

**CORRELATES OF ACADEMIC PERFORMANCE OF ORPHANED STUDENTS
IN SELECTED SECONDARY SCHOOLS
IN MUSANZE DISTRICT, RWANDA**

A thesis

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Postgraduate studies and research
Kampala international university
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Master of educational management and administration

By:


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November, 2010

DECLARATION A

"This thesis is my original work and has not been presented for a Degree or any other academic award in any University or Institution of Learning".


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DECLARATION B

"I confirm that the work reported in this dissertation was carried out by the candidate under my supervision".



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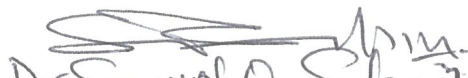
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APPROVAL SHEET

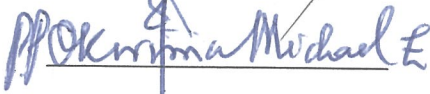
This thesis entitled "**Correlates of Academic Performance of Orphaned Students in Selected Secondary Schools in Musanze District, Rwanda**" prepared and submitted by Daniel Dushimumuremyi in partial fulfillment of the requirements for the degree of Master of Educational Management and Administration has been examined and approved by the panel on oral examination with a grade of PASSED.


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ABBREVIATIONS AND ACRONYMS

EDPRS	:	Economic Development Poverty Reduction Strategy
EFA	:	Education for All
FAWE	:	Forum of African Women Education
KIE	:	Kigali Institute of Education
KIU	:	Kampala International University
MDG	:	Millennium Development Goal
MIGEPROF	:	Ministry of Gender
MINEDUC	:	Ministry of Education, Science, Technology, and Scientific Research
MINICOFIN	:	Ministry of Finance and Economy Planning
MTEF	:	Medium Term Expenditure Framework
NCDC	:	National Curriculum Development Centre
NGO	:	Non-Government Organization
RNEC	:	Rwanda National Examination Council
SPSS	:	Statistical package for the social sciences
UNICEF	:	United Nations Children's Fund
UNIFEM	:	United Nations Development Funds for Women
UPC	:	Universal Primary Completion
UPE	:	Universal Primary Education
ESSP	:	Education Sector Strategic Plan

OVC	:	Orphans and Vulnerable Children
SNE	:	Special Needs Education
RGPH	:	Recensement Général de la Population et de l' Habitat (General Census of Population and Housing in Rwanda)
CGPA	:	Cumulative Grade Point Average
ACF	:	Alliance for Children Foundation

DEDICATION

This thesis is dedicated to Esther Nyirajyambere, my mother, to Prisca Mukandanga, my beloved wife, to Maranatha Ishimwe, Benite Asingizwe, and Dushime Dany, my children, to my brothers, sisters and friends,

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ABSTRACT

The researcher's purpose is to identify and examine the correlates of orphaned students' academic performance (academic achievement) in selected secondary schools in Musanze District, Rwanda. Chapter One of this research work is devoted to portraying the background of this study, emphasizing on the present life of orphaned students in Rwanda. This includes mainly these students' academic performance. In Chapter Two, emphasis is laid on factors affecting academic performance in general, and mainly on those affecting the academic achievements of orphaned students that include psychological, social and economic factors. With regard to Chapter Three, the methodology adopted to do this research is described. To verify the factors which are behind the poor performance, a survey was carried out in 7 secondary schools of Musanze District, a questionnaire and interviews as instruments were subjected to the respective respondents for data collection. In Chapter Four, the collected data were presented, analyzed and interpreted. The data were analyzed using descriptive analysis, and Pearson correlation of Statistical Package for Social Sciences (SPSS). Lastly, the findings, conclusions and recommendations of this work were given in Chapter Five. The researcher found that all psychological, social, and economic factors are positively related to orphaned students' academic performance. Thus, this research revealed that the great majority of the respondents do not get timely and sufficient school fees and necessary scholastic materials. They suffer various great hardships during holidays, and are sometimes psychologically harassed by their colleagues. In spite of many efforts made by the Government and Non-Governmental Organizations to give a leg-up to orphaned students, a big number of them remain without any financial back-up, making them desperate, as the continuation and completion of their studies are not ensured. The recommendations made were mainly focused on identifying all needy orphaned students, and equip their respective homes with necessary means of improving their welfare and academic success.

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CHAPTER ONE

INTRODUCTION

Background of the Study

Almost all countries over the world have children orphaned by HIV/AIDS. In some countries, they are counted in hundreds, while in others they are counted in thousands. In Africa, they are in millions. Those Africans are suffering from the tragedy of having lost one of their parents or both because of HIV/AIDS pandemic. They grew up in very harsh and traumatizing conditions, deprived of the assistance and care of their biological parents. The most crisis is taking place in sub-Saharan Africa, where 12 million children were orphaned by the scourge. (UNAIDS, 2004).

By the end of 2001, sub-Saharan Africa had an estimated 28.1 million living with HIV/AIDS, 3.4 million being infected within the year (UNAIDS/WHO cited by Kalanidhi and Diane, 2004). Year 2000 estimates from US census Bureau suggest that in 34 countries with high HIV prevalence, more than 15 million children under the age of 15 have lost their mother or both parents to AIDS or other causes. Of these 15.6 million children, 13.6 were living in sub-Saharan Africa.

In respect to the education sector, the prevalence of HIV and the impact of AIDS are real and are manifested through a combination of indicators, among them a huge population of orphan pupils. Actually, no problem facing Africa today is more serious than HIV/AIDS. Recent research suggests that HIV/AIDS is the leading cause of death in South Africa (SARMC report cited by Kalanidhi and Diane, 2004). HIV/AIDS constitutes a chronic stressor in the lives of many South African children. They live with the stress of being without the familiar care of a mother. They have to bear hardship and responsibility on account of parent's absence. They face being stigmatized by peers and treated as social outcasts. They are burdened by grief for lost family members, lost home and lost opportunities.

Moreover, many African countries are suffering from civil unrest and from post conflicts situations, which are producing more orphans. As the number of affected children has escalated, the risk of orphanhood has quickly transformed itself from a shock that randomly affects families; to a more systemic shock that has had adverse effects on whole communities and countries, threatening the realization of the United Nations Millennium Development Goals for education, health, and nutrition and poverty reduction.

The data from the RGPH-2002 confirmed the reality of an important proportion of orphan children, since it showed that it was only 70 percent of children whose both biological parents were alive. In other words, one child out of three lost at least one of his or her parents. In urban areas, the situation seems more critical, with only 63.4 percent children having both parents alive. (RGPH, 2002)

As reported on January 11, 2010, in the study on 120 youths by *Stanford University Researchers* in collaboration with *Uyisenga N'Manzi*, a Rwandan nonprofit organization, the genocide left nearly a million people dead and created an enormous community of orphaned children. An estimated 600,000 youngsters lost their parents during the calamity, and roughly half now live in households headed by other children, said Annie Talbot, MD, a visiting clinical professor at Stanford.

The report stipulates that children who lost parents to the genocide won't be able to succeed in life and will be more vulnerable to disease, including HIV/AIDS, unless their issues of psychological trauma are addressed, said Andrew Zolopa, MD, professor of medicine and acting chief of infectious diseases at Stanford.

"The key thing is the impact of post-traumatic stress on these children's lives," said Zolopa, an HIV/AIDS specialist. "When they tried to integrate the children into job training or schooling, they failed. The kids dropped out. They were too stressed. They have no parents, no family. They try to reintegrate into society but this psychological trauma is still there and it bubbles to the surface." "I used to say no other genocide survivor lived as a miserable life as I do," one young man says. "But when I reached here, I met a child of 10 who stays alone in a house. I really felt

sympathy for him."(<http://med.stanford.edu/ism/2010/january/rwanda.html>)
November 25, 2010).

In their testimony on March 14, 2010, Genocide survivor students of E.T.O Kibuye in Kalongi District, under their association known by its French acronym as A.E.R.G. when they were commemorating the anniversary of the 1994 Genocide at the school campus, during this year's mourning period said failure to access the required necessities has as well affected their academic performance. Instead of concentrating on academics, they said, they spend time solving problems that their late parents were meant to shoulder."Amongst us there are some who are heading families, so one can't concentrate without being sure of how the siblings are surviving." said one of the survivors. "It's not only necessary to give us financial support; we also need counseling to make us able to live with the reality of living as orphans." Said James Kayitare, a leader of A.E.R.G. at the school.

If most of those children lost their parents during the war and genocide, today a number of children are increasingly becoming orphans because of HIV/AIDS. Children who have lost their parents may be particularly vulnerable because they don't have the emotional and physical maturity to address adequately and bear the psychological trauma associated with parental loss. Without adequate resources to feed, clothe and counsel children, their basic needs go unmet. The poverty barrier is exacerbated by the lack of management capacity of providers, both in and out of the government to address orphan children issues effectively and comprehensively. While some governments and organizations are addressing aspects of orphaning, most countries lack integrative and comprehensive strategy to meet the education, health and psycho-social needs of orphaned children. In Rwanda particularly, many orphans live in families without sufficient means for educating them, or are educated by the murders of their parents.

Poverty and social disintegration increase the emotional stress of the orphans. Factors such as loss of household income, the cost of treatment of HIV/AIDS-related diseases, the funeral expenses... often leave the orphans in domestic worries. The

death of a parent even prevents them from acquisition of values, which they need to become socially competent and economically productive adults.

Prevented from the protection of their homes, orphans are exposed to high risk of violence, exploitation and abuse. It even happens to them to be roughly handled by people in charge of them, seizing the property left by their deceased parents. Those who live in foster families have more risk of malnutrition (Monash and Snoad cited by UNAIDS, 2004).

Statement of the Problem

In Rwanda, after the war and 1994 genocide, hundreds of thousands children found themselves without parents and families. Above the economical problems they had to face, they lacked parental affection as well. A big number of them took too early the household responsibilities. Centers for unaccompanied children accommodated some of the children, but a considerable number remained without any adult person to look after them.

Among the numerous consequences of the genocide, one can cite the increase of HIV/AIDS prevalence rate caused notably by the massive displacement of the population and sexual violence committed during the genocide. Not only are the families of the women affected today socially and economically suffering from the disease, but also more children have increased the number of genocide and/or orphans. As far as education in Rwanda is concerned, the ESSP(Education Sector Strategic Plan - 2010-2015), stipulates that Previously the learners with special needs focused exclusively on those with disabilities and though this view has been pervasive the current policy is to view all educationally vulnerable groups of learners such as orphans, street children, children infected with or affected by HIV/AIDS or children heading households - commonly referred to as OVCs - as learners with special needs.

However, there remains a lack of common understanding about the categories of learners with special needs as often the focus has been on learners with physical disabilities when other groups also need tailored support (www.mineduc.gov.rw) the

16 August 2010. Consequently therefore, the aim of this study was to find out the factors that affect the academic performance of orphaned students in Rwandan secondary schools.

Research Objectives

- To find out psychological factors which affect the performance of orphaned students in Rwandan secondary schools.
- To find out the social factors that affect the performance of the above students
- To find out economic factors that affect the performance of the students.

Research Questions

- 1.* What is the effect of psychological factors on academic performance of orphaned secondary school students in Rwanda?
2. What is the effect of social factors on academic performance of these orphaned students?
3. What is the effect of economic factors on the academic performance of orphaned students in secondary schools in Rwanda?

Hypotheses

1. Physiological factors have a significant effect on orphaned students' academic performance
2. Social factors have a significant effect on orphaned students' academic performance
3. Economic factors have a significant effect on orphaned students' academic performance

Scope

The study focused on factors affecting the academic performance of orphaned students in Musanze District, Northern Province, Rwanda. It involves orphaned students from Senior Secondary Schools in the District in this school year, 2010. Data were collected through the sample of the total number of the orphaned students. However, school directors and the executive secretaries of administrative sectors where schools are located, have also been contacted and delivered their experiences about the issue, for more fair and complete information. Indeed, via data records of the Educational Management of Musanze District, and of the schools concerned the researcher collected the secondary data needed. The study was limited to the following schools: E.S.T BUSOGO, Sonrise, I.T.B., APICUR, E.S.St Vincent, E.SC. Musanze and APEDI Rwaza.

Significance

This study is of great importance to the teachers, school administrators, as well as stakeholders in population welfare. First of all, it provides relevant information on how orphaned students are treated within their home environments, and at schools as well. It therefore paves ways for concerned individuals and institutions to consider those vulnerable children by providing them with necessities needed for a worthy life. As far as teachers and school managers are concerned, those are more sensitized about different problems arisen in teaching learning process due to the difference in home backgrounds of the learners and hence need to tackle them accordingly.

Operational Definitions of Key Terms

An orphan: An orphan' is as a child who has 'lost one or both parents'.

Performance: how well a person does a piece of work or an activity?

Academic performance: Academic performance refers to having obtained a note which is higher or lower than the class mean in a given course(s) at the end of a trimester, school year or level.

Psychological factors: An individual 's mental state which can either increase or hinder his/her success in a piece of work or action.

Social factors: An individual 's social status/ life which can either increase or hinder his/her success in a piece of work or action.

Economic factors: An individual's level of asset ownership that can promote or hinder his/her success in a piece of work or action.

Foster family: a family that takes care of a child, usually for a limited time, without being the child's legal family.

Stigmatization: the fact of treating someone unfairly by disapproving of them.

Stimulus: something that causes part of the body to react.

Stress: a great worry caused by a difficult situation.

Trauma: severe emotional shock and pain caused by an extremely upsetting experience.

Self-esteem: an individual's sense of value or self-worth, or the extent to which people value, appreciate or like themselves.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Introduction

This chapter reviews relevant literature in relation to the subject in hand. This is the concern of this chapter.

Factors Effecting Academic Performance

The Self-Concept

For Sanchez (2000), academic self- concept is at the base of future school success or failure having been formed starting in Early Childhood Education from peer contact and teacher attitude and expectations. In the same view Nunez, Gonzalez et al., 1998), assert that the greater the student's self- concept, more learning strategies will he use, facilitating deep information processing. In other researches self concept was found to better predict performance than variables such as age or student gender (Edouards, 2002). In the view of Zsolnai (2002), self-concept influences performance indirectly by means of its influence on intrinsic motivation.

Motivation

Motivation is considered to be the element that initiates the subject own involvement in learning. When a student is strongly motivated, all his effort and personality are directed toward the achievement of a specific goal, thus bringing to bear all his or her resources. According to (Lindsley cited by William and Wingo, 1969) motivation is "a combination of forces which initiate, direct and sustain behavior towards a goal". Applied to the classroom, motivation is what pushes a student to try to learn or to expand his energies in other directions.

Individual Differences

Learners' performance varies not only because of educational opportunities provided to them but also because of individual differences such as motivation to learn,

cultural and parental values exceptions for awards and motivational nature and cultural appropriateness of instructional interaction.

According to Cocking and Mestre (1988 pp. 19, 20) cited in Carlos et al (ibid: 238), the general students' academic performance is influenced by both linguistic and non linguistic factors such as entry characteristics of the learner (cognitive ability patterns such as mathematical concepts, language skills, reading, and learning ability) ; education opportunities provided to learners(such as time on task, quality of instruction, appropriate language and parental or other assistance); motivation to learner(such as motivation to engage by including cultural/parental values, exceptions for awards, and motivational nature and cultural appropriateness of instructional interaction).

Socio-Economic, and Cultural Background

Nieto (1996, 245) cited by Carlos et al (op. cit.: 222) says that "it is tricky business to seek causal explanations for school success and failure... Structural inequality and cultural incompatibility may be major causes of school failure, but they work differently on different communities, families, and individuals. How these factors are mediated within the school and home settings and their complex interplay probably are ultimately responsible for either the success or failure of students' in schools. Therefore the socio-economic hardships have a role to play in school success".

Some other studies have shown that demographic characteristics can affect academic excellence. An investigation conducted by Agus and Makhbul (2002) indicated that students from families of higher income levels perform better in their academic assessment (CGPA: Cumulative Grade Point Average) as compared to those who come from families of lower income brackets. Once the investment is undertaken, the student fulfill parents' expectations by perform better in their studies. He demonstrated that children from richer families perform better than those from poorer families. On the other hand, Syed Tahir Hijazi and S.M.M Raza Naqvi (2006) found that there is negative relationship between student performance and student family income.

Research done by Beblo and Lauer (2004) also found that parents' income and their labour market status have a weak impact on children's education. According to Ermisch and Francesconi (2001), there is significant gradient between each parent's education level and their child's educational attainment. Relative to a parent with no qualifications, mother's education has a stronger association with her child's educational attainments than the education of the father. This result is supported by Agus and Makhbul (2002). They claim that the level of education of mother has been found to exert the strongest influence on academic achievement as compared to level of education of father.

As shown above, learner's academic performance is influenced by his learning context, economic status and socio-cultural background among other factors. The negative effects of poverty like inadequate teaching/ learning aids, lack of food, the long distance between school and home, among others, doom children to academic failure.

Home Background and Social Interaction

According to Llorente Mardione (1990), the influence of social class is mediated with cultural level, which in turn determines family expectations, values and attitudes regarding education. That is, motivation to achieve depends more on the parent's level of income. Castejon and Perez (1998) assert that child's perception of family support directly affects performance, while the mother's level of studies does so indirectly. These researchers add that the most influential family components on performance are not socio-cultural or economic, but rather those pertaining to the affective or psychological dimension; that is, although good academic preparation in the parents, especially the mother, and a positive environment, favor scholastic performance, it is affective and relational variables which most stand out as factors in performance.

Other research indicates that the influence of the family educational climate is defined by the amount and the style of help that children receive from the family; this is determined by elements of the family context, like the dynamic of communication and affective relationships, attitudes towards values, expectations

etc. With the same view, Marchesi and Martin (2002) stipulate that parental expectations have a notable influence on academic results, even when controlling initial knowledge and social economic context. Castajon and Perez (1998) assert that there is indirect relationship between performance and student's perception of how parents assign to study at home. Indeed, research such as that by Rodriguez Eastellano (1986) stipulate that a positive family climate favors the development of well-adapted, mature, and , stable and integrated subjects, and an unfavorable family climate promotes non-adaptation, immaturity, lack of balance and insecurity.

Hart and Risley (cited by Martyn, 2000), in his study about the verbal interactions between parents and their children from 10 months to 3 years of age shares the same view. Kleinman et al. (cited by Martyn, 2000) found that children from poorer backgrounds who were regularly hungry in school had a range of educational problems.

Oppenheim (cited by Martyn, 2000) articulates that poverty can affect children socially and emotionally. Without any money, it is difficult to meet friends, and activities such as visits to the cinema, libraries, internet...are restricted. Life in this situation can mean often being bored and restoring to low-level entertainment such as watching television or playing video games. Although information technology could be a liberating influence, there are signs that its uptake and usage are strongly related to home background. In his research, Scale (cited by Martyn, 2000) found that in 1996 only 32 percent of the lowest income groups had a home computer compared with 56 percent of the higher income groups. With the same view Robinson (cited by Martyn, 2000) argues that, "Potentially the most powerful educational policy might be one which tackles social and economic disadvantages"

The above findings clarify that poverty lessens children's wider experiences and it is a major driving force underlying cultural deprivation and limiting educational progress. Indeed, it is beyond all doubt or discussion that poverty elements such as poor quality housing, heating, clothing and nutrition are factors of health problems in low-income families. And, such conditions cause students' high rate of absenteeism to class decreases the learning process and thus directly affects children's academic performance.

As far as social interaction is concerned, in his "Social constructivism theory", Vygotsky (1997) has emphasized the way in which children's experiences underlie their cognitive development. Those experiences are determined by the particular individuals (usually parents) who interact closely with children from an early age. Vygotsky (ibid.) particularly believed that children's early understanding came from the support they were given by interacting with knowledgeable adults. Such support enables children to function in an area named the zone of proximal development and which is beyond children's normal independent abilities. When children are given such support, they are then able to internalize the actions of adults and to make further progress. In his findings Deutsch and Brown (cited by Robert and Bernice, 1975) show a relationship between a father's presence and the child's grades and academic ability. For boys and girls, the IQs of children with fathers in home were higher than of those children who had no father in home.

Teacher-Student's Relations

School variables that principally determine performance are the student's teacher and his peers. Marchesi and Martin (2000) propose that the pupil's socio-cultural level and his previous aptitudes indirectly influence the results of learning since they delimit classroom procedures. As for characteristics of the teacher-tutor, this is considered as a key element for the pupil's personal and academic development, the value given from teacher to pupil and vice-versa are usually reciprocal, highlighting additionally the personal relationship (Marchesi and Martin, 2002). These same others stipulate that teacher expectations significantly influence student results. Other researches claim that there is positive relationship between the teacher's motivation and that of the student (Atkinson, 2000). Teacher-pupil's relations are also mediated by the teacher's attribution of poor performance to the student (Georgiou et. al., 2002).

Indeed, researchers have found that the way and how a teacher behaves in a classroom, his/ her teaching style / methods of the teacher, have a significant effect on students' performance. Other research findings stipulate that the school environment may be related to the contextual factors of the school, such as age of the school, experience of the teachers, which affect academic performance.

However, such factors are not under the control of the school administration, even though the latter has the authority to plan and implement suitable policies which can reduce the negative effects of the school contextual factors (Cooksey, 1987)).

Peer Influence

The role of peers in determining the academic performance is also of no neglect. Castejon and Perez (1998) assert that peer influence on the child's development occurs by similar mechanisms as those by adults: reinforcement, modeling, and direct teaching and skills. And, interaction with peers also promotes acquisition of social competences such as controlling aggressive impulses and the expression of prosocial behavior. In relation to academic performance, the sociometric status of the student influences performance both directly and indirectly, since it is influenced by intelligence. In his research, Buote (2001) argues that there are positive correlations between performance and peer relationships, demonstrating in another study that students failing in school are those most rejected by their group-class (Montero, 1990).

Other various studies have been done and found that peers influence does have impact on student performance (Hanushek et. al, 2002; Goethals, 2001; Gonzales et. al., 1996; shown that peer influence has more powerful effects than immediate family. Peer support was positively related to students' cumulative grade point average. Wilkinson and Fung, (2002) concluded that; by grouping students in heterogeneous learning ability (low ability students grouped with high ability students) will show an improvement in learning process and outcomes. Top students can positively affect less able students. Schindler (2003) who found that mixing abilities will affect weak students positively however the effect for good students is negative. This is contradicting with Goethals (2001) who found that students in homogeneous group (regardless of high ability or low ability) perform better than students in heterogeneous group. Giuliodori, Lujan and DiCarlo (2006), covered that with peer interaction, students could increase their ability on solving qualitative problem-solving questions. Peer instruction will also promote student's participation and improve student's performance. (Rao and Di Carlo 2000), Torke, Abraham & Upadhyya (2007).

Active Learning

Active learning has received notably attention over the past several years. In the context of the college classroom, active learning involves students in doing things and thinking about the things they are doing (Bonwell and Eison, 1991).

Active learning involves the students to solve problems, answer questions, formulate questions of their own, discuss, explain, debate, or brainstorm during class(www4.ncsu.edu/unity/lockers/users/f/felder/public/Cooperative_Learning.html). Bonwell & Eison (1991) concluded that active learning leads to better student attitudes and improvements in students' thinking and writing.

Felder and Brent (2003), mentioned that as little as five minutes of that sort of thing (active learning) in a 50-minute class session can produce a major boost in learning. According to them, it (active learning) wakes students up: students who successfully complete a task own the knowledge in a way they never would from just watching a lecturer do it. However, De Long's (2008) study did not support the idea that active learning based teaching methods will affect positive change on student performance as measured by course final grade and non-intellectual learning factors as measured by the TRAC-R (Test of Reactions and Adaptations to College-Revised), an overall measure of college adjustment. He found that factors such as professor-student rapport and professor understanding of non-intellectual factors may have influenced the current results.

Class Attendance

Many researchers recognized that class attendance impacts on student's performance. A study conducted by Collett et. al., 2007; Stanca, 2006; Chow, 2003; Rodgers, 2001; Durden and Ellis, 1995; Romer 1993, found that attendance have small, but statistically significant, effect on student performance. Marburger (2001) concluded that students who missed class on a given date were significantly more likely to respond incorrectly to questions relating to material covered that day than were students who were present. Moore (2006) indicated that class attendance enhances learning; on average, students who came to the most classes made the highest grades, despite the fact that they received no points for coming to class.

Arulampalam et. al. (2007) argue that there is a causal effect of absence on performance for students: missing class leads to poorer performance. On the other hand, Martins and Walker (2006) mentioned that there are no significant effects from class attendance. This is also supported by Park and Kerr (1990) and Schmidt (1993) who found an inverse relationship between students' attendance and their course grades.

Extracurricular Activities

Many extracurricular activities have proven to be beneficial in building and strengthening academic achievement, even if the activities are not obviously related to academic subjects (Marsh & Kleitman, 2002; Guest and Schneider, 2003 and Lauren Sparkes, 2004).

One study on adolescents and extracurricular activities found that adolescents who participated in extracurricular activities reported higher grades, more positive attitudes toward school, and higher academic aspirations (Darling, *Norhidayah Ali, Kamaruzaman Jusoff, Syukriah Ali, Najah Mokhtar & Azni SyafenaAndin Salamat / Management Science and Engineering* Vol.3 No.4 2009 81-9084 Caldwell and Smith, 2005). Total extracurricular activity participation (TEAP), or participation in extracurricular activities in general, is associated with an improved grade point average, higher educational aspirations, increased college attendance, and reduced absenteeism (Broh, 2002). There are so many positive aspects on students can be seen from their involvement in extracurricular activities.

Advocates of extracurricular activities (Fretwell, 1931; Fozzard, 1967; Miller, Moyer & Patrick, 1956; Sybouts & Krepel, 1984) claim that this informal aspect of education has a good deal to contribute to developing good citizens, enabling pupils to communicate adequately, preparing them for economic independence, developing healthy minds in healthy bodies, preparing them for family life, directing their use of leisure time, developing a set of moral and ethical values, developing social competency, discovering special interest and capacities and developing creative expression.

Extracurricular participation was positively associated with the success indicators like consistent attendance, academic achievement, and aspirations for continuing education among public high school seniors in 1992 (NCES Education Policy Issues, June 1995). Darling et al (2005) conducted a longitudinal study concerning extracurricular activities and their results showed that the students who participated in school-based extracurricular activities had higher grades, higher academic aspirations, and better academic attitudes.

Students involved in athletics are said to build character, instill a respect for the rules, encourage team-work and sportsmanship, promote healthy competition and perseverance, and provide a sense of achievement. (Smoll and Smith, 2002). Organized sports also provide an opportunity for initiative, emotional regulation, goal setting, persistence, problem solving and time management (Larson, Hansen and Moneta. 2006), which may help to explain association found between sports participation and academic achievement (Mahoney and Cairns, 1997 ; Marsh and Kleitman, 2002). Although researchers agree that extracurricular activities do, in fact, influence academic performance, Borde (1998) shows that engagements in extracurricular activities are unrelated to students' performance.

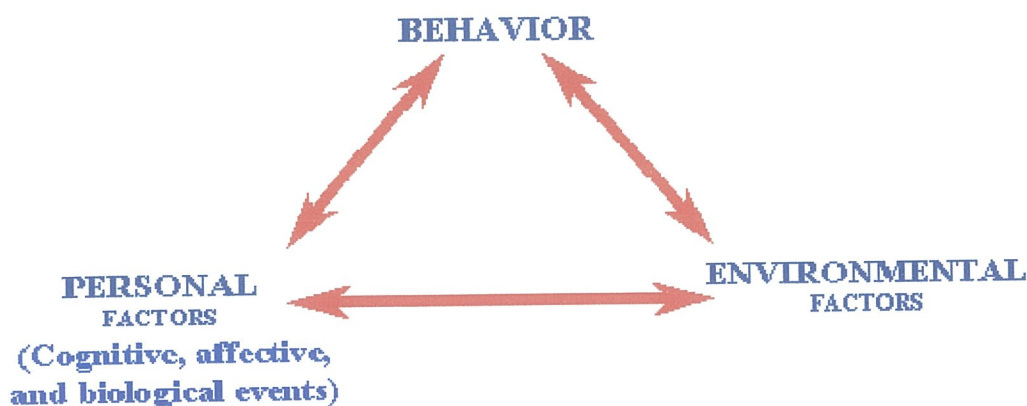
One study, conducted by the National Educational Longitudinal Study, found that "participation in some activities improves achievement, while participation in others diminishes achievement" (Broh, 2002). This is supported by Kimiko (2005), who found that participation in athletics, television viewing and community service has a positive effect on academic performance while participation in musical performance does not improve academic performance.

Theoretical Perspectives

Many studies have been developed concerning the factors which account for students' academic performance. Indeed, this research work is based on different theories but more particularly, on the Social Cognitive Theory. With the publication of *Social Foundations of Thought and Action: A Social Cognitive Theory*, Bandura (1986) advanced a view of human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human

adaptation and change. People are viewed as self-organizing, proactive, self-reflecting and self-regulating rather than as reactive organisms shaped and shepherded by environmental forces or driven by concealed inner impulses. From this theoretical perspective, human functioning is viewed as the product of a dynamic interplay of personal, behavioral, and environmental influences. For example, how people interpret the results of their own behavior informs and alters their environments and the personal factors they possess which, in turn, inform and alter subsequent behavior. This is the foundation of Bandura's (1986) conception of *reciprocal determinism*, the view that (a) personal factors in the form of cognition, affect, and biological events, (b) behavior, and (c) environmental influences create interactions that result in a *triadic reciprocity*. Bandura altered the label of his theory from social learning to social "cognitive" both to distance it from prevalent social learning theories of the day and to emphasize that cognition plays a critical role in people's capability to construct reality, self-regulate, encode information, and perform behaviors.

Figure 1: **Determinants of Human Functioning in Social Cognitive Theory**



Source: Bandura(1986)

The reciprocal nature of the determinants of human functioning in social cognitive theory makes it possible for therapeutic and counseling efforts to be directed at personal, environmental, or behavioral factors. Strategies for increasing well-being can be aimed at improving emotional, cognitive, or motivational processes, increasing behavioral competencies, or altering the social conditions under which people live and work. In school, for example, teachers have the challenge of

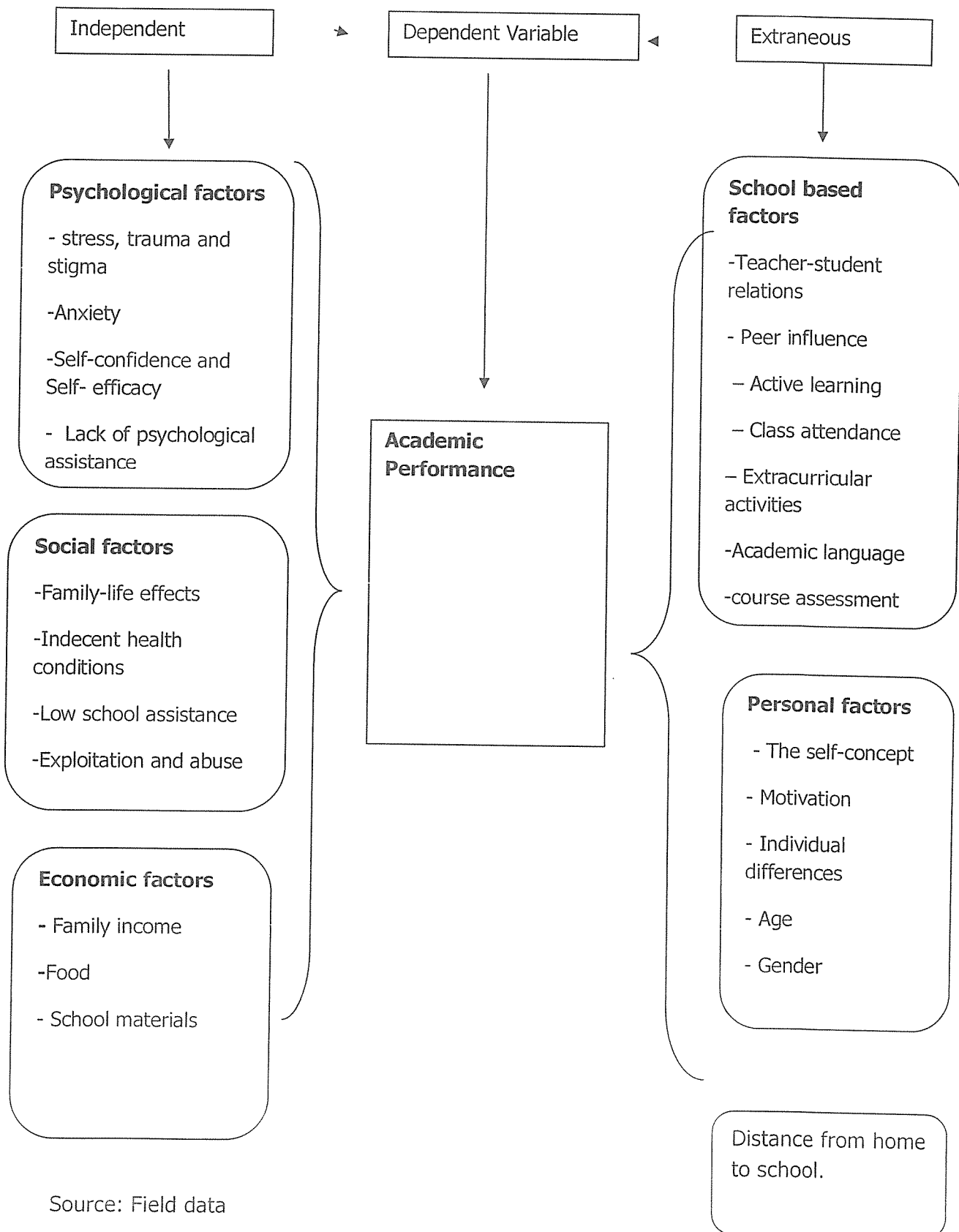
improving the academic learning and confidence of the students in their charge. Using social cognitive theory as a framework, teachers can work to improve their students' emotional states and to correct their faulty self-beliefs and habits of thinking (personal factors), improve their academic skills and self-regulatory practices (behavior), and alter the school and classroom structures that may work to undermine student success (environmental factors). Bandura's (1997) key contentions as regards the role of self-efficacy beliefs in human functioning is that *"people's level of motivation, affective states, and actions are based more on what they believe than on what is objectively true"* (p. 2).

As it continued to spread, Bandura's cognitive theory developed a self-efficacy beliefs concept. It bears noting that self-efficacy beliefs are themselves critical determinants of how well knowledge and skill are acquired in the first place. The contention that self-efficacy beliefs are a critical ingredient in human functioning is consistent with the view of many theorists and philosophers who have argued that the potent affective, evaluative, and episodic nature of beliefs make them a filter through which new phenomena are interpreted (e. g., Aristotle, James, Dewey, Kant, Maslow, Nisbett and Ross, Rokeach).

People's self-efficacy beliefs should not be confused with their judgments of the consequences that their behavior will produce. Typically, of course, self-efficacy beliefs help determine the outcomes one expects. Students who doubt their social skills often envision rejection or ridicule even before they establish social contact. Those who lack confidence in their academic skills envision a low grade before they begin an examination or enroll in a course. The expected results of these imagined performances will be differently envisioned: social success or greater career options for the former, social isolation or curtailed academic possibilities for the latter.

This theory, together with many others not mentioned, reveals that there are factors which account for students' academic performance. They may generally be psychological factors, economical factors, and /or social factors. For orphans and /or other vulnerable children these may be very sensitive as they have some problems associated to their orphan hood state and thus particular to them; what makes them leave a hardships livelihood which in turn leads to poor academic performance.

Figure 2: Conceptual Framework



As far as psychological factors of school performance Fullana Noel (1995), deposits that positive self- concept is one risk-reducing factor against academic failure in the case of unfavorable family situations. In their studies, Castejon and Perez (1998) emphasize that academic self- concept directly influences the global performance of a studen Some other researchers (Nunez, Gonzalez-Pianda, Garcia, Gonzalez-Pumariega, Rocés, Alvarez & Gonzalez, 1998), claim that motivation maintains a circular relationship with the level of information processing and this in turn with performance. Indeed, other researcher (Yi Chi, 2002) has found that there are positive correlations between the value given to the task and the perceptions of auto-efficacy and performance. Therefore, psychological factors, as **independent variables**, determine the School performance as a **dependant variable**.

Different researchers also found that social factors intervene in determining a student's academic success. In some ways, children in single-parent families are at greater risk than children in other types of families. Even when they have the same academic abilities, children in single-parent families are three times more likely to drop out of high school than children from two-parent families [Thiessen, Sarah. (1997); Zimiles, Herbert, & Lee, Valerie E. (1991)]. Because they are the primary and frequently sole source of financial support for the family, single parents have less time to help children with homework, are less likely to use consistent discipline, and have less parental control, and all of these conditions may lead to lower academic achievement [Astone, Nan M., & McLanahan, Sara S. (1991) ; Mulkey, Lynn M.; Crain, Robert L.; & Harrington, Alexander J. C. (1992); Thomson, Elizabeth; Hanson, Thomas L.; & McLanahan, Sara S. (1994)] ; Thiessen, Sarah. (1997);]. Among children in single-parent families, those from mother-absent households earn lower science grades than children from father-absent homes. No matter which parent is missing, children from single-parent families generally find it more difficult to connect with school(Mulkey, Lyn M. et al.:1994) .

However, some research suggests that the factor that has the greatest impact on student achievement is not family structure but income [; Knox, Virginia W. (1996); Milne, Ann M.; Myers, David E.; Rosenthal, Alvin S.; & Ginsburg, Alan. (1986). ; Mulkey, Lynn M. et al.,1994]. Studies that consider the influence of both family

configuration and income find that there is little difference in the academic performance of children from two-parent and single-parent homes when family income is equal [Battle, Juan J. (1998). ; Knox, Virginia W. (1996)].

Family income also influences parent support and involvement in education -- factors related to school achievement. Students who regard their parents as warm, firm, and involved in their education earn better grades than their classmates with uninvolved parents [Deslandes, Rollande; Royer, Egide; & Turcotte, Daniel. (1997, Fall)]. In these families, parent support acts as a protective factor countering some of the risk factors these children encounter. Although economic pressures often limit or prevent parent involvement in single-parent families, when single parents make the effort to support their children's education, their effort acts as a protective factor.

More often than not, single-parent families include a mother and children whose original father no longer lives in the home. Similar to income and parent education, father absence is also a risk factor that makes it more difficult for children to succeed in school. When parents separate or divorce, children often lose both the financial and emotional support of their fathers, which can have a negative impact on academic performance. Although child support does not resolve all of these issues, it does make a significant difference. Children in mother-only families who receive child support tend to do better in school than those who do not receive child support [Knox, Virginia W. (1996) ; Thomson, Elizabeth; Hanson, Thomas L.; & McLanahan, Sara S. (1994)]. Reviewing data from the National Longitudinal Survey of Youth, Knox [Knox, Virginia W. (1996)] found that for every \$100 of child support mothers receive, their children's standardized test scores increase by 1 /8 to 7/10 of a point. In addition, fathers who support their children financially typically have more contact with them, further decreasing the negative emotional impact of marital breakdown [Knox, Virginia W. (1996)]. Absolutely therefoer, social status of an individual are among the factors that determine the School performance; hence **independent variables** against school performance as a **dependant variable**.

Concerning economical factors, some research claims that one's results and expectations for the future are better the higher one belongs on the social ladder. In their study on performance in secondary schools in Spain, Marchesi and Martin (2002), found that upper class students show a better use of metacognitive strategies than those of a lower social class. Indeed, in his study, Checchi (2000) also concluded that family income provides an incentive for better student performance; richer parents internalize this affect by investing more resources in the education of their children. Therefore economical factors, **as independent variables**, are determiners of the validity of school performance as a **dependant variable**.

Apart from psychological, social and economical factors, there are extraneous variables which contribute in determining school performance, though not concerned in this research work. These are among others, school based factors, gender biases, and extracurricular activities which are a matter of our preoccupation in this study.

Related Studies

Orphanhood is often associated with increased economic and social risks and vulnerabilities. Poverty, consumption shortfalls, exploitation and abuse are among the most common negative outcomes falling in this category. The risks faced by orphans and their specific requirements vary a great deal depending on situations in which these children find themselves. These risks range from economical and social risk to psychological risk and trauma.

Psychological Factors and Academic Performance

Stress, Trauma, and Stigma

Psychological aspects have often been overlooked in the literature in part because of a difficulty in assessing trauma and its impacts. Indeed, psychological impacts are often not visible, they take different forms, and they may not arise until months after the traumatic events (HUMULIZA, Terre des hommes, Switzerland, cited by Kalanidhi and Diane, 2004). The death of a parent leaves children in a state of trauma. Sengendo and Nambi reported in 1997 that in Uganda, many orphans were showing signs of stress and trauma (Sengendo and Namsi, cited by Foster and Williamson, cited by Kalanidhi and Diane, 2004).

Children whose parents are living with HIV often experience many negative changes in their lives and can start to suffer neglect, including emotional neglect, long before they are orphaned. Eventually, they suffer the death of their parent(s) and the emotional trauma that results. They may then have to adjust to a new situation, with little or no support, and may suffer exploitation and abuse. (Jo Stein, 2003 & Subbarao K. and Coury D., December 2004)

In one study carried out in rural Uganda, high levels of psychological distress were found in children who had been orphaned by AIDS. Anxiety, depression and anger were more found to be more common among AIDS orphans than other children. 12% of AIDS orphans affirmed that they wished they were dead, compared to 3% of other children interviewed. (Atwine B., Cantor-Graae E. and Banjunirwe F., March 2005). Indeed, orphans may become withdrawn and passive or develop sadness, anger, fear, and antisocial behaviors and become violent or depressed. Table 1, which is reproduced from a study by Mollica (cited by Kalanidhi and Diane, 2004), summarizes the trauma reactions experienced by war-affected children living in refugee camps in Cambodia. The data were drawn from a study conducted in two refugee camps in Cambodia in 1990. Although the causes of the trauma were different, similar reactions were observed among children who had lost a parent. (HUMULIZA/ Terre des homes, Switzerland, cited by Kalanidhi and Diane, 2004).

Table 1: Summary of Common Trauma Reactions by Age: War-Affected Children, Refugee Camps, Cambodia, 1990

Trauma reactions	Preschool	School age	Adolescence
Fears, worries		✓	✓
Physical complains		✓	✓
Attention, memory problems			✓
Nightmares, sleep problems			✓
Post traumatic play	✓	✓	
Regression, separation, anxiety	✓	✓	
Anger, hostility, depression		✓	✓
Apathy, withdrawal, avoidance		✓	✓
Sadness, depression		✓	✓
Sense of foreshortened future		✓	✓
Survivor guilt			✓
Risky, dangerous behavior			✓

Source: Mollica (cited by Kalanidhi and Diane, 2004)

Orphans may experience additional trauma from lack of nurturance, guidance and a sense of attachment, and this may impede their socialization process (through damaged in self-confidence, social competences, motivation and so forth). Children often find difficult to express their fear, grievance and anger effectively. In addition, when willing to express their feelings, they may find it difficult to find a sensitive ear

(UNAIDS, 2004). Moreover, adults (such as surviving and foster parents, teachers) when not themselves suffering from some forms of trauma or depression and thus unable to deal with the child emotional needs, are rarely aware of the children's emotional and psychological needs. When a parent dies from AIDS, trauma is often accompanied by stigma and discrimination. At schools, AIDS orphans may be singled out or rejected by their schoolmates, which can create barrier to have care, education, and success to social events.

In the study conducted in Shamba and Kagera, Tanzania, all orphans interviewed reported harassment by schoolmates and peers (HUMULIZA/ Terre des homes, Switzerland, cited by Kalanidhi and Diane, 2004). Similar findings were reported in Malawi, where some orphans describe having stones thrown at them, being insulted, or having less access, among other things, to food, material items, and school opportunities than the other children in the household (Mann cited by Kalanidhi and Diane, 2004). The children infected by HIV/AIDS experience additional anxiety and fear. Evidence from Ethiopia shows that one of the major concerns of HIV/AIDS infected children is the fear of being forgotten once they die (Sc-USA cited by Kalanidhi and Diane, 2004). AIDS orphans or HIV positive children may face extreme discrimination that leads to isolation and risky behaviors. For the stress, this comes usually from academic pressures, particularly those resulting from the various forms of examinations or other assessment. However, social difficulties such as being bullied or school phobia can cause long-term problems. These are often associated with high levels of anxiety and can be very debilitating for some children.

Anxiety

Anxiety is a psychological state characterized by cognitive, somatic, emotional, and behavioral components. (Seligman, M.E.P., Walker, E.F. & Rosenhan, D.L.). These components combine to create an unpleasant feeling that is typically associated with uneasiness, apprehension, fear, or worry. Anxiety is a generalized mood condition that can often occur without an identifiable triggering stimulus. As such, it is distinguished from fear, which occurs in the presence of an observed threat. Additionally, fear is related to the specific behaviors of escape and avoidance,

whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable (Ohman, A. (2000).

Another view is that anxiety is "a future-oriented mood state in (Barlow, David H. ;November 2002) which one is ready or prepared to attempt to cope with upcoming negative events (suggesting that it is a distinction between future vs. present dangers that divides anxiety and fear. Anxiety is considered to be a normal reaction to stress. Passer et al. (2008) suggest that anxiety is the state of tension and apprehension that is a natural response to perceived threat (Passer M., Smith R., Holt N., Bremmer A., Sutherland E., Vliek M. 2009).It may help a person to deal with a difficult situation, for example at work or at school, by prompting one to cope with it. When anxiety becomes excessive, it may fall under the classification of an anxiety disorder (National Institute of Mental Health Retrieved September 3, 2008).

Children grieving for dying or dead parents are often stigmatised by society through association with AIDS. The distress and social isolation experienced by these children, both before and after the death of their parent(s), is strongly exacerbated by the shame, fear, and rejection that often surrounds people affected by HIV and AIDS. Because of this stigma, children may be denied access to schooling and health care. Once a parent dies children may also be denied their inheritance and property. Often children who have lost their parents to AIDS are assumed to be HIV positive themselves, adding to the likelihood that they will face discrimination and damaging their future prospects. In this situation children may also be denied access to healthcare that they need. Sometimes this occurs because it is assumed that they are infected with HIV and their illnesses are untreatable.

"We should remember that the process of losing parents to HIV/AIDS for the children often includes the pain and the shame of the stigma and the fear that the disease carries in most our societies." *UNICEF representative Bjorn Ljunqvist* (United Nations Children's Fund, 2003). Such problems are common to all vulnerable children, orphaned students included.

Self-Efficacy and Self-Confidence

Self-efficacy can be defined as the levels of confidence individuals have in their ability to execute certain courses of action, or achieve specific outcomes (Bandura, 1977, 1982, 1997). Efficacy expectations are said to influence initiating behaviors, and the degree of persistence applied in overcoming difficulties encountered in the pursuit of accomplishing a task or tasks. Confident individuals anticipate successful outcomes. Students confident in their social skills anticipate successful social encounters. Those confident in their academic skills expect high marks on exams and expect the quality of their work to reap personal and professional benefits. The opposite is true of those who lack confidence (Bandura, 1997). Generally, due to life hardships they experience, orphaned students have low self-confidence and that is likely to lead to poor academic performance.

Lack of Efficient Psychological Support

The physical needs of orphans, such as nutrition and health care, can often appear to be the most urgent. But the emotional needs of children who have lost a parent should not be forgotten. Having a parent becomes sick and die is clearly a major trauma for any child, and may affect them for the rest of their life.

"My sister is six years old. There are no grown-ups living with us. I need a bathroom tap and clothes and shoes. And water also, inside the house. But especially, somebody to tuck me and my sister in at night-time." *Apiwe aged 13* (IRIN News ,October 2003).

Household-based care is the dominant form of caring arrangement for orphaned children through Africa and for most stakeholders; it remains the most desired model of care for these children. In line with traditional practices, the integration of orphans within their close relatives is given priority. Yet, when such integration is not possible, adoption and formal fostering are given consideration too, although they do not yet appeal to the public because of cultural bias. Evidence suggests that most orphans living in such conditions do not receive adequate psychological support.

Seggane Musisi, Eugene Kinyanda, Noeline Nakasujja, Janet Nakigudde (2007:203-204), found that school-going orphans, compared to non-orphans, reported more dissatisfaction with life and more psychosocial difficulties. They did not, however, have higher rates of major psychiatric disorders such as major psychotic, affective or organic mental disorders,. These orphans were more often likely to be emotionally needy, insecure, materially deprived; more likely to be exploited / abused/ neglected and more of them lived in situations of poverty, big families and hardship. There were no counselors in the schools to help the children in difficulty, or the teachers or the families. There was a paucity of social support services in the community.

Orphans may be living in child headed households with other siblings looking after younger ones, thus assuming parenting roles they are ill-prepared for, others taken care by communities or institutions. A child may then experience anguish, trying to find out what is happening to him when he is removed from familiar community and placed in institutional care. He will wonder how these changes will affect his well-being: who will cuddle him, who will tell him comforting stories, where he will get food, what will happen to his brothers and sisters.

Besides, the child who doesn't receive normal affection may show his disturbance by excessive inhibition, by aggressiveness or by passive dependency. Warmth has much to do with the development of conscience and the child who identifies with parents adopts their standards and works for their approval.

As noted above, most orphans are at risk of being confronted by powerful cumulative and often negative social changes in their lives over which they have no personal control. Experiences in continuously adverse circumstances do not make life appear to be subject to control through one's own efforts (Lefcourt 1976). Perceived lack of control produces a feeling of helplessness and loss of hope, and diminishes an individual's will power (Richter 1959; Overmier and Seligman 1967; Lefcourt 1976).

According to James Sengendo and Janet (1997), in Uganda, in spite of the efforts made by some agencies such as UNICEF, World Vision and Save the Children Fund (UK), many of the orphaned children continue to experience emotional problems and

little is being done in this area of emotional support. There are several reasons. First, there is a lack of adequate information on the nature and magnitude of the problem; secondly, there is a cultural belief that children do not have emotional problems and therefore there is a lack of attention from adults. Thirdly, since psychological problems are not always obvious, many adults in charge of orphans are not able to identify them. However, even where the problem may have been identified, there is a lack of knowledge of how to handle it appropriately. In many cases children are punished for showing their negative emotions, thereby adding to their pain. In schools, there is an obvious lack of appropriate training of teachers in identifying psychological and social problems and therefore offering individual or group attention.

The death of parents introduces a major change in the life of a vulnerable child. In some cases, this change may involve moving from a middle or upper-class urban home to a poor rural relative's home. It may involve separation from siblings, which is often done arbitrarily when orphaned children are divided among relatives without due considerations of their needs. It may mean the end of a child's opportunity for education because of lack of school fees. Those children who choose not to move or who may not have any other relative to go to, may be forced to live on their own, constituting child-headed families. All these changes can easily affect not only the physical, but also the psychological well-being of a vulnerable child. They can be very stressful as they pose new demands and constraints to children's life.

Death of parents makes children vulnerable and predisposes them to physical and psychological risks over which they have no control. The feeling of helplessness is very costly in terms of psychological well-being and may be reflected in lack of concern, involvement and vitality in social and school activities. Emotionally, it is indicated by sadness and depression. In his research Minde (1988), found that it is not the social change itself that may cause psychological problems, rather it is the failure of the individual to adapt to social change. Like bereavement, social change and the resultant need to adapt to it create stress. Minde (1988), continues saying that this stress may be shown in symptoms of confusion, anxiety, depression, and

behavioural disorders such as disobedience. The same symptoms may cause learning problems. Children who are frustrated, fearful, and depressed may fail to concentrate in class and therefore perform badly. Failure by the school and the home systems to recognize these symptoms and address them will aggravate the child's psychological problems.

In China, few studies have been carried out to examine the school performance and school behavior of AIDS orphans and vulnerable children (children living with HIV-infected parents). Using both self-report and teacher evaluation data of 1625 children from rural central China, researchers examined the impact of parental HIV/AIDS on children's school performances (academic marks, educational expectation, and student leadership) and school behaviors (e.g., aggression, shy/anxious and assertive social skills). Results indicate that AIDS orphans and vulnerable children had disadvantages in school performances in comparison to their peers from the same community who did not experience AIDS-related death and illness in their family (comparison children). AIDS orphans had the lowest academic marks based on the reports of both children and teachers. Educational expectation was significantly lower among AIDS orphans and vulnerable children than comparison children from teacher's perspective. AIDS orphans were significantly more likely to demonstrate aggressive, impulsive and anxious behaviors than non-orphans. Moreover, orphans have more learning difficulties. Vulnerable children were also at a disadvantage on most measures. The data suggest that a greater attention is needed to the school performance and behavior of children affected by AIDS. The findings also indicate that AIDS relief and assistance program for children should go beyond the school attendance and make efforts to improve their school performance and education aspiration. Alliance for Children Foundation [ACF] *About the Alliance AIDS orphan project: AIDS in China*. 2004. [March 19, 2005](http://www.afcfoundation.org/projects.php?pic=docs/AIDS_fund.html) october 27, 2010).

The effects of death and bereavement are not always negative. Positive effects are possible as when a child moves from a poor family to an economically better-off one.

Children who are fostered may be motivated to use all their power to prove their worth to their new families and to win their support. Children who are forced to live on their own may behave more responsibly and more maturely out of the sheer need to survive.

Social Factors and Academic Performance

Family-Life Effects

The loss of mother as a primary care-giver has a profound effect on children's wellbeing. As young or middle aged father and mother die, grandparents take over the full-time care of young children and the latter assume unfamiliar adult roles. Sometimes, they are primary care givers of their infected elders assuming adult responsibilities, washing, cooking for, and feeding sick elders and young siblings, taking care of cattle, and growing crops for sustenance.

(i) Children Living with a Surviving Parent or with Grandparents

Living with the surviving parent, when feasible, ensures that siblings remain together in a familiar environment. However the death of one parent may entail a significant drop in the family welfare. With the death of the main breadwinner (often the father), economic needs are very likely not to be met, and basic needs may become difficult to provide as the revenue of the family drops. Meanwhile, the workload of children may increase and paternal orphans may be subjects to expropriation when relatives claim a right to the widow's or the orphan's property.

(ii) Children Living in Child Headed Households.

A good proportion of orphaned children are under the care of older orphans despite the later being inadequately prepared to move into adult roles. This situation has emerged in 7-10 percent of cases in rural Tanzania and almost 20 percent of cases in northern Uganda (Ntozi and others cited by Kalanidhi and Diane, 2004). The same authors claim that one important motivation for the formation of child-headed household is the desire not to split up the siblings and to retain access to and ownership of the family's land and other property. By avoiding being split up among various relatives and being able to stay in their home in familiar surroundings,

children may face less emotional and psychological trauma. The lack of productive skills to run the parent's occupation or the seizure of the land may also force the child-headed household into deeper poverty and may increase the risks of being pressed onto the street with all its attendant adverse consequences. Such households are vulnerable, and unlikely to meet all their needs.

(iii) Children Living in Community Foster Care

Community foster care means that a child is placed in a family to which it is not biologically related. The India HIV/AIDS Alliance in collaboration with the Tata Institute of Social Science conducted a research in 2006 to develop greater understanding of the problems, needs and challenges of children heading households and children in community foster care in India.⁴ The study shows that especially children who head households face tremendous challenges and are vulnerable to exploitation. (<http://www.aidsalliance.org/sw41834.asp> 2-200711 [Orphans and vulnerable children]).

Adoption and fostering of such children has not been a traditional practice in the country. However, after the 1994 war and genocide in Rwanda, this has gradually been changing. Many families fostered unrelated children. The fostering was perceived to be a moral imperative because so many children were orphaned. But some abuses such as increased workload and few school opportunities were observed.

(iv) Children Living in Institutional Foster Care

In Rwanda most orphaned children are still in institutional foster care (orphanages). Orphanages are by far the most formal type of institutions that care for orphans. Most orphanages are run by non-governmental organizations (NGOs), religious organizations. On these settings, orphans are cared for by social workers and their basic needs, such as shelter, food, clothing and education are met. Orphanages are often believed to provide children with adequate basic care, although much depends on the quality of that care. Major drawbacks are said to be associated with orphanages, but few have been studied. Chernet (cited by Kalanidhi and Diane,

2004) provides an extensive list of problems associated with institutional care in Ethiopia:

- Inadequate funding
- Shortage of trained personnel
- Inadequate skills
- Lack of psychological services
- Lack of long-term strategic planning
- Feeling of loneliness and helplessness and on the part of orphans
- Dependency
- Low self-esteem
- Lack of adult guidance
- Limited participation of children in decisions about their future

(v) Children Living in Family-Fike Settings

(a) Children's Home

A children's home is an arrangement in which a paid and usually trained foster mother lives with a group of orphans (generally from 4 to 10 in ordinary home, rather than in institutional building), within the community. By providing children with a family-like setting and a trained mother, these homes should adequately meet orphan's basic materials, safety and psychological needs. However, the lack of a father figure may be a problem, especially for the socialization of male orphans.

(b) Children's Villages

The concept of children's village was developed by SOS. It usually consists of a group of about 10-20 houses, which form a community and provide a family –like setting for vulnerable children. Each house is headed by an SOS trained mother, who takes care of 8-10 children. Children grow up in conditions comparable to those "normal families" in the sense that biological siblings are not split up: children of different age and gender become brothers and sisters .All children are enrolled in public schools and children are strongly encouraged to maintain contacts with the community. The village director (a male) supports the mothers and represents a father figure to the children. The villages have often been criticized for separating children from the community and for providing standard of material wellbeing so much higher than that of the surrounding community that it causes to the children significant difficulties with social reintegration once they leave their village. A children's village seems to meet most orphans' basic and economic needs; uncertainties remain, however, about whether psychological and safety needs are met.

Indecent Health Conditions

No clear pattern could be discerned about the health risks and risk of malnutrition arising from orphanhood. In Uganda in 1999-2000, foster children were found to have significantly less access to health services than children living in their own parents' homes (Deininger, Garcia, and Subbarao cited by Kalanidhi and Diane, 2004). A study in Rakai, Uganda, revealed that some young orphans were stunted and malnourished because of the inability of extended family to cope with the increasing number of orphans (Barnet and Blaikie, cited by Ntozi and others, cited by Kalanidhi and Diane, 2004). Stunting among orphaned children was also observed in the Kagera region of Tanzania (Ainsworth and Semali cited by Kalanidhi and Diane, 2004). In Sierra Leone, foster girls seemed particularly vulnerable to malnutrition (Blesoe, Eubank, and Isingo-Abainhe cited by Kalanidhi and Diane, 2004). A similar finding was observed in Burundi, where 24 percent of female orphans suffered from severe malnutrition compared with 14 percent of male orphans and 12.5 percent non-orphans (Muller and Abbas cited by Kalanidhi and Diane, 2004).

Low School Assistance

Parents in different home backgrounds certainly appear to vary in the extent to which they give support for their children with early learning tasks and with school work. A study from Elliott and Hewison (cited by Martyn, 2000), for instance, compared different socio-economic groups in terms of parent involvement and the academic outcome of reading ability. Those children who made the most progress with reading were helped regularly by their parents, whereas those who made the least progress came from homes where children were given little help and where there were few books. Therefore, parental support can be a direct factor to an academic progress.

Exploitation and Abuse

Most of the time adults attempt to rob orphans of their property once they have no parents to protect their rights.

"You find that the parents have been productive and have left assets for the children but immediately after their deaths, the relatives squander everything. Those that are left without anything are just being used for the food rations." *Pelonomi Letshwiti, a social worker for Childline Botswana* (IRIN News ,October 2002).

Children orphaned due to AIDS may face exploitation in other areas of their lives as well. For instance, evidence suggests that there is a relationship between AIDS orphans in sub-Saharan Africa and increased child-labour (UNAIDS 2006).

Children workload increases once their parents die, and especially that of those children who become heads of the households. Because most of the latter children lack the required skills or inputs to conduct household economic activities, households headed by a child or adolescent are often found in dire straits.

For those orphans living in the foster families, there is some evidence that their workload is greater than that of the non-orphans living in the same household (Foster and others cited by Foster and Williamson, cited by Kalanidhi and Diane, 2004). In Burundi, data based on the last multisectoral cluster survey reveal that

although 24% of male non-orphans and 27% of female non-orphans work more than four hours a day, the proportion increases to 36% for male and 40.5% for females orphans (ISTEB 2001).

The proportion of female orphans working more than four hours a day is particularly high when the mother has died (52%), suggesting that girls tend to cover some of their late mothers tasks within the household. Higher work burdens were also observed in Rwanda among female orphans fostered in urban households (Siaens, Subbarao, and Wodon cited by Kalanidhi and Diane, 2004). However because child labor in Africa relies mainly on family-based activities, lack of access to assets such as land or livestock after the death of parents may force the poorest orphans into idleness (Andvig cited by Kalanidhi and Diane, 2004).

Orphaned children may also be exposed to mistreatment by their foster families. Risks of abuse, neglect and exploitation are often reported (Ntozi and others for northern Uganda, Mann for Malawi, cited by Kalanidhi and Diane, 2004) and seem to increase with age. Teenage female orphans seem particularly at risk of being put to work at intensive household chores because of culture practices and the limited educational opportunities available to them, and of being physically and sexually abused. Indeed, the lack of parental protection and supervision may leave a door open to violation of rights such as those just mentioned, and property grabbing.

Another study by the ministry of health of Kenya found that many orphans especially boys living with their single mothers, were denied property rights (Chipfakacha cited by Kalanidhi and Diane, 2004). Similarly, in Uganda it was found that widows and orphans were often subjected to property snatching and loss of inheritance (Wakhweya cited by Kalanidhi and Diane, 2004).

Recent evidence from Nyanza province in Kenya suggests that orphaned girls have sex at a younger age compared to non-orphans, and interestingly are more likely to engage in first sex willingly rather than being coerced.⁴ Are orphaned girls more likely to seek sexual relationships for anticipated material gain and/or the psychological need for intimacy with an older male? In addition, boys whose mother had died are more likely than other boys to report having first sex with someone

older and having paid for sex. Sex itself was riskier, with lower reported condom use by orphans. The report concluded that *"lack of supervision and/or loving care by parents/guardians was perhaps the key factor that increases vulnerability to risky behaviour by children, [Orphans and vulnerable children] and orphans were felt to be at increased risk because of this"*. So while material deprivation of orphans may be a widespread problem, this is only part of a generalised and normalised child deprivation (HelpAge International, IDS & Save the Children UK, 2005: http://www.helpage.org/Resources/Researchreports/main_content/bfT7/MakingCashCount.pdf).

Economic Factors and Academic Performance

The Poverty

Poverty is the lack of access to productive resources and the necessities of life by households, thus hampering the efforts to lead a life of dignity and self-esteem. According to the PRSP (Rwanda), poverty "is the inability of individuals, households or entire communities to command resources to satisfy their basic needs". According to the National Program for Strengthening Good Governance for Poverty Reduction in Rwanda however, poverty is widely defined as a social, economical, political, cultural and other forms of the deprivation that affect individuals, households and communities.

Indeed, the death of a father can have disastrous impact on the welfare of the household because of the costs of a funeral, the loss of income, and the risk of losing one's property. (World Bank, cited by Foster and Williamson, cited by Kalanidhi and Diane, 2004). Evidence also shows that orphaned care tends to fall more and more in poorest homes, for example those headed by the elderly or women. Moreover, in some cases, the death of one or both parents is followed by the dissolution of the family, leading to the integration of orphans into a new household, which makes the dependency ratio less favorable (Urassa and others cited by Kalanidhi and Diane, 2004). Unless foster families receive some kind of private transfers to cover the extra costs, resources per capita are likely to decrease. A study based on a panel data set from Uganda showed that the addition of a foster

child had the expected effects of not only reducing significantly the consumption and income per capita, but also reducing the capital accumulation of the household over a long term (Deininger, Garcia, and Subbarao cited by Kalanidhi and Diane, 2004).

While some governments and organizations are addressing aspects of orphaning, most countries lack integrative and comprehensive strategy to meet the education, health and psycho-social needs of orphaned children. Once a child loses a parent or both parents, such a child may be adopted by relatives from either of the parents' families. In most cases adopting parents live in different environments with which a child may not have been familiar. There are almost always associated physical and psychological problems: for example, the orphan may experience poverty for the first time.

Adopting families often have problems of their own, such as their own large families to care for, and therefore, severe economic strains. Hunter (1990) observed that sometimes the adopting parents are too young or too old to properly care for additional children. UNICEF (1990) noted pathetic situations, where grandparents who expected to be supported by their children suddenly had to care for their orphaned grandchildren. These grandparents were found to be less able to provide discipline and adequate socialization, and even to address the basic needs for food, clothing, shelter and health care (Hunter 1990). Bledsoe (1989) also observed that adopted or fostered children often receive worse treatment than the biological children in the same family. Nalwanga-Sebina and Sengendo (1987) found that the education, nutrition and health status of children adopted into impoverished families suffered from lack of resources necessary for their basic needs.

Economically, orphan children are hard hit. Even when caregivers attempt to protect children by not discussing economic difficulties with them, the children are attuned to the emotional environment and readily adopt the anxiety, fear and frustration that accompany financial strain.

Taking advantage of some orphans girls poverty, adult men whether male teachers or sugar daddies bride them with money or gifts in exchange for sex. A girl may respond to such advances because her family is unable to provide her with school

fees and necessities such as uniform, notebooks, etc. Where girls live at some distance from the school and do not have money for bus fares, they may solicit lift from car drivers, which increases their chances of being assaulted or raped. And this is undoubtedly a hindrance to the child's academic performance.

CHAPTER THREE

METHODOLOGY

Introduction

The findings of this research were not obtained haphazardly but scientific methods, procedures and techniques have been used to select the sample population, to develop research instruments and to collect and interpret the data. Therefore, this chapter presents the methods and techniques used to conduct the research. These were judged to be the most efficient ones to arrive at the expected results. Methodology spells out the design, the area of the study, the population, the sample and sample techniques. But it also includes the instrument for data collection, the validation and reliability of the instrument, the method of data collection, and the method of data analysis used.

Research Design

The design of the study is primarily a survey type. In the course of this research, data have therefore been collected from the field through a survey, by means of a questionnaire administered to a number of chosen orphaned students. Furthermore, personal interviews have been held with school administrators, as well as local political leaders, in a bid to get a very rich data. Thereafter, the obtained data were quantitatively processed so as to supply statistics capable of expressing the extent of the problem in concrete terms.

Research Population

This refers to the individuals on which the research was conducted. The population of this study is comprised of orphaned students of 7 secondary schools selected in Musanze District. The school head teachers and 6 executive secretaries of the administrative sectors, where these schools are located, are also subjects to this research.

However, it was not affordable to deal with all the people concerned in order to get data. Yet, the information needed had to be obtained and to reflect the situation of the population with regard to variables being measured.

Sample Size

According to Ghiglione (1985:29) , "*it is rare that one can study exhaustively a population that is, to ask all the members [...] to interrogate a small number of individuals can give so much information, provided that they are chosen correctly.*" "The problem is to choose a group of individuals, a sample, in such a way that the observation that will be made on it will be generalized to the whole population; the sample must then have the same characteristics as the population; it has to be representative. A sample is representative when the units constituting it were chosen in a process such that all the members of the population have the same chance of making part of the sample. Otherwise the sample will be said to be biased." Indeed, dealing with a whole population would be difficult and costly in terms of time and funds. However, there is possibility to take a sample representing the whole population concerned. Then the question that is left is to know the size of the sample to be taken.

IN the view of C. JAVEAU (1985, pp .45-46), "the reliability of information obtained through sampling depends on the size of the population that the sample represents".

Ghiglione (1985: 29) says that "the problem is to choose a group of individuals, a sample, in such a way that the observation that will be made on it will be generalized to the whole population; the sample must then have the same characteristics as the population; it has to be representative. A sample is representative when the units constituting it were chosen in a process such that all the members of the population have the same chance of making part of the sample. Otherwise the sample will be said to be biased."

In this work the researcher has taken a sample which is representative of the population of the study. That is, a sample which is both representative and manageable in terms of the methods to use, the time allocated to the work and the financial costs involved. In the same view Ghilglione (1985: 51) argues that "it is

evident that the quality and the validity of the results of any enquiry depend on the size. And if a sample is equal to the whole population there will be no error of sampling. But this reference to the whole population is not reliable: not only because it is hardly possible to get a whole population, but because the precision in relation to a sample of a reasonable size is minimal.”

In designing the sample of this research therefore, not only representativeness was taken into consideration, but also manageability among other factors.

Sampling Procedure

Sampling is a process by which a relatively small number of individuals, objects or events is selected and analyzed in order to find out something about the entire population from which it was selected. (Chester and Liba, cited by Nsanzimana, 2006). For the research in question, the sample has been determined on the basis of the table for sample size (s) required for the given population size (N) by (Amin, 2005). Furthermore, to select the members of the sample, the researcher has used the random sampling technique. From the alphabetical lists of the orphaned students, numbers were picked at intervals of ten people, so long as the starting point was below number ten. The following table shows the total number of the population from which the sample was calculated.

Table 2: **The Distribution of Orphaned Students in Secondary Schools Selected for Research in Musanze District.**

	SCHOOLS	ORPHANED STUDENTS		
		Boys	Girls	Totals
BUSOGO	E.S.T. Busogo	29	42	71
CYUVE	Sonrise	34	27	61
MUHOZA	I.T.B	22	21	43
	APICUR	25	23	48
	E.S.St Vicent	0	31	31
MUSANZE	E.SC. Musanze	37	26	63
RWAZA	APEDI Rwaza	19	24	43
TOTAL / DISTRICT		167	194	360

Source: Field Data.

The total number of orphaned students in the selected secondary schools is 360. As the size of the population is known, then the sample will be 186 (Amin, 2005). The sample was taken from the total number of orphaned students in the schools. Indeed, all the head teachers of the 7 schools and 5 executive secretaries of the administrative sectors where the schools are located have been interviewed for additional information.

Research Instrument

The nature of this study appeals to the researcher for the use of the survey research method. With this method, the researcher went to the field and conducted the survey about the problem. This method helped find out the relative incidence of variables, which are the performance of the students and the affecting factors.

After choosing the sample, then followed identifying tools to use in order to get the information needed. The data eliciting the researcher used is a questionnaire

consisting of 4 sections namely, section A for psychological factors, section B for social factors, section C for economic factors and, section D for students' academic performance.

The questionnaire adapted a 5-likert type scale of very true =1, untrue=2, neither untrue or true =3, true=4, and very true = 5. The respondents were supposed to indicate the extent to which each statement is true or not true.

The data collection techniques used in this research work are observation and interviews. Interview was used to follow up ideas, probe responses and investigate motives and feelings, which questionnaire could never do. In this way, the researcher followed how responses were made (the tone of the voice, facial expression, hesitation, etc.) and that provided information that written response would have concealed.

As far as observation schedule, as a data collection technique, is concerned, the researcher purposefully participated in settings where orphaned students were talking about their performance in class. By the use of the observation method, the researcher got reliable information as the targeted subjects delivered it unintentionally.

Validity and Reliability of the Research Instrument

To provide the questionnaire with validity, this has been suggested to different credible people for corrections and adjustments. In addition, reliability of the questionnaire has been ascertained by a pilot study conducted outside the course of the main study. This was to help to assess the language clarity, ability to tap information needed, acceptability in terms of length and privacy of the respondents.

The researcher further discussed the instruments with colleagues experienced in the area of research and the supervisor. The researcher finally included some of the comments while drafting the final copy. At this level, the researcher looked for 3 experts to rate the instruments as relevant/suitable and or not suitable.

Data Reliability

Reliability refers to the consistency of a measure. The reliability was checked on all the four sections (A, B, C and D) of the orphaned students' questionnaire.

Data Gathering Procedures

In order to reach his objectives, the research had to deal with the collection of primary data. This is the information obtained first hand by the researcher. In fact, primary data from various respondents served much for this research. It was obtained through questionnaire and personal interviews administered respectively to orphaned students as well as school head teachers and grassroots leaders.

Apart from the primary data the research also needed secondary data. This is the information obtained from other people's accounts, i.e. from previously published materials. This kind of information was therefore collected mainly from books and reports, mainly from educational management of Musanze District and MINEDUC), but also from electronic sources.

Data Analysis

For a clear and easy understanding, categorization and tabulation have been resorted. Responses under the same category have been brought together and analyzed using SPSS, and then findings have been put into tables, to facilitate the researcher to make generalizations.

Ethical Considerations

The study primarily involved respondents considered relevant to the theme under study. Therefore, extreme confidentiality had to be promised and this was achieved only, by guaranteeing secrecy to selected respondents' information provided.

Limitations of the Study

The limitations of this research occurred when among the 186 questionnaires that I gave to respondents, 170 for students were returned while 16 disappeared. Indeed, some respondents left some questions unanswered on their questionnaires.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Introduction

This chapter provides presentation, analysis and interpretation of the data. The Data collected from the field was analyzed and interpreted in a way that portrays scientifically the scope of the problem that was researched on.

Questionnaire for Orphaned Students

Respondents were 186 orphaned students chosen from 7 secondary schools of Musanze District. But only 170 returned the questionnaires and consequently, they are the only considered.

Measuring the Dependent Variable

Dependent Variable: Students' Performance

Table 3: Means and Standard Deviations on how Respondents Rated their own Academic Performance

Student participation in class	Sum	Mean	Std. Deviation
Answering questions asked	384	2.26	.673
Asking questions where you do not understand	515	3.03	.479
Your own contribution in giving ideas	558	3.28	.962
Completion of exercises and home work given	514	3.02	.890
Corrections from tests			
Taking books for marking	385	2.26	.649
Making corrections after marking	504	2.96	.375
Asking for correct answers for questions you have	596	3.51	.816

failed			
Attendance/ regularity			
Attending lessons	478	2.81	.985
Punctuality in all lessons you study	648	3.81	.985
Your completion of lessons; start and finish class	652	3.84	.551
Revision of your books			
Reading books in the library	742	4.36	1.229
Revision of your exercise books in class	292	1.73	1.446
Completing home work you are given	462	2.73	1.121
contacting your teachers during your free time for more information	480	2.82	.802
Scores in exams and tests			
Your scores in the last term exams were	439	2.58	1.609
Your performance in exams of previous year was	224	1.32	.926
Your performance in the last National exams you did was	347	2.04	.526
Your scores in the class test you last did were	517	3.04	.412
Your scores in class exercise you have done last were	572	3.36	1.229
PERFORMANCE INDEX	490	2.88	0.387

The dependent variable (DV) in this study was orphaned students' performance among secondary schools in Musanze District. Orphaned students' performance was broken into Participation in class, growth (also broken into corrections, improved

grades and value added), attendance and scores in examinations. Each of these aspects of the DV was measured qualitatively using several items or questions in the questionnaire, as described in the subsequent sub-sections of this section.

Students' Performance in Terms of Participation in Class

The first aspect of the dependent variable in this study was students' performance in terms of Participation in class, measured by four questions or items in the question, with each question Likert-scaled between one to five, where one was for Very poor performance; two for poor; three for Neither poor nor good; four for good and five for very good. Their responses were analyzed using SPSS's summary statistics showing the means and standard deviations, as indicated in table 3.

The means in table 3 suggest that respondents rated their participation in class as neither poor nor good or as just fair (most means ≈ 3), which fall under neither poor nor good on the Liker-scale. To generate a summary picture of how students rated their class participation, an average index (PARTICIPATION) was computed for all the four items in table 3, which turned out to have a mean index of 3.34, confirming that on average, students rated participation as average (mean index ≈ 3).

Students' Performance in Terms of Doing Corrections

The second dependent variable in this study was students' performance in terms of doing corrections when a test, an exercise or exam is given, and was measured by three items / questions in the questionnaire, with each question Likert-scaled between one to five, where one was for Very poor; two for poor; three for Neither poor nor good; four for good and five for very good. Their responses were analyzed using SPSS's summary statistics showing the means and standard deviations, as indicated in table 3.

The means in table 3 suggest that respondents rated their doing of corrections in class as poor as unfair, on most of the items in table (most means ≈ 2), which fall under poor on the Liker-scale. To generate a summary picture of how students rated their doing of corrections, an average index (Correcton) was computed for all the three items in table 3, which turned out to have a mean index of 2.24, implying

that on average, students rated their doing of corrections as poor (mean index ≈ 2). This implies that orphaned students' doing of corrections in Musanze District is generally poor.

Students' Performance in Terms of Attendance

The third dependent variable in this study was performance of students in terms of class room attendance, measured by three items or questions in the questionnaire, with each question Likert-scaled between one to five, where one was for very poor; two for poor; neither poor nor good; four for good and five for very good. Their responses were summarized using SPSS's summary statistics showing the mean and standard deviations, as indicated in table 3.

The means in table 3 indicate that students rated their class room attendance as neither poor nor good or as just fair, on most of the items (most means ≈ 3), which fall under neither poor nor good on the Liker-scale. To generate a summary picture of how students rated their class room attendance, an average index (Attendance) was computed for all the three items in table 3, which turned out to have a mean index of 3.34, confirming that on average, students rated their class room attendance as neither poor nor good (mean index ≈ 3). This implies that class room attendance in Musanze District is fairly good.

Students' Performance in Terms of Revision

The fourth aspect of dependent variable in this study was performance of students in terms of revising their books, measured by four items questions in the questionnaire, with each question Likert-scaled between one to five, where one was for very poor; two for poor; three for neither poor nor good; four for agree and five very good. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as indicated in table 3.

The means in table 5 indicate that students rated their revision as neither poor nor good on most of the items (most means ≈ 3). But on the question of whether they revise exercise books in class, most students rated themselves poor (mean ≈ 2), which falls under neither poor on the Liker-scale. To generate a summary picture of

how students rated their revision, an average index (Revision) was computed for all the four items in table 5, which turned out to have a mean index of 2.93, implying that on average, students rated their revision as neither poor nor good (mean index ≈ 2). This implies that students in Musanze District are fairly good as far as revising their books is concerned.

Students' Performance in Terms of Examination Scores

The fifth aspect of dependent variable in this study was performance of students in terms of examination scores, measured qualitatively by five items or questions in the questionnaire, with each question Likert-scaled between one to five, where one was for very poor; two for poor; three for neither poor nor good; four for good and five for very good. Their responses were summarized using SPSS's summary statistics showing means and standard deviations, as indicated in table 3.

The means in table 3 suggest that students rated their performance in terms of examination scores as neither poor nor good for all the items (means ≈ 3). To generate a summary picture of how students rated their performance in terms of examination scores, an average index (Scores) was computed for all the five items in table 3, which turned out to have a mean index of , implying that on average, students rated their performance in terms of examination scores as average (mean index ≈ 3). This implies that in Musanze District students' examination scores is generally medium.

Orphaned Students' School Performance in Term 2, Academic Year 2010

Table 4: Positions of the Respondents vis-à-vis the Class Mean in English.

School	Class	Class mean in English	Students whose performance is equal to or above the class mean in English	Students whose performance is below the class mean in English	Total
E.S.T.Busogo	S4CONS	68.7	6	2	
	S4 MPG	66.3	3	1	
	S5CONS	66.0	4	5	
	S5 MPG	65.1	2	2	
	S6CONS	62.2	1	5	
	S6MPG	63.6	2	4	
	Sub-totals		18	19	37
SONRISE	S4MCB	85.1	7	1	
	S4 PCB	70	4	0	
	S5MCB	72	3	0	
	S5 PCB	76.7	4	3	
	S6MCB	77.1	2	1	
	S6PCB	73.4	5	2	
	Sub totals		25	7	32
ITB	S4	76.5	4	5	
	S5	65	1	3	
	S6	59.5	3	6	
	Sub totals		8	14	22
APICUR	S4CONS	68	2	0	

	S4ACOUNT	71	1	1	
	S5CONS	67	0	0	
	S5	72	2	5	
	ACOUNT	60.5	0	7	
	S6CONS	62	0	5	
	6 ACOUNT				
	Sub totals		5	18	23
E.S.St VINCENT	S4	63.4	6	0	
	S5	71.2	3	1	
	S6	62.7	4	3	
	Sub totals		13	4	
E.SC. MUSANZE	S4MCB	72.9	5	0	
	S4 PCB	70.3	6	0	
	S5MCB	73	1	4	
	S5 PCB	66	5	1	
	S6MCB	68.7	2	2	
	S6PCB	63	5	3	
	Sub totals		23	10	
APEDI RWAZA	S4ACOUNT	74	1	3	
	S4 MPG	67	2	2	
	S5ACOUNT	71.5	0	1	
	S5 MPG	73	0	0	
	S6ACOUNT	61	1	3	
	S6MPG	68.7	3	6	
	Sub totals		7	15	22
GENERAL TOTALS					186

Source: Field data.

Calculation of the Pearson Product- Moment Correlation Index

Let X represents the number of students whose performance is \geq the class mean in English and Y the number of those whose performance is $<$ the class mean in English.

Table 5: **Pearson Product-Moment Correlation Index Results Correlating Students with Higher Scores to the Class Mean and those with Lower Scores.**

X	Y	Xy	X^2	Y^2
18	19	342	324	361
25	7	175	625	49
8	14	112	64	196
5	18	90	25	342
13	4	52	169	16
23	10	230	529	100
7	15	105	49	225
$\Sigma X = 99$	$\Sigma Y = 87$	$\Sigma XY = 1106$	$\Sigma X^2 = 1785$	$\Sigma Y^2 = 1289$

Source: Data from table 4.

Using Pearson product- moment correlation index (r),

Where:

r =Pearson

ΣY =Sum of scores in X distribution

ΣY = Sum of scores in Y distribution

ΣX^2 =Sum of squared scores in X distribution

ΣY^2 =Sum of squared scores in Y distribution

ΣXY =Sum of products of paired X and Y scores

N =Number of paired X and Y scores (Subjects)

$$r = \frac{n \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{n \Sigma X^2 - (\Sigma X)^2} \times \sqrt{n \Sigma Y^2 - (\Sigma Y)^2}}$$

*= Sign of multiplication

$$r = \frac{7742 - 8613}{\sqrt{(12495 - 9801) * (9023 - 7569)}} = -0.44$$

Correlation coefficient r_{xy} ranges from -1 to +1 i.e. r_{xy} lies in the interval $-1 \leq r_{xy} \leq 1$. A calculated value outside of this range implies an error has been made. Given the fact that the value calculated done above is in the recommended interval, the result found is correct. The results show that there is negative correlation between the number of orphaned students whose note is equal or above the class mean and those whose note is below the class mean.

As illustrated in the table 4, proportions of students below the class mean increases as long as students go up to upper classes. The reason behind is that the consequences of the death of the parent(s) are progressively manifested within the affected homes. There are however, some students who manage to perform well. This is a clear proof of existence among orphaned students of highly gifted ones who can even get further if their problems are solved or at least alleviated.

Measuring the Independent Variables

The independent variables (IV) in this study were psychological factors, social factors and economic factors, each broken into a number of aspects.

Independent Variable (1): Psychological Factors

The first independent variable in this study was psychological factors, broken into three aspects. Each of the three aspects of the psychological factors was measured by the use of SPSS's showing means and standard deviations.

Psychological Factors in Terms of Stress

The first aspect of psychological factors was on students' level of stress , measured by 11 items or questions in the questionnaire, with each Likert-scaled between one to five, where one was for strongly disagree; two for disagree; three for neither disagree nor agree; four for agree and five for strongly agree. Students' responses on this aspect were summarized using SPSS's summary statistics showing means and standard deviations, as indicated in table 4.

Table 6: Means and Standard Deviations on how Respondents Rated their own Levels of Stress

Indicator of stress	Sum	Mean	Std. Deviation
There is a lot of pressure at your school to finish activities	460	2.71	.710
At your school, you always do many things on pressure	587	3.45	1.162
At your school, you are over strained or worried of activities	784	4.61	1.010
At your school, you do many things on tension	496	2.92	.399
At your school, you always face difficult tasks and situations	605	3.56	1.066
You are always pushed to do school works	802	4.72	1.028
You always experience problems like headaches, back pain, stomach pain, rapid heartbeat and body pain due to school work	488	2.87	.493
You always get tired due to too much school work	578	3.40	1.204

The means and standard deviations in table 6, indicate that students rated the amount of care they get as low (means ≈ 4 , which falls under agree on the Likert-scale). This suggests that generally, the orphans in Musanze District do experience stress. To get a summary view on how students rated the amount of care they get , an average index of (stress) was computed which turned out to have a mean index of 3.78, confirming that on average, students Musanze District undergo stressing situations.

Psychological Factors in Terms of Anxiety

The second aspect of psychological factors was on students' level of anxiety , measured by 11 items or questions in the questionnaire, with each Likert-scaled between one to five, where one was for strongly disagree; two for disagree; three for neither disagree nor agree; four for agree and five for strongly agree. Students' responses on this aspect were summarized using SPSS's summary statistics showing means and standard deviations, as indicated in table 7.

Table 7: Means and Standard Deviations on how Respondents Rated their own Levels of Anxiety

Indicator of anxiety	Sum	Mean	Std. Deviation
In your school life you face many uneasy situations	748	4.40	1.289
In your school life you face a lot of challenging concerns	470	2.76	.646
you always experience a lot of unpleasant feelings	510	3.00	.000
you always experience a lot of fears and worries	672	3.95	.212
You always experience unpleasant moods	814	4.79	.617
You always get into unavoidable circumstances	510	3.00	.000
There are so many negative events or dangerous things	629	3.70	.584
There is a lot of tension at your school	787	4.63	.896
You always experience headaches, back pain, stomach pain, rapid heartbeat, sweating, fatigue and muscle weaknesses due to worries of tests, exercises, exams etc.	526	3.09	.293
You always feel lonely at school	657	3.86	.343
You never have fun at school	759	4.46	.992

The means and standard deviations in table 7, indicate that students rated the amount of anxiety they experience as very significant (means ≈ 4 , std. d. ≈ 0.3) which falls under agree on the Likert-scale). This suggests that orphaned students in Musanze district generally suffer anxiety. To get a summary view on how students rated the amount of anxiety they experience, an average index 3.78 (Anxiety) was

computed which turned out to have a mean index of , confirming that on average, students Musanze District highly experience anxiety.

Psychological Factors in Terms of Self-Confidence

The last aspect on psychological factors was students self confidence, measured by seven items in the questionnaire, with each Likert-scaled from one to five, where one was for strongly disagree; two for disagree; three for neither disagree nor agree; four for agree and five for strongly agree. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 8.

Table 8: Means and Standard Deviations on how Respondents Rated their own Levels of Self-Confidence

Indicator of self-confidence	Sum	Mean	Std. Deviation
You are very sure that you will succeed in your education	510	3.00	.730
You believe you will complete successfully your studies	605	3.56	1.066
You are very aggressive in your education	694	4.08	1.687
You always struggle to excel and perfect	263	1.55	1.162
You work hard always to achieve academic success	418	2.46	.843
Your always seek for assistance and guidance	540	3.18	.382
You do not fear to try even if it involves a risk	293	1.72	1.287

The means in table 8 suggest that most students rated their self confidence level as medium (most means ≈ 3 , which falls under neither neither disagree nor agree on the Liker-scale). However, on the questions about struggling to excel and perfect, and the question about risk taking, the most of the students answered by strongly

disagree and disagree. To get a summary picture on how students rated their family's economic status, an average index was computed for the eight items in the questionnaire which turned out to have a mean index of 2.89, confirming that on average, students in Musanze District rated their amount of self confidence as medium (mean index ≈ 3).

The Relationship between Psychological and Students' Performance in Musanze District Secondary Schools

The first objective of this study was to determine the relationship between psychological and students' performance in Musanze District secondary schools. In this section the researcher presents correlations of the dependent variable to the independent variable and finally tests the pertinent hypothesis using Multiple Regression analysis. In the first instance, the computed performance index was correlated with all independent variables of which results are indicated in table 7.

Table 9: Pearson's Linear Correlation Coefficient Results Correlating Psychological Factors and Academic Performance

Variable (indices)	Sample	Mean	Std. Deviation	r value	Sig.
PERFORMANCE	170	2.884	0.387	0.528	0.000
STRESS	170	3.529	0.520		
ANXIETY	170	3.787	0.284	0.510	0.000
CONFIDENCE	170	2.792	0.668	0.289	0.000

The sig. and r values in table 9 suggest that all the aspects of psychological factors have a **positive** effect on students' performance in Musanze District. However, though all have a **positive** effect, for some, the relationship is weak. For example while stress($r = 0.528$ sig. = 0.00), and anxiety ($r = 0.510$, sig. = 0.00) are significantly correlated with students' performance, self- confidence($r = 0.289$, sig. = 0.000) is not.

Testing the First Hypothesis

The first hypothesis in this study was that psychological factors significantly affect orphaned students' performance in secondary schools of Musanze District. Since orphaned students' performance was broken into six aspects for which indices were computed as shown in section A (participation, correction, attendance, revision, scores in exams). An overall mean index (Performance) for all these six aspects of performance was computed and was used in the regression model at the bivariate level while the predictors (IVs) included (Stress, anxiety, and self-confidence). In the regression model, these factors (variables) were the predictors of students' performance in Musanze District. The results of this regression analysis are shown in table 10.

Table 10: Regression Analysis Results of Students Self Rating on Psychological Factors and Performance

a) ANOVA Table

	Sum of squares	Degrees of freedom	Mean square	F statistic	Sig. level	Adjusted R square
Regression	12.064	3	4.021	50.628	0.000	0.468
Residual	13.185	166	.079			
Total	25.249	169				

*Predictors: (Constant), STRESS, ANXIETY, CONFIDENCE

*Dependent Variable: STUDENTS PERFORMANCE

b) Coefficients

	Unstandard coefficients		Standard coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-0.740	0.335		-2.213	0.028
STRESS	0.196	0.051	0.263	3.834	0.000
ANXIETY	0.613	0.096	0.451	6.404	0.000
CONFIDENCE	0.219	0.034	0.378	6.431	0.000

Table 10 suggests that the psychological factors considered in the model were altogether significant explanatory variables of students' performance in Musanze District ($F = 50.62$, $\text{sig.} = 0.000$), accounting for over 56% of the variations in students' performance (adjusted $R^2 = 0.563$). Table 10 further suggests that there was one most important factor affecting orphaned students' performance, and that was anxiety ($\beta = 0.451$, $\text{sig.} = 0.000$) at the one percent level of significance. Therefore, basing on these results, the first hypothesis is accepted, leading to a conclusion that psychological factors significantly influence students' performance in secondary schools of Musanze District.

Independent Variable (2): Social Factors

The second independent variable in this study was social factors, broken into five aspects. Each of the three aspects of the psychological factors was measured by the use of SPSS's showing means and standard deviations.

Table 11: Means and Standard Deviations on how Respondents Rated themselves on the Different Social Aspects

Caring people	Sum	Mean	Std. Deviation
your surviving parent takes care of you when you get ill	408	2.40	.802
I it is other siblings who take care of you when you get ill	534	3.14	.490
you do not have someone specific to take care of you when you get ill	650	3.82	.569
you have someone you present your school report to	787	4.63	.990
you sometimes get someone to present your school report to	408	2.40	.802
you do not have a person to present your school report to	514	3.02	.421
Profit from parents' property			
You fully profit from your parent's property	408	2.40	.802
you partially profit from your parents' property	516	3.04	.434
you do not profit from your parents property at all	640	3.76	.646
State of the parents' property			
Your parents' property is mismanaged by your surviving parent	540	3.18	.987
your parents' property is mismanaged by your	560	3.29	.457

relatives			
Your parents property has been consumed exhaustively	680	4.00	.000
You do not have any information about the whereabouts of your parents' property.	720	4.26	1.161
students' shelter			
I live with my surviving parent in holidays	518	3.05	.304
You live in orphanage in holidays	641	3.77	.544
You live in a child headed family in holidays	770	4.53	.931
you live in children' village	519	3.05	.396
you live in community foster care	625	3.68	.804
You live in institutional foster care	761	4.48	1.039
I live with my surviving parent in holidays	518	3.05	.304
Support from financial institutions			
you have an formal institution which gives you school requirements	207	1.22	.648
you have no specific institution which gives you school requirements	354	2.08	.334
you never receive any help from a financial institution	541	3.18	.387

The first aspect of social factors was caring people, measured by six items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for true; three for neither untrue nor true; four for true and five for very untrue.

Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table above.

The means and standard deviations in table 11 indicate that students rated the amount of care they get as medium (means ≈ 3 , which falls under neither untrue nor true on the Likert-scale). This suggests that even not totally, generally orphaned students in Musanze district do not have people to take care of them. To get a summary view on how students rated the amount of care they get, an average index (Care) was computed which turned out to have a mean index of -0.141, confirming that on average, students Musanze District get inadequate care.

The second aspect of social factors was profit from parents' property, measured by four items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very untrue. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table11 above.

The means and standard deviations in table 11, indicate that students rated the amount of profit they get from their parents's property as medium (means ≈ 3 , which falls under neither true nor true on the Likert-scale). This suggests that generally, even not completely, a good number of rphaned students in Musanze do not profit from their parents property. To get a summary view on how students rated the amount of profit they get, an average index (Profit) was computed which turned out to have a mean index of -0.531, confirming that on average, students Musanze District get inadequate profit from their parents' property.

The third aspect of social factors was state of parents's property, measured by four items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very untrue. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 11 above.

The means and standard deviations in table 11 indicate that students rated the state of their parents' property as inadequate (means ≈ 4 , which falls under true on the Likert-scale). This suggests that most orphaned students of Musanze district have information about the state of their parents' property. To get a summary view on how students rate state of their parents' property , an average index (State of parents' property) was computed which turned out to have a mean index of 0.14, confirming that most orphaned students Musanze District know the whereabouts of their parents' property but some do not.

The fourth aspect of social factors was students' shelter, measured by 7 items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very untrue. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 11.

The means and standard deviations in table 11, indicate that students rated the extent to which they get shelter as inadequate (means ≈ 4 , which falls under true on the Likert-scale). This suggests that the majority of orphaned students in Musanze District have shelter; but some do not. To get a summary view on the how students rated the level at which they get shelter , an average index (Shelter) was computed which turned out to have a mean index of 0.638, confirming that on average, orphaned students in Musanze District get inadequate shelter.

The last aspect of social factors was support, measured by three items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very untrue. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 11.

The means and standard deviations in table 11, indicate that students rated the amount of care they get as inadequate (means ≈ 2 , which falls under untrue on the Likert-scale). This suggests that most of orphaned students in Musanze District have no formal or specific financial institutions that support them. To get a summary view on how students rated the amount of support they get , an average index (Support)

was computed which turned out to have a mean index of -0.472, confirming that the majority of orphaned students in Musanze District do not get any financial support.

The Relationship between Social Factors and Students' Performance in Musanze District Secondary Schools

The second objective of this study was to determine the relationship between social factors and students' performance in Musanze District secondary schools. In this section the researcher presents correlations of the dependent variable to the independent variable and finally tests the pertinent hypothesis using Multiple Regression analysis. In the first instance, the computed performance index was correlated with all independent variables of which results are indicated in table 10.

Table 12: Pearson's Linear Correlation Coefficient Results Correlating Social Factors and Academic Performance

Variable (indices)	Sample	Mean	Std.Deviation	r value	Sig.
PERFORMANCE	170	2.884	0.387	-0.141	0.066
CARING	170	3.236	0.415		
PROFIT	170	3.067	0.448	-0.531	0.000
PROPERTY	170	3.680	0.520	0.514	0.000
SHELTER	170	3.759	0.356	0.638	0.000
SUPPORT	170	2.161	0.297	-0.472	0.000

The sig. and r values in table 12 suggest that all the aspects of psychological factors have a positive effect on students' performance in Musanze District. However, though all have a positive impact, for some, the relationship is weak. For example while shelter ($r = 0.638$, $\text{sig.} = 0.000$), and state of parents' property ($r = 0.14$, $\text{sig.} = 0.000$) are significantly correlated with students' performance, caring people ($r = -$

0.141, sig. = 0.00), profit from parents' property ($r = -0.531$, sig. = 0.00) and support ($r = -0.472$, sig. = 0.000) are not.

Testing the Second Hypothesis

The first hypothesis in this study was that economic factors significantly affect orphaned students' performance in secondary schools of Musanze District. Since orphaned students' performance was broken into six aspects for which indices were computed as shown in section D (participation, correction, attendance, revision, scores in exams). An overall mean index (PERFORMANCE) for all these six aspects of performance was computed and was used in the regression model at the bivariate level while the predictors (IVs) included (care, profit, state of parents' property, shelter and support). In the regression model, these factors (variables) were the predictors of students' performance in Musanze District. The results of this regression analysis are shown in table 13.

Table 13: Regression Analysis Results of Students Self Rating on Social Factors and Performance

a) ANOVA Table

	Sum of squares	Degrees of freedom	Mean square	F statistic	Sig. level	Adjusted R square
Regression	15.810	5	3.162	54.942	0.000	0.615
Residual	9.439	164	0.058			
Total	25.249	169				

*Predictors: (Constant), SUPPORT, PROPERTY, CARING, SHELTER, PROFIT

*Dependent Variable: STUDENTS PERFORMANCE

b) Coefficients

	Unstandard coefficients		Standard coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.860	0.386		4.818	0.000
CARING	-0.040	0.047	-0.043	-0.844	0.400
PROFIT	-0.143	0.049	-0.166	-2.901	0.004
PROPERTY	0.229	0.041	0.309	5.569	0.000
SHELTER	0.409	0.061	0.377	6.722	0.000
SUPPORT	-0.367	0.068	-0.282	-5.401	0.000

Table 13 suggests that the social factors considered in the model were altogether significant explanatory variables of students performance in Musanze District ($F = 54.942$, sig. = 0.000), accounting for over 61% of the variations in students performance (adjusted R square = 0.615). Table 13 further suggests that there was one most important factors affecting orphaned students' performance, and that was shelter ($\beta = 0.409$, sig. = 0.000) at the one percent level of significance. Therefore, basing on these results, the third hypothesis is accepted and that leading to a conclusion that social factors significantly influences students' performance in secondary schools of Musanze District.

Independent Variable (3): Economic Factors

The third independent variable in this study was economic factors, broken into three aspects. Each of the three aspects of the economic factors was measured by the use of SPSS's showing means and standard deviations.

Table 14: Means and Standard Deviations on how Respondents Rated themselves on the Different Economic Factors

Quantity of food received	Sum	Mean	Std. Deviation
When at home I get enough food	400	2.35	.765
The food I get when at home is quite enough	517	3.04	.426
The food I get when at home is not enough	620	3.65	.665
Quantity of school materials received			
I get enough school materials	452	2.66	.943
The school materials I get are quite enough	529	3.11	.610
The school materials I get are not enough	616	3.62	.784
I get school fees late	398	2.34	.755

The first aspect of economic factors was quantity of food, measured by three items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very true. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 14.

The means and standard deviations in table 14 indicate that students rated the quantity they get as medium (means ≈ 3 , which falls under neither untrue nor true on the Likert-scale). This suggests that a good number of orphaned students in Musanze District have food problems even though itno all of them. To get a summary view on how students rated the quantity of food they get , an average index (Quantity of food) was computed which turned out to have a mean index of 3, confirming that on the quantity of food orphaned students in Musanze District get is quite enough.

The last aspect of economic factors was quantity of school materials received by orphaned students, measured by three items in the questionnaire, all Likert-scaled between one to five, where one was for very true; two for untrue; three for neither untrue nor true; four for true and five for very untrue. Their responses were summarized using SPSS's summary statistics showing the means and standard deviations, as shown in table 14.

The means and standard deviations in table 14 indicate that students rated the quantity of school materials they get as medium (means ≈ 3 , which falls under neither untrue nor true on the Likert-scale). This suggests that orphaned students in Musanze District do not get enough school materials. To get a summary view on how students rated the amount of care they get, an average index (School materials) was computed which turned out to have a mean index of 2.93, confirming that the quantity of school materials orphaned students in Musanze District get is not enough.

The Relationship between Economic Factors and Students' Performance in Musanze District Secondary Schools

The first objective of this study was to determine the relationship between family size and students' performance in Musanze District secondary schools. In this section the researcher presents correlations of the dependent variable to the independent variable and finally tests the pertinent hypothesis using Multiple Regression analysis. In the first instance, the computed performance index was correlated with all independent variables of which results are indicated in table 13.

Table 15: Pearson's Linear Correlation Coefficient Results Correlating Economic Factors and Academic Performance

Variable (indices)	Sample	Mean	Std.Deviation	r value	Sig.
PERFORMANCE	170	2.884	0.387	0.086	0.266
FOOD	170	3.014	0.302		
MATERIALS	170	2.934	0.442	0.353	0.000

The sig. and r values in table 16 suggest that all the factors of family size have a positive effect on students' performance in Musanze District.

Testing the third Hypothesis

The third hypothesis in this study was that economic factors significantly affect orphaned students' performance in secondary schools of Musanze District. Since orphaned students' performance was broken into six aspects for which indices were computed as shown in section A (participation, correction, attendance, revision, scores in exams). An overall mean index (Performance) for all these six aspects of performance was computed and was used in the regression model at the bivariate level while the predictors (IVs) included (quantity of food, and quantity of school materials). In the regression model, these factors (variables) were the predictors of students' performance in Musanze District. The results of this regression analysis are shown in table 17.

Table 16: Regression Analysis Results of Students Self Rating on Economic Factors and Performance

a) ANOVA Table

	Sum of squares	Degrees of freedom	Mean square	F statistic	Sig. level	Adjusted R square
Regression	3.696	2	1.848	14.317	0.000	0.136
Residual	21.553	167	0.129			
Total	25.249	169				

*Predictors: (Constant), MATERIALS, FOOD

*Dependent Variable: STUDENTS PERFORMANCE

b) Coefficients

	Unstandard coefficients		Standard coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.341	0.362		3.707	0.000
FOOD	0.190	0.093	0.149	2.052	0.042
MATERIALS	0.330	0.063	0.378	5.215	0.000

Table 16 suggests that the economic factors considered in the model were altogether significant explanatory variables of students performance in Musanze District ($F = 14$, sig. = 0.000), accounting for over 56% of the variations in students performance (adjusted R square = 0.136). Table 16 further suggests that there was one most important factors affecting orphaned students' performance, and that was school materials ($\beta = 0.330$, sig. = 0.000) at the one percent level of significance. Therefore, basing on these results, the third hypothesis is accepted and thus, leading to a conclusion that economic factor significantly influences students' performance in secondary schools of Musanze District.

Interview with Head Teachers

Background Information about Respondents

As top managers of their schools, the head teachers of concerned secondary schools were contacted in order to get from them enlightenment about different constraints that hinder the learning activities of orphaned students.

Views and Testimonies of School Head Teachers

Financial Problems of Orphaned Students

Most of orphaned students do not have sufficient school materials like notebooks, mathematical sets and other items such as clothing, shoes, cosmetics, to mention but a few. More than often, they come to school without required school fees as the most of them do not have sponsors.

Psychological Problems of Orphaned Students

Some children, especially the genocide survivors suffer repeatedly from trauma and loneliness. On the other hand, students orphaned by HIV/AIDS seem in certain circumstances to be frustrated and feel ashamed of the immorality attributed to their deceased parents. They even suffer from stigmatization, since they are seen by their peers as harmful persons, who can transmit diseases.

Dealing with Students who Have Problems

Cases of delay in payments are coped with as gently as possible by avoiding bullying the concerned individuals. The school administration tries to be patient, although it happens when waiting becomes hard because the financial capacity of the school is limited. Besides, students suffering from trauma and other psychological problems are subjected to counseling and guidance sessions. For more serious cases, patients are taken to neighboring hospitals.

Interview with Executive Secretaries

Background Information about the Respondents

As government representatives at the sector level, the executive secretaries were questioned so that they clear up the intensity of the problem of orphaned students, and how the local administration tries to solve it.

The Nature of the Problem

The problem of orphaned students is crucial. Given that the majority of the Rwandan population live under the poverty line, it is obvious that orphans are likely to fall

within the groups most affected by poverty. Orphans and their surviving parents if any, can hardly afford the cost of education which is becoming more and more expensive.

The Extent of Orphaned Students' Assistance.

A very small number of orphaned students are assisted by formal financing organizations like FARG, IMBUTO Foundation, among others. Nonetheless, there is at sector level an " Education Fund", which provides some needy students, including some orphans with a part of the school fees, while the other part is paid by themselves. The support offered is not sufficient, and not all petitioners are served, because the demand exceeds by far the capacity of the fund.

CHAPTER FIVE

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter portrays a discussion of the results of the study basing on the findings presented in chapter four. The findings were then generalized, reconciling them with the objectives assigned to the study and conclusions and recommendations are drawn.

Findings

Psychological Factors of Orphaned Students' Academic Performance

The first independent variable in this study was psychological factors, broken into three aspects. This research found that stress has mean index of 3.78, confirming that on average, students Musanze District undergo stressing situations. As far as anxiety is concerned, the average index revealed almost the same results. Thus, confirming that on the majority of orphaned students Musanze District highly experience anxiety.

Concerning self-confidence the mean index of 2.89, confirming that on average, students in Musanze District rated their amount of self confidence as medium (mean index ≈ 3). Indeed, the sig. and r values in table 7 suggest that all the aspects of psychological factors have a positive correlation with orphaned students' performance in Musanze District. However, though all have a positive effect, for some, the relationship is weak. For example while stress ($r = 0.528$ sig. = 0.00), and anxiety ($r = 0.510$, sig. = 0.00) are significantly correlated with students' performance, self- confidence ($r = 0.289$, sig. = 0.000) is not.

Testing the first hypothesis the first hypothesis, the results suggested that the psychological factors considered in the model were altogether significant explanatory variables of students performance in Musanze District ($F = 50.62$, sig. = 0.000), accounting for over 56% of the variations in students performance (adjusted R square = 0.563). Table 8 further suggests that there was one most important factors affecting orphaned students' performance, and that was anxiety ($\beta = 0.451$, sig. = 0.000) at the one percent level of significance. Therefore, basing on these results,

the first hypothesis is accepted, leading to a conclusion that psychological factors significantly influence students' performance in secondary schools of Musanze District. Different researchers found the same results. The death of a parent may foster negative inferences about the self in orphans (Rotheram-Borus et al., 2001). The negative inferences, in turn, may increase distress and negatively influence mental health functioning (Kim & Cicchetti, 2006). On the other hand, a positive self-concept and self-esteem may play a critical role in promoting mental health and buffering distress from parents' death. Self-esteem can alleviate negative effects of distress and help the child to maintain adequate relationships with others (Cast & Burke, 2002). In addition, self-esteem may influence general health behaviors and values among adolescents (Rivas Torres & Fernandez Fernandez, 1995; Rivas Torres, Fernandez Fernandez, & Maceira, 1995). For instance, Davies and Brember (1999) have reported positive correlation between self-esteem and school performance, while Comer and colleagues reported a positive relationship between self-esteem and social competence among adolescents attending inner city schools (Comer et al., 1986). Similar results related to educational performance were reported in Hansford and Hattie (1982) study.

Given the above findings, the majority of orphaned students experience serious psychological problems and have no hope to recover. The socio-economical problems that orphaned students meet both at home and at school strengthen the psychological difficulties of these children

Social Factors of Orphaned Students' Academic Performance

The second independent variable in this study was social factors, broken into five aspects. Concerning the amount of profit orphaned students get from their parents' property, the mean index of -0.531 was computed, confirming that orphaned students in Musanze District get inadequate profit from their parents' property.

As far as the state of parents' property is concerned, a mean index of 0.14 was computed, confirming that most orphaned students in Musanze District know the whereabouts of their parents' property but some do not. And concerning orphaned students' shelter, the mean index of 0.638 was computed, confirming that on

average, orphaned students in Musanze District get inadequate shelter. And concerning support from financial institutions, a mean index of -0.472 was computed, confirming that the majority of orphaned students in Musanze District do not get any financial support.

In addition to the above, the sig. and r values in table 10 suggest that all the aspects of psychological factors have a positive effect on students' performance in Musanze District. However, though all have a positive impact, for some, the relationship is weak. For example while shelter ($r = 0.638$, sig. = 0.000), and state of parents' property ($r = 0.14$, sig. = 0.000) are significantly correlated with students' performance, caring people ($r = -0.141$, sig. = 0.00), profit from parents' property ($r = -0.531$, sig. = 0.00) and support ($r = -0.472$, sig. = 0.000) are not.

Testing the second hypothesis, the researcher found that the social factors considered in the model were altogether significant explanatory variables of students performance in Musanze District ($F = 54.942$, sig. = 0.000), accounting for over 61% of the variations in students performance (adjusted R square = 0.615). Table 11 further suggests that there was one most important factors affecting orphaned students' performance, and that was shelter ($\beta = 0.409$, sig. = 0.000) at the one percent level of significance. Therefore, basing on these results, the third hypothesis is accepted and that leading to a conclusion that social factors significantly influences students' performance in secondary schools of Musanze District.

Given the above results it is clear that the majority of respondents live with their surviving parents/relatives who more than often have been incapacitated by the loss of the partners, while in the holidays. And some others live in an environment which is likely worse than the preceding whether the children get almost no affection. Such a situation is likely to increase these children's loneliness and misbehavior. This situation becomes worse when these children are not taken of care in case of health complications. Almost all respondents declared to have someone to look after them when health complications occur. Nonetheless, it is apparent that the care takers are not equipped enough to act appropriately nor are they affective to the orphans. This situation gives rise to hopelessness, delaying the patient to pick up.

As far as financial support is concerned, this research found that only a small number of orphaned students are financially supported by formal institutions. Students who are not supported are thus put into a constant uncertainty, wondering where they will get the school fees and materials from. They sometimes report to school late, or are sent back to their homes during school time to look for the school necessities they did not come with, missing therefore some courses.

Concerning the profit drawn from parents' property, the above findings show that a considerable number of respondents reported to get profit from their parents' properties, however, it goes without saying that the profit drawn is in many cases inferior to that which was expected due to the fact that the property is either underexploited or misused. We have to note also that, the number of those who do not gain anything is all the same worrying; given the conditions they were forced to live in undeservedly. In addition to that a good number of orphans do not profit from their parents properties due to numerous reasons. Here are unbearable economic constraints that press on some orphaned students. They sometimes find themselves overlooking passively the mismanagement of their parents' properties, with no say in what actually belongs to them. Worse still, the misfortune they undergo is imposed to them by those who were supposed to give them the minimum care they need. As a result, they feel victimized by what happened, unprovided with any kind of relief.

Economical Factors of School Performance

Orphaned students rated the quantity of food they get, an average index a mean of 3, confirming that on the quantity of food orphaned students in Musanze District get is quite enough. And concerning the quantity of school materials they get, the mean index of 2.93 was computed; confirming that the quantity of school materials orphaned students in Musanze District get is not enough. Indeed, the sig. and r values in table 15 suggest that all the factors of family size have a positive relationship with orphaned students' performance in Musanze District.

When the researcher tested the third hypothesis, he realized that the economic factors considered in the model were altogether significant explanatory variables of students performance in Musanze District ($F = 14$, sig. = 0.000), accounting for over

56% of the variations in students performance (adjusted R square =0.136). Table 16 further suggests that there was one most important factors affecting orphaned students' performance, and that was school materials ($\beta = 0.330$, sig. = 0.000) at the one percent level of significance. Therefore, basing on these results, the third hypothesis is accepted and thus, leading to a conclusion that economic factor significantly influences students' performance in secondary schools of Musanze District.

Many researchers support these findings. They suggest that parental assets have positive impacts on outcomes for children and adolescents, including their educational outcomes. For instance, home ownership and net worth are positively associated with children's educational outcomes: children of households who own their homes are more likely to graduate from high school than children of renters (Aaronson, 2000; Green & White, 1997). Other studies have found that parents' net worth, controlling for income and other aspects of socioeconomic status, is positively associated with the educational achievement of children (Conley, 2001; Zhan, 2006; Zhan & Sherraden, 2003). Indeed, Case, Paxson, & Ableidinger, (2004) in their study on parental death, poeverty, and school enrollment. They concluded that financially, children affected by AIDS are vulnerable due to long episodes of illness which often precede death of the parents. As a result, such children are at an elevated risk of living in poverty. In addition, there are negative effects of parent death on children's health functioning and psychosocial development (Atwine, Cantor-Graae, & Banunirwe, 2005).

The majority of orphaned students affirmed that they are undernourished. This is a direct consequence of the poverty of their respective homes, which prevents them from satisfying even their primary needs. This alarming incapacity hinders the good running of their organisms, not sparing the learning activities.

Like for the food, the shortage of school materials that the respondents get constitutes a big barrier to their success. From the findings above, we realize that even the few materials which are provided are not given at the right time. That is to say students keep waiting hopelessly for the acquisition of those materials,

sometimes getting them too late to use them profitably. In such cases, the chances of succeeding are whittled down.

Problems underlying the orphaned students' poor performance are multiple, although their frequency rate varies from one problem to another. They range from social, economic to psychological, and one student may be facing several problems simultaneously or alternatively. Apparently, some of the problems originate from schools, but many of them have their sources within the home environments.

Conclusion

Orphanhood is a real challenge Rwanda, as a nation, is facing, and apparently, efforts made so far did not manage to normalize the life of orphans. From 1994 on, orphanhood has been taken as an ordinary happening, because of the big number of affected people. The Rwandan society seemed thus to be exceeded by the situation, and had a tendency to fold their arms and not think it over. This was because people were not prepared to cope with the plight. People rather considered orphans as extra burdens to the already existing numerous problems.

This study was conducted to identify factors influencing performance of orphaned students in Musanze District of Northern Province, Rwanda. The researcher found that there are three main factors influencing students' performance that are psychological, social, and economic factors. The relationship of independent variables with dependent variables was also examined. The findings of the study were summarized and discussed in the following paragraphs. The results indicate that the three variables are observed to have a significant **positive correlation** with the academic performance of the orphaned students, with (sig=0.000).

Orphaned students are unlikely to meet all the school requirements and this makes their learning process fragile, since they do not even satisfy their basic needs such as adequate food, suitable clothing, health care and security.

From a socio-economic perspective of orphans' life, these people face so many problems, which affect their lives on daily basis. In secondary schools specifically, orphaned students are seemingly not given any special attention, and the population

at large does not take properly their vulnerability into consideration. Their homes are just merged into other needy ones, without regard to their specificity. However, the outcome of the present study indicated with evidence that orphaned students constitute a particular category of needy people, as their destitution has multiple facets. This is because they are not only economically poor, but also socially, psychologically and emotionally hit. They do not enjoy the affection, guidance, follow-up and care like their peers whose parents are alive. To make matters worse, neighbours, relatives, educators and any other intruders, who were normally supposed to take their wellbeing over, use their selfishness and power to mistreat orphans by taking hold of their properties and practicing all sorts of exploitation and violence.

Looking at their social integration, they are neglected by their colleagues and ignored by adults who fear to be answerable for their rudeness. Because of this, orphaned students experience abandonment, depression and despair. Considering the role of government and NGOs in addressing the problem of orphaned students, this is still short because of their big number and their various needs. The lack of advocacy also makes some cases pass unnoticed.

Recommendations

Recommendations for Government

To carry out in collaboration with local leaders a thorough research on all orphaned students, showing clearly their respective socio-economic paucities.

To develop a specific policy for orphaned students, indicating the way their problems should be alleviated.

To make sure that every orphaned student is placed under somebody endowed with the ability and good will to follow through his/her learning exercise to the end.

To sensitize citizens about how to cope with orphans, so as to make them complete, dignified and self-fulfilled adults.

Recommendations for School Managers

To consider that orphaned students face particular problems in addition to those they share with their schoolmates hailing from poor families.

To be patient with the potential irregularities of orphaned students, and try to understand them when they are attempting to justify their unconformity with the school regulations.

To prove a special kindness towards orphaned students, so that they take schools as if they were their second homes.

To check up regularly the performance of orphaned students and make remedying remarks whenever it is needed.

Recommendations for Community Members.

To support the education of orphaned students by paying regularly their contributions to the Education Fund.

To take the adopted children like their own, and equip them with adequate means for a successful learning process.

To be friendly towards orphaned students, and desist any kind of harmful attitudes against them.

Recommendations for NGOs

To develop an integrated program of supporting orphaned students, be it at school or at home, basing on their priorities.

To work hand in hand with local leaders, so that no deserving orphaned student misses the chance of being assisted.

To help foster families create income generating activities and equip them with the abilities to run them.

Suggestions for Further Research

The problem of orphans in Rwanda has been discussed by a good number of intellectuals, but in a comprehensive way. A considerable literature was thus made on it. However, not much was said so far about orphaned students in a particular way.. Based on the findings and the discussion of this study, the researcher has come out with some recommendations in order to overcome the limitations and obtain a better result for further research. Furthermore, the present study has covered only a very limited area. The researcher therefore calls upon all those who will be interested to expand the research and go into the problem more profoundly. The researcher suggests that research should be extended to orphaned students from all the districts around the Republic to get more information about factors affecting orphaned students' performance. Studies in the whole country could also examine other factors such as active learning; attendance; extracurricular, activities; peer influence; course assessment..., should also be investigated by further research.

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PPENDIX I

TRASMITTAL LETTER



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INSTITUTE OF OPEN AND DISTANCE LEARNING
OFFICE OF THE DIRECTOR

1st July 2010

The District Officer of Education
P.O. Box Musanze District

Dear Sir/Madam,

INTRODUCTION LETTER FOR RESEARCH

I have the pleasure to introduce **Dushimumuremyi Daniel – MED/10032/81/DF** to you. He is a student of **Masters Degree of Educational Management and Administration** at Kampala International University. He is carrying out his research on **“Factors Affecting the Performance of Orphaned Students in Rwandan Secondary Schools. A Case of Musanze”** he is at the data collection stage and your Institution / Organization has been identified as his area of study. It will therefore be appreciated if you can give the best assistance to him for a dependable research work.

The university will be counting on your kind cooperation.



“Exploring the Heights”

APPENDIX II

Questionnaire for Students

Introduction part

Respondent,

I am a student in Kampala International University in the course of Master of Education. For the completion of my University studies, I am conducting a research on "CORRELATES OF ACADEMIC PERFORMANCE OF ORPHANED STUDENTS IN SELECTED SECONDARY SCHOOLS IN MUSANZE DISTRICT".

I therefore need your help in this regard, which consists in answering questions herewith attached. I can assure you that the information you will supply will be used exclusively for the above stated purpose and will be treated confidentially.

Hoping that this will result in a valuable contribution to the improvement of the academic achievements of orphaned students, I thank you for your devotion and support to this research.

Yours Sincerely,

Daniel DUSHIMUMUREMYI

A Student, Kampala International University

SECTION A: INDEPENDENT VARIABLE (1): PSYCHOLOGICAL FACTORS

Please indicate the extent to which you agree with each of the following statements that best describes you. Your answers should range between 1= strongly disagree, 2= disagree, 4=Agree, 5= Strongly Agree, 3= neither agree nor disagree

Indicators of Stress						
1	There is a lot of pressure at your school to finish activities	1	2	3	4	5
2	At your school, you always do many things on pressure	1	2	3	4	5
3	At your school, you are over strained or worried of activities	1	2	3	4	5
4	At your school, you do many things on tension	1	2	3	4	5
5	At your school, you always face difficult tasks and situations	1	2	3	4	5
6	You are always pushed to do school works	1	2	3	4	5
7	You always experience problems like headaches, back pain, stomach pain, rapid heartbeat and body pain due to school work	1	2	3	4	5
8	You always get tired due to too much school work	1	2	3	4	5
Indicators of Anxiety						
1	In your school life you face many uneasy situations	1	2	3	4	5
2	In your school life you face a lot of challenging concerns	1	2	3	4	5
3	you always experience a lot of unpleasant feelings	1	2	3	4	5
4	you always experience a lot of fears and worries	1	2	3	4	5
5	You always experience unpleasant moods	1	2	3	4	5
6	You always get into unavoidable circumstances	1	2	3	4	5
7	There are so many negative events or dangerous things	1	2	3	4	5
8	There is a lot of tension at your school	1	2	3	4	5
9	You always experience headaches, back pain, stomach pain, rapid heartbeat, sweating, fatigue and muscle weaknesses due to worries of tests, exercises, exams etc.	1	2	3	4	5
10	You always feel lonely at school	1	2	3	4	5
11	You never have fun at school	1	2	3	4	5

Self confidence						
1	You are very sure that you will succeed in your education	1	2	3	4	5
2	You believe you will complete successfully your studies	1	2	3	4	5
3	You are very aggressive in your education	1	2	3	4	5
4	You always struggle to excel and perfect	1	2	3	4	5
5	You work hard always to achieve academic success	1	2	3	4	5
6	Your always seek for assistance and guidance	1	2	3	4	5
7	You do not fear to try even if it involves a risk	1	2	3	4	5
SECTION B: INDEPENDENT VARIABLE(2): SOCIAL FACTORS						
For each of the following statements choose and tick one of the five alternatives, 1= Very true, 2=untrue, 3= Neither untrue nor true, 4=true, 5=very untrue , that best fits your situation.						
Caring people						
2	your surviving parent takes care of you when you get ill	1	2	3	4	5
3	I it is other siblings who take care of you when you get ill	1	2	3	4	5
4	you do not have someone specific to take care of you when you get ill	1	2	3	4	5
B2 The person whom to present school report to for appreciation						
1	you have someone you present your school report to	1	2	3	4	5
2	you sometimes get someone to present your school report to	1	2	3	4	5
3	you do not have a person to present your school report to	1	2	3	4	5
B3 Profit from parents' property						
1	You fully profit from your parent' property	1	2	3	4	5
2	you partially profit from your parents' property	1	2	3	4	5
3	you do not profit from your parents property at all	1	2	3	4	5

State of the parents' property						
1	Your parents' property is mismanaged by your surviving parent	1	2	3	4	5
2	your parents' property is mismanaged by your relatives	1	2	3	4	5
3	Your parents property has been consumed exhaustively	1	2	3	4	5
4	You do not have any information about the whereabouts of your parents' property.	1	2	3	4	5
Orphaned students' shelter						
1	I live with my surviving parent in holidays	1	2	3	4	5
2	You live in orphanage in holidays	1	2	3	4	5
3	You live in a child headed family in holidays	1	2	3	4	5
4	you live in children' village	1	2	3	4	5
5	you live in community foster care	1	2	3	4	5
6	You live in institutional foster care	1	2	3	4	5
Support from financial institutions						
1	you have an formal institution which gives you school requirements	1	2	3	4	5
2	you have no specific institution which gives you school requirements	1	2	3	4	5
3	you never receive any help from a financial institution	1	2	3	4	5

SECTION C: INDEPENDENT VARIABLE (3): ECONOMIC FACTORS

For each of the following statements choose and tick one of the five alternatives.

1= Very true, 2=untrue, 3= Neither untrue nor true, 4=true, 5=very untrue , that best fits your situation. Make sure that for each statement, you provide an answer.

School necessities received by students					
Quantity of food received					
When at home I get enough food	1	2	3	4	5
The food I get when at home is quite enough	1	2	3	4	5
The food I get when at home is not enough	1	2	3	4	5
Quality of food given					
I eat good food when at home	1	2	3	4	5
The food I eat when at home is quite good	1	2	3	4	5
The food I eat when at home is not good	1	2	3	4	5
Quantity of school materials received					
I get enough school materials	1	2	3	4	5
The school materials I get are quite enough	1	2	3	4	5
The school materials I get are not enough	1	2	3	4	5
Regularity in getting school materials					
school materials reach me in time	1	2	3	4	5
school materials reach me on time	1	2	3	4	5
the school materials reach me late	1	2	3	4	5

Regularity in getting school materials					
I get school in time	1	2	3	4	5
I get school on time	1	2	3	4	5
I get school fees late	1	2	3	4	5

SECTION D: DEPENDENT VARIABLE: STUDENT PERFORMANCE

Student participation in class

Please rate your performance in terms of participation in class, on each of the following items. Your respective answers should range between 1 = Very poor; 2 = Poor; 3 = Neither poor nor good; 4 = good; 5 = Very good

Student participation in class					
Answering questions asked	1	2	3	4	5
Asking questions where you do not understand	1	2	3	4	5
Your own contribution in giving ideas	1	2	3	4	5
Completion of exercises and home work given	1	2	3	4	5
Corrections from tests					
Taking books for marking	1	2	3	4	5
Making corrections after marking	1	2	3	4	5
Asking for correct answers for questions you have failed	1	2	3	4	5
Attendance/ regularity					
Attending lessons	1	2	3	4	5
Punctuality in all lessons you study	1	2	3	4	5

Your completion of lessons (start and finish class)	1	2	3	4	5
Revision of your books					
Reading books in the library	1	2	3	4	5
Revision of your exercise books in class	1	2	3	4	5
Completing home work you are given	1	2	3	4	5
contacting your teachers during your free time for more information	1	2	3	4	5

Scores in exams and tests (e.g. on average how did you perform in exams or tests)					
Your scores in the 2 nd term 2010 exams were	1	2	3	4	5
Your performance in exams of previous year was	1	2	3	4	5
Your performance in the last National exams you did was	1	2	3	4	5
Your scores in the class test you last did were	1	2	3	4	5
Your scores in class exercise you have done last were	1	2	3	4	5
D6 Improvement in performance (e.g. improved passing subjects you used to fail, promotion and position in class)					
Improvement passing or marks (from low to high marks)	1	2	3	4	5
Passing the subjects your failed previously	1	2	3	4	5
Improving your position in class	1	2	3	4	5
Improving on your attendance	1	2	3	4	5
Improving on your lesson revisions	1	2	3	4	5
Improving your punctuality	1	2	3	4	5

II. INTERVIEW GUIDE

A. Personal interview with the head teachers.

1. What problems do orphaned students' face which may affect more their learning process?
 - Financial problems
 - Psychological problems
 - Economic problems
2. How can these problems be alleviated, if not solved?

B. Personal Interview with the Executive Secretaries of Administrative Sectors.

Questions:

1. What is the nature of the orphaned students' problem?
2. In which way do you assist orphaned students in need?
3. Do you think the number of orphaned students assisted is enough if you consider the size of the demand?

APPENDIX III.

Sample size (s) required for the given population size (N) by (Amin, 2005)

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	256	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

Note: From R.V. Krejcie and D.W. Morgan (1970), Determining sample size for research activities, Educational and psychological measurement, 30, 608, Sage Publications

APPENDIX I V

CURRICULUM VITAE

I. PERSONAL IDENTIFICATION

Name: DUSHIMUMUREMYI

Surname: Daniel

Father's name: BIREMBO

Mother's Names: Esther NYIRAJYAMBERE

Date of birth: 01 January, 1981.

Place of Birth: Sector: MUSANZE District: MUSANZE, Province: NORTHERN

Marital Status: Married

Nationality: Rwandese

II. EDUCATION

- **2009** up to now: A student of Master of Educational Management and Administration at Kampala International University.
- Year 2006-2008: Higher Education at Kigali Institute of Education (KIE)
- Year 2000-2003 : Secondary Education(A2 Level) at " Ecole Des Lettres de GATOVU"(in the Option of **Arts - Lettres**)
- Year1996-1999 : O Level at " Ecole Des Lettres de GATOVU"
- Year 1982-1991: Primary Education at KAMPANGA Primary School

III. WORK EXPERIENCE

2007 up to now: A teacher of English and literature at NEMBA Secondary School in GAKENKE District, Northern RWANDA.

2003-2004: A teacher of English, French at" Ecole des Sciences et Techniques de BUSOGO (E.S.T.B)" in MUSANZE District.

IV. SPOKEN LANGUAGES

- Kinyarwanda (Mother tongue)
- English (Good)
- French (Very Good)
- Kiswahili (Very Good)

V. SPECIAL TRAINING

A Mentorship Certificate received from MINEDUC on the 18th December 2009

V. COMPUTER SKILLS: - MS WORD

- MS EXCEL
- MS ACCESS
- MS POWER POINT
- MS INTERNET EXPLORER

I certify that the information given here above is true and verifiable.

Daniel DUSHIMUMUREMYI

