The Relationship Between user Education Costs and Secondary School Completion Rates in Samburu East Sub-county, Kenya

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Abstract
The study aimed at investigating the relationship between user education costs and secondary school completion rates in Samburu East Sub-county, Kenya. The descriptive survey research design was adopted. The study was guided by influential theory by Finn (1993). The study targeted a population of 254 Form four students derived from 7 secondary schools in Samburu East Sub-county, Kenya. The sample size of the study was 156 form four students. The 7 schools included in the study were sampled based on the fact that they had student cohorts who sat for the Kenya Certificate of Secondary Education examination. Data was collected using a questionnaire. The instruments were validated using content validity; also, validity was ensured through expert opinions. Piloting was done and reliability was tested using Pearson Product Moment Correlation. The coefficient value of above 0.7 was obtained; therefore, the questionnaire was reliable. The response was obtained using a stratified and simple random sampling technique. Data were analysed using descriptive and inferential statistics. Quantitative data was analysed using mean, frequencies, percentages and Pearson Correlation Coefficient. The findings were presented in tables. The hypothesis at a threshold of 0.5 alpha level was tested using the Pearson Correlation Coefficient. The researcher concluded that the provision of personal effects by parents and the provision of lunch programs encouraged secondary school completion rates in the study locality. The study recommended for collaboration with the parents by sensitising them the need for supporting their children’s education by providing the implementing management practices that can improve secondary school completion rates.

Key Terms: education costs, school completion rates, user education.

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1.0 INTRODUCTION
UNICEF report (2016) indicates that most of the countries, worldwide, are yet to achieve the 100% secondary school education completion rates target with students dropping out of school worldwide according to the report are 20 per cent (UNICEF Report, 2016). The UNICEF statistics, however, show that few countries in the world have attained 100 per cent secondary school completion rates. These include Yugoslavia, Seychelles, Turkey, Serbia and Ukraine. The countries, which have achieved 100 per cent secondary school education completion rates largely, attributed it to school management practices implemented to curb the challenges that can lead school dropouts (OECD, 2011).

Secondary schools in European Bangladesh close the dropout gaps in the institutions by employing school management practices that enable students to complete their education (World Bank, 2013). They have developed a school culture of encouraging project-based learning which is practical-oriented, career and technology education right from the lower levels (OECD, 2013). The management motivates teachers and learners by giving incentives when they perform well (Burns, 2011). They set aside incentives for teacher and student for motivation (Lister, 2015). Management also source resources to encourage community-building programs, parental involvement programs, and cultural awareness programs to bring about social integration to interracial schools (OECD, 2011).

UNICEF (2016) indicates that Sub-Sahara Africa has secondary school education completion rates of 37 per cent this percentage was below the 100 per cent the report also shows that countries with the lowest secondary school completion rates include Uganda (39%), Niger (29%) and South Sudan (24%). UNICEF (2016) report that there is no African country nearing 100 per cent secondary education completion rates despite concerted efforts and heavy investments by governments. However, the fact that the 100 per cent secondary school education has been attained in other non-African countries shows that the problem of low secondary school education completion rates in the continent can be addressed and the 100 per cent completion rates attained.

A country is highly dependent on the education of their citizens because education influences productivity growth and increases employment opportunities. It also enables youth to enhance their abilities, creativity and system skills to contest with the fast-changing global inclinations. However, premature termination of the secondary education cycle still presents a significant discrepancy the education system in many developing nations including Kenya that it is not properly addressed, can impair the nations' competitiveness in the international labour market and could further compromise the country's economy.

In Samburu East Sub-County, Kenya, for instance, secondary school completion rates have been continuously low evidenced by statistics that for the past 7 years the secondary school completion rates in the area-averaged 51 per cent. The completion rates have been consistently dropping since the 2009/2010 period, which was right after the government, rolled out the free secondary school education program with the aim of attaining 100 per cent transition secondary school and correspondingly 100 per cent secondary school completion rates. Several international studies have linked high secondary school completion rates in developed countries to school management practices. This means adopting such management best practices in secondary schools in Kenya could be instrumental in achieving the government’s 100 per cent complete rates policy.
However, previous studies in Kenya and specifically in Samburu County have not established links between school management practices and secondary school completion rates. Therefore, study sought to investigate the relationship between user education costs and secondary school completion rates in Samburu East Sub-county, Kenya.

2.0 LITERATURE REVIEW

The studies done in Bangladesh shows that completion rates in this country has been improving due to the introduction of the bursary scheme in secondary school (OECD, 2011). Another study done in the United Kingdom reported a close relationship between the Government bursary, transition and Completion rates (OECD, 2013). This suggests that the availability of bursaries translated into high transition and completion rates worldwide. Asena (2016) notes that many countries in Africa are striving to reduce dropout rates and increase completion rates by formulating relevant measures to ensure their achievements. According to Muhindi (2012), school fees for lower secondary schools were abolished in the years in 2006 in Rwanda and 2007 in Uganda. This shows the commitment of governments in Africa to improve secondary school completion rates by lowering school fees.

Sang et al. (2013) observed that introduction of secondary school bursary scheme by the government of Kenya was done in the financial year of 1993/1994, as a positive move to reduce dropout rates and raise completion rates in secondary schools. It was meant to increase the access to education, retention and completion rates (Akaranga, 2011). The researcher deduced that bursary programs boost completion rates in secondary schools in Kenya. However, there are a number of students who still drop out of school due to lack of school fees (Onuko, 2012). It implies that bursary caters only for a small fraction of needy students, leaving many needy ones (Masimbwa, 2010). The researcher noted that lack of school fees could result into low completion rates.

Miako (2012) in Nyandarua County conducted a descriptive survey study on school levies and their effects on access and retention since the introduction of the free day secondary education. The study sought to find out how many parents were unable to pay school levies, provide uniform and other basic needs to their children and the adverse effects on retention rates that lead to leading to low completion rates. The target population was 256, and the sample size was 133 respondents. The study failed to point out the relationship between user education costs as a management practice can lead to the improvement of secondary school completion rates. The study, therefore, sought to find out the relationship between selected user education costs and the completion rate of secondary school in Samburu East Sub-County, Kenya.

The Government intends to make education accessible and affordable to all Kenyan children (Musangi, et al., 2017). It addresses illiteracy, low-quality education and low completion rates at the secondary level by launching free day secondary schools (Oprong, 2016). The Government's main agenda is to improve completion rates through affordable education (Orodho, 2014 and Mwingirwa, 2016). The researcher noted that the Government is dedicated to ensuring that the 100 per cent completion rate target has been reached. Miako (2012) carried out a study to investigate the current influence of Free Day Secondary Education, Constituency Development Fund bursary and teaching and learning resources on completion rates in public day secondary schools in Kitui County, Kenya. The study purposes at investigating the school levies and their effects on accessibility and retention since the introduction of subsidised secondary education. The study was carried out in
11 schools. It was found out that about 51 per cent of students only who join secondary school complete their secondary school education despite the education subsidies. The study, however, did not address the relationship between user education costs and secondary school completion rates. The gap in the research prompted the researcher to investigate the relationship between secondary school completion rates and user education costs in Samburu East Sub-county Kenya.

This would enable the schools to encourage the students to make good use of the government funds to complete their secondary education (Asena, 2016). No research study has been undertaken in Samburu East Sub-county to show how the management of education costs influences secondary school completion rates. Lack of enough bursary funds is one of the major problems facing the effective management of bursary funds (Onuko, 2012 and Kananu, 2013). Students who are financially able to end up receiving funds while those living in abject poverty are sometimes locked out thus many needy students drop out of school due to lack of school fees (Munda, & Odebero, 2014). According to the researcher, findings suggest that students tend to complete their studies if they have adequate school fees; therefore, management of bursary funds and awarding the funds to the truly needy students.

Samburu County Long Rains and Food Security Assessment Report (ROK, 2013) indicate that Samburu East Sub-county is an ASAL area characterised by harsh climatically conditions of low rainfall and high temperature which do not sustain crop farming. Communities living in the sub-county are pastoralist hence depend on livestock for their livelihood ROK, 2013? Scarcity of food is attributed to adverse weather conditions (ibid). According to Maslow theory of motivation (1954 a), students can only move to the next level if their basic needs such as food are met. Many families rely on relief food, selling off their livestock to buy food, selling ornaments or charcoal to raise money to buy food (Republic of Kenya, 2013). Presence of lunch programs for students therefore, could entice students to remain in school and greatly improve completion rates (Acheck, 2015). The researcher noted from the findings that students would prefer staying in school because food is available than going home where there is no enough food.

 Provision of enough personal effects to students could enable learners to complete their secondary education. Onuko, (2012) commented in the theory of hierarchy of needs by Abraham Maslow that the first category of needs if not satisfied, can hinder learners from concentration hence can be stuck in the same level. Parents need to be sensitized to provide enough personal effects that can sustain students for the terms within the secondary school education cycle (Mutwol, et al., 2013). This concurred with Katamei and Omwono (2015) who argued that students would not search for alternative methods such as seeking employment if parents would provide enough education needs.

Research has been done on government's efforts to improving completion rates; no research has been conducted in Samburu East Sub-county, Kenya, to show how the management of student education costs by the headteachers influences secondary school completion rates. Onuko, (2012) in light of Maslow hierarchy of needs elaborates that a person who cannot meet physiological needs will automatically lose focus hence lack the momentum to move to the next level. It also shows that students whose parents can afford fees or those who are sponsored stand a better chance to complete their secondary education (Khamati, & Nyongesa, 2013).

Some parents and guardians do not take seriously the idea of giving their students pocket money (Musangi, et al., 2014). Pocket money, especially for girls enables them to buy necessities. For students in
boarding schools, pocket money is necessary to cater for miscellaneous expenses (Onuko, 2012). The provision of enough pocket money by parents/guardians can make students be psychologically stable and give them the impetus to complete secondary school education (Asena, 2016). The following are some latest research done on education costs: Areba et al. (2016), research on hidden costs in public secondary schools in Kisii; socio-economic factors influencing girl child in day schools Oprong, (2016); Socio-Economic factors influencing participation and dropout of students in Public Secondary Schools in Marakwet District, Kenya, Mutwol, et al., (2013) and many others. These researches are based on the cost of education in public day schools. There is no research done on the relationship between student education costs and secondary school completion rates in Samburu East Sub-county, Kenya. Therefore, the need to study the relationship between education costs and secondary school completion rates in Samburu East Sub-county, Kenya is necessary.

3.0 RESULTS

User Education Costs Practices and Secondary School Completion Rates
The percentages and mean of Cost Sharing Practices were drawn from the students’ responses to the questionnaire. The findings were presented in Table 1

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD%</th>
<th>D%</th>
<th>A%</th>
<th>SA%</th>
<th>MEAN</th>
<th>SDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of alternatives fees payments like bringing goats, firewood or food for fees in my school motivates me to complete my secondary school education.</td>
<td>10.3</td>
<td>22.5</td>
<td>34.6</td>
<td>32.7</td>
<td>2.94</td>
<td>1.32</td>
</tr>
<tr>
<td>The provision of lunch programs in my school encourages me to complete my secondary school education.</td>
<td>0.6</td>
<td>27.1</td>
<td>26.3</td>
<td>46.2</td>
<td>3.23</td>
<td>1.09</td>
</tr>
<tr>
<td>The provision of enough personal effects by parents in my school encourages me to complete my secondary school education.</td>
<td>3.8</td>
<td>16.7</td>
<td>24.4</td>
<td>55.1</td>
<td>3.34</td>
<td>1.14</td>
</tr>
<tr>
<td>Paying fees in instalments by parents in my school encourages me to complete my secondary school education.</td>
<td>8.3</td>
<td>21.1</td>
<td>31.4</td>
<td>39.1</td>
<td>3.08</td>
<td>1.26</td>
</tr>
<tr>
<td>Forwarding of names of needy students to sponsors for financial assistance in my school encourages me to complete my secondary school education.</td>
<td>7.1</td>
<td>32.0</td>
<td>39.1</td>
<td>21.8</td>
<td>2.88</td>
<td>1.13</td>
</tr>
<tr>
<td>Provision of fare to school by parents encourages me to complete my secondary school education.</td>
<td>11.5</td>
<td>28.2</td>
<td>48.7</td>
<td>11.5</td>
<td>2.69</td>
<td>1.19</td>
</tr>
<tr>
<td>Provision of enough writing materials by parents in my school to their children encourages me to complete my secondary school education.</td>
<td>2.6</td>
<td>30.7</td>
<td>40.4</td>
<td>26.3</td>
<td>2.98</td>
<td>1.09</td>
</tr>
</tbody>
</table>
The information on Table 1 shows that majority of the students strongly agreed that provision of enough personal effects (79.5%; mean= 3.34; Std Dev = 1.14), education trips sponsored (74.4%; mean= 2.90; STD DEV = 0.88), bursary (74.3%; mean= 3.08; STD DEV = 1.04) lunch Programs (72.5%; mean= 3.23; STD DEV = 1.09) and revision textbooks (71.2%; mean= 3.01; STD DEV = 1.06) by parents encourage them to complete their secondary school education. This was because the items were highly rated in terms of percentages of those who agreed with the items compared to those who disagreed with them and also the fact that their means fell on the strongly agree part of the Likert scale.

From the findings in Table 1, it is evident that finances played a very important role in mitigating the likelihood of low secondary school completion rates by students. In particular, parental financial input to offset personal effects and other costs not included in the free secondary education package was linked with increased completion rates by the students. This agrees with Khamati and Nyongesa (2013) who in concurrence with Katamei and Omwono (2015) and Onuko (2012) argued that students whose parents afford education needs and those who get sponsorship stand a better chance to complete their education. Onuko (2012) in light of Abraham Maslow’s Hierarchy of Needs Theory states that a person who cannot meet physiological needs would automatically lose focus and lack the momentum to move to the next level of cannot be satisfied. The schools' inputs in terms of mitigation of tuition fees through bursaries and sponsored educational trips were also cited as being instrumental in improving school completion rates among students. These results were supported by studies done in Bangladesh by OECD (2013), which revealed that completion rates in this country has been improving due to the introduction of the bursary scheme in secondary school. Another study was done in the United Kingdom similarly reported a close relationship between the Government bursary, transition and Completion rates (OECD, 2013). This suggests that the availability of bursaries translated into high transition and completion rates worldwide. Locally, Sang et al. (2013) also concluded in their study that bursary programs boost completion rates in secondary schools in Kenya.

Furthermore, the study findings also show that majority of the students agreed that their schools' management practice of allowing payment of fees in instalments (70.5%; mean= 3.08 std dev = 1.26) and alternatives fees
payments (67.3%; mean = 2.94; std dev = 1.32) encourage students to complete their secondary school education. The flexibility allowed in payment of school fees by the management meant that the students were under less pressure to comply with the financial regulations of the schools and, hence, reduced the chances of their secondary education cycle being disrupted due to issues relating to finance. These findings support those of Ogalo, Simatwa and Juma (2014) who observed that payment in instalments could be encouraged by principals to allow parents to have enough time to complete fees payment. The principals should therefore have a schedule of fees payment for parents paying in instalment and communicate to the latter during annual meetings, parents' days and through newsletters sent at the end of each term.

In addition, the provision of lunch programs was also found to have a considerable impact on addressing low completion rates in secondary schools in the area. Most students strongly agreed (72.5%; mean = 3.23; std dev = 1.09) that, “The provision of lunch programs in my school encourages me to complete my secondary school education.” This was consistent with Acheck (2015) who found that the presence of lunch programs for students in marginal areas was important and could, therefore, be used to encourage students to remain in school and greatly improve completion rates.

Results of the study findings also affirmed that provision of enough writing materials (66.7%; mean = 2.98; std dev = 1.09), forwarding of names of needy students to sponsors for financial assistance (60.9%; mean = 2.69; std dev = 1.19) and provision of fare to school by parents (60.2%; mean = 3.40; std dev = 1.13) encourage secondary school completion rates. This is because the percentages are above average and their means are above 2 hence falling under the agreement to part of the Likert scale. In light of the research findings, the researcher noted that writing materials, sponsorships and fare to school are important items that can lead to improvement of secondary education. The researcher, therefore, opines that the practices be encouraged in schools because they encourage secondary school completion rates in the area under study. These findings agree with Sang et al., (2013) and Otieno (2013) who argue that provision of education needs other than fees that can lead to increase in access to education, retention and completion rates.

These findings agree with Muthoni (2015), whose study on the influence of government bursary on students' access to secondary education, found out that availability sponsorships and bursaries lead to high school completion rates. Muhindi (2012) also concurred with Muthoni (2015) by arguing that subsidised secondary school education makes a remarkable impact in accelerating completion rates. The researcher noted from the findings that sponsorship and bursaries lead to the improvement of secondary school completion rates. Yara (2010) and Akaranga (2011) affirmed that the provision of learning materials increases school completion rates. It was also noted by the researcher from the study findings that when students are provided with enough writing and revision materials, it will lead to an acceleration of secondary school completion rates.

Correlation between User Education Cost and Secondary School Completion Rates

Pearson correlation coefficients were calculated to establish correlation User Education Costs and secondary school completion rates in Samburu East Sub-county, Kenya. The findings are shown in Table 2.

Table 2: Correlation between User Education Cost and Secondary School Completion Rates

<table>
<thead>
<tr>
<th>Student Education Cost</th>
<th>Secondary School Completion Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: T-Test of User Education Costs Practices by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Df</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>77</td>
<td>3.80</td>
<td>.447</td>
<td>154</td>
<td>.788</td>
<td>.432</td>
</tr>
<tr>
<td>Female</td>
<td>79</td>
<td>3.73</td>
<td>.567</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of t-test shown in Table 4 revealed that user education costs were not significantly different between male and female respondents at 0.05 alpha level, t (154) = 0.788, p=0.432 > p = 0.05. According to the findings (Table 3), P-value (0.432) is greater than 0.05 alpha level. This means that secondary school completion rates did not significantly differ across the gender divide as a result of user education costs as a management practice.

The difference in User Education Costs by School Categories.
ANOVA was conducted to establish the difference in user education costs by school categories at the 0.05 alpha level. The results of the findings are presented on Table 4.

Table 3: Difference in user Education Costs by School Category

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.462</td>
<td>2</td>
<td>.231</td>
<td>.885</td>
<td>.415</td>
</tr>
<tr>
<td>Within Groups</td>
<td>39.948</td>
<td>153</td>
<td>.261</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40.410</td>
<td>155</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.05 level
The results of ANOVA analysis in Table 4 indicates that there is no significant difference between user education costs and secondary school completion rates across private boarding, mixed public day and public boarding schools at the 0.05 level, F (2, 153) = 0.885, p= 0.415 > p = 0.05. This was because the p-value 0.415 is greater than 0.05 significant level. This infers that while user education costs could vary across the different categories of schools, this did not necessarily influence secondary school completion rates across the schools.

The findings revealed that there was a close relationship between user education costs and secondary school completion rates in Samburu East Sub-County, Kenya on the basis of the overall index of reinforcing school cultures given by mean = 3.02; std dev = 0.511. This implied that adopting and practising cost-sharing schemes could lead to more students to be encouraged to complete their secondary school education in the area. The schools’ financial inputs, as well as parental input, were important. Flexible modes of offsetting financial obligations also counted in ensuring the students' learning continuity. This was confirmed by the corresponding bivariate correlation results indicating that there was a positive and statistical correlation between cost-sharing practices and secondary school completion rates in the area (r = 0.294, p = 0.000 < p = 0.05). This led to the conclusion that schools implementing cost-sharing practices significantly increased the likelihood that their students would complete secondary school completion.

However, the t-tests failed to reveal whether user education costs significantly explained variations in secondary school completion rates between male and female respondents (t= 0.788, p = 0.432 > p = 0.05) meaning that school management encouraging user education costs could not account for the differences in the secondary school completion rates between male and female students. The results of ANOVA analysis further revealed that there was no significant difference between Cost-Sharing Practices and secondary school completion rates at the 0.05 level (F (2, 153) = 0.885, p = 0.415 > p = 0.05) across private boarding, mixed public day and public boarding schools indicating that improving cost-sharing practices would not necessarily translate to improved completion rates on the basis of school category.

In addition, multiple regression results from the regression summary model revealed that Cost-Sharing Practices in secondary schools in the area (β = 0.504, p = 0.000 < p = 0.05), was the second most influential school management practice as per the model. This led to the null hypotheses (H02) rejection and adopting the view that user education costs were important when trying to actualise the government’s 100 per cent completion rate policy in secondary school completion rates in Samburu East Sub-county, Kenya. Further, a unit change in implementing user education costs would result in a 50.4% increase in the completion rate in a secondary school in Samburu East Sub-county.

4.0 CONCLUSION AND RECOMMENDATIONS

Conclusion: The researcher concluded that the respondents agreed that the provision of personal effects by parents and the provision of lunch programs encouraged secondary school completion rates in the study locality. They are the most prevalent practices in schools under study. It, therefore, concluded that they are the major factors that contribute to students completing their secondary school education. Further findings also showed that the provision of the bursary, payment of fees in instalments, provision of revision textbooks by parents,
provision of writing materials, use of alternatives fees payments, firewood or food for fees, education trips sponsored by parents, provision of fare to school by parents and the forwarding of names of needy students to sponsors for financial assistance had a low influence on secondary school completion rates. The researcher concluded that the headteachers should reform the practices on Cost-Sharing Practices that had a low influence on secondary school completion rates in their schools. They should, therefore, adapt the best practices that will improve completion rates in.

**Recommendation:** The study recommended for collaboration with the parents by sensitising them the need for supporting their children's education by providing the implementing management practices that can improve secondary school completion rates.

**REFERENCES**


