational outcomes. SFP proves to be one of the best ways to learners' success. These members also need the programme to continue because it helps learners to effectively concentrate on learning and in school activities outside classroom and it helps learners' performance rate increase. These findings reflect the arguments put forth by other researches like of (WFP, 2011) who also found that school feedings contributes to students' academic performance. In addition, Del Rosso, (1999) reported that an extremely high percentage of mothers from Bangladesh notice several positive effects of the SFP on their children (IFPRI, 2003). SFP improves energy, attitudes, health and children's interests in attending school and concentration on studies.

Despite the fact that results from this study correspond to the findings of previous studies, still there are variation of opinions among the study participants in this study and across the group of participants. For example, some still wonder if school feeding is really a vehicle to influence academic performance. A small number of parents reported that their learners complain that when they take porridge they sleep in class. With my personal experience in Malawi, parents do not have habit of following school issues like how students perform in class, it is very likely for them not to see the impact of the school feeding on students' academic performance. Del Rosso, (1999) stated that some mothers from Bangladesh still wonder if school feeding is really a vehicle to influence academic performance (IFPRI, 2003).

As stipulated, only three (18.75%) members said,

“despite taking porridge, girls are not doing well in the academic outcomes.” One woman among the three respondents said my child even stop taking porridge because she said that the more she takes porridge the more she sleeps in class and the more she fails. She added that, “I even told my daughter to stop taking the porridge because I heard a rumour that the government adds some chemicals in the fortified porridge so that it acts as a way of child spacing”

4.9 School Management Committee members’ perceived effects on lack of SFP on achievement of educational outcomes

On the other hand, all School Management Committee members where SFP was not taking place in low-income community schools said that lack of porridge at their school had contributed in learners’ failure in class. In addition, many of their learners have gone to schools where SFP is taking place.

Based on these results, it can be strongly argue that, despite the fact that school-feeding programme is still facing some problems, it is still an important programme for girls’ learning in the developing countries like Malawi.

4.10Chapter summary

This chapter has covered the results and discussions of the following: the trend in girls' academic performance in high-income community schools, the difference in academic performance between girls with and without SFP in low and high-income community schools, and the perceived effects of SFP on achievement of educational outcomes of teachers, headteachers, School Management Committee members and girl-learners in low and high-income community schools with and without SFP in Phalombe District.

These findings show the need for human to refill energy from time to time. Children especially need regular diet to learn effectively in school. There was enough evidence that SFPs had positive results on achievement of educational outcomes.

CHAPTER 5

SUMMARY, CONCLUSIONS AND IMPLICATIONS

5.0 Chapter overview

This chapter represents summary, conclusions and implications of the study based on the findings discussed in chapter 4. The chapter ends by suggesting areas for further study.

5.1 Summary of the study

The purpose of the study was to investigate the perceived effects of school feeding programme on achievement of educational outcomes in low in-come community primary schools in Phalombe District. Most of the primary schools in Phalombe District offer school feeding programme. Parents, Children and Teachers perceive SFP as a vehicle to girls' success whiles some not.

The following are the conclusions and implications from the findings:

5.1.1 Trend in girls' academic performance in low and high-income community primary schools with and without SFP in Phalombe district and their differences in educational outcomes

On the first research question, the study concludes that girls are doing well in low and high-income community primary schools where SFP is taking place. This affects girls positively on their academic performance. The study also concludes that girls in low-income community primary school without SFP are not performing well as compared to

girls in high-income community primary schools without SFP. This affects learners negatively on the academic performance. This implies that academic performance can be improved through SFP, as such, due attention and recognition must be given to girls' need for feeding. The derive for poverty alleviation must be enhanced to empower parents to feed their children adequately. In addition, government in collaboration with MOEST should sustain and enhance the SFP to achieve Universal Primary Education.

Furthermore, government should develop targeting criteria and mechanisms that concentrate programme resources on low income community schools that lack the resources. Since providing food is expensive (WFP, 2006), targeting is a critical element of any effort to improve the effects of a SFP on education by adequately providing for girls or those that need to be motivated to enroll their girl children in school and to have them attend more regularly.

5.1.2The difference in academic performance between girls who are under feeding programme and those not, in low and high-income community primary schools in Phalombe District

On the second question, the study shows a very big difference in academic performance between girls who are under feeding programme and those not in low-income community primary schools and a slight difference in academic performance between girls who are under feeding programme and those not in high-income community primary schools in Phalombe district. This implies that SFP is a need to low-income community primary school girl learners. Therefore, SFP should be scaled up in order to benefit many more children from low-income community schools in order to achieve maximum benefit for the cost of the feeding programme as well as to encourage good performance noted in the

process of feeding the girls. In addition, other voluntary agencies such as the non-governmental organisations, religious bodies and public-spirited individuals should also help in this regard.

5.1.3 Teachers, parents and girl learners perceived effects of SFP on achievement of educational outcomes in low and high-income community Primary schools with and without SFP

On the third research question, Teachers, school management committee members, parents and learners perceive SFP as an effective tool to attain educational outcomes in primary schools while some not. This implies that some stakeholders in the communities know the importance of SFP. A small % of parents reported that their learners complain that when they take porridge they sleep in class. This also implies that some parents deliberately stopped their girl learners from eating porridge provided by SFP. In this case the government should mobilize and sensitise the community the importance of giving learners food since learners' home environment shapes eating patterns. In addition, a policy should be implemented starting from grassroots level.

In the meantime, government interest in the introduction of SFP as a component of Universal Primary Education should be rolled out so that issues of poor performance among primary school learners could be reduced.

5.2 Suggestions for further research

The following areas were suggested for further research:

- A study on sustainability of School Feeding Programme (SFP) in Malawi should be done since the findings of this study revealed that SFP is good because it affects achievement on education outcomes.
- Research should be done to find out limiting factors of SFP on learners' academic performance so that government should take action to improve them in order to attain educational outcomes.
- Research should be done to find out the effects of SFP on boys attainment of educational outcomes.

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APPENDICES

Appendix 1: Letter of introduction


CHANCELLOR COLLEGE

Principal: Richard Tambulasi,
B.A. (Prob Admin), FPA (Hon), MPA, Ph.D.

P. O. Box 280, Zomba, MALAWI
Tel: (265) 01 324 222
Telex: 44742 CHANCOL MI
Fax: (265) 01 324 046

Our Ref.: EDE/6/19
Your Ref.:

15th June, 2015

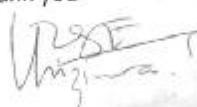
TO WHOM IT MAY CONCERN

**INTRODUCTORY LETTER FOR MASTER OF EDUCATION
(POLICY PLANNING AND LEADERSHIP) RESEARCH**

Ms Jane Kamanga is a student of Education in the Department of Education Foundations at Chancellor College, University of Malawi.

Ms Kamanga is working on her thesis, *"Implementation of School Feeding Programme: A case of Primary Schools in Phalombe District"*. This is meant to be a request to your institution or organization to assist our student in her endeavor to collect data.

Thank you


Symon E. Chiziwa, PhD
Head, Education Foundations Department


UNIVERSITY OF MALAWI
CHANCELLOR COLLEGE
DEPT OF EDU FOUNDATION
2015-06-15
PO BOX 280
ZOMBA

Please assist her accordingly.
lll
3 am


Please assist
2015-06-15
2015-06-15

Appendix 2: A questionnaire for document data generation schedule for the head teachers in non-feeding schools

Name of school.....

Type of the school community.....

Number of learners in the school.....Boys.....Girls.....Year

the school feeding began.....

What school requirements are available at this school?

4.2.3: Indicate school requirements available at this school in the table below:

Resources	Adequate	Inadequate
Permanent school blocks for learners		
Desks		
Textbooks		
Chairs		

Are the documents for assessment present? (Indicate in the table below)

Document for assessment	Present	Absent
School progress record book		
Teacher's progress book		
Portfolios		
Rubrics		

What are the results of girl's academic performance from 2009/10 to 2013/14? (Indicate in the table below):

Year fed Learner	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	Total Levels
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
Overall average (%)						

Appendix 3: A questionnaire for document data generation schedule for the head teachers in feeding schools

Name of school.....

Type of the community.....

Number of learners in the school.....Boys.....Girls.....

Year the school feeding began.....

School type.....

What school requirements are available at this school ?

Indicate school requirements available at this school in the table below:

Resources	Adequate	Inadequate
Permanent school blocks for learners		
Desks		
Textbooks		
Chairs		

Are the documents for assessment present? (Indicate in the table below)

Document for assessment	Present	Absent
School progress record book		
Teacher's progress book		
Portfolios		
Rubrics		

What are the results of girl's academic performance from 2009/10 to 2013/14? (Indicate in the table below)

Year fed Learner	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	Total Levels
1						
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4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
Overall average (%)						

Appendix 4: Focus group interview schedule for the cohort 5 girl learner's perception on SFP

Name of school.....

Do you eat porridge at this school?.....

Is taking porridge in school good?.....

Why?.....

Does SFP improve academic performance?.....

What are your view about SFP?.....

Should it continue or stop?.....

Appendix 5: Focus group interview schedule for the teachers' and head teachers' perceptions on SFP

Name of school.....

When did SFP start at this school?.....

What influenced SFP?.....

Who introduced it?.....

Is taking porridge in school good?.....

Why?.....

.....

Does SFP improve academic performance?.....

.....

What are your view about SFP?.....

.....

Should it continue or stop?

What is your comment on girl's academic performance since they started feeding?.....

.....

.....

What are their perceptions about school feeding?.....

**Appendix 6: Focus group interview schedule for the cohort 5 girl learners
perception on lack of SFP**

Name of school.....

Do you eat porridge at this school?.....

Is taking porridge in school good?.....

Why?.....

Have you repeated a grade since you started school?.....

What are your view about failure to have SFP?.....

.....

.....

Should it start or not?.....

Appendix 7:Focus group interview schedule for the teachers and head teachers’ perceptions on lack of SFP

Name of school.....

Is porridge taking place at this school?.....

Is taking porridge in school good?.....

Why?.....

.....

.....

Have girls repeated a grade since they started schooling?

.....

.....

What are your view about failure to provide girls with porridge SFP?.....

.....

Should it stay or not?

.....

What is your comment on girl’s academic performance?.....

.....

Appendix 8: Focus group interview schedule for the school management committee members and parents perceptions on SFP

Name of school.....

When did SFP start at this school?.....

What influenced SFP?.....

Who introduced it?.....

Is taking porridge in school good?.....

Why?.....
.....

Does SFP improve academic performance?.....
.....

What are your view about SFP?.....
.....

Should it continue or stop?

What is your comment on girl's academic performance since they started feeding?.....
.....
.....

What are their perceptions about school feeding?.....

Appendix 9: Focus group interview schedule for the school management committee members' and parents perception on lack of SFP

Name of school.....

Why are children coming to school hungry?.....

.....

Are children hungry because the family does not have the resources to provide an early meal for children?.....

Are there other reasons that children are hungry at school? What are these?.....

,.....

.....

Does hunger in schoolchildren affect their capacity to perform in school?.....

Is there evidence of the effect of hunger of schoolchildren on school achievement on

Educational outcomes?.....

Appendix 10: Observation checklist of socio-economic status of the community

Name of school.....

Type of the community.....

Number of learners in the school.....Boys.....Girls.....

Year the school feeding began.....

School type.....

Characteristics	Many	Few
Learners well fed		
Mothers education		
Houses built of bricks		
Houses thatched with grass		
Houses thatched with iron sheets		
Mud houses		