

Research Article

INFLUENCE OF PHYSICAL ENVIRONMENT ON LEARNERS TRANSITION AND COMPLETION TO SECONDARY SCHOOLS IN TURKANA WEST SUB-COUNTY IN KENYA

^{1,*} David Akolom, ² Sarah Likoko, ³ Henry Ongori

¹Teachers Service Commission, Kenya.

²Kibabii University, Kenya.

³Turkana University College, Kenya.

Received 25th November 2021; Accepted 26th December 2021; Published online 30th January 2022

ABSTRACT

Globally, learners' transition involves a process of moving from one educational setting to another. These transitions can mean a change in location, teacher, curriculum and philosophy. While the most immediate transition associated with primary school is the move from the primary level to the post-primary level, there are other significant transitions that happen within the primary school, such as the transition from pre-primary to primary, the transition from special school to mainstream classroom or vice-versa, as well as the transition from class to class within primary schools. Consequently, completion rate in Turkana West Sub-County is very low. The purpose of the study was to determine the influence of physical environment on transition and Completion of secondary schools. The study was guided by systems theory. The research adopted a descriptive survey design. The target population of the study was Education officers, Area Chiefs, Secondary School Principals, Secondary School Teachers, Primary School Head Teachers, Primary School Teachers and Students. A total of 313 respondents were sampled for the study. Questionnaires, interview schedules and focus group discussion were used in primary data collection. Data was analyzed using Statistical Package for Social Scientists (SPSS) version 23.0. Quantitative data collected was analyzed by use of descriptive statistics to generate percentages and frequencies. Inferential statistics was done using linear regression model. The study results were presented using tables and figures for ease of understanding. The study established that physical environment had a significant positive influence on transition and completion of secondary schools. The study recommends that policy makers should invest in facilities that enhance learning so as to accommodate pupils transitioning from primary schools in the area.

Keywords: Physical Environment, Learner, Transition, Completion, Secondary School.

INTRODUCTION

Hills, Dengel and Lubans (2015) evaluated physical environment on learners' transition and observed that lack of schools within a reasonable walking distance for those in poor regions is a serious barrier to transition, especially in rural and remote parts of countries. A lack of infrastructure is also a serious challenge to existing schools and as the numbers of pupils completing primary education continues to grow, teaching staff amongst other resources will become an increasing problem. In addition, the transition and completion of secondary schools in Kenya is pegged on the number of available spaces in secondary schools. This results from the limited number of schools, in Kenya to absorb the pupils who are completing standard eight. Kyuli (2015) studied influence of institutional factors on transition of pupils and completion of Secondary School. According to the research a number of secondary schools per square kilometer have a positive impact on access to secondary education. If physical infrastructure exists at secondary school level, transition will increase to between 65% and 70% over the next 5 to 10 years. In order to meet the 70% transition rates by 2008 as envisioned by the government, about 12,000 new classrooms are required. Lal (2017) posits that the physical environment related to the study includes; the size of the classroom and its organization, teacher- child ratio, classroom equipment, location and suitability of the toilets and the play area. These are among the important factors that primary schools need in their readiness for children. However, most schools are hardly ready for children, they fail to provide the necessary

environment which will enable children in effective transition as well as learning. In countries like Kenya where free primary education policies has been implemented, the sizes in the classroom have drastically increased especially in standard 1 (grade 1). These large classes at early years of learning interfere with the capacity of teachers in teaching and children to learn. Barr (2017) posits that a system has some predictability and this is also similar to a school since those who enter standard one is expected to exit after standard eight. The functioning of a system is affected by its environment. Parents are key players and form part of the environment of an education system, because they influence or motivate the pupils to continue with school or not to, and they meet the cost of schooling for their children and especially when transitioning to form one. A system is governed by feedback. The KCPE performance provides this feedback on how the system is fairing. A system is a self-contained unit, but part of a wider higher order. The primary schools are part of education system in Kenya. Secondary schools form part of the higher order in the system and have rules of admissions to their subsystem based on performance at the primary school level, availability of form one vacancies and charges (tuition fees) levied as a condition of admission. These are some of the factors that hinder transition of pupils from primary level to secondary school level of education. Ramli and Zain (2018) stated that physical facilities are an important factor in both school attendance and achievement. They include classrooms, toilets, libraries, staff rooms and so on. They influence the achievement of primary school goals. They give security in learning and teaching situations. It is the responsibility of the head teacher to ensure there are adequate physical resources to implement the school curriculum as they are instructed by FPE programme. Teaching and learning materials are those that are directly used by pupils and teachers in learning process. They include

*Corresponding Author: David Akolom,
1Teachers Service Commission, Kenya.

textbooks, exercise books, pens, paper, wall charts, wall maps or any other improvised teaching aid. Lack or insufficiency of these materials leads to poor performance assumed up. The Free Primary Education and Free Day Secondary Education Programme has catered for these materials and can be purchased locally through the school instructional material selections committee. Some can be improvised using the locally available materials considering that learning is learner- centered and they should do most of the activities. The environment is also made up of social, economic and political institutions, which are constantly interacting and inter-dependent and the same is true of the school system. Schools are essentially living systems and that without people they are nothing but concrete and paper. Education as a process involving the following five forms of inputs: Human resources such as students; materials resources such as buildings, desks, books, equipment; financial resources such as money; constraints, such as requirements of the law and policy; expectations of parents, values and goals. The output or products of the educational system are students in the form of educated people now better equipped to serve themselves and society. Progression of learners from one level of education to another is a measure of a system's internal efficiency as well as its physical capacity (Baylis, Smith & Owens, 2017). Rivers (2018) in a study on school physical environment showed that overpopulation in class is related to little no access to learning equipment and other learning materials which are most important and critical in the development of children's basic skills and above all competencies. Studies show that it is difficult for one to learn to read without the necessary materials such as books, and more so it's even hard to establish the most basic language and mathematical concepts without the required teaching aids. In some places they have introduced shifts and sometimes the shifts are triple in order to solve the problem of large classes, this has resulted to minimal contact hours which have a great impact in children's development. According to Kinai, *et al.*, (2017), most of the ECDE centers attached to public primary schools in Kenya share facilities such toilets/latrines, the condition of these toilets is not suitable for the young children in preschool and the lower primary school. Such facilities are located like approximately 200 meters from the ECDE classroom; they are nearer to primary school classes than the preschool classrooms. Children tend to drop out due to this challenge of access to this facility, since the latrines are in bad shape. To others, parents wait until they are of age and can manage to use this kind of latrines hence skipping the most important part of education the preschool level.

RESULTS AND DISCUSSION

Influence of Physical Environment on Learners' Transition and Completion of Secondary Schools

The purpose of the study was to evaluate the influence physical environment on learners' transition and completion of secondary schools. The respondents were required to indicate their level of agreement/disagreement on some statements regarding the status of physical environment of the learners in Turkana West Sub-County and the findings are reported in Table 1 below.

Table 1. Likert Scale Responses on Physical Environment in Turkana West Sub-County

SD - Strongly Disagree, D - Disagree, U-Undecided, A – Agree, SA - Strongly Agree

	SD	D	U	A	SA
The school location is far from residential area and thus learners have to walk for a long distance	1 (1.7%)	4 (6.8%)	13 (22.0%)	35 (59.3%)	6 (10.2%)
Environmental conditions are harsh because of extremely hot conditions throughout the day for conducive learning	2 (3.4%)	3 (5.1%)	11 (18.6%)	30 (50.8%)	13 (22.0%)
The land terrain is composed of low-lying open plains and mountain ranges that are harsh and inhospitable	1 (1.7%)	7 (11.9%)	22 (37.3%)	15 (25.4%)	14 (23.7%)
Rainy seasons are dangerous because floods flock the school compounds and path ways	3 (5.1%)	6 (10.2%)	7 (11.9%)	30 (50.8%)	13 (22.0%)
Heavy winds carrying dust, destroy properties and cause deaths thus encourage relocation which affect learners in schooling	2 (3.4%)	3 (5.1%)	7 (11.9%)	32 (54.2%)	15 (25.4%)

Source: Field Data (2020)

The findings as reported in Table 1 above indicate that majority of the respondents as indicated by a response of 59.3% (35) of the respondents agree that the school location is far from residential area and thus learners have to walk for a long distance, 22.0% (13) of the respondents are undecided, 10.2% (6) strongly agree, 6.8% (4) disagree and 1.7% (1) strongly disagree. The environmental conditions are harsh because of extremely harsh conditions throughout the day for conducive learning as shown by 50.8% (30) of the respondents who agree and 22.0% (13) of the respondents who strongly agree, 18.6% (11) are undecided, 5.1% (3) disagree and 3.4% (2) strongly disagree. According to a total of 49.1% (29) of the respondents who agree and strongly agree, the land terrain is composed of low-lying open plains and mountain ranges that are harsh and inhospitable, 37.3% (22) are undecided, 11.9% (7) disagree and 1.7% (1) strongly disagree. Further, 50.8% (30), 22.0% (13), 11.9% (7), 10.2% (6) and 5.1% (3) of the respondents agree, strongly agree, are undecided, disagree and strongly disagree respectively that rainy seasons are dangerous because floods flock the school compounds and path ways. Lastly, 54.2% (32), 25.4% (15), 11.9% (7), 5.1% (3) and 3.4% (2) of the respondents agree, strongly agree, are undecided, disagree and strongly disagree respectively that heavy winds carrying dust destroy properties and cause deaths thus encourage relocation which affect learners in schooling. Simple linear regression was used to assess the relationship between physical environment and learners' transition and completion of secondary schools and the findings reported. The model summary results in Table 2 show that R-Square=0.670 implying that overall physical environment explains 67.0% of transition and completion of secondary schools in Turkana West Sub-County.

Table 2. Model Summary for Simple Regression between Physical Environment and Transition/Completion

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818 ^a	.670	.664	.72233

a. Predictors: (Constant), Overall Physical Environment

Source: Field Data (2020)

The ANOVA results for the simple regression between transition/completion of secondary school and physical environment indicate a p-value<0.0001 implying that the regression between transition and completion with physical environment is significant (see Table 3).

Table 3. ANOVA Results for Regression between Physical Environment and Transition/Completion

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.293	1	60.293	115.557	.000 ^b
	Residual	29.740	57	.522		
	Total	90.034	58			

a. Dependent Variable: Transition and completion of secondary schools

b. Predictors: (Constant), Overall Physical Environment

Source: Field Data (2020)

The regression coefficient for the model is 0.848 with a p-value<0.0001 (see Table 4). The coefficient is significant implying that physical environment significantly influences transition and completion of secondary schools in Turkana West Sub-County. Transition and completion of secondary schools with physical environment have a positive relationship as shown by the positive coefficient. This means that an improvement of the physical environment increases transition and completion of secondary schools.

Table 4. Regression Coefficient for Relationship between Physical Environment and Transition

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	.574	.184		3.115	.003
	Overall Physical Environment	.848	.079	.818	10.750	.000

a. Dependent Variable: Transition and completion of secondary schools

Source: Field Data (2020)

The key informants' interviews with the chiefs revealed physical environment factors related to the pupils' background as being influential to transition and completion. For example, Chief A stated that:

"The home environment especially parents play a key role in the education system especially in transition and completion of schools because parents can motivate or demotivate pupils to continue with their studies or not"

The chief A added that:

"Parents can influence transition and completion through meeting or not meeting the costs associated with schooling for their children especially when they are joining from one where the cost incurred is expensive"

However, Chief B was in support of the influence of distance to schools on transition and completion of secondary schools by stating that:

"Schools in this location are located far away from the pupils' homes. This translates to pupils having nowhere to go after they complete primary schools and therefore affecting transition rates"

The focus group discussions were in support of the immediate school environment and how it influences transition and completion of secondary schools. For instance, a participant in focus group 4 noted the following:

"Lack of school facilities such as boarding facilities and classrooms makes it difficult for local schools to absorb pupils who do not make it to big schools within and outside the county and as a result such pupils join local day schools that are located long distances which means that in the end it will be tedious to attend schools"

Another participant in the same group added that:

"Pupils especially those who do not make it to the big boarding schools lack motivation to join local schools with inadequate facilities and may end in manual jobs or in bodaboda business"

The findings of this study agree with Hills *et al.*, (2015) who evaluated the physical environment influence on transition of learners and noted that when schools are located far away from homes, in distances that are not reasonable for walking, serious transition challenges arise. In addition, primary schools whose infrastructures are inadequate pose a serious challenge to the number of pupils completing primary schools and transitioning to secondary schools. For instance, transition and completion of secondary schools is highly dependent on the available spaces in secondary schools. Lal (2017) further adds that physical environment such as the classroom size, teacher-pupils ratio, location and suitability of the toilets are among important factors that schools need in their readiness for students. Lack of these facilities ensures that schools are hardly ready for children as they fail to provide the necessary environment for effective transition in addition to learning.

CONCLUSION

The study established the following; environmental conditions in Turkana West Sub-County are harsh for conducive learning, the land terrain in Turkana West Sub-County comprises of low lying open plains and mountain ranges that are harsh and inhospitable, the rainy seasons are dangerous for learning due to floods that flock school compounds and path ways, and that the heavy winds in Turkana West Sub-County carry dust and destroy school property in addition to causing deaths leading to relocations which affect learning in schools. Therefore, the study concluded that physical environment has a significant positive influence on transition and completion of learners in secondary schools in Turkana West Sub County.

RECOMMENDATION

Based on the conclusion, this study recommended that both national and county governments should invest in facilities that enhance learning such more classrooms, boarding facilities, transport facilities and building of more schools so as to accommodate pupils transitioning from primary schools in the area.

REFERENCES

- Barr, H. Defining social studies. *Teachers and curriculum*, 2017; 1(1).
- Baylis, J., Smith, S., & Owens, P. (Eds.). *The globalization of world politics: an introduction to international relations*, 2017. Oxford University Press.
- Hills, A. P., Dengel, D. R., & Lubans, D. R. Supporting public health priorities: recommendations for physical education and physical activity promotion in schools. *Progress in cardiovascular diseases*, 2015; 57(4),368-374
- Kyuli, J. W. *Influence of Institutional Factors on Transition of Pupils and completion of Secondary School in Athi River Subcounty, Machakos County* (Doctoral dissertation, University of Nairobi), 2015.
