FACTORS THAT INFLUENCE THE NEED FOR PRIVATE SUPPLEMENTARY TUITION IN SECONDARY SCHOOLS: A CASE STUDY OF SELECTED SCHOOLS IN BORABU DISTRICT OF NYAMIRA COUNTY, KENYA

BY

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JULY, 2014.
DECLARATION

This project is my original work and has not been presented for award of any degree of any other University.

SIGNATURE.................................................                                DATE..................................

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I confirm that the project was carried out by the candidate under my supervision as University Supervisor.

SIGNATURE.................................................                                DATE..................................

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Lord, give us the grace to believe in our abilities and the serenity of mind to listen more to those who critique and correct our work than those who sycophantically praise every piece of our work.
DEDICATION
To my mother Mary, Moraa Ayieko, my late father Makori, Mogaka, my Daughter Gracian, Moraa Ayieko, my wife Salome, Nekesa Ayieko and my grandmother Clemencia, Kwamboka Ayieko (Ekaa ya Minyong’a).
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ABSTRACT

Since the introduction of the 8.4.4 system of education in Kenya in 1981, the use of private supplementary tuition in schools (remedial classes or extra classes) and outside the schools premises (in holiday tuition centres) has kept on increasing in form, magnitude and intensity. The government of Kenya through the ministry of education and teachers service commission has tried severally to discourage the use of private supplementary tuition in schools without much success. The inability of the Kenyan government and other governments globally to completely stop the use of PST by students and their parents raises pertinent questions that deserve attention from policy makers, researchers and stakeholders in education. Some of these questions include; what are the factors behind the unquenched need for PST? What are the implications of using PST? Which subjects are popular in PST and why? Why has the government ban policy not been effective? Is it possible to formulate a national policy framework that would let PST be, but be regulated to eliminate abuse? To answer some of these questions and to understand the state of PST in Kenya some studies have been carried out, however such studies have majorly relied on data that has been collected from the primary school level and not much has been done using data from the secondary school level. The purpose of this study therefore was to investigate the factors influencing the need for PST among secondary school students, investigate the level of success of the ban policy in stopping the use of PST in schools and based on the outcome of the study propose a policy framework to replace the ban policy if found to be ineffective using mathematics as the focus subject in Borabu District of Nyamira County, Kenya. The study employed a descriptive survey research design. The target population was the secondary school students and mathematics teachers in the 23 registered secondary schools in the district. Proportional stratified sampling followed by simple random sampling was employed in selecting the final sample for the study. Questionnaires were used as instruments for data collection from the respondents. Validity of the instruments was done through experts in research and piloting. Reliability was tested by subjecting the instruments to a pilot study. Data analysis was done using descriptive statistics after data cleaning and coding. Quantitative data was then analyzed using frequency counts, averages and percentages. The findings of this study should stimulate continuous debate on the various facets of PST and also provide valuable insights that the government, stakeholders, scholars and researchers can rely on in their collective endeavour in addressing the “shadow” education system rationally with the sole purpose of coming up with a more sensitive and acceptable policy framework that would let all students in secondary schools benefit fully from PST irrespective of their social, economic and academic stature.
ABBREVIATIONS AND ACRONYMS

PST-Private Supplementary Tuition
EFA-Education for All
USA/US-United States of America
MoE-Ministry of Education
MoEST & HR-Ministry of Education Science & Technology and Human Resources
KCPE-Kenya Certificate of Primary Education
KCSE-Kenya Certificate of Secondary Education
TIMSS-Trends in International Mathematics and Sciences Study
SACMEQ-Southern and Eastern Africa Consortium for Monitoring Education Quality
KNEC-Kenya National Examination Council
SA- South Africa
CDF-Constituency Development Fund
HELB-Higher Education Loans Board
HODs-Head of Departments
HOSs-Head of Subjects
HTC- Holiday Tuition Centres.
TSC- Teachers Service Commission
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CHAPTER ONE

1.00 INTRODUCTION

1.10 Background of the study

With the introduction of free primary education in 2003 and free day secondary education in 2007, enrolment and retention rates at secondary level in Kenya has progressively increased from 28.8% in 2005 to 47.8% in 2010 (Motano, 2011). Alongside the ever expanding mainstream education system, there is its “shadow” (private supplementary tuition (PST)). Despite the ban on holiday tuition and extra classes (remedial classes) in all schools: first in 1999 through circular No. MoE & HR G9/1/Vol.111/127 (MoE & HR, 1999), second in 2008 by the then permanent secretary ministry of education (MoE, 2008) and finally the ban was re-emphasised in 2012 by the then Minister for education (“Mutula vows,” 2012), private supplementary tuition has been expanding in magnitude and intensity in Kenya with parents incurring the extra costs (Ngugi (2013); Gicobi (2014); Tondo (2011); Odawo (2011)).

Comparative studies on private supplementary tuition show that it is a global phenomenon and not unique to Kenya and other developing countries (Bray, 2013, 2009, 2003; Dang, 2007). Being a global trend PST is widespread in both developed and developing countries; it exists as a shadow of the formal education system (Bray, 2009, 2005). The use of PST in Kenyan schools has been a major concern for the Kenyan government and policy makers for a long time (“Coaching Ban,” 1995). Through circular No. G/9/1/115 of May 1988, the ministry of education issued guidelines on how remedial teaching and private supplementary tuition would be carried out in schools, thus acknowledging that PST is being practiced by mainstream teachers in Kenya (MoE, 1988). The directive that teachers should offer PST services as part and parcel of their normal teaching programme without imposing financial burden on parents was not practical as PST is normally offered outside the normal teaching hours and thus teachers disregarded the guidelines and continued charging parents for PST
services. To flex its muscle the government finally banned PST in 1999 (MoE & HR, 1999). A 1997 national sample of 3,233 Standard six pupils found that 68.6% of these students were receiving private supplementary tuition, ranging from 39.0% in the former North Eastern province to 74.4% in the former Nyanza Province (Nzomo, Kariuki & Guantai, 2001). By the year 2000, the percentage of class six pupils receiving PST had increased to over 75.7% in all the eight formal provinces (Onsomu, E, Nzomo, J & Obiero, C. (2005). This was an indication that private supplementary tuition in Kenya was widespread and on an increasing trend in all the counties and that neither the 1988 guidelines on PST nor the 1999 ban policy had been effective in regulating or eliminating the use of PST in schools; hence the need for a national policy framework for PST. To aid in policy formulation, more studies touching on the various aspects of PST ought to be carried out in Kenya so as to provide a solid foundation upon which meaningful policies would be anchored. The current study sought to analyse factors influencing the need for PST in secondary schools and propose a policy framework that would let PST be but mitigate abuse.

There are several factors that account for the existence, thriving and widespread of private supplementary tuition. According to Bray (2007), PST is popular in countries where passing examinations is a requirement for one to transit to the next level in the education ladder. In these countries, the intensity of PST is at the peak when students are preparing for major national examinations such as KCPE and KCSE in Kenya. Bray (2007) argues that students receive PST more intensely at secondary school level than at primary school level. To a large extent, PST is a by-product of examination-oriented learning or examination-driven curricula (Kwok (2004); Wanyama and Njeru (2004)). PST is widespread in countries where parents and students feel that the formal education system has failed to meet all the needs of the students. Such countries include Canada (Davies, 2004) and Republic of South Korea (Kim and Lee, 2010). In some settings, the thriving of PST is catalysed by mainstream teachers who are in most cases poorly remunerated; and as a strategy to earn a tax free extra income, they offer PST at the close of official school hours in their respective schools targeting their
own students (Dawson (2009); Buchmann (1999)). In the broad sense, PST is driven by competitive pressures in an increasingly globalised world.

Governments see education as an instrument for competitiveness in international markets, and this view is translated into pressure on young people to achieve grades by all means including the use of private supplementary tuition (Bray, 2010). PST is also a contemporary educational phenomenon among primary and secondary students in Kenya. The main reason for children’s engagement in private supplementary tuition in Kenya is probably due to the desire by parents to help their children do well in KCPE and KCSE examinations which are sat at the end of primary level and secondary level respectively that is, to obtain grade A or grade C and above which will enable the students to join a tertiary college and try as much as possible to avoid grade E. Atieno, Gunga and Akaranga (2013) contend that there is no student who enrols in a secondary school in Kenya to get grade E at the end of four years of study. The grade is traumatizing to the student themselves, the parents, relatives and friends. When KNEC assigns grade E to a candidate, it can be metaphorically compared to someone who endorses a death certificate to the socio-economic life of the candidate. Several studies have shown that the Kenyan education system has become highly examination-oriented with very high stakes (Nzomo et al., (2001); Wanyama and Njeru, (2004)). Most parents enrol their children into schools that obtain high mean grade in primary schools national examinations and guarantee them places in the best secondary schools that send large number of students to the Kenyan public universities (Wanyama and Njeru, 2004). Most parents believe that the quality of education in most public schools is compromised due to large numbers of enrolment, lack of adequate facilities and teacher shortage (Bray, 2007). Would this belief be a contributory factor to the growth of private supplementary tuition in Kenya?

In Kenya the growth in private supplementary tuition is indicated by the large amounts of money being charged by schools for “remedial” classes (Gicobi, 2014). A deluge of Holiday tuition centres in urban areas, the mode of advertising PST which has moved from merely
putting posters on notice boards and use of banners to advertising in major daily news papers ("Remedial Classes," 2011 p.11) clearly demonstrates that PST cannot be ignored in Kenya and that if not proactively approached by major stakeholders in the education sector, the poor and those in rural areas are likely to lag behind in the education ‘race’. The government of Kenya’s response to the widespread growth and intensity in the use of PST is the banning of Holiday tuition and extra classes in all primary and secondary schools through circulars and media (MoE (2008); Ngei, Onyango & Gicobi (2013); Abdi (2012)). On slapping a ban on PST the Kenyan government argues that PST denies the children time to rest, time to be with their parents and play, causes fatigue, stresses students, hinders students’/pupils’ creativity and innovativeness and it burdens parents financially ("Mutula Vows," 2012). Then the question arises: of what value is it to allow students to enjoy all these and at the end of the four year course assign them grade E? From the lens of human capital theory and the strong perception that PST has positive impact on the students’ academic performance coupled with the fact that PST has been allowed to continue for long until almost all stakeholders accepted it as a useful supplement to the formal education system in Kenya, the researcher argues that the reasons advanced by the government to ban PST do not address the reasons that made PST to come about in the first place. The present study endeavours to analyse the factors influencing the need for private supplementary tuition in secondary schools and asses the level of effectiveness of the ban policy.

1.20 Statement of the problem

PST has a long history in Kenya and other countries and that the ban policy in Kenya seems to face challenges. As discussed in the background, despite the government of Kenya’s insistence on the ban on holiday tuition and extra classes and even the use of strong terms such as “...I have criminalised holiday tuition...” by the then Minister for education in 2012 (Abdi (2012) and the treat with jail terms and heavy fines to those teachers who are offering PST by the Cabinet secretary for education in 2013 Ngei et al. (2013)), the nature, scale,
demand, intensity and form of private supplementary tuition has kept growing day after day (Tondo, 2011).

The following questions need to be addressed: why has the government’s ban on holiday tuition and extra classes in schools been facing challenges? What are the driving forces behind the unquenched need for PST in Kenya? Of what value is a policy that is hard to enforce? Is it possible to formulate a policy framework that would let PST be, but regulate it to eliminate abuse?

These are questions that need specific attention from both policy makers, researchers and other major players in the education sector in Kenya and it is in this light that this study was undertaken.

1.30 The purpose and significance of the study

The study sought to identify the factors that influence the need for private supplementary tuition in secondary schools in Borabu District in Nyamira County, Kenya. The study proposed a policy framework for PST.

Previous studies in Kenya on private supplementary tuition e.g. Paviot L, Heinsohn, N & Korkman, J. (2008; 2005); Onsomu et al., (2005); Wanyama and Njeru (2004); Buchman (2002); Nzomo et al. (2001); Abagi and Odipo (1997) have all based much of their research findings on data collected from primary school level. Hardly have researchers empirically studied PST at secondary school level yet it is at this level that students and parents are under intense pressure to ensure that they/their children pass KCSE examinations so that they can be able to secure places in higher institutions of learning and pursue the perceived prestigious careers such as Medicine, Law and Engineering. Thus the probability that students are using PST at secondary school level is high. This study endeavoured to quantitatively investigate the factors behind the need for private supplementary tuition among secondary school
students in Borabu District of Nyamira County, Kenya. In so doing this study undertook to contribute to the body of knowledge on private supplementary tuition in Kenya.

The findings of this study would benefit education stakeholders, especially the ministry of education science and technology officials, policy makers, teachers and parents to engage actively in creating a policy framework that rationally addresses PST to replace the ban policy which is currently being violated by some stakeholders and poses a danger of exacerbating inequality in education: a policy that would allow all secondary students benefit fully from the formal education system and PST while guarding against the negative effects of PST. It is hoped that the findings of this study would catalyse researchers to pay more attention to this global phenomenon called PST than they have done in the past.

1.40 Objectives of the study

The objectives of this study were:

i. To identify the factors that influence secondary school students to use private supplementary tuition,

ii. To establish the level of success of the ban policy and

iii. Propose a framework for a national policy for regulating PST.

1.50 Research questions

The study was guided by the following research questions.

i. What are the factors influencing the need for private supplementary tuition in secondary school?

ii. To what extent has the ban policy on PST been successful?

iii. Is it possible to let PST be, but regulate it to eliminate abuse?
1.60 Scope of the study

The study was carried out in Borabu District in Nyamira County, Kenya using a descriptive survey design. The study was concerned with identifying the factors that influence secondary school students to use private supplementary tuition and assess the level of success of the ban policy on private supplementary tuition in Kenya. The study was carried out in 12 secondary schools out of the 23 registered secondary schools in Barabu District. Data was collected using questionnaires from secondary school students, mathematics teachers or Mathematics HODs/HOSs.

1.70 Limitations of the study

The study was limited by the fact that it was not possible for the researcher to study all facets of PST and the entire targeted population due to financial and time constraints. To overcome this, the researcher employed stratified sampling and then random sampling from each stratum and collected data from a relatively large proportion of the respondents to give a more precise estimate of the entire population in the sub-county (district).

1.71 Delimitations of the study

The study was restricted to the use of private supplementary tuition by secondary school students. It was further narrowed to the factors influencing the need for the use of private supplementary tuition by secondary school students. It looked at PST from the consumers’ and not from the providers’ point of view.

1.80 Theoretical framework

The study was based on the human capital theory which states that just as people invest in physical capital, they also make investments in themselves through a variety of education and training experiences in order to increase their productivity and efficiency in the labour
market; thus increasing their probability of securing a more prestigious and better rewarding jobs (Langellet, (2002); Becker G (1993)).

According to human capital theory people make a deliberate and conscious decision on what to invest in after carefully analysing the costs and the expected future returns of an educational investment (Langellet, 2002). From the lens of human capital theory, investments in individuals are public investments, since the benefits accruing from such an investment goes beyond the individuals who have invested in education and training and benefit the entire society. Indeed consciously or unconsciously quite often members of many societies globally embrace this notion of human capital theory when they support the educational investments in their young members and adults pursuing further studies. For example among the Gusii community and other communities in Kenya; the community often organises fund raising (Harambees) to raise funds in support of needy students joining secondary schools and institutions of higher learning. Such support is not a preserve of individual communities, as the National and County governments also embraces the notion of human capital theory by assisting needy and deserving students in various learning institutions through CDF educational bursaries, Ministry of education bursaries and loans through HELB. These are strategies being employed by the Kenyan government and its people in their endeavour to increase the future human capital productivity through investment in the education of its people. Shultz (1971) identified five categories that are capable of improving the human capabilities thus resulting into higher quality and efficient human capital, these categories were formal education, adult education, in-service training (on the job training), health services and migration to seek better employment opportunities outside ones village or country. Besides the five categories above, private supplementary tuition has emerged as another powerful phenomenon that also plays a key role in improving the human capital in the contemporary world. The current study argues that the PST phenomenon was not included in Shultz’s 1971 categories that help to shape the human capital most probably because the scale and intensity of PST services was not as widespread as it is today. Bray
(1999, 2007) argue, that the proliferation of private supplementary tuition in various countries can be explained on the importance of PST in enhancing human capital in the contemporary world otherwise people will not be spending a lot of money, human resources and time on something whose returns are negligible.

The current study employed the human capital theory to try and find out the factors contributing to the higher need for private supplementary tuition in Borabu District, Nyamira County, Kenya. The researcher assessed the level of success of the ban policy on PST and if it was facing challenges in its implementation, then the researcher proposed a policy framework to address the state of PST in Kenya. The applicability of the human Capital theory in this study would be seen in the fact that all the theoretical concepts such as using PST as an option towards improving student’s academic performance which in turn will ensure that the student joins a public university and pursues a lucrative course that will eventually guarantee a better pay in the future; the benefits accruing to the individual upon employment will also trickle down to his/her society hence benefiting it. It will be interesting to examine how parental/students educational aspirations, quality of mainstream education, students’ achievements in examinations, type of school one is schooling in and expected future career and salary differential in the labour market based on ones academic qualifications may drive people of varied academic, economic and social status/abilities to invest in private supplementary education in the context of human capital theory.
1.81. Conceptual framework

**FACTORS INFLUENCING THE NEED FOR PST**
1. Academic satisfaction
2. Parents'/students' academic aspirations
3. Type of school (day or boarding)
4. Curriculum overload
5. Increased competition for limited places at institutions of higher learning.
6. Popularity/type of subject
7. Ranking of schools by KNEC.

**USE OF PST**
1. Mainstream school based PST (remedial/extra classes)
2. One on one PST
3. Holiday coaching (Tuition)

**OTHER FACTORS DRIVING THE NEED FOR PST**
1. Teachers' salary.
2. Parental and peer pressure
3. Students' gender
4. Family income
5. Teaching methodology
6. Geographical location of HTC/students home (rural or urban)
7. Cultural factors
8. Shortage of qualified teachers in certain subjects i.e. maths and sciences
9. Affordability and accessibility
10. School pressures.

**Figure 1. Conceptual framework model for the study.**
Figure 1 above shows the conceptual framework model for analyzing private supplementary tuition phenomenon based on the human capital theory; Box A shows independent variables related to the reasons behind the need and use of PST that were investigated in this study. Box B shows variables that can influence the need and use of PST but were not addressed by the study due to limited time, resources and intended scope of the study. Box C shows the intervening variable that is likely to influence the need and use of PST positively or negatively depending on how both the consumers and providers perceive and react towards the policy. Box D represents the various forms of PST (dependent variable). Boxes E and F are included in the framework for understanding the relationship between education, PST and the labour market so as to have a complete picture of the framework based on human capital theory. Even though not fully covered in this study they were important in giving a complete picture of the theory. The block straight line arrows 1, 2 & 3 indicate the relationship between the variables that the study investigated. The block dotted line arrows 4, 5, 6 & 7 indicate other variable that may have influence in the PST phenomenon and are important in understanding the full conceptual framework from human capital theory point of view but were not considered in the current study due to lack of sufficient finances and time. As shown in the figure, the use of the different forms of PST which was the dependent variable could be affected by a number of independent variables such as the level of satisfaction with the education standards that students are receiving in the mainstream schooling—the study sought to find out if Students/parents who are not satisfied with the quality of education they/their children are receiving are more likely to use PST services; the use of PST may be influenced by the academic aspirations of either the students or parents. The study intended to find out if consumers who have a higher academic aspirations are more likely to use PST services than those with low academic aspirations; the type of formal school students attend may directly or indirectly influence the need and intensity for PST, the researcher endeavoured to investigate whether students in boarding schools are more likely to use mainstream school based PST and for more hours than those in day schools. Increased competition for limited opportunities
in institutions of higher learning influence the need and use of various forms of PST, the study intended to find out whether the witnessed increased need for PST despite government ban and jail term treats was due to increased competition for limited places at subsidised public universities and the perceived prestigious careers such as medicine, engineering and architecture. The researcher intended to find out if ranking of schools by KNEC exerts pressure on schools and students to use PST services. Lack of syllabus coverage in good time due to overloaded subject content and popularity of certain subjects in career choice and future job & income prospects would be driving the need and use of PST by most secondary school students, would this be the case in Borabu District, Nyamira County, Kenya? The government policy on PST i.e. the ban on all PST services in all schools has greater implications on both the need & the intensity of PST and also equity issues in education, for some parents and schools who may have heeded to the ban may lose as majority of schools were found to have disobeyed the government directive and were offering and receiving PST.
1.90 Definitions of operational terms

**Mainstream schooling (education system)**-refers to formal schooling or formal education system (public or private) that are controlled or regulated by the central or county government with a strict curriculum that must be followed by all teachers when teaching their students.

**Private supplementary tuition**- Refers to the type of instruction offered to students on academic and examinable subjects such as Mathematics, Sciences, Languages and Humanities outside the normal mainstream school hours i.e. very early in the morning, late in the evening or even at night, during weekends and during school vacations (holidays and half terms) at a fee. It can take place at school premises, at the students’ or teacher’s home, at other premises hired for the purpose of offering PST to students by the providers (Holiday Tuition Centres).

**Shadow education system**- Refers to the education system that exists because the mainstream education system exists. Their features are less distinct and do not have a strict curriculum to follow.

**Career**-Refers to the kind of profession or long-term job one intends to venture into depending on his/her ability and interest.

**Form**- Refers to the grade or class at secondary level.

**Day secondary schools**- Refers to secondary schools where students commute from their homes daily to school and at the end of the school hours they go back to their respective homes i.e. Students do not reside within the school premises.

**Boarding secondary schools**- These are secondary schools where student report to school at the beginning of the term and remain in school until end of the term (beginning of school vacation (holiday) i.e. students reside within the school compound.
**Remedial classes/Extra classes**- In this study the two terms are used interchangeably and they refer to the kind of instruction offered to students on academic and examinable subjects by their mainstream teachers outside the normal teaching hours within the school premises and at an extra fee.

**Holiday tuition centres (HTC)** - These are premises that are used as classes for private supplementary tuition during holidays or evenings or weekends. They are normally hired church premises, primary schools or business premises.

**Harambee**- The term means pulling resources together in support of a given project i.e. education for needy students and those pursuing higher education. (Fund raising)
1.10 Organization of the study

This study was organised in five chapters. Chapter 1 provides the introductory orientations to the study; it consists of the background to the study, the statement of the problem, purpose of the study, objectives of the study, research questions, significance of the study, scope of the study, limitations of the study, delimitations of the study, the theoretical and conceptual frame work of the study, definitions of operational terms and organization of the study.

In chapter two the researcher presented the scholarly definition of private supplementary tuition then proceeded to present literature review on the shadow analogy, PST: a global phenomenon, forms of PST, factors influencing the need for PST, popular subjects for PST and policy responses to the status of PST. Chapter three was geared towards describing the research design, location of the study, target population, sample & sampling procedure, data collection and data analysis. In Chapter four, the data was analysed and an attempt was made to answer the research questions. Chapter five gave an overview of the study, the conclusions reached and the implications the study would have on private supplementary tuition in Kenya. Finally, recommendations and areas for further studies on private supplementary tuition in Kenya were made.
CHAPTER TWO

2.00 LITERATURE REVIEW

2.10 Private supplementary tuition defined

Different terms have been used to describe what Private supplementary tuition is globally. Bray (2007), Bray and Kwok (2003) used the term private supplementary tutoring and defined it as tutoring in academic subjects such as languages, mathematics and other examinable subjects outside the school hours. It is provided by tutors for financial gain or profit making purposes (Tansel and Bircan, 2006). It does not include extra lessons given by mainstream teachers and family members to needy pupils on voluntary basis outside the normal school hours. According to Kwok (2004), private supplementary tutoring refers to a kind of extra, fee-paying academic teaching or drilling for full-time students studying in regular school instruction programs or syllabuses at all levels of education. It has three characteristics namely:

i. PST is academic oriented,

ii. PST involves monetary transfer from tutees or their parents/guardians to the tutors/teachers and

iii. PST involves tutoring content, or mastery of some cognitive skills being in line with tutees’ day-time schooling.

In England, the term 'private tutoring' generally refers to tutoring on a one-to-one basis, which often takes place in the home of the tutor or the student (Ireson & Rushforth, 2005).

In this study private supplementary tuition is defined as the instruction given to mainstream schooling students/pupils on academic and examinable subjects such as mathematics, sciences, languages and humanities outside the normal mainstream class hours, that is, very early in the morning, late in the evening or even at night, during weekends and school
vacations (holidays and half-terms) by trained teachers or any other person who has a better understanding and mastery of the subject content or more knowledgeable than the student at a fee. It can take place at the school premises, at the student’s or teacher’s home or any other premises hired or identified for the purpose of offering PST services. Irrespective of the form, private supplementary tuition is not substitutive to mainstream schooling.

2.20 The shadow analogy

Private supplementary tuition has been described globally as a “shadow education system” because it is substantially influenced by the mainstream formal education system and its features are less distinct. Thus it is not very easy to study all its attributes in a single study Bray (2005, 2007, 2010). Bray (2010) argues that the shadow analogy is appropriate for a number of reasons. First, private supplementary tuition only exists because the mainstream education system exists; second, as the size and shape of the mainstream system change, so do the size and shape of private supplementary tuition; third, in almost all societies much more attention focuses on the mainstream than on its shadow; and fourth, the features of the shadow system are much less distinct than those of the mainstream system.

2.30 Private supplementary tuition, a global phenomenon

Private supplementary tuition is a global phenomenon, its presence is non-discriminative; indeed it is felt in both developed and developing countries (Bray, 2003). Although reliable data on private supplementary tuition are difficult to obtain partly due to its informal and blurring nature and the lack of or limited attention from both governments, policy makers and researchers, a comparative study on a range of studies on private supplementary tuition reveal that it is indeed a global phenomenon. Some indicators on the nature and scale of private supplementary tuition globally are evident from the following statistics from some selected countries:
In Taiwan, the 2001 Taiwan Education Panel Survey indicates that 72.9% of Grade 7 students were receiving private supplementary tuition for an average of 6.5 hours per week (Liu, 2012). In Vietnam, Dang (2011) reviewed the 2006 household survey data and found that 32.0% of primary students were receiving private supplementary tuition. At lower and upper secondary levels, respective proportions were 46.0% and 63.0%. In China, a 2010 survey of junior middle school students in Jinan city, Shandong Province, found that 28.8% were receiving private supplementary tuition in mathematics, 29.3% in English, and 11.6% in Chinese (Zhang, 2011). In South Korea, a 2008 survey reveal that 87.9% of elementary school pupils were estimated to be receiving private supplementary tuition. In middle school the proportion was 72.5%; and in general high school, it was 60.5% (Kim, 2010). In Turkey, a 2005-2006 survey indicate that of the 1 071 827 students receiving private supplementary tuition, 52.5 % were male and 47.5 were female (Tansel and Bircan, 2008). In Japan, a 2007 national survey found that Juku (PST centres in Japan) served 15.9% of Primary 1 children, that this proportion rose steadily in later grades, and that it reached 65.2% in Junior Secondary 3 (Bray, 2009). Ireson & Rushforth (2005) conducted a study on PST in the United Kingdom and found that in aggregate 27 % of year 6, year 11 and year 13 students were receiving PST in 2003. In Mauritius, a 2001 survey of Grade 6 pupils reveal that 87% were receiving private supplementary tuition and 91% of these students paid for private tuition (Kulpoo & Soonarane, 2005). In Tanzania, a 1995 survey in Zanzibar on grade 6 pupils found that 44.5% were receiving PST and that PST was on an increase in both urban and rural areas in Tanzania (Nassor and Mohammed, 1998 p. 20). A study by Gordon & Gordon (2003), found that almost 7 million elementary school students were likely to take private tuition in USA. A 1995 survey in Zimbabwe found that 61 % of Grade 6 pupils were receiving PST and the percentage varies from 36% to 74% across the regions (Bray, 2007).

In Kenya, a 1997 National sample of 3,233 standard 6 pupils found that 68.8 % were receiving private supplementary tuition, ranging from 39.0 % in former north eastern to 74.4 % in former Nyanza Province (Nzomo et al., 2001). A parallel study in three geographically-
distinct districts indicated that private supplementary tuition was much more common in urban than rural areas, and among boys than girls (Buchmann, 2002). A 2000 study on standard 6 pupils found that 88% of the students were receiving private supplementary tuition and 58% of the students attending private supplementary tuition paid for it. The study by Onsomu et al., (2005, P.171-173) reveal that the proportion of pupils who received private supplementary tuition had gone up from 68.6% in 1998 to 87.7% in 2000 (Dang and Rogers, 2008). Other studies in Kenya report that private supplementary tuition in Kenya is on an increasing trend among upper primary pupils (Wanyama and Njeru (2004); Paviot et al. (2008); Abagi and Odipo (1997)). The cross-national studies show that private supplementary tuition is not only a global phenomenon, but is expanding at a very fast rate globally. However, it is important to note that only studies from outside Kenya have based their studies on both primary (elementary) and secondary levels of education. Almost all studies in Kenya have anchored their studies on data collected from primary level thus not much literature is available on the factors driving the need for private supplementary tuition among secondary school students in Kenya. This was the gap the present study intended to fill.

2.40 Forms of private supplementary tuition

Private supplementary tuition takes different forms a cross and within countries depending on market forces and level of technology. Generally, the forms of private supplementary tuition are partly determined by class size and partly by the level of advancement in technology. In terms of class size, at one end is individualised one-on-one tuition, often in the homes of teachers or students; and at the other extreme end are mass lecture theatres with overflowing rooms served with closed-circuit television screens. Between these extremes exists small groups, medium-sized classes and large classes (Bray, 2010).

In India private supplementary tuition is divided into four forms, namely home tuition, group tuition, private tutorial and coaching centres (Sujatha, 2006). In turkey private supplementary tuition is delivered in three different forms. The first form is one-on-one individualised
teaching by the tutor on the requested subjects at the cost agreed upon by the parties involved. The second form of PST takes place at the premises of the mainstream schools, taught by the mainstream teachers for pay outside the formal class hours. The third type of PST is provided by the private tutoring centres (PTCs) which are school like organisations operating for profit. Unlike in Kenya private tuition centres in turkey are legal entities licensed and recognised by the state to operate (Tansel and Bircan, 2008).

In ICT advanced societies there are additional forms of private supplementary tuition that harness technology. In this category PST is conducted via telephone or internet (e-learning). In ICT driven forms of PST the student and the teacher may be distant from each other and perhaps in different countries. This form of PST is widely used in USA, India and Japan, for example tutors from India are offering PST to USA Students in subjects such as mathematics from course curriculum approved in USA (Bray, 2005, 2010).

In Kenya three broad forms of private supplementary tuition can be identified. One type is one-on-one individualised teaching by the teacher on the subjects requested by the client (student/pupil or parent ) depending on the performance of the child on the subject or importance of the subject on career choice and career aspirations of the student and the parent. This form is offered at the cost agreed upon by the interested parties. The actual teaching takes place at the teacher’s home or student’s home or even at the school premises if circumstances do not allow teaching to take place at either parties home i.e. if the student is in a boarding school and the parent wishes to use mainstream teachers to offer individualised tuition to the student while in school. This form may be provided by professionally trained teachers who may or may not be the mainstream teacher for the student or university students or those who have attained quality grades at KCSE Examination and a waiting to join university or retired teachers who still have the energy and desire to teach.

The second form is what is commonly known as “remedial” classes or extra classes in Kenya. The term remedial has become popular for this form of private supplementary tuition as a
way of disguising PST services in the mainstream schools because they are banned in Kenya. In this form teaching is done outside the formal mainstream class hours (i.e. Very early in the morning, late in the evening or even at night and during weekends) within the school premises and by mainstream teachers at an extra cost incurred by the parents (Kigotho (2012); Makali (2012); MoE (1988); Odawo (2011)). Regular formal classes are maintained and subject teachers continue teaching the normal curriculum, once the stipulated syllabus has been covered then teachers embark on revision and giving students tips on how to answer questions in National Examinations i.e. KCPE & KCSE. The third form of private supplementary tuition in Kenya is commonly referred as holiday tuition (coaching). It takes place outside the mainstreams school premises in instances where mainstream premises are used then they are privately hired by the providers. The fee is normally decided by the providers and it varies from one holiday tuition centre (HTC) to another depending on the qualification and experience of the teachers, location of the centres and popularity of the subjects being offered at the centres. In the holiday tuition centres there is no standard curriculum followed but they are tailored to meet the needs of students while focusing mainly on examinable subject content. They are mostly conducted during April, August and December holidays when students are on vacation (“Remedial Classes,” 2011).

2.50 Factors influencing the need for private supplementary tuition

From the forgone discussion, it is evident that private supplementary tuition is a widespread global phenomenon; it is on an increasing trend both in magnitude and intensity. The reasons behind the proliferation of private supplementary tuition can be looked at in four broad areas i.e. economic factors, social & cultural factors, educational and geographical factors (Bray, 2005, 2009, 2010).
2.51 Economic factors driving the need for private supplementary tuition

First among the economic factors is the household income of the students’ family. Tansel and Bircan (2008) while studying the determinants of receiving private supplementary tuition in Turkey found out that those children from households with higher levels of income were more likely to use private supplementary tuition than those from poor/lower levels of income. Thus the need for private supplementary tuition is higher among higher income households because they can afford the actual cost of PST and other related costs such as fare to the holiday tuition centres. Bray (2007); Kim (2006); (Kwok (2004) also contend that family income plays a key role in driving the need for private supplementary tuition in various societies albeit with slight variations from one country to another.

The second factor behind the widespread use of private supplementary tuition among students especially within the mainstream school premises is the poor remuneration of mainstream school teachers, in an attempt to earn an extra tax-free income they encourage their mainstream students to attend ‘remedial’ (PST) classes outside the normal formal school hours. To achieve this they employ different tactics such as teaching the main examinable content during remedial classes or even teaching at a slower pace during the normal class hours so as not to cover the stipulated syllabus thus forcing the school management boards and parents to see the need to organise and pay for extra classes. This factor drives the need for PST indiscriminately among all students both from rich and poor family background, high and low achievers in class. This factor drives the need for private supplementary tuition in countries such as Kenya, Cambodia, Romania, Mauritius and Nigeria (Bray (2007); Bray and Bunly (2005); Bray and Kwok (2003); Buchmann (1999); Dawson (2009); Foondun (2002)). Bray (2010) argues that as much as teachers in some countries may stress that PST is not compulsory, parents are aware that if they do not pay, their children will be handicapped not only by failing to secure the curricular knowledge but also probably by incurring the disapproval of the teachers. Moreover, since the teachers control the end-of-year
examinations and determine who proceeds from one class/form/grade to the next, parents are aware that if they do not pay for private supplementary tuition then their children are likely to repeat classes/forms/grades. For many parents, the arithmetic becomes simple: it is less expensive to pay for private supplementary tuition classes than to pay the costs of repeating a year.

For some parents and students, the drive to use private supplementary tuition is the anticipated economic benefits associated with good academic grades. To them using PST services is a form of investment that will guarantee them better careers and more rewarding jobs in the future. Indeed globally for one to be competitive in the job market one must be armed with quality academic credentials in the given field of specialisation. Lucrative careers such as medicine, engineering architecture, law and pharmacy which has a comparatively higher salary admits the top cream of the education system from lower levels. Thus it would not be surprising for parents to invest in PST for them to realise their goals, hence the future job, career and in turn higher monetary returns prospects drives the need for private supplementary tuition in most countries worldwide (Bray (2005); Kim (2006)). When parents and children are heavily investing in private supplementary tuition with anticipations of greater monetary returns in future through salaried and self employment are consciously or unconsciously embracing the notion of human capital theory.

2.52 Educational Factors that Influence the need for private supplementary tuition

The Educational factors drive the need for private supplementary tuition more than social and economic factors combined because both the poor and the rich have placed very high premiums on education. The researcher contend that for the poor education would be perceived as the only panacea out of their current squalid condition and the medium through which they are likely to move up the social ladder; children from such family work very hard and encourage their parents to sacrifice and invest in their education even if it means using PST, for it is through quality academic credential that they will be able to emancipate their
poor families from their current state. For the rich and elite families they already know the
benefits of maintaining their current prestigious positions in society and therefore investing
heavily on their children’s education is worthwhile. According to Tansel and Bicarn (2008)
children from educated parents are more likely to use PST services and the mother’s
education plays a more important role in demanding for PST for her children than the father’s
education. Bray and Kwok (2004) contend that the children whose parents’ educational level
were at university or above are twice more likely to use PST than those whose parents had
primary education or less.

The perception that the quality of education in mainstream public schooling is poor would be
driving parents and children to seek private supplementary tuition thus contributing to the rise
in the need for PST in countries where parents are not satisfied with the quality of
mainstream education system. In most countries the public school environment is not
conducive for optimum teaching and learning due to high teacher–student ratio, low morale
of the teachers due to poor remunerations and higher workload, insufficient physical
infrastructures and other teaching and learning resources. To supplement their children’s
education most parents in these countries are compelled to turn to private supplementary
tuition so as to ensure that their children are not disadvantaged when sitting for major
national examinations (Bray (2013); Dang (2007); Kim (2006); Tondo (2011)). Tansel and
Bircan (2008); Kim (2006) in their respective studies argue that the demand for private
supplementary tuition is substantially driven by the perception that the quality of education in
public mainstream schools is poor and that the methodology of teaching in this schools is not
student centred hence the content delivery is not tailored to the individual student needs.
When mainstream schools fail to meet the popular and varying demands of parents and
students; they quite often opt for holiday tuition centres and other forms of PST which are
more flexible and ready to offer teaching that is tailored to individual student needs.

The need for PST services is relatively high in countries where the system of education is
examination–oriented. In countries such as Poland, Kenya, Vietnam, Turkey, Mauritius,
South Korea among others where passing examinations plays a central role in determining who proceeds to the next level/grade/class/form in the education system, there is greater need for private supplementary tuition. In countries where the curriculum is examination oriented it is common to find the demand for PST at the peak when students are preparing for major National Examinations or university entrance examinations (Bray (2007); Bray and Kwok (2003); Dang (2007); Kim (2006)). In Kenya KCSE and KCPE Examinations perform the screening function. Atieno, Gunga and Akaranga (2013) argue that a learner who sits KCSE aims at either furthering their education or joining careers of their choice in the prevailing circumstances, the current study intended to find out if such a learner who is aware that KCSE plays a key role in determining whether such a student proceeds to the next level in the education ladder or joins a career of her/his choice would be more likely to invest in PST. Bray (2010) contend that the high need for private supplementary tuition is as a result of competitive pressures in an increasingly globalised world. Some governments promote competition through public ranking of schools and students when releasing National Examinations. Because schools and students compete to be ranked among the top performers, then it would imply that they are under intense pressure to achieve good grades by all means including the use of PST (Dang (2007); Tansel and Bircan (2008)). The current study sought to find out empirically if this view holds in the Kenyan context.

Tansel and Bircan (2008) argue that high achievers (students who are ranked above satisfactory) are more likely to receive private supplementary tuition than those who have just passed. Thus indicating that the demand for private supplementary tuition among higher performers is higher partly because they have a higher self intrinsic motivation to do even better and join prestigious careers or partly because their academic demands are not being satisfied in the mainstream schooling hence they opt for PST to supplement what they have learnt in the mainstream school and even add more. Bray and Kwok (2003); Dang (2007); Dindyal and Besoondyal (2007); Kim (2006) argue that the students’ abilities play a key role in shaping the need for private supplementary tuition. Despite the above findings on various
studies, it’s worth noting that the proliferation of private supplementary tuition globally is as a resultant of students of both abilities competing for the PST services albeit for different reasons; high achievers and their parents seek PST so as to maintain a competitive edge, the average students seek PST services so as to catch up with high achievers and the low achievers seek PST services so as to avoid being left behind by those above them in the education “race” (Bray, 2005). These studies have been carried out outside Kenya, the current study endeavoured to quantitatively investigate whether the need for PST in secondary schools in Kenya is influenced by higher achievers, low achievers or by students of mixed abilities.

Bray (2010); Bray and Kwok (2003) contend that the popularity of certain subjects such as Mathematics, English and Sciences influences the need for PST greatly in Hong Kong; in Mauritius, where a failure in mathematics is synonymous with failure in secondary education, it would be obvious that mathematics plays a central role in driving the need for PST in Mauritius (Dindyal and Besoondyal, 2007). Kwok (2004) contend that mathematics and English are the popular subjects for PST and that the need for PST is driven more by science subjects than Art subjects in Hong Kong. In Kenya, a survey in the subjects advertised through posters and major media outlets such as daily news papers show that the subjects advertised by PST providers include mathematics, physics, chemistry, biology and English (“Remedial Classes,” 2011). The current study sought to empirically find out if the witnessed widespread need for private supplementary tuition in Kenya would be as a result of the popular subjects in the mainstream education system and the subject’s relevance in career choice and future job prospects.

2.53 The social factors behind the proliferation of private supplementary tuition

According to Bray and Kwok (2003); Davies (2004), many families invest in private supplementary tuition as part of “intensive parenting”, to these parents hiring private teachers for their children may be part of a wider strategy in which they place a great premium on
education and closely monitor their children’s activities outside the mainstream schooling hours. Indeed with the rise of nuclear families where both parents and other elder members of the family are engaged actively in salaried and self-employment, parenting roles are being shifted to both the regular mainstream and private teachers. With the private teachers around, parents are assured that their children are actively and constructively engaged while they are a way, thus the probability that their children will engage in unproductive and dangerous activities such as drug abuse is very minimal. Hence this notion of intensive parenting would be behind the witnessed deluge in the use of private supplementary tuition in urban areas and among elite families globally.

For many decades the need for private supplementary tuition in East Asian countries has been driven by the Confucian cultural traditions which stresses on effort for self-improvement through learning than accepting in-born abilities and existing circumstances thus explaining why the use of private supplementary tuition has a long history and is widespread in Asian Countries than the rest of the world which is aggressively embracing the use of private supplementary tuition (Bray (2005); Bray and Kwok (2003)). When teachers and parents remind their students/children that they must not lose hope when they don’t do well, instead they should work harder and read regularly. When they do so, they are consciously or unconsciously embracing Confucius philosophy. To parents, students and teachers in Kenya who believe in effort for one to pass an examination than accepting in-born abilities, it would be interesting to study how such a group react to the ban policy on PST from the human capital theory lenses.

Kim (2006) argues that the social factor behind the proliferation of private supplementary tuition is the social and cultural importance placed on academic credentials and meritocracy and the resultant obsession with education. Globally people with higher academic credentials are accorded preferential treatment both in the general society and at place of work. Socially education is seen as the medium through which one will be able to move up in the social ladder. In order to be competitive in the labour market and attain a higher social status one
must be armed with quality academic credentials. To achieve this, students and parents would find it necessary to seek PST services. If there is a strong perception that PST would have a positive impact in the academic performance of students and that it is through good grades in education that one becomes competitive in the labour market and attain a higher social status, it would be interesting to find out to what extent the ban policy would be successful in such a setting?

The need for private supplementary tuition would be as a result of peer pressure. Bray (2010) contend that often parents send their children to holiday tuition centres and students enrol for PST classes because it appears that all their peers are doing so. Schools on the other hand are also influenced to offer private supplementary tuition (remedial classes) by other schools which are already offering remedial (extra classes) to their students (Bray (2009); Bray and Kwok (2003)).

Kim (2006) contends that the widespread social egoism is a contributory factor behind the widespread need for private supplementary tuition globally. Excessive concern for the well-being, success of one’s family and the obsessive desire to build one’s future family capital through investments in education coupled with lack of community sentiments create a situation where parents are only interested in the education of their own children in total disregard of the state of education in the public mainstream education system. These egocentric tendencies have contributed to the witnessed poor quality education standards in the mainstream schooling system thus helping in creating a huge market for private supplementary tuition which is generally perceived to offer quality and student tailored education. In an environment where people have placed very high premiums in education, the quality of education in mainstream schooling being perceived to be of poor quality, the perception that PST would provide an alternative solution to attaining quality grades and the challenges being faced in implementing the ban policy in Kenya; compelled the researcher to try to analyse the factors influencing the need for private supplementary tuition with the sole
purpose of proposing an alternative National policy that would regulate PST for the benefit of all school going children and youths.

2.60 Popular subjects for private supplementary tuition

According to Bray (2010, 2005) the subjects that are popular and in greatest demand in the “shadow education” system are ones required by examination system at each stage of transition. He argues that mathematics and the national languages are in high demand and that the need for elective subjects such as art and religious studies in the ‘shadow’ education system is more limited. Ashankha (2011) argue that the popularity of private supplementary tuition in Sri Lanka has increased significantly in the recent past and that more students are receiving private supplementary tuition in science related subjects such as mathematics, physics and chemistry; an indication that mathematics is among the popular subjects for PST. Bray (2013) contend that English, mathematics and Chinese are the most popular subjects for PST in Hong Kong, in which many students receive one to two hours of tutoring per week during the ordinary and holiday seasons, and more during the examination season, thus confirming the findings by Kwok (2004) who had also found that Mathematics and English were the most popular subjects for PST in Hong Kong and that more students sought PST in science subjects than in art subjects. Bray (2007); Bray and Kwok (2003); Dindyal and Besoondyal (2007) have also found that mathematics, sciences and the National languages/Languages used as a medium of instruction are the most popular subjects for private supplementary tuition. However as pointed out in chapter one of this study; the need for PST stems from the excessive desire by parents and their children to join prestigious careers upon graduation and examination oriented-curriculum and thus the popularity of a subject in the “shadow” system depend majorly on whether it is required as cluster subject in the perceived prestigious and lucrative careers and if it is examined or not in major transition Examinations. Indeed this explains why unlike in other countries in Poland the most popular subjects for PST include History, Foreign languages, Polish and Political science because these subjects
are tested in the university entrance examinations. The higher popularity of History and Foreign language in the polish “shadow” education system can further be explained by the relative attractiveness and the high competition for Law admission in which the two subjects are a requirement. Despite the fact that mathematics is not a mandatory subject at upper secondary level in Poland it is still ranked 4th in demand for PST services in Poland (Putkiewicz, 2006), a clear pointer that the subject’s popularity even in countries where it is not compulsory cannot be ignored when studying the “shadow” education system of any country. In Kenya despite the limited literature, the popularity of mathematics, sciences (Physics, Chemistry & Biology) and English in the “shadow” education system has/will and shall never be in doubt. For a glance on any advert advertising PST services in Kenya will reveal that Mathematics and science related subjects are synonymous with private supplementary tuition (“Remedial Classes,” 2011). The use of Indian teachers to offer private supplementary tuition in mathematics to USA students via internet and an increasingly number of companies in developed countries offering private supplementary tuition in mathematics via modern technology indicate that the subject is probably the most popular subject in the PST market (Bray, 2005). The curriculum in Kenya has been designed in such a way that mathematics, for instance, is a compulsory subject at both primary and secondary level, thus any student at both primary and secondary level in Kenya must take mathematics as a subject and be examined in it at the end of each level (MoE, 2007). Therefore mathematics plays a significant role in a student’s overall mean grade and career choice and the need to perform well in mathematics is heightened by this requirement. This explains why the researcher purposefully chose Mathematics as the focus subject in this study.

An analysis of the degree programmes offered in Kenyan public universities and their respective subject clusters in the careers guide book for schools reveal that out of the 174 degree programmes that were listed as at 2007; 42.40% required mathematics as a compulsory cluster subject, 42.53% required mathematics as an optional cluster subject meaning 87.93% degree programmes that were offered at public universities required at least
a good pass in mathematics and only 12.07% did not require mathematics at all as a compulsory or optional cluster subject. The above analysis explains why mathematics is a compulsory subject at secondary level in Kenya and suggests why a failure in mathematics may be synonymous with a failure in KCSE examination. A pass in mathematics is therefore very important in career choice which will translate into a better job and income in future. To achieve this, students, parents and teachers would be willing to invest heavily on anything that will result in a good pass in mathematics and general mean grade at KCSE examinations even if it means using PST in total disregard of the government ban on the use of PST in schools.

2.70 Policy responses to the status of private supplementary tuition

Unlike the mainstream formal education system globally where different countries and/or societies have formulated policies that govern the entire education system; it has proved challenging for a number of countries to come up with a single policy that is generally accepted to govern private supplementary tuition (Bray, 2010). Due to the blurring and dynamic nature of private supplementary tuition coupled with its variability from one country to another at different periods, different policy responses have emerged in the recent past. Comparative studies on private supplementary tuition reveal that there is a range of government responses to private supplementary tuition in different countries (Bray, 2003, 2005, 2010). Bray (2010) contend that there are four main policy responses to private supplementary tuition, they include; ignoring private supplementary tuition, Recognizing and regulating private supplementary tuition, actively encouraging private supplementary tuition and Prohibiting private supplementary tuition i.e. Myanmar and Cambodia have reacted by totally banning PST, this policy failed due to the respective government’s inability to implement the ban policy; Canada and United Kingdom have reacted by ignoring PST because the government consider PST as being outside their mandate; in Hong Kong,
Mauritius and Ukraine the governments have reacted towards PST by recognising and regulating it so as to reduce stratification in education system, reduce disparities in schools and raise public awareness on the possible negative effect of PST; USA, SA, Singapore and Tanzania have reacted by actively encouraging PST because they believe that PST has the ability to contribute to human capital development and address the needs of student; in South Korea the government tried severally in banning PST, but this attempt failed severally, indeed the south Korean courts declared the prohibition as being unconstitutional and an infringement of human rights in 2000 (Bray, 2005).

According to Bray (2005) private supplementary tuition has major social, Educational and economic implications, and the sector deserves considerable more attention from both policy makers and researchers than it has received to date. Much can be learned from a comparative analysis in the identification of the underlying causes and implications of private supplementary tuition; and in turn, such understanding will greatly contribute to the appropriate policy responses. Amukowa, Gunga & Ayuya (2013), contend that the educational reforms being implemented by the Kenya Government would be more appreciated by her people in the event that they are guided by a general ideology. Such an ideology would form a coherent system of ideas, relying upon a few basic assumptions about the practice of education in Kenya around which further thought on education would grow. This way, the Kenyan people would have recognition of their right to choose the type of education that suits their tastes, values, aims and their understanding. Likewise, they would no longer feel obliged to the accepted education only because it is the accepted type but rather, because they have several conceptions of education, from which they may choose the type of education suitable to them. The current researcher endeavoured to show that the ban policy on PST was facing challenges in implementing it. The researcher argues that if the ban policy on PST is facing challenges in its implementation, then it would be more rational and
beneficial to the Kenya people if an alternative National policy framework on PST was considered. A policy that recognises the basic human rights of each Kenyan citizen to access and provide quality and relevant education to its youths; a policy that would work to minimise disparities in education, eliminate PST abuse, allow all children/youths to benefit fully from PST and work to bridge the gap between the haves and have-nots.
CHAPTER THREE

3.00 RESEARCH METHODOLOGY

3.10 Research design

Research design is a scheme, outline, or plan that is used to generate answers to research problems (Orodho, 2004). It constitutes the blue print for the collection, measurement, and analysis of data (Kothari and Garg, 2014). This study employed a descriptive survey research design. Descriptive survey research designs are used in preliminary and exploratory studies to allow researchers to gather information, summarize, present and interpret for the purpose of clarification (Orondho, 2004). Isaac and Michael (1981) on the other hand point out that a descriptive survey design enables the researcher to describe systematically, factually and accurately the characteristics of an existing phenomenon. Borg and Gall (1989) Contend that a descriptive survey research is normally intended to produce information about aspects of education that is of interest to policy makers and educators in general. The current study fitted within the provisions of Descriptive survey design because the researcher intended to determine the factors behind the witnessed expanding use of private supplementary tuition by secondary school students, establish the level of success of the ban policy and based on the findings, propose a national policy frame work.

3.20 Location of the study

This study was conducted in Borabu District of Nyamira County, Kenya. The district is one of the five districts that form Nyamira County; it boarders Nyamira North to the North, Sotik to the East, Masaba North to the West and Trans Mara to the South: The district covers a total area of approximately 247.4 Km². There are 23 registered secondary schools of which 5 are county schools, 16 are District Schools and 2 are private schools; of these 12 are boarding schools and 11 are day schools. The Sub-county has a total of 4,563 students registered in the 23 secondary schools.
It is divided into 2 administrative divisions namely Mekenene, and Nyansiongo. The transport and communication system is relatively poor with no tarmac roads linking the divisions. Social-economic activities of the people are livestock rearing and crop farming.

Borabu district was considered suitable for the study because of its relatively better performance at KCSE level when compared with the other four districts that form Nyamira County. The distribution of secondary schools was 52.17% boarding and 47.83% day thus making it possible to study the variation in the intensity of using PST by students in both boarding and day schools possible and reliable as the schools are almost evenly distributed in terms of day and boarding. The district was also chosen because it was easily accessible by the researcher and thus the researcher was able to make quick rapport with majority of the respondents (Singleton, 1993).

3.30 Target population

The population is the group of interest to the researcher, the group to which the researcher would like the results of the study to be generalisable (Gay and Airasian, 1996). According to Borg and Gall (1989), target population represents members of a real or hypothetical set of people, events or objects to which the researcher wishes to generalise the results of the study. The target population for this study was secondary school students, Mathematics teachers/HODs/HOSs in the 23 secondary schools in Borabu district. Since it was impossible and uneconomical to study the whole population, a sample was carefully chosen from the target population as shown in the following section.
3.40 Sample Size and sampling procedure

A sample is a small portion of the target population. Sampling is the selection of some part of an aggregate or totality on the basis of which a judgement or inference about the aggregate or totality is made - it is the process of obtaining information about an entire population by examining only a part of it (Konthari and Garg, 2014).

Any statements about that particular sample should also be true of the population (Orodho, 2004). According to Gay (1992), when the target population is small i.e. less than 1000 members, a minimum sample of 20% of the target population is enough for educational research. It is however good practice to have an optimum sample size - it should neither be excessively large nor too small (Konthari and Garg, 2014) as this works to minimise sampling errors.

The researcher used stratified random sampling to select 12 Secondary schools for the study. The researcher being aware that the target population did not constitute a homogeneous group of schools, the researcher opted for stratified sampling. The researcher stratified the schools into two strata i.e. the 12 boarding schools formed the 1st strata and the 11 day schools formed the second strata, then proportional stratified sampling was done to obtain the 12 schools used in the study i.e. 52.17% of 12 schools to get the number of boarding schools and 48.83% of 12 schools to get the number of day schools that participated in the study. Stratified random sampling has the advantage of providing greater precision, requires a smaller sample, which saves money and guard against an “unrepresentative” sample (Patton (2002); Bill, Gautam & Taposh (2008)). Using simple random sampling, 6 boarding and 6 day secondary schools were selected for the study, 20 students were selected from each school comprising 5 students from each form (form 1-4) from each sampled school and 24 HODs/HOSs/Mathematics teachers were selected two from each sampled school.
Simple random sampling is the most basic form of probability sampling in which each item/member in the research has equal chance of being selected to participate in the research (Bill et al., 2008). With random sampling therefore, there is no opportunity for human bias that can manifest itself. The selection of who to be in the sample is entirely mechanical. The power of random sampling is derived from statistical probability theory and thus it permits confidence generalization from the sample to the larger population it represents (Patton, 2002). From the 23 schools in Borabu District (target population) 12 schools were selected for the study, this was 52.17 % of the targeted schools, which was large enough to give a more precise and representative data that can be used to draw valid conclusions from the findings of the study.

<table>
<thead>
<tr>
<th>Category of the school</th>
<th>No. Of Schools</th>
<th>No. Of Schools sampled</th>
<th>No. Of HODs/HOSs/Maths teachers Sampled</th>
<th>No. Of students sampled</th>
<th>Total No. Of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boarding</td>
<td>12</td>
<td>6</td>
<td>12</td>
<td>120</td>
<td>132</td>
</tr>
<tr>
<td>Day</td>
<td>11</td>
<td>6</td>
<td>12</td>
<td>120</td>
<td>132</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>12</td>
<td>24</td>
<td>240</td>
<td>264</td>
</tr>
</tbody>
</table>

Table 1: Sample matrix

3.50 Data collection instruments

The researcher used questionnaires as the main data collection tool.

3.51 Questionnaires

Questionnaires were used for data collection because it was possible to gather data from a large sample and diverse regions within the shortest time possible thus the researcher was able to save time. Kombo and Tromp (2009) maintains that questionnaires assures respondents of confidentiality, hence allowing them to express their opinions freely and give
more candid answers than it would be if interviews were to be used. Two questionnaires were prepared on the factors driving the need for PST, one for the students and the other for Mathematics teachers/HODs/HOSs. The questionnaires comprised both open-ended and closed-ended items.

3.60 Piloting

Prior to the main research, the researcher pre-tested the questionnaire using two schools (i.e. one boarding school and one day school); these schools were selected randomly from those that were not included in the final research sample. The purpose of the pilot study was to enable the researcher to ascertain the validity and reliability of the instrument and familiarize himself with its administration.

3.61 Reliability of the research instrument

Kombo and Tromp (2009) define reliability as a measure of how consistent the results from a test are after repeated trial. The pilot study therefore enabled the researcher to assess the clarity of the questionnaire items so that those items that were found to be inadequate or vague were modified so as to improve the quality of the research instruments thus increasing their reliability.

3.62 Validity

Kombo and Tromp (2009) define validity as a measure of how well a test measures what it is supposed to measure. Therefore it can be argued that validity is the degree to which the results obtained from the analysis of the data collected actually represents the phenomenon under study. For purposes of this study, the researcher in addition to piloting the questionnaires used face validity and expert judgement to determine the appropriateness and improved the instruments (Borg and Gall, 1989). For face validity the researcher gave the questionnaires to selected mathematics teachers in the District who commented on them on
their appropriateness for the study. The researcher also sought assistance from his supervisor, Professor Gunga, to help in improving content validity of the questionnaires.

3.70 Data collection procedure

The data collection commenced immediately after the research proposal was approved and letter of introduction issued by the University of Nairobi. After which, the researcher met the respective HODs and Mathematics teachers to pave way for the administration of the questionnaires. The researcher administered the questionnaires in person to the sample students and HODs/ Mathematics teachers. To assure the respondents of their confidentiality due to the sensitivity of the topic under study; the respondents were not required to write their names and that of their school in the questionnaire and the schools forming the sample were coded using numbers from B1 to B6 for Boarding schools and D1 to D6 for day schools.

3.80 Data analysis

After collecting all the data, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses, which were corrected to improve the quality of the responses. After data cleaning, the data was coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS) version (IBM SPSS Statistics 20). The statistics used included frequency counts and percentages. The results of data analysis were then presented using frequency distribution tables, pie charts and bar graphs. The open-ended items were analyzed and presented thematically. From the results of the data analyzed, discussion, recommendations, and conclusions were made.
CHAPTER FOUR

4.00 DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.10 INTRODUCTION

This chapter covers presentation & analysis of data collected and the discussion of findings of the study. The main objectives of the study were, to identify the factors that influence secondary school students’ need of private supplementary tuition in Borabu District of Nyamira County, Kenya, and establish the level of success of the ban policy on private supplementary tuition. The first section of the chapter presents the general information data from the respondents. Section two presents data on the syllabus coverage in secondary schools in Borabu District. Section three presents data on the state, intensity & organisation of PST, popular subjects for PST, proportion of students having difficulties in paying PST fee and different forms of private supplementary tuition in secondary schools. Section four presents data on the educational factors influencing the need for private supplementary tuition in secondary schools. Section five present data on the level of success of the ban policy on private supplementary tuition in Kenya. Section six presents the discussions on the findings of the study.

4.20 General information data of the respondents and their schools

The study sought general information data of the respondents including gender and type of school. The study was carried out in secondary schools in Borabu District of Nyamira County, Kenya. The study was conducted among 24 mathematics HODs/HOSs/Teachers and 240 students from a total of 12 secondary schools out of the 21 registered secondary schools in the district. Of the 24 mathematics teachers sampled for the study 79.2 percent were male and 20.8 percent were female. The results were as shown in table 4.1a below. Figure 4.1a show the type of school of the teacher respondents. Of the 240 students sampled for the
study, 46.7 % were male and 53.3 % female. Out of the 240 students, 41.7 % were from boarding schools, 25.4 % were from day schools, 24.6 % were from mixed day and boarding schools and 8.3 % were from a girl’s day and boarding school. Table 4.1b and figure 4.1b shows data on the gender of student respondents and the type of their schools respectively.

Table 4.2a Gender of respondents (Teachers)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19</td>
<td>79.2</td>
<td>79.2</td>
<td>79.2</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>20.8</td>
<td>20.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.2a Type of school of teacher respondents

Figure 4.2a Type of school of Teacher respondents
Table 4.2b. Gender of respondents (Students)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>112</td>
<td>46.7</td>
<td>46.7</td>
<td>46.7</td>
</tr>
<tr>
<td>Female</td>
<td>128</td>
<td>53.3</td>
<td>53.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.2b Type of School of student respondents
4.30 Extent of syllabus coverage in secondary schools

The study sought to find out whether teachers were facing challenges in covering their respective syllabi within the stipulated timelines. To determine this, the teacher respondents were asked to state whether teachers were having difficulties in covering syllabus and which subjects were experiencing more difficulties in syllabus coverage in their schools, to which they responded as shown in table 4.3 below.

Table 4.3 percentage of teachers having difficulties in syllabus coverage

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>23</td>
<td>95.8</td>
<td>95.8</td>
<td>95.8</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The table shows that 95.8% of the respondents indicated that teachers were having difficulties in syllabus coverage and only 4.2% of the respondents indicated that teachers were not having difficulties in covering syllabus. The respondents indicated that Mathematics, Sciences, Languages, Geography and Agriculture were the most affected subjects, yet these are the core subjects in determining whether one will join some of the most prestigious careers. To assist them to cover the syllabus 95% of the respondents utilised morning and evening preps, weekends & public holidays and group discussions. Based on this analysis it was evident that both boarding and day school teachers were having difficulties in syllabus coverage and that one of the strategies that was employed by teachers was PST, thus pointing
out that as much as the ban policy was in place, teachers were still compelled to use PST to cover syllabuses.

4.40 Exploring private supplementary tuition (PST) in secondary schools

In order to understand private supplementary tuition (PST) phenomenon in secondary schools, the researcher sought to find out;

(i) Whether PST was being offered to students despite the government of Kenya’s ban policy on PST
(ii) If PST was being offered, was it optional or compulsory?
(iii) When was it conducted and for how long?
(iv) Organisation of PST classes in secondary schools,
(v) Popular subjects for PST,
(vi) Was PST free or students paid for it?
(vii) What proportion of students were having difficulties in paying PST fee,
(viii) Which was the popular form of private supplementary tuition?

4.41 Private supplementary tuition in secondary school

The study sought to find out whether private supplementary tuition was being offered in secondary schools despite the government ban policy on private supplementary tuition in Kenya being in place. From the data collected from the 240 students, 100 % percent of the respondents agreed that private supplementary tuition was being offered in secondary schools. And 91.7 % of the respondents indicated that PST was compulsory in their respective schools and only 8.3 % of the respondents indicated that PST was optional in their schools. The results of the survey from student respondents were as shown in figure 4.4a and figure 4.4b below.
Figure 4.41a Percentage of secondary schools conducting PST

Figure 4.41b State of private supplementary tuition in secondary schools.
4.42 Time for conducting PST in secondary schools and classes involved

41.67 % of the respondents indicated that PST was being conducted during public holidays, weekends, evening and morning preps. 41.67 % of the respondents indicated that PST was being conducted during weekends, public holidays, 4.30 am-6.00am and 7.30 pm-10.00 pm and only 16.67 % of the respondents indicated that PST was being conducted during morning and evening preps in their schools. Closer analyses of the data reveal that the 16.67 % were from pure day schools and the 41.67 % were either from pure boarding schools or mixed day and boarding schools. The effect of this was that students from day schools had less time for PST as compared to their colleagues in boarding schools. The descriptive data also show that all classes were involved in PST and that teachers taught students of both abilities together during PST lessons. If PST would be found to have a positive effect on students performance as contended by (Kwok,2004), then students from boarding schools are more likely to perform better than their counterparts in day schools consequently students from boarding schools will be better placed in the labour marked by virtue of their superior grades. The data on when PST is conducted and for how long per term is represented by figure 4.42a and figure 4.42b respectively.
Figure 4.42a Time for conducting PST in secondary schools

Figure 4.42b Duration for PST per term in secondary schools.

Figure 4.2b show that 83.33% of the respondents indicated that the duration for PST per term was 6-9 weeks, 8.33% indicated that PST was conducted for 10 weeks per term and 8.33% of the respondents indicated that PST was conducted for 1-3 weeks per term. Based on these
results it can be argued that the optimum duration for PST per term in secondary schools was between 6 weeks and 9 weeks depending on the specific school programme.

4.43 Popular subjects for private supplementary tuition

The descriptive data show that the most popular subjects for PST were mathematics and sciences at 83.33% followed by languages at 11.25% and lastly humanities at 5.417%. These results are in line with studies carried out in other countries (Kwok, 2004; Dindyal and Besoondyal, 2007). Mathematics and Sciences are popular in the “shadow” education system due to the pivotal role played by these subjects in career choice and future professional prospects. In Kenya mathematics and sciences are key cluster subjects in the perceived prestigious careers such as Medicine, Engineering and Architecture.
4.44 Private supplementary tuition (PST) fee

The researcher endeavoured to find out whether PST within mainstream schools (remedial teaching) was free or student paid for it. The descriptive data collected show that 91.7% of the respondents paid for PST services and only 8.3% of the respondents were not paying for PST services. Table 4.44a and Table 4.44b show the percentage of students who were paying or not paying for PST services and the amount they paid for PST services per term respectively.

Table 4.44a percentage of students paying for PST services within the mainstream schools
Do you pay for PST

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>220</td>
<td>91.7</td>
<td>91.7</td>
<td>91.7</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>8.3</td>
<td>8.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.44b Amount of fee paid by students for PST per term (three months)
how much do you pay

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not pay</td>
<td>20</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>less than sh. 500</td>
<td>20</td>
<td>8.3</td>
<td>8.3</td>
<td>16.6</td>
</tr>
<tr>
<td>sh.501-sh. 1000</td>
<td>140</td>
<td>58.4</td>
<td>58.4</td>
<td>75.0</td>
</tr>
<tr>
<td>sh.1001-sh.2000</td>
<td>20</td>
<td>8.3</td>
<td>8.3</td>
<td>83.3</td>
</tr>
<tr>
<td>sh.3001-sh.5000</td>
<td>40</td>
<td>16.7</td>
<td>16.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The descriptive data having shown that private supplementary tuition was compulsory and in 11 (91.7% of the respondents) out of the 12 schools sampled for the study, students paid for PST services. And that 83.4% of the students (respondents) were in schools that charged between sh. 500 and sh.5000 per term which translates to sh. 1500 to sh.15000 per year. This extra financial burden is shouldered on the parents, for the poor parents this may be hard to raise thus students from such poor parents were likely to be disadvantaged as those who could not pay for PST are either send away for the fee or not allowed to attend PST classes despite the government’s policy on free day secondary. Table 4.44c below show that in four schools less than a quarter of the students were having difficulties in paying private supplementary tuition fee, in one school a quarter of the students were having difficulties in paying private supplementary tuition fee, in three schools half of the students were having difficulties in paying private supplementary tuition fee and in three schools three quarters were having difficulties in paying PST fee. To address the challenge of a good proportion of students missing out subject content that is taught during PST lessons due to PST fee
problems, the Government need to rethink on its blanket ban policy and approach PST phenomenon proactively by involving major stakeholders to come up with a national policy framework that would allow all students benefit fully from PST services irrespective of their financial status.

Table 4.44c Proportion of students having difficulties in paying PST fee from teachers’ survey
proportion of students having difficulties in paying PST fees

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a quarter</td>
<td>8</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>a quarter</td>
<td>2</td>
<td>8.3</td>
<td>8.3</td>
<td>41.7</td>
</tr>
<tr>
<td>Half</td>
<td>6</td>
<td>25.0</td>
<td>25.0</td>
<td>66.7</td>
</tr>
<tr>
<td>three quarters</td>
<td>6</td>
<td>25.0</td>
<td>25.0</td>
<td>91.7</td>
</tr>
<tr>
<td>None</td>
<td>2</td>
<td>8.3</td>
<td>8.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
4.50 Level of success of the Government ban policy on private supplementary tuition

Both the student and teacher respondents were asked to state whether the government ban policy on PST has been successful in eliminating PST from mainstream schools. The descriptive data on the level of success of the ban policy is as shown in figure 4.50a and figure 4.50b below.

Figure 4.50a Teachers’ response on the level of success of the ban policy

[Diagram showing the level of success of the ban policy with a pie chart indicating minimal success]
100% of the teacher respondents asserted that the ban policy has not been successful in eliminating PST from schools because schools were still offering PST and at a fee despite the policy being in place. 235 students out of the 240 students sampled indicated that the ban policy has not been effective in eliminating PST from schools. The 5 students who indicated that the ban policy has been successful looked at PST as holiday tuition but they had indicate that their schools were offering ‘remedial teaching’ and at a fee. Based on these findings the researcher contends that the government of Kenya’s ban policy on PST has not been successful. And that it would not be possible to implement the ban policy in Kenya due to the perceived benefits associated with PST on students’ academic performance.
4.60 Exploring on the Educational factors influencing the need for private supplementary tuition (PST) in secondary schools despite the government ban policy on PST

To determine the factors influencing the need for private supplementary tuition by secondary school students, the teacher and student respondents were asked to indicate their level of agreement with different perceived factors behind the need for PST. This was tested on a five point likert scale of 1-5; where 1 represented “Strongly Agree”, 2 represented “Agree”, 3 represented “Undecided”, 4 represented “Disagree” and 5 represented “Strongly Disagree”. The results were as presented in figure 4.60a-4.60g and Table 4.60a-4.60g.

Figure 4.60a Students’ response on influence of consumers’ academic satisfaction on PST

![Bar Chart]
Figure 4.60b Students’ response on influence of consumers’ academic aspirations on PST

Parents’ students’ academic aspirations—those with higher academic aspirations are more likely to enrol in holiday tuition classes or employ teachers to teach them/their children during holidays than those with low academic aspirations.

Figure 4.60c Students’ response on influence of type of school on PST

Type of school (day or boarding)—students in boarding schools attend remedial classes for more hours than those in day schools.
Figure 4.60d Students’ response on influence of syllabus coverage on PST

Subject content (syllabus coverage)/teacher workload/PST (remedial classes) exists because teachers are not able to complete syllabus in the stipulated time.

Figure 4.60e Students’ response on influence of increased competition for limited opportunities in institutions of higher learning on PST

Increased competition for limited opportunities in institutions of higher learning (Universities) compels students and schools to attend and organise PST (remedial) Clases.
Figure 4.60f Students’ response on influence of popularity of certain subjects on PST

Students are more likely to seek PST (remedial or and holiday coaching) services in Maths, Sciences (Chem, Phy. & Bio) and English than in humanities and technical subjects.

Figure 4.60g Students’ response on influence of ranking of schools and students by KNEC on PST

Ranking of schools by KNEC puts schools and students under pressure to perform better such pressure compels schools & students organise & attend remedial teaching (PST) so as boost the school mean & individual student mean (Grade).
Table 4.60a Teachers’ response on influence of consumers’ academic satisfaction on PST
Academic satisfaction—students and parents who are not satisfied with their performance in the mainstream schooling are more likely to seek PST services (remedial teaching or holiday coaching).

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>20</td>
<td>83.3</td>
<td>83.3</td>
<td>83.3</td>
</tr>
<tr>
<td>Agree</td>
<td>3</td>
<td>12.5</td>
<td>12.5</td>
<td>95.8</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.60b Teachers’ response on influence of consumers’ academic aspirations on PST
Parents’/students’ academic aspirations—those with higher academic aspirations are more likely to enrol in holiday tuition classes or employ teachers to teach them/their children during holidays than those with low academic aspirations.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>11</td>
<td>45.8</td>
<td>45.8</td>
<td>45.8</td>
</tr>
<tr>
<td>Agree</td>
<td>11</td>
<td>45.8</td>
<td>45.8</td>
<td>91.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>95.8</td>
</tr>
<tr>
<td>strongly disagree</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 4.60c Teachers’ response on influence of type of school on PST

Type of school (day or boarding)-students in boarding schools attend remedial classes for more hours than those in day schools.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>10</td>
<td>41.7</td>
<td>41.7</td>
<td>41.7</td>
</tr>
<tr>
<td>Agree</td>
<td>12</td>
<td>50.0</td>
<td>50.0</td>
<td>91.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>8.3</td>
<td>8.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.60d Teachers’ response on influence of syllabus coverage on PST

Subject content (syllabus coverage)/teacher workload-PST (remedial classes) exists because teachers are not able to complete syllabus in the stipulated time.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly disagree</td>
<td>14</td>
<td>58.3</td>
<td>58.3</td>
<td>58.3</td>
</tr>
<tr>
<td>Agree</td>
<td>9</td>
<td>37.5</td>
<td>37.5</td>
<td>95.8</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Increased competition for limited opportunities in institutions of higher learning (Universities) compels students and schools to attend and organise PST (remedial) Classes.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>16</td>
<td>66.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Agree</td>
<td>8</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Popularity/type of subject-students are more likely to seek PST (remedial or/holiday coaching) services in Maths, Sciences (-Chem. Phy. & Bio) and English than in humanities and technical subjects.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>11</td>
<td>45.8</td>
<td>45.8</td>
</tr>
<tr>
<td>Agree</td>
<td>10</td>
<td>41.7</td>
<td>41.7</td>
</tr>
<tr>
<td>Disagree</td>
<td>3</td>
<td>12.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 4.60g Teachers’ response on influence of ranking of schools and students by KNEC on PST

Ranking of schools by KNEC puts schools and students under pressure to perform better- such pressure compels schools & students organise & attend remedial teaching (PST) so as boost the school mean & individual student mean (Grade).

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
<td>6</td>
<td>25.0</td>
<td>25.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>75.0</td>
<td>75.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The descriptive data in figures 4.60a-4.60g and table 4.60a-4.60g above show that 95.8% of the teacher respondents and 94.58 % of the student respondents were generally in agreement that the need for private supplementary tuition was influenced by academic satisfaction of the consumers and that students and parents who were not satisfied with their performance in the mainstream schooling and those who perceived the quality of education in the mainstream school to be of poor quality were more likely to seek PST services. These findings were similar to the findings of the study that was done by (Dang, 2007). 91.6 % of the teacher respondents and 77.5 % of the student respondents were generally in agreement that parents and students who had higher academic aspirations were more likely to enrol their children or enrol in holiday tuition centres or employ teachers to teach their children or them during holiday tuition than those with low academic aspirations, the findings of this study corroborates that of the study by (Tansel and Bircan, 2008).
The study found out that 91.7 % of the teacher respondents and 86.67 % of the student respondents agreed that students in boarding schools benefitted more from PST than their colleagues in day schools as they had more time at their disposal that was usually utilised for PST services. The researcher argues that if PST has a positive correlation with performance then it will imply that students in boarding schools were more likely to perform better than their day school colleagues. Thus students from boarding schools would be better placed in the labour market upon graduation, a trend if allowed to persist for long without being addressed then the haves will continue occupying prestigious positions in the labour market and the have-nots would continue “wallowing in poverty” despite the perception that education should act to minimise such inequalities. 95.8 % of the teacher respondents and 79.58 % of the student respondents indicated that they were either strongly in agreement or in agreement with the proposition that remedial teaching in mainstream schools was fuelled by wide syllabi. The respondents argued that the syllabus in a number of subjects at secondary school level was too wide and thus teachers were not able to cover the required syllabi within the stipulated timelines. To assist them cover the syllabus before students sit for KCSE they resort to PST. These findings were similar to the findings by the study by (Dindyal and Besoondyal, 2007).

Increased competition for limited opportunities in institutions of higher learning (Universities) and ranking of schools and students by KNEC were rated highly by both teacher respondents at 100 % and student respondents at 96.67 % as factors influencing the need for private supplementary tuition in secondary school. The study by Bray (2013); Tansel and Bircan (2008) in which they contended that private supplementary tuition was widespread in countries where the education system was examination oriented and ranking of schools was emphasised validates the findings of this study.
Bray (1999, 2010, 2013); Bray and Kwok (2003); Dang (2007); Dindyal and Besoondyal (2007) argued that students sought PST services in Mathematics, sciences and Languages more than in humanities and art subjects were confirmed in this study where 87.5 % of the teacher respondents and 90 % percent of the student respondents indicated that students were more likely to seek PST services in mathematics, sciences and languages than in humanities and technical subjects.

4.70 The perception of stakeholders (students and teachers) on private Supplementary tuition (PST) in secondary schools

4.71 Teachers’ Response on whether private supplementary tuition (PST) should continue to be offered to students

In establishing teachers’ opinion on whether private supplementary tuition should continue to be offered to secondary school students, teachers were asked to indicate whether they would like PST to continue being offered to students. The findings of the study were as presented in figure 4.70 below
Figure 4.70 Teachers’ opinion on whether PST should continue being offered to secondary school students

Figure 4.70 shows that 91.67% of the teachers indicated that they were of the opinion that private supplementary tuition should continue being offered to secondary school students while only 8.33% of the teachers indicated that they were not for the opinion that PST should continue being offered to secondary school students. Those teachers who were in support of PST argued that private supplementary tuition helped them to cover the syllabus in good time thus giving them enough time to revise with students before they sat for KCSE, some argued that PST helped slow learners to master subject contents thus boosting their academic performance, PST kept students busy during free time thus minimising the chances of students engaging in bad habits such as drug abuse, they also observed that PST assisted schools and students to post good grades at KCSE level. The findings of this study were in line with the findings by (Bray, 2013; Dang, 2007; Dindyal and Besoondyal, 2007; Tansel and Bercan, 2008)).
Those teachers who were opposed to private supplementary tuition argued that PST turned students into robots as they are not trained to read on their own and understand concepts, students did not concentrate during normal classes because they were sure that the same content will be repeated during remedial classes and that it robbed students their free time and burdened parents financially.

4.72 Students’ Response on whether private supplementary tuition (PST) should continue to be offered to them

To establish the students’ opinion on private supplementary tuition, they were asked to indicate whether they would like private supplementary tuition to continue being offered to students. The findings were as presented in Table 4.70 below.

Table 4.70 Students’ opinion on whether PST should continue being offered to secondary school students

<table>
<thead>
<tr>
<th>Would you recommend PST to continue being offered?</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>216</td>
<td>90.0</td>
<td>90.0</td>
<td>90.0</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>10.0</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>240</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4.70 shows that 90% of the students indicated that they would like private supplementary tuition to continue being offered to secondary school students and only 10% of the students were not in support of PST. The students who were in support of PST argued that it provided an opportunity to high achievers to revise their work so as to boost their good performance, they also observed that PST gave weak students an opportunity to re-do and understand what they had not understood during normal classes. The students claimed that,
they gained more from their teachers during PST lessons than during normal classes. They indicated that teachers attended all remedial lessons because they were paid per hours attended and that PST helped in syllabus coverage. Those opposed to PST argued that PST made teachers miss their normal classes because they were sure of covering syllabuses using remedial classes, PST was not free and thus burdened their parents and robbed them time to rest.

4.80. Popular form of private supplementary tuition in Borabu District of Nyamira County, Kenya

In determining the most popular forms of private supplementary tuition, the respondents were asked to choose the popular PST form from the three forms i.e.

a. Remedial teaching-PST offered within the mainstream schools and by regular classroom teachers

b. One on One PST- Normally takes place at the teachers’ or clients’ (students’) homes

c. Holiday tuition (Coaching) – normally takes place at holiday tuition centres and offered by teachers who must not be necessarily the mainstream classroom teachers for the students

The results for the study were as shown in table 4.80 below.
Table 4.80 Teachers’ response on the popular PST form

which is the popular PST form

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>one on one</td>
<td>1</td>
<td>4.2</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>Remedial</td>
<td>23</td>
<td>95.8</td>
<td>95.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

As shown in table 4.80 above, 95.8 % of the teachers indicated that the most popular PST form in Borabu district was remedial teaching-PST offered within the mainstream schools and by regular classroom teachers and only 4.2 % of the respondents indicated that One on One PST which normally take place at the teachers’ or clients’ (students’) homes was popular while none of the respondents chose Holiday tuition (Coaching) which take place at holiday tuition centres and offered by teachers who must not be necessarily the mainstream classroom teachers for the students as the popular PST form. The 95.8 % respondents in support of “Remedial” as the popular form of PST argued that “remedial teaching” was relatively cheap than the other two forms thus most parents would afford it, it serves both the rich and the poor thus minimising inequalities in education, it allows mainstream teachers to monitor the progress of their students, it minimises student indiscipline, it gives mainstream teachers enough time to cover the syllabuses and it is the most ideal form for students in boarding schools.
4.90 Discussion of the study findings

Having analysed the data and seen what has emerged from the results, the focus now turns to discussing the implications of these results. The study revealed that secondary school teachers were having difficulties in covering syllabuses in good time. Even though the teachers were aware of the government’s ban policy on PST, they still saw a need to offer private supplementary tuition to secondary school students. This might imply that the tuition given by the teachers during the mainstream school hours is regarded as inadequate to cover the stipulated syllabuses within the set timelines and give them humble time to revise with form four candidates before they sit for KCSE examinations. Some teachers may be teaching the stipulated syllabuses at a relatively slower pace or miss some of their lessons during the normal mainstream class hours so as to indirectly create need for PST with the sole aim to earn an extra tax-free income to supplement their meagre salaries. In this regard the study has attempted to provide an idea on why it would be very difficult to implement the ban policy on PST before first addressing the underlying causes.

The need for private supplementary tuition by students and teachers in secondary schools, as evident in the study where 100% of the schools sampled were found to be offering PST despite the government’s ban policy on PST being in place, vindicates an argument presented in section 2.70, where it was argued that the ban policy on PST in Kenya was facing challenges in its implementation and that no government globally had attempted to ban PST and succeeded. The study has made an attempt to provide information on the proportion of students that were having difficulties in paying private supplementary tuition fee, the study has empirically demonstrated that a reasonable percentage of students in both boarding and day schools were missing out on the subject content that was being taught during PST lessons, consequently such students a bulk of whom are from poor family backgrounds were
likely not to perform optimally in examinations. We contend that if the trend is allowed to continue without formulating policies that would ensure that students from poor family backgrounds are assisted to participate fully in all forms of education, participation in the labour market would be skewed toward the rich who are able to pay for PST services. The implication here is that the country would not be able to realise equity in education and that the gap between the rich and the poor will continue widening.

What also emerged from the study is that an average of 96.97% of the respondents indicated that the need for PST in secondary schools was highly influenced by ranking of schools and students by KNEC when realising national examinations i.e. KCSE. Increased competition for limited opportunities in institutions of higher learning was ranked 2nd as an influential factor behind the need for PST in secondary school with an average of 95.45% of the respondents agreeing that it influences the need for PST in secondary schools. An average of 94.67% of the respondents indicated that parents and students who were not satisfied with their performance in the mainstream schools were more likely to seek PST services i.e. the perceived poor quality of education in the mainstream education influences the need for PST in secondary schools. This finding supports Bray and Kwok (2004) findings that had found that the existence and continued flourishing of PST was as a result of the perceived poor quality in the mainstream schooling.

The popularity of certain subjects such as mathematics, sciences and languages was ranked 4th in influencing the need for PST in secondary schools with 89.77% of the total respondents indicating that mathematics, sciences and languages influenced the need for PST among secondary school students. This confirms the studies by (Bray, 2007, 2013; Dindyal & Besoondyal, 2007). 87.12% of the total respondents indicated that the need and intensity for PST was influenced by the type of school, they claimed that students in boarding schools were using PST services more and for more hours than their colleagues in day schools.
Another factor that influences the need for PST by secondary school students was overloaded syllabus. 81.06% of the respondents indicated that PST continued to exist in secondary schools despite the government ban policy being in place because the syllabuses were too wide to be covered within the stipulated timelines. Finally 78.79% of the respondents indicated that consumers’ academic aspiration plays a role in influencing the need for PST in secondary schools. The respondents hold that consumers who have higher academic aspirations were more likely to use PST services than those with low academic aspirations. Generally the study empirically established that there were very strong educational factors behind the need for private supplementary tuition in secondary schools, thus vindicating our earlier argument in section 2.52 in which we contended that educational factors influences the need for PST than economic and social factors combined.

The study has not only empirically demonstrated that the government of Kenya’s ban policy on PST has not been successful in eliminating the use and need for PST in secondary schools but it has also shown that 91.67% of the teachers and 90% of the students were of the opinion that PST should be allowed to continue being offered to secondary school students. Teachers and students were of the opinion that PST was an option that helped them to boost individual students’ performance and the overall performance of their schools. Kenya being among the many countries that uses examination as a screening tool in selecting who proceeds to the next level in the educational ladder, it would be disastrous to try and force students, teachers and parents to completely abandon using PST and yet at the end of the four year cause the future of the students would be determined by the grades they would have scored at KCSE.

In summary the findings of this study point out that 100% of the schools sampled were offering private supplementary tuition despite the government’s ban policy being in place in Kenya. It was found that 11 out of the 12 schools sampled charged students between sh. 500 to sh. 5000 per term for PST services and that a good number of students had difficulties in
paying PST fee. It was also observed that remedial teaching was the most popular form of PST in Borabu district and the respondents agreed that there were very strong educational factors behind the need for PST in secondary schools. The respondents further argued that PST was important and they would advocate PST to continue being offered to secondary school students.

Our argument is that PST having been perceived to have positive correlation with students’ academic performance and the study having demonstrated that the ban policy on PST has not been successful since its introduction in 1999, it would be more rational to lift the ban policy and instead actively encourage and support PST at secondary level while regulating it to mitigate abuse.
CHAPTER 5

5.00 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of the findings, conclusions and recommendations of the study. It also gives suggestions for further research. As pointed out in chapter one and chapter two in this study, private supplementary tuition is not a unique phenomenon in Kenya only, it is a worldwide phenomenon with far reaching implications in the mainstream educational system. We argue that PST exists and thrives in very competitive environments, in societies where people have placed very high premiums in education and where social and economic advancement are dependent on one’s educational qualifications.

Kenya as a nation embraces the ideals of capitalism and remains one of the most competitive societies in East and Central Africa. The demand for University education in Kenya surpasses supply, the Kenyan people have became so obsessed with university education such that parents, students and teachers are willing to do anything within their means to keep a competitive edge over their colleagues so as to attain minimum grades that will guarantee their children a place in the limited government sponsored institutions of higher learning and most probably train in the so called prestigious careers such as medicine. It has been demonstrated in this study that one of the most popular interventions employed by schools, parents and students so as to keep a competitive edge and avoid obtaining grade E at KCSE is private supplementary tuition.

The findings of this study have demonstrated that there are very strong educational factors that influence the need for private supplementary tuition in secondary schools. Some of the factors driving the need for PST in secondary schools include, very high competition for limited opportunities in government sponsored institutions of higher learning, ranking of schools and students by KNEC, very high academic aspirations of parents and students,
overloaded curriculum, desire by low achievers to struggle and avoid being assigned grade E by KNEC, the pivotal role played by certain subjects such as mathematics and sciences in determining one’s career and future job prospects when looked at from the human capital point of view, type of school one is schooling and the perceived poor quality of education in the mainstream schooling.

The findings of this study have shown that the government of Kenya’s ban policy on PST has not been successful in eliminating use of PST in secondary schools in Borabu district of Nyamira County, Kenya. It is our view that the government’s insistence on the ban policy is an exercise in futility, for there is no single country that has taken this route and succeeded. The researcher argues that as long as the education system in Kenya remains examination oriented, teachers remain poorly remunerated, the Kenyan people continue placing very high premiums on university education with very little attention on vocational education, ones employability and remuneration remains dependent on one’s academic papers and not practical knowledge and parents remain obsessed with their own children’s wellbeing; PST would remain part and parcel of the education system in Kenya. The researcher contend that even if the government of Kenya were to succeed in eliminating the use of PST in schools, the need for PST by secondary schools students would have not been quenched. We argue that in the absence of mainstream PST (“remedial teaching”) the other two forms of PST i.e. one on one individualised PST which normally take place at the consumer’s or provider’s home and holiday tuition coaching which usually take place at holiday tuition centres will thrive more than they are at present. The resultant effect of such a move would be exploitation of the consumers as there are no laws regulating their operations, the poor and those in rural areas will not benefit from these PST forms as they are comparatively expensive than the mainstream school PST and are mostly localised in urban areas, consequently children from poor backgrounds would most likely be left behind in the
education “race” and their participation in the labour market as equal partners with their rich counterparts will forever remain a “sweet dream” that would never came be true. Would this be the Kenya we would wish to build in the 21st century? Certainly not!

Having demonstrated that there are strong factors driving the need for PST in secondary schools and that the ban policy has not been effective in eliminating PST from secondary schools, the researcher argues that in order to mitigate abuse, eliminate the negative implications and create a conducive environment where all students can benefit fully from PST irrespective of their academic, social and financial stature, the government ought to engage major stakeholders in education to come up with a national policy framework that would allow PST be, but eliminate abuse. Finally the researcher proposes that the government of Kenya should consider lifting the ban policy and work towards recognizing, actively encouraging and regulating private supplementary tuition especially in secondary schools if we have to build a more just, inclusive, cohesive and competitive society anchored on hard work and personal effort in improving ones status in social, economic and political arena through a non discriminative education system.

5.10 Recommendations

While private supplementary tuition has some disadvantages (e.g., exacerbation of educational inequalities if not monitored and regulated, burdening parents financially and overworking students), the advantages of private supplementary tuition such as increasing human capital, constructively occupying students during free time and during holidays while their parents are at work, assisting students and schools to post good grades, assisting teachers to cover syllabuses and helping slow learners to work towards avoiding to be assigned grade E by KNEC are some of reasons why the government ought to rethink on its ban policy and come up with a national policy frame work that would work to optimally
utilise PST to the benefit of all secondary school students while eliminating it’s abuse. Based on the analysis of the study, the researcher wishes to make the following recommendations;

i. The government need to lift the ban policy and instead the government should recognize, actively encourage and regulate private supplementary tuition in secondary schools. The researcher proposes that mainstream PST should be allowed to continue under the following guidelines;

a. Parents must not shoulder the financial burden; instead the government through the ministry of education should provide funds to cater for PST. This will ensure that both the rich and the poor will benefit from PST thus minimise stratification in education.

b. All teachers offering PST should be paid an equal amount per hour irrespective of the type of school and only those who attend to students during PST classes should be paid.

c. During PST classes a minimum of 20 and a maximum of 30 students per class should be maintained so as to maximise effective teaching-learning process.

d. Students must be grouped according to their abilities and the same subject content taught but at different pace so as both the slow learners and faster learners can benefit fully from PST without disadvantaging any group.

e. Teachers should be paid at the end of each week and this money should be tax free so as to encourage more mainstream teachers to take part during PST lessons at a relatively cheaper rate than what they would be paid in holiday tuition centres.

f. The government would raise the amount for running PST programmes by minimising expenditure on non priority and unsustainable programmes such as the proposed free laptops for class one pupils by the Jubilee government. The
amount set aside for such a project can be prudently utilised by setting up computer laboratories in each school and the remaining amount set aside for PST. Members of both the senate and national assembly should be sensitised on the importance of coming up with bills on education that aim at improving the quality of education rather than contemplating to come up with bills such as issuing of condoms to students in schools that are likely to negatively impact academic performance in our schools.

g. All schools should be required to allow students a minimum of two weeks break at the end of each term and utilise the other two weeks for PST.

ii. The government should allow holiday tuition centres (HTC) to operate in all counties in the country. All HTC should operate under the following guidelines;
   a. All HTC must be registered with the ministry of education
   b. All HTC must be headed by a qualified and registered teacher by TSC (teachers service commission) and all teachers teaching in HTC must be those trained to teach at secondary level or those that have quality grades i.e. B plain and above in their respective subjects at KCSE level if they are not trained teachers.
   c. The ministry must set the minimum and maximum amount to be charged per subject so as to avoid exploitation.
   d. All HTC must pay Taxes on the revenue raised.
   e. All HTC must ensure safety of students and make sure that their teachers uphold the teaching ethics.

iii. One on one individualised teaching should be allowed and left to operate on market forces.
iv. The government through the ministry of education initiate a national debate on private supplementary tuition (PST), the debate should focus on the root causes behind the existence and flourishing of PST. Understanding the factors driving the need for PST in schools will assist the education sector to look for modalities that would assist all students benefit from its use irrespective of their financial and social status, in so doing the country will work to reduce exacerbation of educational inequalities as witnessed currently.

5.20 Areas for further research

The researcher suggests that;

i. A study should be conducted on the effect of PST on students’ academic achievement in Kenya.

ii. A study on the influence of economic, social and geographical factors on the need for PST in secondary schools in Kenya should be conducted.

iii. A study on the impact of PST on the realisation of free day secondary school in Kenya.

iv. A study should be done on the effect of political declarations disguised as educational policies on the quality of education in Kenya.

v. A study should be done on an analysis on PST and equity in education in Kenya.
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APPENDICES

7.00 APPEDIX I: Letter of Introduction

LETTER OF INTRODUCTION

Ayieko G. Mogaka,

P.O.Box 910-40500,

Nyamira,

Through:

The School of Education

University Of Nairobi

P.O. Box 30197,

KIKUYU.

Dear respondent,

RE: QUESTIONNAIRE ON FACTORS THAT INFLUENCE THE NEED FOR PRIVATE SUPPLEMENTARY TUITION IN SECONDARY SCHOOLS: A CASE STUDY OF SELECTED SCHOOLS IN BORABU DISTRICT OF NYAMIRA COUNTY, KENYA.

I am a postgraduate student at The University of Nairobi pursuing a master’s degree in Education. I am carrying out a research on the factors that influence the need for Private supplementary Tuition in Secondary: a case study of selected schools in Borabu district of Nyamira county, Kenya. The attached Questionnaire is aimed at gathering relevant information in relation to the area under research. Your response will be held in strict confidence. Please complete all the sections as objectively as possible. Your co-operation will be highly appreciated. All information that is collected in this study will be treated confidentially.

Yours faithfully

AYIEKO G. MOGAKA
7.10 APPENDIX II: Questionnaire for Students

Questionnaire for students

Introduction and Guidelines

The purpose of this questionnaire is to assist in carrying out a research on the factors influencing the need for Private supplementary Tuition (PST) (Remedial Teaching or Extra Classes and Hosliday tuition/coaching) in Secondary Schools: a case study of selected schools in Borabu District of Nyamira County, Kenya.

Please provide answers to all the following questions and be as accurate and honest as possible.

Any information you give will be used for academic purposes only and will be treated as confidential. Please attempt all the questions.

Note. Please do not write your name and the name of your school in this questionnaire

Tick (√) for the appropriate response in the cell provided or write your answer in the blank spaces provided.

Section A: General Information

1. What is your gender?
   Male [ ]       Female [ ]

2. Which of the following best describe the type of your school?
   (Please tick (√) one choice).
   Boarding School [ ]       Day school [ ]       Mixed Day and Boarding [ ]
   Form fours are boarders [ ] Form three and form four are boarders [ ].

3. Please indicate your current form/class.
   Form I [ ]       Form II [ ]       Form III [ ]       Form IV [ ]

SECTION B: Exploring the extent of private supplementary tuition (PST) in secondary schools.

4a). Does your school conduct private supplementary tuition (PST) (Remedial teaching)?
   (Please tick (√) inside the bracket.)
   Yes [ ]       No [ ]
4b). If Yes, which classes are, involved (taught) in private supplementary tuition (Remedial classes) in your school? (Please tick (√) inside the bracket.)

Form I [ ] Form II [ ] Form III [ ] Form IV [ ]
Form III and IV [ ] All Forms (Classes) [ ]

c). Is private supplementary tuition (remedial classes) in your school optional or compulsory? (Please tick (√) inside the bracket.)

Optional [ ] Compulsory [ ]

5a). When is private supplementary tuition (Remedial teaching) conducted in your school? (Please tick (√) inside the bracket; you may tick in more than one bracket if they are applicable in your school.)

i. Very early in the morning (morning preps) and Evening preps [ ]
ii. During Weekends [ ]
iii. Public holidays, weekends and evening & morning preps [ ]
iv. During School holiday [ ]
v. 4.30 am-6.00am, 7.30 pm -10.00pm(morning and night/evening preps), weekends, public holidays,[ ]
vi. A week before or after official date for closing or opening schools [ ]
vii. Other (please specify )

5b). State the time taken per session (lesson) during private supplementary (remedial teaching) tuition (Please tick (√) inside the bracket.)

40 minutes [ ] 1 hour [ ] 2 hours [ ] 2 -3 hours [ ]

More than 3 hours [ ]

6. In which subjects are you taught during remedial teaching?

...............................................................................................................................
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7a. If you are given an option to choose the subjects that you would wish to attend during remedial teaching/Holiday coaching/tuition (PST), which subjects would you prefer?

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...............................................................................................................................

7b. Why do you think you need remedial teaching/holiday coaching (PST) in the subjects you have chosen in 7a above?
8. Do you pay for remedial classes (PST) in your school? (Please tick (√) inside the bracket.)
   Yes [  ]   No [  ]

9. How much do you pay for private supplementary tuition (remedial teaching) per Term? (Please tick (√) inside the bracket.)
   Less than Sh.500 [  ] Sh.501-1000 [  ] Sh.1001-2000 [  ]
   Sh.2001-3000 [  ] Sh.3001-5000 [  ] over Sh.5000 [  ]

10. Have you ever attended holiday tuition/coaching when schools are closed? (Please tick (√) inside the bracket.)
    YES [  ]   NO [  ]

11b. If yes how much do you pay? .................................................................

12. Which subjects are commonly taught at holiday tuition centres or (advertised for holiday tuition(coaching).
    ........................................................................................................................
    ........................................................................................................................
    ........................................................................................................................

13a. If you were in a position to decide would you recommend PST (remedial teaching/extra classes or/and holiday tuition) to continue being offered to secondary school students? (Please tick (√) inside the bracket.)
    YES [  ]   NO [  ]

13b. Give at least 3 reasons for your answer in 13a above.......................................................
    ........................................................................................................................
    ........................................................................................................................
    ........................................................................................................................

14. In your own assessment, has the ban on private supplementary tuition/Remedial teaching/Holiday tuition/Extra Classes been successful in eliminating PST in schools and holiday coaching?
    Yes [  ]   No [  ]
SECTION C. Exploring the factors influencing the need for private supplementary tuition (PST) in secondary schools.

15. The following are some of the reasons advanced to explain why students attend private supplementary tuition (Remedial, holiday tuition or individualised tuition in their homes or teachers homes). To what extent do you agree. Please, put a tick (✓) in the appropriate cell only.

<table>
<thead>
<tr>
<th>Factors influencing the need for PST (private supplementary tuition) in secondary schools.</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic satisfaction—students and parents who are not satisfied with their performance in the mainstream schooling are more likely to seek PST services (remedial teaching or holiday coaching).</td>
<td></td>
<td></td>
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<tr>
<td>2. Parents’/students’ academic aspirations—those with higher academic aspirations are more likely to enrol in holiday tuition classes or employ teachers to teach them/their children during holidays than those with low academic aspirations.</td>
<td></td>
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<tr>
<td>3. Type of school (day or boarding)—students in boarding schools attend remedial classes for more hours than those in day schools.</td>
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</tr>
<tr>
<td>4. Subject content (syllabus coverage)/teacher workload—PST (remedial classes) exists because teachers are not able to complete syllabus in the stipulated time.</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Factors influencing the need for PST (private supplementary tuition) in secondary schools.</td>
<td>Strongly agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>5. Increased competition for limited opportunities in institutions of higher learning (Universities) compels students and schools to attend and organise PST (remedial) Classes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Popularity/type of subject-students are more likely to seek PST (remedial or/and holiday coaching) services in Maths, Sciences (-Chem. Phy. &amp; Bio) and English than in humanities and technical subjects.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7. Ranking of schools by KNEC puts schools and students under pressure to perform better- such pressure compels schools &amp;students organise &amp;attend remedial teaching(PST) so as boost the school mean &amp;individual student mean(Grade).</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other factors. (Please write any other factors you think are responsible for the increased use of PST (remedial or/and holiday tuition (coaching). 8.</td>
<td></td>
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<tr>
<td>9.</td>
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</tr>
</tbody>
</table>

THANK YOU FOR COMPLETING THE QUESTIONNAIRE.
APPENDIX III: Questionnaire for Mathematics Teachers/ HODs/HOSs

Questionnaire for Mathematics Teachers/HODs/HOSs

Introduction and Guidelines

The purpose of this questionnaire is to assist in carrying out a research on the factors influencing the need for Private supplementary Tuition (Remedial Teaching or Extra Classes and Holiday tuition/coaching) in Secondary Schools: a case study of selected schools in Borabu District of Nyamira County, Kenya.

Please provide answers to all the following questions and be as accurate and honest as possible.

Any information you give will be used for academic purposes only and will be treated confidentially. Please attempt all the questions.

Note: please you are not required to write your name and that of your school in this questionnaire

Tick (√) for the appropriate response in the cell/bracket provided or write your answer in the blank spaces provided.

Section A: General Information

1. What is your gender?

   Male [ ] Female [ ]

2. Which of the following best describe the type of your school?

   (Please mark one choice).

   Boarding School [ ]     Day school [ ]     Mixed Day and Boarding school [ ]
   Form fours are boarders [ ]     Form four and form three are boarders [ ]

3. For how long have you served as a teacher?

   1-5 years [ ]       6-10 years [ ]       11-15 years [ ]       more than 15 years

4a. What is your subject combination? Mathematics and

4b. How many years have you taught mathematics?

   1-5 years [ ]       6-10 years [ ]       11-15 years [ ]       more than 15 years
5. Which forms/Classes are you currently teaching?

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>FORM</th>
<th>No. of students per class/stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
<td></td>
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<td>Mathematics</td>
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<td>Mathematics</td>
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<td>Your second subject</td>
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<td>Your second subject</td>
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<tr>
<td>Your second subject</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Please indicate the school mean and mathematics mean for the following years.

(please tick (√) the range of your KCSE School mean & Mathematics mean against each year)

<table>
<thead>
<tr>
<th>Mean</th>
<th>School Mean</th>
<th>Mathematics Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5-6.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5-9.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5-12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION B: Extent of syllabus coverage in secondary schools

7a. Are you experiencing difficulties in completing the syllabus in the allocated class time? (Please tick (√) inside the appropriate cell).

<table>
<thead>
<tr>
<th>Form</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>N/A-Don’t teach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
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<tr>
<td>Mathematics</td>
<td>3</td>
<td></td>
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<tr>
<td>Mathematics</td>
<td>4</td>
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<td>2nd subject</td>
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<td>2nd subject</td>
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<tr>
<td>2nd subject</td>
<td>4</td>
<td></td>
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</tr>
</tbody>
</table>

7b. Are other teachers experiencing difficulties in syllabus coverage?
Yes [   ] No [   ]

7c. If yes, which subjects are experiencing more problems in syllabus coverage?
...............................................................................................................................
...............................................................................................................................
...............................................................................................................................
8. Please indicate to what extent you utilise the following strategies to enable you complete the syllabus in time. (Please tick (√) inside the appropriate cell).

<table>
<thead>
<tr>
<th>Strategy employed to cover syllabus</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. I work quite fast &amp; some students cannot keep up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. The students do some chapters as self-study</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Group discussions</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>D. Utilise morning &amp; evening preps or/and weekends or/and public holidays</td>
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<td></td>
</tr>
<tr>
<td>E. Utilise holiday tuition</td>
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<td></td>
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<td></td>
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<tr>
<td>F. Other (Please specify)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>i.</td>
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<tr>
<td>ii.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

SECTION C: Exploring private supplementary tuition (PST) phenomenon in secondary schools.

9a). Does your school conduct private supplementary tuition (Remedial teaching)?

   Yes [ ]   No [ ]

9b). If Yes, which classes are involved in private supplementary tuition (Remedial Teaching) in your school? (Please tick inside the bracket for the appropriate answer).

   All Forms [ ]   Form IV [ ]
   Form III and IV [ ]   Weak Students [ ]

9c). Is private supplementary tuition (remedial classes) in your school optional or compulsory? (Please tick inside the bracket for the appropriate answer).

   Optional [ ]   Compulsory [ ]

10. a). When is private supplementary tuition (Remedial teaching) conducted in your school? (Please tick inside the bracket. You may tick against all the options that are applicable in your school)

   i. Very early in the morning (morning preps) and Evening preps [ ]
   ii. During Weekends [ ]
   iii. Public holidays, weekends, evening & morning preps [ ]
iv. School holiday [ ]

v. 4.30 am - 6.00 am, 7.30 pm - 10.00 pm, weekends and public holidays [ ]

vi. A week before or after official date for closing or opening schools [ ]

vii. Other (please specify) ..............................................................

10b). State the time taken per session/lesson during private supplementary (remedial teaching) tuition (Please tick inside the bracket for the appropriate answer).

   40 minutes [ ]  1 hour [ ]  2 hours [ ]  2-3 hours [ ]

   More than 3 hours [ ]

11a). Are all teachers in your school involved in private supplementary tuition (teaching remedial classes)? (Please tick inside the bracket for the appropriate answer).

   Yes [ ]  No [ ]

11b). If No, who are involved in teaching remedial classes?

   TSC teachers [ ]

   Those who teach the classes involved [ ]

   BOG teachers [ ]

   Those who stay in the school compound or/and near the school. [ ]

   Those willing to teach remedial classes [ ]

12). For how long do you conduct private supplementary tuition (Remedial teaching) in your school? (Please tick inside the bracket for the appropriate answer).

   Ten weeks per term [ ]  6-9 weeks per term [ ]

   3-5 weeks per term [ ]  1-4 weeks per term [ ]

13. What is the size of private supplementary tuition (Remedial) classes in your school? (Please tick inside the bracket for the appropriate answer).

   Individualised teaching (one on one) [ ]

   Small groups of less than 10 students per a class [ ]

   Between 11 - 20 students per a class [ ]  you maintain the Normal classes [ ]
14. Who decides on what is taught during private supplementary tuition (remedial lessons)?

- Students [ ]
- Subject teachers [ ]
- Departments [ ]
- School administration [ ]

15. Which are the most common (popular) subjects for private supplementary tuition (remedial teaching or holiday coaching)?

16. What proportion of students has difficulties paying private supplementary tuition (Remedial) fee?

- Less than a quarter [ ]
- A quarter [ ]
- Half [ ]
- Three quarters [ ]
- All [ ]
- None [ ]

17a. If you were in a position to decide, would you like private supplementary tuition to continue being offered to students?

- Yes [ ]
- No [ ]

17b. Give 3 or more reasons for your answer above.

- 
- 
- 

18a. In your own assessment, has the ban on private supplementary tuition/Remedial teaching/Holiday tuition/Extra Classes been successful in eliminating PST in schools and holiday coaching?  

- Yes [ ]
- No [ ]

18b. If No, please give at least 3 reasons behind the ban policy’s failure to eliminate PST.

- 
- 
- 

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SECTION D: Exploring the factors influencing the need for private supplementary tuition (PST) in secondary schools

19. The following factors are commonly cited as being the driving force behind the need for private supplementary tuition (Remedial teaching or/and holiday coaching) phenomenon. Please, put a tick (✓) in the appropriate cell.

<table>
<thead>
<tr>
<th>Factors driving the Need for PST (private supplementary tuition)</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic satisfaction-students and parents who are not satisfied with their/their child’s performance in the mainstream schooling are more likely to seek PST services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. Parents’/students’ academic aspirations-those with higher academic aspirations are more likely to enrol in holiday tuition classes or employ teachers to teach them/their children during holidays than those with low academic aspirations.</td>
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<td>3. Type of school (day or boarding)-students in boarding schools attend remedial classes for more hours than those in day schools.</td>
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<tr>
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</tr>
</tbody>
</table>
20a). Of the three forms of private supplementary tuition which one is in high need (commonly used) in Barabu District? (Please tick inside the bracket for the appropriate answer).

A. Remedial teaching-PST offered within the mainstream schools and by regular class room teachers [   ]

B. One on One PST- Normally takes place at the teachers’ or clients’ (students’) homes. [   ]

C. Holiday tuition (Coaching) - taking place at holiday tuition centres and offered by teachers who must not be necessarily the mainstream classroom teachers for the students. [   ]

20b.) Give reasons for your answer in 20a above

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THANK YOU FOR COMPLETING THE QUESTIONNAIRE.