

Influence of Fishing Activities on School Attendance, Dropout and Academic Performance Among Students in Lamu East Sub County, Kenya

Abstract

The aim of this study was to investigate the influence of fishing activities on school attendance, dropout and academic performance among secondary school students in Lamu East Sub County. Conflict Theory by Karl Max et al. (2005) anchored this study. Mixed research methodology was employed in which both qualitative and quantitative data were collected. The researcher employed correlation research design. Target population was 5 public secondary schools with 1200 students because most of these schools have been performing below average in academics. Purposive sampling technique was used to select 4 public day secondary schools and boarding schools. Simple random sampling was used to obtain the students in each school to participate in the study. The sample size consisted of 4 day secondary schools representing 80%, 60 boys and 80 girls who represented 11% and 12% respectively. Data analysis involved the use of two statistical methods; descriptive statistics and inferential statistics with the aid of SPSS program Version 23. The results showed that fishing activities and school attendance were negatively and significantly correlated, $r(121) = -.175, P=.004$. Fishing activities and school dropout were positively and significantly correlated at, $r(121) = .510, p =.00$. Academic performance and fishing activities were negatively and significantly correlated $r(121) = -.16, p =.03$. The study recommends that policy makers and education stakeholders should come up with measures that will limit student involvement in fishing activities to increase their participation in academic activities and improve their academic performance.

Key Words: Fishing Activities; School Attendance; Dropout; Academic Performance

1. Introduction

Across the world, education is a fundamental human right for everyone. According to UNESCO (2018), education is one of the goals in the 2030 sustainable development agenda that has been approved for implementation by the international community. For a long time, education has been considered as the most powerful tool that can be used to eradicate extreme poverty to enhance social and economic equity in all communities of the world. To achieve this, access to universal and quality education services is very key. The international community, national and local governments have established legal and policy frameworks to promote the right to quality education. For example, the United Nations General Assembly passed a resolution on education for sustainable development (2005-2014) that emphasized on quality, access and inclusiveness in the provision of education (UNESCO, 2018).

The Convention on the rights of the child, provides that children should be protected from any form of discrimination such as child labour that denies them an opportunity to attend

school. Despite the efforts that have been made to ensure that all children in any part of the world, regardless of socio-economic class attend school and have access to quality education, a substantial number of children miss school and others don't attend school at all for various reasons.

The International Labour Organization (2018) estimated that about 218 million children aged between 5 and 17 years were in employment in different countries of the world. The survey indicated that nearly half of the population is found in Africa and Asia. According to the report, child labour is concentrated in Agriculture (71%) primarily in activities such as fishing, livestock herding, forestry and aquaculture, 17% large scale farming and 12% in the industrial sector. The focus of the study was on involvement of children in fishing industry. In Brazil, Vieira, Moraes and Nunes (2013) in their study on fishing activities and education established that fishing affected school life of the respondents. It was revealed that 39% of the respondents reported truancy and 63% indicated that school timetable interfered with their fishing activities. The findings clearly indicate that the participants clearly did not value schooling.

In the Philippines, ILO (2017) reported that even though the country had made an advancement in reducing child labour especially those working in the fishing industry, the percentage of children in the school going age working in the industry still remains high. In the report, 7.5% of children were found to be working. The problem continues to persist despite the institutionalization of laws that prohibit employment of children in any industry. A survey conducted by the ILO in the year 2013 revealed that in Thailand, half of the work force in fishing industry were aged between 18 and 28 years.

The research also found that seven of the respondents were below 15 years and 26 were aged between 15 to 17 years. Shockingly, majority of the respondents had very little formal education. The findings imply that in most cases those who participate in fishing activities drop out of school without even completing basic education to engage in fishing. The same trend was observed by UNICEF (2016) report on child labor and exploitation in South Asia. It was revealed that children aged between 5-14 years were employed especially in the fishing sector. This problem was attributed to poverty, weak law enforcement agencies and lack of decent job opportunities for parents to provide for their children.

In Africa, participation of school going children in fishing activities was a matter of serious concern. For instance, in Nigeria government agencies were grappling with students skipping classes to participate in fishing activities (Abane, 2014). The riverine nature of the Southern part of the country exposed the students to fishing activities that tempted them to abandon their studies. Udoh, Achike and Mkpado (2013) studied the impact of fishing on learning of students in Akwa Ibom state. It was reported that academic achievement of the students was statistically inversely associated with the frequency of fishing activities per week. Part of other literature such as Ray (2002) indicated that there was a tradeoff between education and child labour.

Children who participated in labour related activities performed dismally compared to those who were not involved these activities. All African countries with a coastline and inland large water body experienced some form of child labour who got involved in fishing activities (Westaway, Barratt & Seeley, 2009). In Uganda, Walakira et al. (2008) noted that child labour in the fishing industry was high with 59% of the children not attending school, 54% dropped out and 5 percent were never enrolled. The reasons that were cited for school drop outs include; paid work, group influence and inadequate financial resources to pay school fees.

In Kenya, communities living around Lake Victoria and along the Indian Ocean majorly derive their livelihood from fishing activities. This is because coastal and lake regions are characterized by extreme climatic conditions that cannot support other economic activities such as agriculture. To work in the fishing industry, one does not require special skills and this opens an avenue for school going children to work in the fishing sites (Westaway, Barratt & Seeley, 2009). A study carried out by K'achieng (2011) investigated how fishing activities affected schooling of primary school pupils in Lake Victoria region. The researcher found that fishing related activities impacted negatively on academic performance of the pupils. Fishing which is considered as a primary form of production is normally concentrated in areas called fishing stations. In these areas, children are involved activities such as boat making, smoking and drying the fish, removing fish from the nets and sorting among others. In small fishing stations, some activities such as smoking, salting, drying and bagging take place at home (Ojijo, 2016). Students are involved in the evening and in the morning before the catch is taken to the market.

A comparative study by Christoph and Sonja (2007) established that fishing activities affected academic performance of primary school pupils along the coastal region in Kenya. The pupils who engaged in fishing had significantly lower scores in academics compared to those who were not involved. The results corroborate the findings of Omwenga (2015) who demonstrated that child labour contributed to poor performance and high dropout rates. The work given to the

students not only leaves them tired to concentrate on their studies but also robs them learning time. When students start working for payment, they tend to lose achievement motivation for academics which affects their learning and future career endeavors. Balancing between the demands of work and studies can prove to be difficult for the students. The extensive demands take toll on the children's physical energy leaving them exhausted to attend school or concentrate on their studies.

Studies that had been conducted in the area showed that the issue of below average academic performance in the sub county had been associated with inadequate learning resources, facilities and low socio-economic status of the people living in the area. Studies had given recommendations on what was needed to be done to improve academic performance in the area but still this problem had continued to persist. Considering that fishing is the only major economic activity in Lamu East sub county, the below average academic performance was associated with it. Past research work as demonstrated in the background to the study that examined the influence of fishing activities on academic performance were conducted outside Lamu East Sub County using samples of primary school pupils (K'achieng, 2011; Christoph & Sonja, 2007).

Related studies that were carried out in the coastal region focused on the factors associated with child labour (Omwenga, 2015). There were limited studies that had been carried out in Lamu East Sub County to examine the influence of fishing activities on academic performance of students in day secondary schools. Therefore, there was need for the proposed study to bridge the gap in an effort to provide empirical evidence that was to be used to improve the quality of secondary school education in the area.

In Lamu East Sub County, below average academic performance, irregular school attendance and school dropout in secondary schools had been issues of concern. Even though little had been done on the factors associated with these issues in secondary schools, some studies had been conducted on school attendance in the sub county. A research by Kinuthia (2017) found that radicalization negatively affected school attendance among primary school pupils in the area. It was reported that some pupils were not attending school because of extreme religious beliefs that distort their perception of reality. Owing to the persistence of below average academic performance, school dropout and irregular school attendance and limited research on fishing activities to address these issues, the proposed study was necessary to bridge the gap.

Comment [P1]: Write the study objectives.

2. Research Methodology

The study employed mixed research methodology in which both qualitative and quantitative data was collected. The data was then analyzed to answer research questions. The researcher employed correlation research design. This design was appropriate to the study because fishing activities and academic performance were states that existed. Using this design, therefore, the study sought to investigate how fishing activities influenced academic performance of students in day secondary schools in Lamu East Sub County.

The target population for the study was all students and principals in day secondary schools in Lamu East Sub County in the year 2021. There were a total of 4 public day secondary schools with 1200 students. The sample size consisted of 4 day secondary schools representing 100%, 60

boys and 80 girls who represented 11% and 12% respectively. The researcher used two self-constructed instruments to collect data; questionnaires and interview schedules. The researcher used the university supervisor and competent peers to establish face validity of the research instruments. To ensure content validity of both quantitative and qualitative research instruments, the items were constructed guided by existing literature on the measurement of the study variables. Confirmatory factor analysis was used to establish construct validity. Test-retest technique was used to ascertain reliability of the research instruments. Qualitative data was organized into thematic areas and then categorized to answer research questions. Analysis of quantitative data involved the use of two statistical methods; descriptive statistics and inferential statistics.

Comment [P2]: Did the researcher transcribe the interviews and find the thematic categories?

Comment [P3]: Has any method been adopted to analyze the thematic categories?

3. Findings and Discussion

Table shows descriptive statistics of fishing activities and school attendance.

Table 1 : Descriptive Statistics of Fishing Activities and school Attendance

	N	Minimum	Maximum	Mean	Std. Deviation
Fishing Activities	121	4.00	13.00	7.94	2.94
School Attendance	121	4.00	20.00	9.29	4.28

The results in Table 1 indicate fishing activities mean score was 7.94($SD=2.94$). The minimum score was 4 while the maximum raw score was 13. On the other hand, school attendance mean score was 9.29 ($SD= 4.28$). The maximum score was 20 while the minimum score was 4. The findings indicate that school attendance hand was slightly higher than fishing activities; however, it is evident that there is a substantial engagement in fishing activities by the students.

Similar findings were obtained from the qualitative data collected from the school principals concerning whether there were cases of school absenteeism resulting from fishing. The qualitative data revealed that all the principals indicated that some students missed school to engage in fishing activities.

Hypothesis Testing

To examine the correlation between fishing activities and school attendance, the following null hypothesis was advanced;

H01 There is no significant relationship between fishing activities and school attendance.

The hypothesis was subjected to Pearson correlation and the results were as shown in Table 2.

Table 2 : Correlation between Fishing Activities and School Attendance

		School Attendance
Fishing Activities	Pearson Correlation	-.175**

Sig. (2-tailed)	.004
N	121

Table 2 indicate that, fishing activities and school attendance were negatively and significantly correlated, $r(121) = -.175$, $P=.004$. An increase in involvement in fishing activities resulted to a decline in school attendance and vice versa. Based on the analyses results, the null hypothesis which stated that there is no significant relationship between the two variables was rejected and the alternative hypothesis that states that there is a significant relationship between fishing activities and school attendance was endorsed. The results were supported by the findings from qualitative data collected from the school principals which showed that all the principals indicated that poor school attendance was correlated with increased fishing activities. The principals reported that some of the students missed school to engage in fishing activities.

The results of this study reveal that there is a significant negative correlation between fishing activities and school attendance. These outcomes are similar to the results of past research work conducted in this field. Sugden and Punch (2016) conducted a research aimed at examining literacy in fishing communities in UK. The results of the study indicated that a high percentage of about 77% of primary school age children were actually attending school. However, the 23% were missing out in school activities to engage in fishing activities. Further results indicated that those coming from poor social-economic backgrounds were the most vulnerable. In the current study a considerable number of students were found to miss school to help their parents with the fishing activities. The conflict theory explains this by suggesting that people always look at meeting the most basic needs and school for most people come after the basic resources are acquired.

Esther (2018) also found similar results in a study on the influence of fishing activities on pupils' academic outcome in Serere, Uganda. The study involved a sample of 20 teachers, 256 primary school pupils, 36 parents and 8 administrators. The findings of this study revealed that some of the pupils were involved in the fishing activities to contribute to the livelihood of their families. This resulted to irregular school attendance which contributed to poor performance and school dropout. In the current study, this was also an issue of concern, students missing school to help their parent in fishing activities. The conflict theory argues that in low economic status communities' students may be compelled to engage in income generating activities such as fishing to help meet family needs and or raise money to service their education.

A study by Akello (2017) supports the findings of the current study. The study aimed at investigating how fishing influenced boy's involvement in learning activities in Nyatike, Kenya. The findings of the study indicated that peer influence from student who had dropped out to look for jobs in fishing and poverty were the main causes of absenteeism. From the study, pupils from low socio-economic background resorted to fishing to provide livelihood for their family. This resulted to poor school attendance and high drop out among the male pupils. In the location of the present study, there was also a problem of irregular school attendance resulting from students participating in fishing activities during school days. Conflict theory also argues that this is not out of choice as the most basic resources will always win over participation in school activities. Furthermore, students also need resources to learn comfortably.

Another study conducted by Ojijo (2018) reported consistent findings from an investigation on the impact of fishing activities on academic participation and academic outcome among students in secondary schools. The study findings revealed that a substantial number of school going teenagers were extensively involved in fishing and related activities during school days. The study finding indicated that 69.2% of students involved themselves with actual fishing mentioned, 54.6% in repairing of fishing nets while 72.1% of students offloaded the fish from the boats. The current study also found that students missed school to engage in fishing and other activities such as offloading fish from merchandise, selling, washing and preservation. These activities according to conflict theory, poses conflict between fishing and academic among students as they are rightfully supposed to be in school. The theory argues that the resources available will always predict the success in goals set by the students.

Table 3 presents the descriptive statistics of the responses on the influence of fishing activities on school dropout.

Table 3: Combined Descriptive Statistics of Fishing Activities and School Dropout

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Fishing Activities	121	9.00	4.00	13.00	7.94	2.94
School Dropout	121	14.00	4.00	18.00	11.75	4.36

The results in Table 3 indicate that fishing activities mean score was 7.94 with a standard deviation of 2.94. The minimum score was 4 and the maximum score was 13 with a range of 9. The school dropout mean score was 11.75 with a standard deviation of 4.36. The maximum score was 18, and the minimum score was 4 while the range was 14. The findings indicate that school attendance mean score was slightly higher than fishing activities. However, it is evident that there is a substantial engagement in fishing activities in fishing activities. The results indicate that a substantial number of students dropped out of school to engage in fishing activities.

The qualitative findings from the principals indicate that even though a majority of the students agreed that students do not drop out of school to engage in fishing, there was substantial number of students who dropped out of school because of fishing. Furthermore, the qualitative data collected from the principal regarding the question whether students dropped out of school to due to fishing yielded results that indicated that all the principals accepted that a considerable number of students dropped out of school to engage in fishing activities.

To make academic achievement scores comparable, the raw scores were converted to standardized t scores. Table 4 shows the standardized scores of academic achievements.

Table 4: Descriptive Statistics of Standardized Scores of Academic Achievement

N	Range	Minimum	Maximum	Mean	Std. Deviation
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Academic Achievement	121	37.57	37.23	74.81	50.00	10.00
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The mean score was 50 with a standard deviation 10. The range was 37.57 while the minimum score was 37.23 and the maximum score was 74.81.

Hypothesis Testing

To establish the correlation between academic performance and fishing activities following null hypothesis was proposed;

H01a There is no significant relationship between fishing activities and academic performance.

The hypothesis was tested using Pearson correlation and the outcome are presented in Table 5.

Table 5: Correlation between Fishing Activities and Academic Performance

		Fishing activities
Academic Performance	Pearson Correlation	-.16**
	Sig. (2-tailed)	.03
	N	121

Table 5 shows that, academic performance and fishing activities were negatively and significantly correlated $r(121) = -.16, p=.03$. This suggests that an increase in involvement in fishing activities resulted to a decrease in academic achievement and vice versa. The findings are supported by the results from qualitative data that was obtained from the principals on how fishing activities affected academic performance of students. From the results all the principals indicated that increased involvement in fishing activities resulted to poor academic outcome among the students. Based on these outcomes, the null hypothesis was rejected and the alternative hypothesis which stated that “there is a significant relationship between academic achievement and fishing activities” was adopted.

The findings of the study reveal that there is a significant negative association between academic performance and fishing activities. These findings are similar to the results reported by Alvarico, Cuevas-Ruiz and Dinsay (2021) conducted a research study on illegal and fishing in the eyes of the Filipino fishermen and the impact of children exposure to fishing activities. The study reported that children involvement in fishing activities was influenced by their family, peers, and community permissiveness. This resulted to increased school absenteeism and subsequent poor performance in academics. The problem of students missing school to engage in fishing activities is an issue of concern that has resulted to increased deterioration in academic performance. The conflict theory emphasize that this creates a conflicting situation and since students cannot excel in both, they opt to engage in fishing to meet the basic needs.

Aklamanu (2017) also found similar results. The research sought to examine child labor in the fishing grounds and its effects on academic achievement of pupils in Ghana. The findings of the

study revealed that academic performance was negatively correlated to the frequency of fishing per week and family size that depended on the students. The study findings also indicated that students from bigger families were highly involved in farming compared to those from smaller families. In the current study, the findings revealed that a significant number of students engaged in fishing activities to help their guardian at the expense of their studies. The conflict theory explains this by suggesting that students come from different levels of socio-economic background and therefore they experience distinct forms of conflicts as a result of inadequate resources.

The findings reported by Ojijo (2018) on the impact of fishing activities on academic performance among students in secondary schools were consistent to those of the present study. The findings revealed that students took part in fishing activities while still in school and also after dropping out of school. The study also revealed that fishing activities resulted to poor school attendance, which had negative impact on the student's academic performance. In the case of Lamu East Sub County, irregular school attendance and students dropping out of school have contributed to poor performance. Conflict theory argues that most students are always willing to attend school but due to financial constraints and scarcity of economic resources they can be forced to stay out of school to engage in income generating activities. This disconnects them from active participation in learning activities thus contributing to poor academic performance.

A study by Sande (2018) supports the findings of the current study. The research study aimed at investigating the child labor in different activities including fishing among school going children in Western, Kenya. The findings revealed that fishing activities were the major causes of irregular school attendance and chronic absenteeism especially among male pupils since it was the main source of livelihood for the community. The findings also indicated that low economic status, community permissiveness, peer influence, and families are some of the factors that drove children into fishing activities. The problem of students engaging in fishing at the expense of the studies is a problem in Lamu East Sub County where more boys than girls were reported to miss school. This has resulted to below average performance with boys being the most affected. Social-economic theory argues that both we are all sensitive to social-economic changes especially within families, but male students are more prone and likely to miss school or drop out of school to help in fishing for financial gain.

Hypothesis Testing

To establish the correlation between fishing activities and school dropout the following null hypothesis was proposed;

H01a There is no significant relationship between fishing activities and school dropout.

The hypothesis was subjected to Pearson correlation and the results are presented in Table 6.

Table 6 : Correlation between Fishing Activities and School Dropout

		School Dropout
Fishing Activities	Pearson Correlation	.510**
	Sig. (2-tailed)	.000
	N	121

Table 6 shows that, fishing activities and school dropout were positively and significantly correlated at, $r(121) = .510, p = .00$. This implies that an increase in fishing activities resulted to rise in school dropout and vice versa. Based on these results, the null hypothesis was rejected and the alternative hypothesis that stated that “there is a significant relationship between fishing activities and school dropout was adopted.”

The findings of the study denote that there is a significant positive correlation between fishing activities and school dropout. The results of this study are consistence with the finding of past research work in this field. Akther, Saha, Hossain and Nazrul (2017) conducted a research study aimed at investigating livelihood strategies of fishing communities at Padma, India. The study reported that 73% of the children from the fishing community were school going children but most of them were actively involved in fishing. School drop-out was relatively very high due to early exposure and involvement in fishing activities. The current study found a substantial number of students dropping out of school to engage in fishing activities. The conflict theory explains this through the existence of different social classes in a community. The theory argues that students from lower classes are more predisposed to fishing compared to those in higher classes where the resources.

Djiofack (2018) also found similar results in a study on child labor in fisheries activities in Cameroon. The findings showed that poverty played a major role in enhancing the problem of child labor and child victimization in Kribi's fisheries. This resulted to some of the children missing and dropping out of school to earn a livelihood from fishing for their families. In Lamu a similar problem is evident as some students dropped out of school to help their parent in fishing business or to work in the fishing merchandise to earn a living. The theory of activist explains this by emphasizing that such students may be compelled to engage in fishing to generate a income to support their families not out of choice but because they are disadvantaged by their low social economic background.

A study by Lugonzo, Chege and Wawire (2020) supports the findings of the current study, the research study aimed at investigating the factors that contributed to high rate of dropout among students in secondary schools located around Lake Victoria. The study findings showed that there was a significant direct relationship between fishing and school dropout secondary school students in Nyangoma area. The findings from Lamu also established an increase in fishing activities lead to increase school dropout, which create a conflicting state between education and fishing activities as the students neglect their academic to earn a livelihood or out of the desire to satisfy their gravitation.

The findings by Abura and Onyango (2016) from an investigation on the impacts of children involvement in livelihood fishing activities in Kenya were also consistent with current study. The results revealed that children engagement in fishing activities affected their school attendance. The study also identified the exemplified competition for the scarce resources, where children participated in stressful activities. This exposed them to hazardous activities as they worked obtain required resources. Conflict theory emphasizes that inadequacy of resources can result to neglect of education to engagement in an income generating activity to meet basic needs. In Lamu county student involvement in fishing has resulted to irregular school attendance and school dropout which have contributed to poor academic outcomes.

Conclusion

In the first objective, the study probed to find out the level of influence of fishing activities on student's school attendance. The results showed that fishing activities and school attendance were significantly and indirectly correlated at $r(121) = -.175, p = .004$. The findings suggest that an increase in fishing activities among students resulted to a consistent decrease in school attendance. In Lamu East Sub County, it was found that a considerable number of students engaged in fishing during school days at the expense of their studies. Therefore, the challenge of poor academic performance may be attributed to students missing school to engage in fishing activities.

Regarding the second objective on the influence of fishing activities on school dropout among secondary school students, the findings indicated that fishing activities and school dropout were positively and significantly correlated at, $r(121) = .510, p = .00$. This implies that an increase in fishing activities among the students led to a proportional rise in school dropout. Therefore, to cut down the cases of school dropout, fishing activities ought to be minimized among the students to give them an opportunity to be in school. This will help in enhancing academic outcomes by reducing absenteeism and increasing school participation.

The study sought to establish the relationship between fishing activities and academic performance among secondary school students. The findings showed that academic performance and fishing activities were negatively and significantly correlated at $r(121) = -.16, p = .03$. The results infer that an increase in fishing activities among the students resulted to a decrease in academic performance. In Lamu East Sub County, it was found that academic performance among the students was below average, therefore, the performance challenge facing schools in the county can be attributed to the students' engagement in fishing activities at the expense of their studies. To enhance academic performance, strategies to minimize students' involvement in fishing and to increase their participation in school should be put in place.

COMPETING INTERESTS DISCLAIMER:

Authors have declared that no competing interests exist. The products used for this research are commonly and predominantly use products in our area of research and country. There is absolutely no conflict of interest between the authors and producers of the products because we do not intend to use these products as an avenue for any litigation but for the advancement of knowledge. Also, the research was not funded by the producing company rather it was funded by personal efforts of the authors.

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