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**An Analysis of Shadow Education on Mainstream Education in Public Secondary Schools  
in Athi River District**

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## **An Analysis of Shadow Education on Mainstream Education in Public Secondary Schools in Athi River District**

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### **Abstract**

**Purpose:** The purpose of this study was to analyse the impacts of shadow education on mainstream education in secondary schools in Athi River District.

**Methodology:** The study used descriptive survey research design. This study used primary data which was collected through use of structured questionnaires. The target population of the study were teachers, students and parents in public secondary schools in the 29 secondary schools in Athi River District. Purposive sampling was used to select respondents from the sampling frame; 29 principals, 29 teachers, 29 parents and another 29 students were selected from the twenty nine schools. Data from the questionnaires were analysed using Statistical Packages for Social Sciences (SPSS) to derive descriptive results

**Results:** The findings implied that performance is an important element that is considered in shadow education. The study findings indicated that shadow education does not assist in coverage of syllabus, but improves teachers' motivation and students' performance. Further, descriptive studies also show that shadow education affects the time parents spend with their children.

**Unique contribution to theory, practice and policy:** The study provides recommendation to the government to reduce the regulatory burden on shadow education and to parents to encourage their children to value shadow education. The study recommends further studies to touch on the implication of shadow education costs to the income of households in Kenya-either in the rural or urban setting.

**Keywords:** *shadow education, academic performance, mainstream education, syllabus coverage, social life of students, teachers' motivation*

## 1.1 INTRODUCTION

Education is a gateway to civilization and a source of wealth and power which are very necessary for growth and development of any country's economic and political institutions (Paviot, Heinsohn, & Korkman, 2008). According to Paviot, Heinsohn, and Korkman, (2008) education systems in most developing countries are meritocratic and this encourages tough competition among students and schools. This culminates into what is referred to as shadow education. Shadow education may be defined as a supplementary coaching that continues after school hours (Bratti & Staffolani, 2002). The metaphor shadow education originates from the works of Bray (2003). Bray (2003) notes that private supplementary tutoring 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 supplementary tutoring; 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.

Silova (2007) supports the idea of Bray by noting that Shadows can of course be useful. Just as the shadow cast by a sun-dial can tell the observer about the passage of time, so the shadow of an education system can tell the observer about change in societies. However, in some countries, parents, educators and politicians are highly critical of the way in which private tutoring has come to dominate the lives of families and pupils. Tutoring commonly creates and perpetuates social inequalities, and it consumes human and financial resources which perhaps could be used more appropriately in other activities. Critics add that private tutoring can distort the curriculum in the mainstream system, upsetting the sequence of learning planned by mainstream teachers and exacerbating diversity in classrooms. In this sense, unlike most shadows, private supplementary tutoring is not just a passive entity but may negatively affect even the body which it imitates (Bray, 2007).

On the other hand advocates of shadow education claim that it leads to superior results, but these has not been proven as its difficult to draw the borderline between value added by shadow education and the conventional schooling. The claim is based on the idea that time allocation determines performance as observed in a number of studies. For example, Taylor (2007) reported that some schools offer private tutoring when their performance seems dismal. This implies there is a general perception that failure of students in national examinations may be partly due to inadequate time with teachers that may lead to poor syllabus coverage. Studies, have indicated that time allocation was a key factor that determines performance. For instance, Stinebrickner and Stinebrickner (2008) investigate the causal effect of spending time for studying on academic achievement for first year students at Berea College (US). Using whether one of the randomly assigned roommates brings a video or a computer game with them as an instrument, they found evidence that an increase in study quantity by one hour increases the performance significantly. Dolton, Marcenaro, and Navarro (2003) found that time spent on classroom teaching is more productive than time spent on self-study and that time used for private tuition has a negative effect. In a review of literature on shadow education patterns and participation Silova (2007) provided statistics for 12 Countries. The statistics indicate a massive participation in private tutoring for students at all levels of education. For instance, in China the 2004 Urban Household Education

and Employment survey covering 4,773 households indicated that tutoring was received by 73.8% of primary, 65.6% of lower secondary and 53.5% of upper secondary students. In Cyprus, a 2003 study of 1,120 college students found that 86.4% had received private tutoring when in secondary school (Xue& Ding, 2009).

Shadow education has also been reported as a common practice in African Countries. For example, in Egypt, a 2004 study estimated that households devoted 61.0% of education expenditures to private tutoring. A 1997 study estimated that household expenditures on tutoring in all levels of schooling accounted for 1.6% of gross domestic product. A 1994 survey of 4,729 households found that in urban areas 64.0% of primary children with 52.0% in rural areas had received supplementary tutoring (World Bank, 2004).

Africa, the coverage and growth of the provision of extra lessons in school subjects outside school hours for the six African countries that participated in SACMEO's two major cross national studies of the quality of education during 1995 and 2000. The paper illustrated that the percentage of grade six countries expanded from an initially high figure of around 50 percent in 1995 to nearly 70 percent in 2000. In Egypt, 1994 survey of 4729 households found that 64.0 percent of urban primary children and 52.0 percent rural ones had received supplementary tutoring (World Bank, 2004).

Currently, the 8-4-4 system in Kenya has been characterized with the heavy workload it places on both students and teachers. According to the majority of teachers the broadness of the syllabus necessitates extra tuition to students in the evenings, over weekends and during holidays. Such teachers elicit that the syllabus cannot be completed in the laid time frames. Concerns abound that many students either drop out of school, result to drugs or engage in disruption of school programmes, as a result of the heavy pressure exerted on them. In spite of this, proponents of the 8-4-4 system have defended it, stipulating that students' global competitive edge is enabled since they are used to working hard in school (Museum, 2011).

The government of Kenya through the Ministry of Education has been on the forefront in fighting the practice of shadow education in Kenya. For example, the Late Minister of Education Mr .Mutula Kilonzo banned holiday coaching on August 15<sup>th</sup> 2012 which is still firm up until now with the current government. The ban was supported by many including the Chairman of parents' Association, Mr. Musau Ndunda congratulating the minister for the move (Muindi, 2012). However, the move was criticized by Kenya National Union of Teachers (KNUT) arguing that the minister failed to question why the practice continued unabated in schools throughout the country. "When you ban tuition in schools it will resurface in the private centres at homes and towns which is more dangerous since it will be purely commercial (Muindi, 2012). The above mentioned shows that shadow education in Kenya has been an issue of debate with proponents and critics trading accusations. However, shadow education as at now is banned from all schools thus a school practicing the same is illegal.

The Kenya Private Schools Association supports the move by the government on banning the shadow education in the country. During their annual general meeting the present members seconded that the ban should be clear to all teachers and heads of schools. This meeting was

aroused by a number of schools which forced students to disguise themselves in civilian clothes so as to attend the “banned” holiday tuition (Mwakio, 2013).

### **1.2 Problem Statement**

Shadow education is a global phenomenon that has shown increasing trends with more and more students participating in paid private tutoring either in school or outside school. In Kenya shadow education has been informally practiced both at primary and secondary school levels mostly during holidays, weekends, evening and morning extra classes in which learners pay extra funds for the tutoring in addition to school fees (Muindi, 2012). This has elicited mixed reactions from different stakeholders with some maintaining that it was good while others felt that it is a money minting venture by the teachers from the parents.

In Athi River District for instance the challenge that is facing the education system is the ban of shadow education. Few parents in that region supported the ban while others did not. The few who were not supporting the idea of having the shadow education banned believe that through the tuition, their children perform even better and are usually engaged in school which is important. The other few who do not support the ban, indicated that some schools in the District the shadow education does not impact the performance of their children and claim the same as a strategy used by the schools to generate more income. Following the ban some parents in the district allocate their children private tuition, at an agreeable location among them and the teachers.

A study by Lugano (2008) on shadow education system analyzed the factors that influence demand and practice of private supplementary tuition in public secondary schools in Municipality Division, Kakamega South District. Lugano’s findings were that there is high demand and practice of private supplementary tuition in Municipality Division of Kakamega South District. The study also revealed that there was significant relationship between household factors, school-based factors, private rates of returns to education, students' attributes, teachers' job satisfaction and economic factors and demand for private supplementary tuition in the area.

Shadow education in Kenya was banned in year 2011, for all secondary and primary schools in Kenya. The main argument behind this ban was that shadow education was a major cause of indiscipline in secondary school that led to school unrests. The teachers of majority of the primary and secondary schools in Kenya were said to be exploiting poor parents through shadow education a move that was opposed by the Kenya Union of Teachers (KNUT). Proponents of shadow education argue that it improves syllabus coverage and therefore performance (Muindi, 2012). This conflict shows that the deliberation of shadow education in Kenya’s secondary and primary school has not yet been vindicated. This death conclusions on the effects of shadow education on performance students creates a gap that needs to be addressed. It is as a result, that this study sought to establish the effects of shadow education on mainstream education and the perceptions of different school stakeholders on shadow education.

### **1.3 Study Objectives**

- i. To determine the impact of shadow education on academic performance of mainstream education



- ii. To determine the impact of shadow education on syllabus coverage of mainstream education
- iii. To determine the impact of shadow education on the social life of students in mainstream education
- iv. To establish the effect of shadow education on mainstream education teachers' motivation

## **2.0 LITERATURE REVIEW**

### **2.1 Theoretical Literature Review**

#### **Theory of Human Capital**

The study is based on the Human Capital Theory. It is the theoretical framework that is most responsible for the gross adoption of education and development policies. On its part, the investment that people make in themselves to enhance their economic productivity is termed as human capital. With the realization that the economic prosperity of a nation relies on its physical and human capital stock, the importance of education has been well stressed. The human capital theory is based on the assumption that in order to improve the production capacity of the population, formal education plays a vital role (Psacharopoulos & Woodhall, 1997).

It goes without saying that the human capital theorists argue that the more a population is educated the more it is productive. In this accord, the provision of formal education is regarded as a productive investment in human capital. Psacharopoulos and Woodhall(1997) stipulated that human capital theory explains the large public expenditure on education globally. On this accord, it has been assumed that investment in education results to economic return both at the macro and micro levels. As a result, promotion of investment in human capital has been thought to result in rapid economic growth at the community level. For many families, such investment has been deemed to yield returns of individual economic achievement. Such crave for human capital underlines the huge investment in mainstream and shadow education. For individuals, such investment was seen to provide returns in the form of individual economic success and achievement.

#### **Institutional Theory**

This study is supported by the theory of Institutionalization. This theory emphasizes the influence of global civil society on the state-level conceptualizations of policy goals and means such as, government policies on shadow education. It considers the processes by which structures, including schemas; rules, norms, and routines, become established as authoritative guidelines for social behaviour. It inquiries into how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse. Although the ostensible subject is stability and order in social life, students of institutions must perforce attend not just to consensus and conformity but to conflict and change in social structures.

The basic concepts and premises of the institutional theory approach provide useful guidelines for analyzing organization-environment relationships with an emphasis on the social rules,

expectations, norms, and values as the sources of pressure on organizations. This theory is built on the concept of legitimacy rather than efficiency or effectiveness as the primary organizational goal (McAdam and Scott, 2004). The environment is conceptualized as the organizational field, represented by institutions that may include regulatory structures, governmental agencies, courts, professionals, professional norms, interest groups, public opinion, laws, rules, and social values. Institutional theory assumes that an organization conforms to its environment. This theory is relevant to the study as it explains how institutional environment can affect the shadow education in Kenya.

### **Theory of Intellectual Development**

This theory provides the groundwork for constructivism which is applied to education today. The common belief that knowledge is constructed within a social context is the foundation for this group of learning theories. Theory of intellectual development provide a third research tradition contributing to the notion of cognitive construction (e.g. Piaget, 1952, 1969, 1971). Developmentalists believe that learning results from adaptations to the environment which are characterized by increasingly sophisticated methods of representing and organizing information. Developmental scientists also forward the notion that children progress through different levels or stages differently. A fourth line of research depicts learning as a socially mediated experience where individuals construct knowledge based on interactions with their social and cultural environment. Like Piaget and Bruner, Vygotsky (1962, 1978) believed that the formation of intellect could be understood by studying the developmental process. However, like Bruner, Vygotsky felt that intellectual development could only be fully understood within the sociocultural context in which the development was occurring. This theory further explains how the mind acquires knowledge and the same can be made through by continuous tutoring of students or children to fasten their knowledge development.

### **2.2 Empirical Literature Review**

Pedagogically, there are many challenges faced by private tutors as opposed to mainstream teachers. In many cases, students undertaking private tutoring may be good at solving problems mechanically, for example in mathematics without knowing the mathematical principals involved (Bray, 2009). Teachers may also neglect mainstream classes since they know that their students would receive private tutoring (Hartmann, 2008). Such teachers may teach better during their private tutoring than in mainstream lessons.

Shadow education may result to use of public facilities for private interest. It may also lead to reduction of teaching hours with augmented teacher absenteeism. Instead of mainstream classes, teachers may promote remedial classes. Another detriment of shadow education is compromise in curriculum coverage. To this end, tutors may make less effort in ensuring that all students were well prepared (Bray, 2009). On their part, students may have heavy workloads, incessant fatigue and reduced interest in classroom activities. Lack of respect for mainstream teachers may be another result of shadow education. For such teachers, there may be a huge disparity within their classrooms. In terms of university admission, skewness may result. In this case, the overall abilities of students being admitted may not be well reflected.

Bratti and Staffolani (2002) investigated the effects of students' different time use using data on first-year economic students at the University of Ancona (Italy). They found that the relative importance of attendance and self-study varies across exams. Attendance seems to improve performance especially in quantitative disciplines such as Mathematics and Economics, whereas self-study seems to be more important for non-quantitative disciplines such as Law and Economic History.

The turn of the century has marked a proliferation of studies on private supplementary tutoring in different parts of the world (Silova, 2009). While initial research gave prominence to Asian societies, more recent studies reveal that private tutoring is growing elsewhere, including in Africa (Paviot, Heinsohn and Korkman, 2008; Sambo, 2001), the United States of America (Davies, 2004; Gordon, Bridglall and Meroe, 2005), western Europe (Glasman, 2004; Ireson, 2004; Mischo and Haag, 2002), and south-eastern/central Europe and the former Soviet Union (Silova et al., 2006b). In countries as diverse as Japan, Egypt, India, Malta and Poland, more than one third of students regularly receive supplementary private tutoring; in some societies this proportion is considerably higher (Bray, 2003; 2006). As Baker and LeTendre (2005) state, the use of private after-school activities has become "a world megatrend" among families with children in state education. Shadow education is a common venture in education systems in both developed and developing Countries. For countries like Japan and South Korea in East Asia, tutoring has a long history. It grew in magnitude during the 1980's and 1990's (Seth, 2002). A 2007 survey found that tutorial schools known as juku 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. In addition, 6.8% of Junior Secondary 3 pupils received tutoring at home, and 15.0% followed correspondence courses (Suzuki, 2009).

While generating considerable employment and strengthening the stability of the teaching force, private tutoring may also raise ethical issues in mainstream education. In Mauritius and Bangladesh, for example, teachers commonly abuse their positions by teaching only half the syllabus during official hours and then declaring that if students want to receive teaching in the second half, then they must come to their after-school tutoring classes (Foondun, 2002; Shafiq, 2002). These teachers are able to exert pressure not only because the students face external competition, but also because the teachers control which students are and are not promoted to higher grades at the end of each academic year. Similar claims have been made in Kenya (Miundi, 2012).

In another study, Njue (2011) showed that shadow education was practiced with notion that the secondary school syllabus could not be covered unless extra tuition was done. Njue further noted that shadow education increased the financial burden of parents by 31.1% on average and that is practiced in schools during weekends, morning and evening. To this extent shadow education is a multifaceted phenomenon that is who demand and supply are growing day in day out in today's education systems for both developing and developed countries Kenya included.

In some countries, students have been noted to skip classes to attend private tutoring lessons even during school hours (Silova & Kazimzade, 2006). This happens more if such students perceived that they would get more through private tutoring prior to national examinations. It is important to

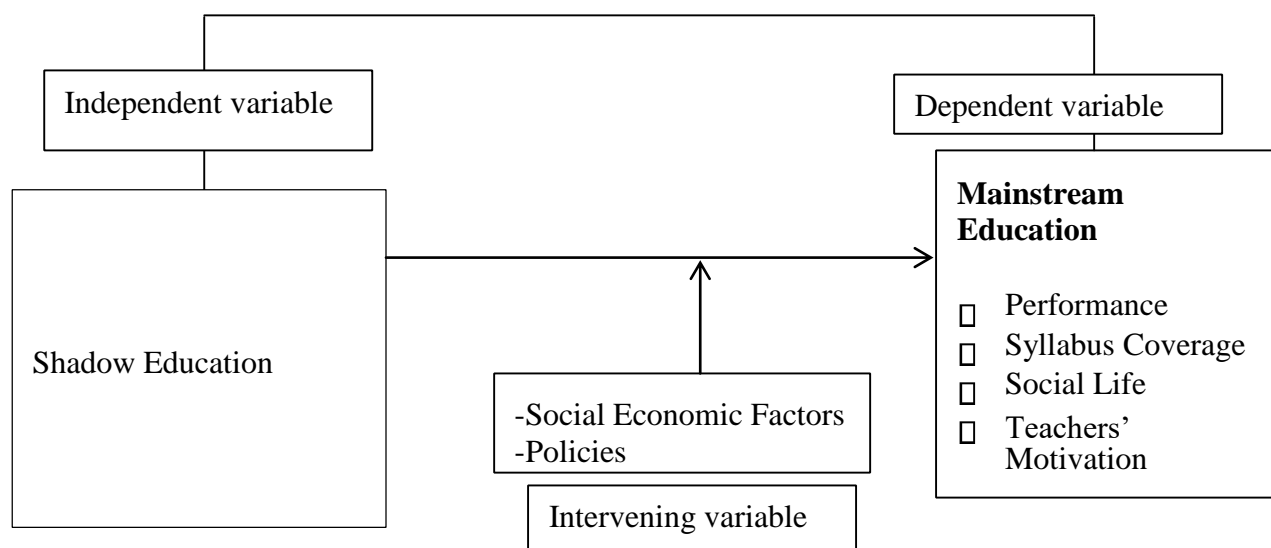


note that the intensity of private tutoring may affect the concentration spans of students (Kim, 2007). This may be manifested in students sleeping during class hours.

Shadow education in its various forms maintains social inequalities between low-income and high-income households globally. To this end, high-income families are more easily able to afford shadow education as opposed to low-income families (Bray, 2009). For poor households, their much social pressure in cases where their children perform poorly. In this respect, shadow education comes in readily as a vent (Kim, 2007). In France and Germany, parents tend to purchase peace by engaging their children in private tutoring (Glasman, 2007). According to Glasman, homework puts a lot of pressure on parents. Whenever private tutors remove such pressure from such families, pacification of relationships among family members is realized.

Paviot (2007) reported on the design of questionnaires for the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ), a partnership of 15 Ministries of Education. Sets of comparable data had been collected from Grade 6 pupils in 1995 and 2000. The data were not completely clear, because they included unpaid tutoring, e.g. by teachers and family members, as well as paid tutoring. Nevertheless, they showed considerable amounts of tutoring in some countries, and also indicated notable increases. While an average of 49.0 per cent of Grade 6 pupils reported receipt of supplementary tutoring in 1995, by 2000 this had risen to 68.3 per cent.

Whenever private tutoring helps students to understand and enjoy their mainstream lessons it is considered beneficial. In this case extra tuition can enable students to learn at individual level (Aurini and Davis, 2004). On another note, tutoring may cause negative effects if students assume that paying tutors automatically enable them to excel or pass their exams. The mainstream may loose talented personnel if they decide to move completely to shadow education for better gains. This has been a major trend in countries such as Costa Rica, Lithuania and Senegal (Bray, 2009).



## 2.3 Conceptual Framework

**Figure 1: Conceptual Framework**

## 3.0 RESEARCH METHODOLOGY

For this study, a descriptive survey research design was adopted. This study focused on gathering information from teachers, parents and students of Athi River District on the effects of shadow in education in Kenya. There are 29 public secondary schools in the district with 387 teachers and about 10000 students and all the parents. The researcher used purposive sampling technique to select only those schools that have participated in national examinations. A census was used to derive the sample size of the study. 29 schools were included in the sample with one; principal, parent, teacher, and student taken as the respondent from each of the 29 schools. This study used primary data which was collected through use of structured questionnaires. These questionnaires were self-administered for the purposes of collecting data. The study obtained quantitative data only. Quantitative data obtained from the questionnaire was coded for analysis using the Statistical Packages for Social Sciences (SPSS). This analysis helped to generate descriptive statistics. Descriptive statistics aided in analysis of percentages, frequencies and mean of responses.

## 4.0 RESULTS AND DISCUSSIONS

### 4.1 Response Rate

A successful response rate 100 % was obtained. This high response rate was able to be achieved as a result of the availability of students, parents and teachers in the schools identified in Athi River District. The study response rate was very good. Results are presented in Table 1

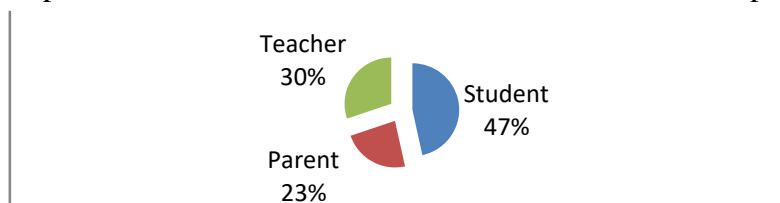
**Table 1: Response Rate**

Response	Frequency	Percentage
Returned	116	100%
<b>Total</b>	<b>116</b>	<b>100%</b>

### 4.2 Demographic Characteristics

#### 4.2.1 Position of Respondents

The respondents were asked to give their position and results in Figure 2 indicate the majority respondents to be students who totalled to 47% of the sample.

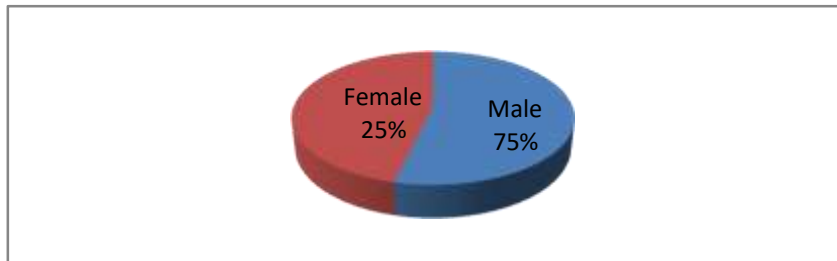


**Figure 2: Position of Respondents**

Teachers constituted of 30% of the sample while parents totalled to 23%. The availability and ease to access students and teachers in the schools explain their high percentage than parents.

#### 4.2.2 Gender of Respondents

The results shows that majority of the respondents were males as they comprised of 75% of the sample while female respondents totalled to 25%.



**Figure 3: Gender of Respondents**

### 4.3 Descriptive Statistics

#### 4.3.1 Effects of Shadow Education on Mainstream Education

The general objective of the study was to determine the effects of shadow education on mainstream education. Table 2 presents the results on effects of shadow education on mainstream education.

**Table 2: Effects of Shadow Education on Mainstream Education**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Holiday tuition provides motivation to teachers through pay	1.70%	5.20%	9.50%	42.20%	41.40%	4.16	0.729
The syllabus cannot be covered adequately without extra coaching	2.60%	25.00%	5.20%	31.90%	35.30%	3.58	0.923
Use of extra tuition leaves teachers with no time to adequately prepare for their mainstream lessons.	1.70%	21.60%	7.80%	37.1%	31.90%	3.72	1.255
The government should totally ban holiday tuition	10.30%	69.80%	7.80%	6.90%	5.20%	3.76	1.169
The ban on school tuition is a disadvantage to parents as they are forced to hire private tutors at home who are more expensive	1.70%	4.30%	7.80%	45.70%	40.50%	4.12	0.926
<b>Averages</b>	<b>0.04</b>	<b>0.25</b>	<b>0.08</b>	<b>0.33</b>	<b>0.31</b>	<b>3.87</b>	<b>1.00</b>

Results show that holiday tuition provides motivation to teachers through pay as indicated by 84% response rate. Sixty seven (67%) of the respondents indicated that the syllabus cannot be covered adequately without extra coaching. Further results indicate that use of extra tuition leaves teachers

with no time to adequately prepare for their mainstream lessons as supported by 67% agreed responses. Eighty percent of respondents disagreed to the question on whether the government should totally ban holiday tuition. Results further shows that the ban on school tuition is a disadvantage to parents as they are forced to hire private tutors at home who are more expensive as represented by 86%. The mean of the responses indicated from the results was 3.87 which show that the respondents were agreeing on most of the statements while the standard deviation was 1.00 which indicates that the answers received were varied as they were dispersed far from the mean.

#### 4.3.2 Shadow Education and Performance

The first objective of the study was to establish the effects of shadow education on performance of students in mainstream education. The result in Table 3 presents the views of respondents on the stated objective.

**Table 3: Effects of Shadow Education on Performance**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Participation in tuition during the morning or evening hours at school improves performance	6.00%	6.00%	12.10%	59.50%	16.40%	4.19	0.884
Participation in tuition once school closes for holiday improves performance	2.60%	3.40%	7.80%	72.40%	13.80%	3.74	1.005
Participation in tuition every weekend improves performance	2.60%	2.60%	21.60%	44.00%	29.30%	3.91	0.764
Participation in extra coaching in school or outside school improves performance	4.30%	3.40%	10.30%	57.80%	24.10%	3.95	0.922
There is a high attendance of learners (over 50% attendance) receiving shadow education whose performance improve overtime	8.60%	8.60%	10.30%	45.70%	26.70%	3.94	0.935
The government perception on shadow education is that it improves performance	0.00%	0.00%	5.20%	56.90%	37.90%	3.73	1.197



Averages	0.04	0.04	0.11	0.56	0.25	3.91	0.95
<p>Seventy six percent (76%) represent that participation in tuition during the morning or evening hours at school improves performance. Eighty six percent (86%) responses represents that participation in tuition once school closes for holiday improves performance. Participation in tuition every weekend improves performance as indicated by 73% response level. Further results show that 72% agree that there is a high attendance of learners (over 50% attendance) receiving shadow education whose performance improve. Ninety three percent (93%) believe that the government perception on shadow education is that it improves performance. On a five point scale the mean of the responses indicated from the results was 3.91 which show that the respondents were agreeing on most of the statements while the standard deviation was 0.95 which indicates that the answers received were not dispersed far from the mean.</p>							

#### 4.3.3 Shadow Education and Syllabus Coverage

The second objective of the study was to establish the effects of shadow education on syllabus coverage in mainstream education. The results are presented in Table 4 below.

**Table 4: Effects of Shadow Education on Syllabus Coverage**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Participation in tuition during the morning or evening hours at school assists in syllabus coverage.	19.00%	66.40%	9.50%	5.20%	0.00%	4.33	0.571
Participation in tuition once school closes for holiday which improves coverage of the syllabus	12.10%	64.70%	7.80%	9.50%	6.00%	2.01	0.704
Participation in tuition every weekend which helps in syllabus coverage	30.20%	45.70%	8.60%	9.50%	6.00%	2.33	1.011
Participation in extra coaching in school or outside school which assists in syllabus coverage	20.70%	45.70%	9.50%	10.30%	13.80%	2.16	1.139
There is a high attendance of learners to tuition (over 50% attendance) leading to covering of syllabus	13.80%	40.50%	12.10%	16.40%	17.20%	2.51	1.309
All subjects are commonly							

taught in tuitions which assists in syllabus coverage	13.80%	72.40%	9.50%	4.30%	0.00%	2.83	1.34
Participation in tuition during the morning or evening hours at school assists in syllabus coverage	15.50%	36.20%	11.20%	15.50%	21.60%	2.04	0.638
The government perception on shadow education is that it facilitates syllabus coverage	11.20%	41.40%	14.70%	21.60%	11.20%	2.91	1.418
<b>Averages</b>	<b>0.18</b>	<b>0.47</b>	<b>0.11</b>	<b>0.13</b>	<b>0.12</b>	<b>2.46</b>	<b>1.14</b>

Results show that participation in tuition during the morning or evening hours at school does not assist in syllabus coverage as indicated by 85% response rate. Seventy two percent (72%) disagreed that participation in tuition once school closes for holiday improves coverage of the syllabus. Participation in tuition every weekend does not help in syllabus coverage as indicated by 75%. Sixty six percent (66%) disagree that participation in extra coaching in school or outside school which assists in syllabus coverage. Fifty four percent (54%) of respondents disagreed that there is a high attendance of learners to tuition (over 50% attendance) leading to covering of syllabus. Further results indicate that eighty six (86%) responses disagreed that all subjects are commonly taught in tuitions which assists in syllabus coverage. Participation in tuition during the morning or evening hours at school does not assist in syllabus coverage as shown by 51% responses rate. Fifty three (53%) respondents disagreed that the government perception on shadow education is that it facilitates syllabus coverage. The mean of the responses indicated from the results was 2.46 which show that the respondents were disagreeing on most of the statements while the standard deviation was 1.14 which indicates that the answers received were varied as they were dispersed far from the mean.

#### 4.3.4 Shadow Education and Teachers' Motivation

The third objective of the study was to establish the effects of shadow education on teachers' motivation. The results are presented in Table5. Seventy six (76%) respondents agree that participation in tuition during the morning or evening hours at school assists improves teachers' motivation through remuneration. Participation in tuition once school closes for holiday improves teachers' motivation through remuneration indicated by 71% agreed responses. Participation in tuition every weekend improves teachers' motivation through remuneration supported by the response level of 78%. Eighty five percent (85%) indicate that participation in extra coaching in school or outside school improves teachers' motivation through remuneration. Seventy eight percent (78%) agreed responses shows that there is a high attendance of learners(over 50% attendance) receiving shadow education leads to motivation of teachers to work more. The results

further indicate that 81% agreed responses shows that all subjects commonly taught in tuitions improves teachers' motivation.

Seventy three percent (73%) response agree that the government perception on shadow education is such that it improves teachers' motivation. On a scale of 5, the mean of the responses indicated from the results was 3.88 which show that the respondents were agreeing on most of the statements while the standard deviation was 0.91 which indicates that the answers received were no variations in responses as the answers received were closer to the mean. Silova *et al.* (2006b) indicates that in some countries, teachers are paid so poorly that they and their families would be unable to subsist if they had to depend on official salaries alone. Teachers therefore have to secure additional incomes increasingly provided by fees charged for tutoring services. These findings supports of this study which indicate that shadow education motivates teachers as through the same they are able to make more money through private tutoring.

**Table 5: Effects of Shadow Education on Teachers' Motivation**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Participation in tuition during the morning or evening hours at school assists improves teachers motivation through remuneration	5.20%	6.00%	12.10%	62.90%	13.80%	2.8	1.225
Participation in tuition once school closes for holiday improves teachers motivation through remuneration	1.70%	6.00%	20.70%	53.40%	18.10%	3.74	0.952
Participation in tuition every weekend improves teachers motivation through remuneration	5.20%	6.00%	10.30%	56.00%	22.40%	3.8	0.867
Participation in extra coaching in school or outside school improves teachers motivation through remuneration	2.60%	3.40%	7.80%	72.40%	13.80%	3.84	1.01
There is a high attendance of learners(over 50% attendance) receiving shadow education leads to motivation of teachers to work more	2.60%	2.60%	15.50%	46.60%	32.80%	3.91	0.764
All subjects are commonly taught							

in tuitions improves teachers' motivation	5.20%	2.60%	10.30%	57.80%	24.10%	4.04	0.908
The government perception on shadow education is such that it improves teachers' motivation	7.80%	8.60%	10.30%	46.60%	26.70%	3.93	0.958
<b>Averages</b>	<b>0.04</b>	<b>0.05</b>	<b>0.12</b>	<b>0.55</b>	<b>0.23</b>	<b>3.88</b>	<b>0.91</b>

#### 4.3.5 Shadow Education and Social Life

The study sought to establish the effects of shadow education on social life of students. The results are presented in Table 6 below. It was found that seventy two (72%) of the respondents indicated that participation in tuition during the morning or evening hours limits the parents time spend with their children. Participation in tuition once school closes for holiday limits the parents time to spend with their children as supported by 74% agreed responses. Results also show that 86% of respondents agreed that participation in tuition every weekend limits the parents time to spend with their children. Seventy four percent (74%) agreed responses indicate that participation in extra coaching in school or outside school limits the parents time to spend with their children. Further, 89% of respondents indicate that the government perception on shadow education is that it affects the time children spend with their parents. These results does not agree (Bray, 2009) who views shadow education as to improve the social life of the student with parents and other peers of his or her age especially to those students who could otherwise not find it at home or in school.

**Table 6: Effects of Shadow Education on Social Life**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Participation in tuition during the morning or evening hours limits the parents time spend with their children	5.20%	7.80%	14.70%	49.10%	23.30%	3.76	1.169
Participation in tuition once school closes for holiday limits the parents time to spend with their children	2.60%	5.20%	18.10%	67.20%	6.90%	3.78	1.056
Participation in tuition every weekend limits the parents time to spend with their children	2.60%	2.60%	7.80%	57.80%	29.30%	3.71	0.78
Participation in extra coaching in school or							

outside school limits the parents time to spend with their children	2.60%	18.10%	5.20%	60.30%	13.80%	4.09	0.84
The government perception on shadow education is that it affects the time children spend with their parents	5.20%	2.60%	2.60%	44.80%	44.80%	3.65	1.015
<b>Averages</b>	<b>0.04</b>	<b>0.07</b>	<b>0.10</b>	<b>0.56</b>	<b>0.24</b>	<b>3.80</b>	<b>0.97</b>

#### 4.4 Cross Tabulation Tables and Mean Scores

The mean scores of the independent variables were presented here as in table 7. The variables were also ranked using the mean score as the criteria.

**Table 7: Cross Tabulation and Mean Scores**

Variable	Mean	Ranking
Syllabus coverage	2.466	4
Teacher motivation	3.864	3
Social Life	3.886	2
Performance	3.934	1

The results in Table 7 indicate that performance was the highest ranked in terms of effects of shadow education followed by social life, teacher motivation and syllabus coverage. The findings implied that performance is an important element that is considered in shadow education. It paves way for shadow education to be embraced by parents, teachers and students.

## 5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Discussion

One of the study objectives was to establish the effect of shadow education on performance. The study findings indicated that shadow education improved performance of students and schools in general. This was demonstrated by descriptive statistics that showed that majority of the respondents agreed that participation in tuition during the morning or evening hours at school improves performance, participation in tuition once school closes for holiday improves performance, participation in tuition every weekend improves performance, there is a high attendance of learners(over 50% attendance) receiving shadow education whose performance improve and that the government perception on shadow education is that it improves performance.

Another objective was to identify the effects of shadow education on syllabus coverage. Results indicated that the shadow education does not assist in coverage of syllabus. This was supported by the descriptive statistics where majority disagreed that participation in tuition during the morning or evening hours at school assists in syllabus coverage, participation in tuition once school closes



for holiday which improves coverage of the syllabus, participation in tuition every weekend which helps in syllabus coverage, participation in extra coaching in school or outside school which assists in syllabus coverage, there is a high attendance of learners to tuition (over 50% attendance) leading to covering of syllabus. Further results indicated that the respondents did not agree that all subjects are commonly taught in tuitions which assists in syllabus coverage, participation in tuition during the morning or evening hours at school assists in syllabus coverage and that the government perception on shadow education is that it facilitates syllabus coverage.

The third objective of the study was to determine the effects of shadow education and teachers' motivation. This was supported by the descriptive statistics where majority agreed that participation in tuition during the morning or evening hours at school, once school closes for holiday, every weekend or participation in extra coaching in school or outside school improves teachers' motivation through remuneration. Further results indicate that there is a high attendance of learners (over 50% attendance) receiving shadow education leads to motivation of teachers to work more, all subjects are commonly taught in tuitions improves teachers' motivation and that the government perception on shadow education is such that it improves teachers' motivation.

Descriptive results on the last objective of the study describe the effects of shadow education on the social life. This is represented by a majority of respondents who agreed that participation in tuition during the morning or evening hours, when school closes for holiday, every weekend or extra coaching in school or outside school limits the time parents spend with their children. Further results indicate that the government perception on shadow education is that it affects the time children spend with their parents.

## **5.2 Conclusions**

The study provided that shadow education improves the performance of students in Athi River District schools. It is evident to conclude that shadow education is viewed by students, teachers and parents to improve grades and revision skills among other learning strategies. Not all students and families felt that the shadow education systems improve the performance of students. However irrespective of that many students and families fear becoming losers, since they know the competition is high in the education sector these days as a result they have to explore means to produce winners. Thus they invest in private tutoring as a form of protection against losing.

Conclusions can be drawn that syllabus coverage is not made possible through shadow education. This could raise concerns especially to parents about the mainstream school system, if shadow education fails to at least cover some part of the syllabus. In shadow education more time is spent in revision of past work and majority of the teachers take the opportunity to address concerns that were not well understood by the students during the mainstream classes.

Additional findings led to the conclusion that shadow education improves teachers' motivation as the same results in pay above their normal salary. For most public schools, mainstream education is paid for unlike shadow education where some money is paid. As a result it is possible to conclude that teachers' commitment and motivation is higher during shadow education as their Incentives during the mainstream education are weak due. Very low pay forces large proportions of teachers to earn secondary income from private tutoring and other activities.

Shadow education affects the relationship between parents and their children especially if the children (students) spend too much time in school and very little time with their parents. This affects the social status of the students as the latter become more inclined to their school work thus failing to create time for their social aspect of life which is important. **5.3 Recommendations**

The government should reduce the regulatory burden on shadow education to students especially those whose performance are low and wish to improve the same through tuition.

In addition the government could provide protection to the students to avoid being overwhelmed with schools' work and protection to parents to avoid being overcharged on tuition fees from schools or private tutors.

Further recommendation is that parents should encourage their children to value shadow education as from the results it has been identified that through shadow education performance of students improves and that shadow education prevents idleness that is created when students are free with no engagement in school work.

Teachers on the other hand who some constitute of the school's management should practice fairness when setting up students' tuition costs. To add, teachers ought to create time so as to plan for their mainstream classes after closing tuition. This calls for them to space the time between tuition and mainstream classes by not taking too much time in shadow education.

#### **5.4 Areas for Further Studies**

Studies could entirely dwell on the perceptions of parents, teachers or students on shadow education in other Districts in Nairobi or in the rural setting to compare the results to those of this study. Further studies could also include the implication of shadow education costs to the income of households in Kenya-either in the rural or urban setting. Another study could also be done to determine the teacher motivation on student learning. A study on the effects of resource allocation on mainstream education.

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