

INFLUENCE OF SALE OF HANDICRAFTS ON STUDENTS' RETENTION RATES IN PUBLIC SECONDARY SCHOOLS IN MASINGA SUB-COUNTY, MACHAKOS COUNTY, KENYA

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Publication Date: July 2023

ABSTRACT

Purpose of the Study: Income-generating activities, such as the sale of handicrafts, play a key role in bridging the financial gaps experienced by public secondary schools. These activities generate revenue for the school to supplement the fees paid by students and financial subsidies from the government, as a strategy for providing quality education and increasing retention rates among students in public secondary schools. However, in Masinga Sub-county, the situation is quite different, with many public secondary schools registering low retention rates among students. The purpose of this study was to assess the influence of the sale of handicrafts on students' retention rates in public secondary schools in Masinga Sub-county, Machakos County, Kenya.

Research Methodology: This study adopted a mixed methodology and applied concurrent triangulation research design. The target population was 812 respondents, comprising 54 principals, 542 teachers, and 216 support staff. A sample of 268 respondents was determined using Yamane's Formula. Stratified sampling was used to create four different strata based on the number of zones in Masinga Sub-county. From each zone, three principals and six support staff were selected using purposive sampling. However, from each zone, 58 teachers were selected using simple random sampling to avoid bias. This sampling procedure resulted in a sample of 12 principals, 24 support staff, and 232 teachers. Qualitative data were analyzed thematically based on the study objectives and presented in narrative form. Quantitative data were analyzed descriptively using frequencies and percentages, and inferentially using linear regression analysis in the Statistical Package for Social Sciences (SPSS Version 23) and presented using Tables.

Findings: The study revealed that the number of students who complete their secondary education is low, with dropout rates standing at 40.7% compared to the national dropout rates, which have decreased to 23.7%. This is attributed to the inadequacy of financial resources, and as a result, schools have embraced the sale of handicrafts as an alternative income-generating activity.

Recommendations: The study recommends that school principals should ensure that the funds raised from the sale of handicrafts and trophies are used for good purposes and to support needy students. Donors should continue funding school programs as a strategy for reducing students' dropout rates from public secondary schools.

Keywords: *Sale of Handicrafts, Students' Retention Rates, Public Secondary Schools*

INTRODUCTION

Education is recognized globally, not only as the foundation for lifelong learning and human development, but also as an essential ingredient in the fight to reduce poverty and promote development in all aspects of life (Farvardin, 2012). According to Farvardin (2012), many countries rely on education in the aspiration to scale up the economy and provide high quality life to all her citizens. Cognizant of these viewpoints, Cramer (2013) contends that population quality and knowledge constitute the principal determinants of the future welfare of mankind. Besides, education steers development in all spheres of life. At the individual level, a student who has access to quality secondary education has a better chance in life as the education provides the student with a solid foundation for continued learning throughout life and also equips him or her with skills to lead a productive life in society (Cramer, 2013).

In Kuala Lumpur, for example, out of 123, 679 students enrolled in secondary schools, only 56.9% manage to stay in school and complete their secondary level education (Levitz, 2014). This is largely attributed to socio-economic background of students and their families and due to the fact that expansion of education has not been accompanied by adequate education financing. Levitz (2014) posits that inadequate financing of secondary school education has made some students to drop out of school. To bridge this gap, secondary schools have adopted a myriad of income-generating activities such as sale of handicrafts to supplement government subsidies. Handicrafts are a part of the culture of a nation or ethnic group and represent a key component of socio-economic life, even if handicraft activities are not fully included in national accounts. However, Mikkelsen and Hagen-Wood (2012) assert that beyond their aesthetic and cultural dimensions, handicrafts present several interesting socio-economic characteristics which secondary schools have tapped into as alternative source of income since the handicrafts sector is a home-based industry, which requires minimum expenditure and infrastructure to establish.

According to Mikkelsen and Hagen-Wood (2012), this sector uses existing skills and locally available raw materials. To support this, UNESCO (2017) carried out a study in Berlin, Germany which revealed that students in high schools are often expected to acquire basic skills

on how to make handicrafts which are often sold to generate extra income. UNESCO (2017) established that schools in many agricultural and pastoral communities depend on their traditional craft skills as an essential source of income in times of drought, lean harvests, floods or famine. However, UNESCO (2017) avers that even in times of plenty their traditional skills in craft making among students are the basis for additional income generating activities that are a natural means to social and financial independence. These findings are indicative of the fact that sale of handicrafts developed by students in high schools constitute a major source of extra income to supplement school financial activities. In a study conducted in Syria, Barber and Krivoshlykova (2014) established that support to develop handicrafts at village level is the priority request of young women and in secondary schools, students are taught subjects such as art and crafts which mainly concern carpet manufacturing, knitting and sewing. According to Barber and Krivoshlykova (2014), students learn home science, business skills, craftsmanship and entrepreneurship development which enable them to develop and make small carpet units and other artefacts for sale.

In many countries in Sub-Saharan Africa, Hull (2016) opines that handicrafts made by students are often sold in direct sales, gift shops, public markets, and online shopping. For example, a study conducted in Ghana by Kusil, Opata and Wayo (2016) revealed that handicrafts made by students in high schools are sold to locals and as souvenirs to tourists, the proceeds of which are channeled to finance school operations. This indicates that sale of handicrafts are an important productive sector and export commodity for many secondary schools. In Namibia, Belleza, Andrew, Keeler and David (2017) posit that the handicraft sector has played an important economic and social role. According to Belleza et al (2017), the handicraft industry can be assumed to contribute to the process of development including the abatement of unemployment, underemployment and poverty, owing to its labor-intensive nature.

In Kenya, the government is committed to the provision of quality education in accordance with the international convention on human rights, Education for All and Vision 2030 (Onsomu, Mungai, Oulai, Sankale & Mujidi, 2014). In keeping with these concerns, the government introduced and implemented free day secondary education (FDSE) to offer subsidy to education activities in schools by paying tuition fees for students, and shouldering the cost of maintenance and repair of school infrastructure (Achumbi, 2012). However, Achumbi (20102) opines that there are financial gaps that need additional funding and the government advised the school managers to mobilize available institutional resources such as land, physical facilities and equipment to generate income through commercial, agricultural projects and

renting school facilities to provide the necessary learning resources to enable the schools to run efficiently. Public secondary schools in Masinga Sub-county are not an exception with many having embraced alternative income-generating activities such as PTA levy, use of direct labor, sales of school handicrafts, fund raising and donor funding among others.

STATEMENT OF THE PROBLEM

Income-generating activities such as sale of handicrafts play a key role in bridging the financial gaps which are experienced by public secondary schools. Such activities generate revenue to the school to supplement the fees paid by students and financial subsidies from the governments as a strategy for providing quality education and increased retention rates among students in public secondary schools. However, in Masinga Sub-county, the situation is quite different with many public secondary schools registering low retention rates among students. As noted earlier, a report by the Ministry of Education (2021) shows that, in Masinga Sub-county, retention rates stood at 67.5% in 2015, 55.7% in 2016, 47.03% in 2017 and 44.3% in 2018 which paints a picture of declining number of students retained in public secondary schools despite huge enrollments. Despite these statistics, few empirical studies have interrogated the extent to which sale of handicrafts influences students' retention rates of students in public secondary schools, hence the need for this study.

OBJECTIVES OF THE STUDY

- i. To assess the status of students' retention rates in public secondary schools in Masinga Sub-county.
- ii. To establish the influence of sale of handicrafts on students' retention rates in public secondary schools in Masinga Sub-county.

THEORETICAL FRAMEWORK

This study was guided by the theory of income generation which was propounded by Keynes (1936). This theory focused on the circular flow of income. This is the process by which payments flow from firms to households in the form of payment for the factors of production and from households back to firms in the form of inputs- land, labour, capital and entrepreneurship. In other words, government invests money in education, but ironically, the same government collects the money back from the parents in form of school fees and Parents Teachers Association levies, developmental levies among others. Under this circumstance, it left the school management without fund to embark on any project, which the government

cannot embark upon. This study was also guided by Retention Theory by Tinto (1993) and central idea to it is that of integration. It claims that whether a student persists or drops out is quite strongly predicted by their degree of academic integration and social integration. These evolve over time, as integration and commitment interact, with dropouts depending on commitment at the time of the decision.

Tinto (1993) has categorized student retention theories into three types: psychological, environmental, and interactional. Psychological dimension focuses on individual personality attributes and view student attrition as reflecting some shortcoming and/or weakness in the individual. However, there is no “departure-prone” personality or any other personal characteristics which are uniformly associated with student attrition (Tinto, 1993). According to Tinto (1993), environmental dimension focuses on the social, economic, and organizational forces impacting on student retention. Tinto (1993) asserts that societal component emphasizes the importance of social forces that are external to the higher education institution on student retention such as social status, race, prestige, and opportunity. As a result, they are insensitive to individual and institution specific forces that affect student retention decisions. Economic dimension emphasizes the importance of individual finances and financial aid in student retention. Thus, in this study, students’ access to educational opportunities and eventual retention in schools depend largely on adequate funding.

RESEARCH METHODOLOGY

This study adopted a mixed methodology and applied a concurrent triangulation research design. The target population was 812 respondents, comprising 54 principals, 542 teachers, and 216 support staff. A sample of 268 respondents was determined using Yamane's formula. Stratified sampling was used to create four different strata based on the number of zones in Masinga Sub-county. From each zone, three principals and six support staff were selected using purposive sampling. However, from each zone, 58 teachers were selected using simple random sampling. This procedure resulted in a sample of 12 principals, 24 support staff, and 232 teachers. A questionnaire was used to collect quantitative data from teachers, while interview guides were used to gather qualitative data from principals and support staff. Qualitative data were analyzed thematically based on the study objectives and presented in narrative form. Quantitative data were analyzed descriptively using frequencies and percentages, and inferentially using linear regression analysis in the Statistical Package for Social Sciences (SPSS Version 23) and presented using tables.

RESULTS AND DISCUSSIONS

The study shows that principals registered a response rate of 83.3%, teachers registered 99.6% whereas support staff registered a response rate of 87.5%. This yielded an average response rate of 97.8%, which is consistent with the assertions of Creswell (2014) that a response rate above 75.0% is adequate.

Status of Students' Retention Rates in Public Secondary Schools

The study sought to assess the status of students' retention rates in public secondary schools in Masinga Sub-county. This was measured by taking stock of the number of students who were enrolled between 2018 and 2022, those who dropped out and those who were retained to complete their secondary education. Results are shown in Table 1;

Table 2: Students' Retention Rates

Academic Year	Students' Retention Rates in Public Secondary Schools		
	Annual Enrollment	Students' Dropouts	Students' Retention Rates
2018	10793	3033 (28.1%)	7760
2019	11034	3343 (30.3%)	7691
2020	12035	4200 (34.9%)	7835
2021	12902	4568 (35.4%)	8334
2022	13045	4710 (36.1%)	8335
Totals	59809	19854 (33.2%)	39955 (66.8%)

Table 1 shows that the number of students enrolled in public secondary schools has been on the increase since 2018 to 2022 due to the 100.0% transition policy by the government. However, after four years upon enrollment, the number of students who complete their secondary education is low compared to the national dropout rates. These findings corroborate the findings of a report by the Ministry of Education (2021) shows that, in 2017, students' retention rates in Masinga Sub-county stood at 31.8%, in 2018, it was 37.3%, in 2019, it was 40.4% whereas in 2020, participation rate stood 41.4% against national participation rates which stood at 59.0% in 2015, 61.6% in 2016, 63.8% in 2017 and 79.2% in 2018 respectively. These findings underscore the fact that students are enrolled into secondary schools, however, not all complete their secondary education. This affirms the fact that the noble expectations of

education have not been achieved in situations where the students’ retention rates have been low and thus, leads to wastage. In other words, students’ retention rates in secondary schools have been and continues to be a critical issue confronting education system in most developing countries.

Sale of Handicrafts and Students’ Retention Rates in Public Secondary Schools

The study sought to determine how sale of handicrafts influences students’ retention rates in public secondary schools. Results are shown in Table 2.

Table 2: Teachers’ Views on the Influence of Sale of Handicrafts

Test Items	Ratings				
	SA	A	U	D	SD
	%	%	%	%	%
To generate extra income, public secondary schools have often resorted to sale of trophies won during competitions	60.6	8.7	3.0	20.8	6.9
Despite the inadequacies in budgets, public secondary schools have never resorted to selling projects designed for science symposiums	31.2	5.2	3.9	51.9	7.8
In public secondary schools, artefacts such as beads made of ostrich shells made by students are often sold to fund budget deficits	60.2	10.0	2.6	18.6	8.6
In most cases, public secondary schools have resorted to sale of textile materials and carvings designed by students to generate extra income	50.6	8.2	4.3	22.1	14.8
Sale of handicrafts has not helped generate enough income to help cushion needy students from dropping out of public secondary schools	45.0	6.5	3.9	28.1	16.5

Table 2 shows that 140(60.6%) of the teachers strongly agreed with the view that, to generate extra income, public secondary schools have often resorted to sale of trophies won during competitions whereas 20(8.7%) agreed. However, only a paltry 7(3.0%) were undecided, 48(20.8%) disagreed whereas 16(6.9%) strongly disagreed. Table 3 shows that 72(31.2%) of the teachers strongly agreed with the view that, despite the inadequacies in budgets, public secondary schools have never resorted to selling projects designed for science symposiums while 12(5.2%) agreed. However, 9(3.9%) were undecided, 120(51.9%) disagreed whereas 18(7.8%) strongly disagreed. Most, 139(60.2%), of the teachers strongly agreed with the view

that, in public secondary schools, artefacts such as beads made of ostrich shells made by students are often sold to fund budget deficits while 23(10.0%) agreed. However, 6(2.6%) were undecided, 43(18.6%) disagreed whereas 20(8.6%) strongly disagreed. These findings are consistent with the assertions of Getange et al (2014) that, in many secondary schools in Masinga Sub-county, students form different clubs where they practise metal crafts, weaving, stone crafts and textile activities. In the same vein, a study carried out in Masinga Sub-county by Kyalo (2014) established that, in secondary schools, students have learnt how to make beads using ostrich eggshells, weave baskets and clay carvings. To earn much income, Kyalo (2014) indicates that school handicrafts are made by students as trophies and science projects which are often sold to income extra income to bridge deficits in secondary school budgets. These findings further lend credence to the findings of a study conducted in Ghana by Kusil et al (2016) which found that handicrafts made by students in high schools are sold to locals and as souvenirs to tourists, the proceeds of which are channeled to finance school operations. This indicates that sale of handicrafts are an important productive sector and export commodity for many secondary schools.

Majority, 117(50.6%), of the teachers strongly agreed with the view that, in most cases, public secondary schools have resorted to sale of textile materials and carvings designed by students to generate extra income whereas 19(8.2%) agreed. On the same breath, 10(4.3%) were undecided, 51(22.1%) disagreed whereas 34(14.8%) strongly disagreed. The study also found out that 104(45.0%) of the teachers strongly agreed with the view that sale of handicrafts has not helped generate enough income to help cushion needy students from dropping out of public secondary schools with 15(6.5%) in agreement. At the same time, 9(3.9%) were undecided, 65(28.1%) disagreed whereas 38(16.5%) strongly disagreed. These findings corroborate the findings of a study undertaken in Berlina in Germany by UNESCO (2017) which revealed that students in high schools are often expected to acquire basic skills on how to make handicrafts which are often sold to generate extra income.

UNESCO (2017) established that schools in many agricultural and pastoral communities depend on their traditional craft skills as an essential source of income in times of drought, lean harvests, floods or famine. However, UNESCO (2017) avers that even in times of plenty their traditional skills in craft making among students are the basis for additional income generating activities that are a natural means to social and financial independence. These findings are indicative of the fact that sale of handicrafts developed by students in high schools constitute a major source of extra income to supplement school financial activities. In other words, the

contribution made to the economy and the export market through artisanry is increasing as more new craftspeople, especially youth and women, are introduced into the sector as a solution to both rural and urban unemployment, a concept which most secondary schools worldwide have tapped into.

Inferential Analysis

To verify the influence of sale of handicrafts on students' retention rates in public secondary schools, data were collected on the amount of money realized from sale of handicrafts for the last five years (2018-2022) and the number of students retained in the 10 sampled secondary schools from 2018 to 2022. Results are shown in Table 3:

Table 3: Amount of Money from Sale of Handicrafts and the No of Students

Amount of Money from Sale of Handicrafts	Number of Students Retained in Public Secondary Schools from 2018 to 2022
93500.00	676
77078.00	268
65700.00	389
101600.00	671
211450.00	805
87900.00	587
157890.00	1088
97000.00	623
111500.00	719
90500.00	456

Table 3 shows that public secondary schools which engages in sale of handicrafts generate more money annually which are used to bridge the deficits in school budgets. This supports the findings of Kyalo (2014) who established that students have learnt how to make beads using ostrich eggshells, weave baskets and clay carvings to earn much income. The results in Table 4 were subjected to Linear Regression Analysis and the results are shown in Table 4:

Table 4: Relationship between Sale of Handicrafts and Students' Retention Rates

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	205.406	148.450		1.384	.204
	Amount of Money from Sale of Handicrafts	.004	.001	.733	3.044	.016

Table 4 shows linear regression analysis which generated a linear model of the form; Number of students retained in public secondary schools = 205.406 + 0.733Amount of money from sale of handicrafts. These results from the linear regression equation indicates that the coefficient for number of students retained in public secondary schools attributed to the sale of handicrafts is 0.733 (positive). This implies that for every increase in the amount of money realized from the sale of handicrafts, the number of students retained in public secondary schools is expected to increase by a factor of 0.733 (positive coefficient). The value 205.406 indicates that the number of students retained in public secondary schools is not only dependent on the sale of handicrafts, but a multiplicity of other inherent factors not being interrogated in this study. Similarly, from the results in Table 5, the p-value, 0.016 is less than 0.05, that is, a low p-value ($0.016 < 0.05$). In summary, these results indicate that there is significant influence of sale of handicrafts retention of students in schools.

Thematic Analysis

During the interviews, the principals and support staff responded in favour of the view that sale of handicrafts or trophies has become a common practice to raise extra money to fund school programmes. Principal, P1, noted;

We value trophies, but sometimes deficits in school budgets become so huge that we have to part with the handicrafts to raise extra income. The money raised is often channeled towards meeting school financial demands such as buying scholastic materials, paying salaries and helping needy students stay at school by paying their fees.

These views were shared by the support staff who also noted that, on many occasions, school handicrafts are often put up for sale. This includes sale of projects designed for science symposiums. The interviewees also stated that public secondary schools have resorted to sale of textile materials and carvings designed by students to generate extra income. Principal, P2, stated;

In my secondary school, students are often engaged in making textile materials such as sweaters, caps and socks to be put up for sale to generate extra income.

Like quantitative findings, these views also support the views expressed by Getange et al (2014) that students form different clubs where they practise metal crafts, weaving, stone crafts and textile activities. These views further lend credence to the viewpoints held by Kyalo (2014) that, to earn much income, school handicrafts are made by students as trophies and science projects which are often sold to income extra income to bridge deficits in secondary school budgets. These mixed findings affirm the fact that sale of handicrafts developed by students in high schools constitute a major source of extra income to supplement school financial activities.

CONCLUSIONS

From the study findings, it is evident that the number of students enrolled in in public secondary schools has been on the increase since 2018 to 2022 due to the 100.0% transition policy by the government. However, after four years upon enrollment, the number of students who complete their secondary education is low with dropout rates standing at 40.7% compared to the national dropout rates which has gone down to 23.7%. From the study findings, sale of handicrafts or trophies has become a common practice to raise extra money to fund school programmes. In other words, trophies or awards which schools receive during competitions are often put up for sale as an alternative income-generating activity.

RECOMMENDATIONS

The study recommends that secondary school principals should that the funds raised from sale of handicrafts and trophies are channeled into good use and support needy students.

REFERENCES

- Achumbi, D. (2012). *Influence of Income Generating Activities on Teaching and Learning Environment in Secondary Schools in Bungoma South District- Kenya*. Unpublished M. ED Thesis. The University of Nairobi, Kenya.
- Barber, T., & Krivoshlykova, M. (2014). *Global market assessment for handicrafts in Syria*. Syria: Mahwah Press.
- Belleza, E., Andrew, G., Keeler, W. T. & David, L. F. (2017). *Competitiveness of the Crafts and Artisanal Cluster in Namibia*. Sigma One Corporation.
- Cramer, E. (2013). *Developing Lifelong Readers*. Newark: DE: International Reading Association.

- Creswell, J. (2014). *Research design: qualitative, quantitative and mixed methods*. Thousand Oaks, California: Sage Publications.
- Farvardin, N. (2012). Retaining Students-and Their Hopes and Dreams. *ASEE Prism*, 16(7), 64-65.
- Getange, K., Orodho, J., & Onkeo, J. (2014). *Alternative Sources of Funding for free day secondary education in schools in Kisii Central Sub-county, Kenya*. Unpublished Med Thesis, Kenyatta University. <https://doi.org/10.9790/0853-13461423>
- Hoyt, J. E. & Winn, B. A. (2013). Understanding retention and college student bodies: Differences between drop-outs, stop-outs, opt-outs, and transfer-outs. *NASPA Journal*, 41(3). <https://doi.org/10.2202/0027-6014.1351>
- Hull, G. (2016). *Sub-Contracting Between Handicraft Exporters/Manufacturers and Small Producers in Africa: Final Report*. Development Alternatives, Inc.
- Keynes, M. (1936). *The Theory of Money and the Foreign Exchanges*. A Monetary Reform. Stanford: Stanford University Press.
- Kusil, A., Opata, C., & Wayo, T. (2016). Exploring the factors that hinder the growth and survival of small businesses in Ghana: A case study of small businesses within Kumasi Metropolitan Area. *American Journal of Industrial and Business Management*, 5, 705-723. <https://doi.org/10.4236/ajibm.2015.511070>
- Kyalo, D. M. (2014). *Socio-economic factors and Kenya Certificate of Secondary Education performance. A case study of Masinga Boys and Kivaa secondary school in Masinga sub-county, Machakos county, Kenya*. Unpublished Med Project, Mount Kenya University.
- Levitz, R. (2014). *What's Working Right Now in Student Retention! Building Blocks for Retention Success, the Basis for Recruiting Success*. Unpublished report prepared for the National Conference for Student Retention
- Mikkelsen, L., & Hagen-Wood, M. (2012). *Experiences in taking crafts to market*. New York: Micro, Small and Medium Enterprise Division Publications.
- Ministry of Education (2021). *A report on students' retention rates in public secondary schools of secondary schools, 2017*. Nairobi: Government Printer.
- Musau, J. K. (2015). *School-based factors influencing students' performance in Kenya Certificate of Secondary Education in Masinga Sub County, Machakos County, Kenya*. Unpublished Med Thesis, University of Nairobi.
- Onsomu, E., Mungai, J., Oulai, D., Sankale, J. & Mujidi, I. (2014). *Community schools in Kenya: Case study on community participation in funding and managing schools*. Paris: UNESCO.
- Tinto, V. (1993). *Principles of Retention Theory*. Oxford University Press
- United Nations, Education Social and Cultural Organization (2017). *School enterprises: Combining vocational learning with production*. Berlin: UNESCO.