

Availability and Adequacy of Physical Infrastructure as Determinants of Parental Choice of Primary Schools in Embakasi Sub-County, Nairobi City County, Kenya

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Abstract

The purpose of the study was to investigate the influence of physical facilities on parental choice of primary schools in Embakasi Sub-county, Nairobi City County, Kenya. Specifically, the study sought to determine the extent to which the adequacy and condition of physical facilities influenced parents' choice of primary schools. The study also sought to compare the adequacy and condition of physical facilities in public and private schools in Embakasi Sub-county. Using a descriptive survey design, the study targeted 20 public schools with 30,201 parents and 97 private schools with 30,257 parents. To pick the study sample, the population was stratified into two subgroups of public and private schools. Each of the subgroups was further subdivided into subgroups of school heads and parents from which 95 school heads and 600 parents were picked. Systematic sampling was used to pick the respondents. Primary data were collected using questionnaires. Collected data was analyzed qualitatively based on themes and quantitatively using frequencies and percentages. The study findings revealed that majority (68.7%) of the parents were influenced by availability of permanent buildings. Well-stocked libraries ranked second at 54.4 percent while good furniture ranked third at 39.5 percent. The study recommends that the Ministry of Education, Science and Technology (MoEST) in partnership with other stakeholders ensures that schools have adequate facilities to meet parents' expectations. There is also need for regular assessment of both public and private schools by MoEST to ensure that they operate above a given minimum standard of physical facilities.

Keywords: Physical facilities, Parental choice, availability, adequacy (247 words)

1. Introduction

Parental choice of schools and an education system for their children is a freedom that parents enjoy and which is informed by their value systems, their socio-economic status, government policies among other determinants (Fung & Lam, 2011). In making these choices, availability, adequacy and condition of physical infrastructure such as classrooms, libraries, computer laboratories and outdoor play areas plays is vital. According to Rehman, Khan, Tariq and Tasleem (2010), quality of education is determined largely by the learning environment in the school. This includes buildings and facilities in a good location, to allow for personal and social development of learners. Parents, therefore, prefer schools that provide safety, convenience and desirability (Yaacob, Osman & Bachok, 2014). A study by Hsu and Yuan-fang (2013) found that parents' high interest on learning environment means that schools need to provide well equipped learning places for children.

According to Longman (2000) and Mapaderum (2002), adequacy of physical facilities can be defined as the condition and the number of resources available for utilization in schools. The adequacy of physical facilities is largely determined by the number of facilities against the number of learners. A case in point would be that an ordinary desk can accommodate a given number of primary school pupils beyond which it would be considered as overcrowding and thus make it uncomfortable for learners. The role of physical facilities in choice of primary schools is highlighted in different studies. A study by Alsuiadi (2015^b) found that four out of every five parents in private schools polled ranked physical facilities as one of top three reasons for their school choice. Studies by Rehman, et al. (2010) and Yaacob et al. (2014) found that in both Malaysia and Pakistan, most parents prefer private schools due to good educational facilities and a conducive learning environment. Similar observations were made by Oyier, Adundo, Obat, Lilian & Akondo (2015).

Many parents make decisions on school choice based on attractiveness and general outlook of the buildings (aesthetics), ventilation, furniture, the size of the library and computer rooms, and the aesthetic appeal of outdoor play areas (Alsuiadi, 2015^a). According to Awan and Zia (2015), many parents also consider other facilities such as water and sanitation, electricity, and boundary walls when choosing schools. Water and sanitation is important for general hygiene while electricity is critical for learning especially when the weather is cloudy or misty. Boundary walls are important especially in urban areas where security of children is very critical at a time when cases of abduction and kidnapping have been reported.

A study by Alsuiadi (2015^a), found that parents in Saudi Arabia believe that modern, well equipped buildings are the key to achieving their children's educational goals. They therefore, choose public or private primary schools that have a library, science and computer laboratories, and a good learning environment.

The perception by parents that educational outcomes are dependent on school facilities increases the tendency by parents to choose schools perceived to have better facilities (Hsu & Yuan-fang, 2013). For example, parents in Nigeria prefer private schools which have better infrastructure compared to government schools that are characterised by insufficient classrooms and overcrowding (Onuka & Arowojolu, 2008; Adebayo, 2009; Tooley & Yngstrom, 2014). A similar observation was made in Ghana in a study by Results for Development Institute (2015) which showed parents' preference for private schools more than government schools based mainly on physical facilities. The same trend was observed in Kenya where many economically able parents prefer well designed and constructed classrooms that provide convenient learning spaces for pupils. Others opt for private schools which they believe have better facilities such as libraries and laboratories (Oketch, Mutisya & Sagwe, 2012; Oyier, et al., 2015).

However, according to a study by Beamish and Morey (2013), a number of parents did not consider physical facilities as an important factor that influenced school choice. A similar trend was observed by Alsuiadi (2015^a) who found that physical facilities ranked slightly lower than other factors in parental choice of school. Given the heavy investment for infrastructure development in public primary schools and the continued mushrooming of private primary schools, there is a question that still begs answers as to why parents generally tend to prefer private schools against the backdrop of the heavy investment by the central government through the Ministry of Education, Science and Technology. Owing to these inconsistencies in research findings, the study sought to establish the influence of physical facilities on parental choice of primary school in Embakasi Sub-county.

2. Methodology

The study adopted a descriptive survey design. Descriptive surveys describe data on variables of interest and gather factual information on attitudes and preferences (Cohen, Manion & Morrison, 2007). The target population consisted of 117 school heads and 60,458 parents from both public and private primary schools in Embakasi Sub-county. To pick the study sample, the population was first stratified into two subgroups of public schools and private schools. Each of the subgroups was then subdivided further into subgroups of school heads and parents. Systematic sampling was used to pick respondents from each of the sub groups. In principle, the smaller the target population, the larger the sample size hence, a total of 19 out of 20 public school heads were sampled. The excluded public school head was part of the pilot study.

For the private school heads, every alternate member of the population was picked to get a sample size of 76 out of 97 school heads. For both public and private school parents' subgroups, every 100th parent was picked to get a sample size of 300 parents in each subgroup. The sample size in this study consisted of 95 heads of primary schools and 600 parents.

In the study, questionnaires for head teachers and parents were used. According to Mugenda and Mugenda (2003), questionnaires are useful because they can be developed to gather specific information. Both sets of questionnaires had sections on general condition of classrooms, size, furniture and availability of libraries, computer rooms and play grounds. Test-retest method through a pilot study was used to establish reliability of the instruments. All the data collected were first coded according to source then organised into different groups based on their common characteristics as suggested by Orodho (2009). Qualitative data were organized into themes while quantitative data were summarized using statistics such as means, frequencies and percentages. Inferential statistics are useful in determining the relationship between the independent and the dependent variables (Cox, 2006). Therefore, regression analysis was used to determine the extent to which adequacy of physical facilities influences parental choice of primary school. The Statistical Package for Social Sciences (SPSS) software version 22 was used in data analysis.

3. Results and discussion

The first objective of the study was to determine the influence of the adequacy of physical facilities on parental choice of primary school in Embakasi Sub-county in Nairobi City County, Kenya. The second objective was to compare the adequacy and condition of physical facilities in public and private primary schools in the sub-county. Therefore, the head teachers were requested to indicate the number of classrooms in their respective schools. Table 1 presents the study findings.

Table 1: Number of classrooms per school

No. of classrooms	Public		Private	
	Frequency	Percent	Frequency	Percent
Below 10 classes	0	0.00	5	6.8
10 to 15 classes	11	57.9	26	35.1
16 to 20 classes	2	10.5	29	39.2
Above 20 classes	6	31.6	14	18.9
Total	19	100.0	74	100.0

Information contained in Table 1 shows that majority of public primary school head teachers (57.9%) indicated that their schools had 10 to 15 classrooms while 39.2 percent of their counterparts in private primary schools indicated that they had between 16 and 20 classrooms. Head teachers in 31.6 percent of the public primary schools indicated that they had over 20 classrooms compared to 18.9 percent of head teachers in private schools. The difference in availability of classrooms between public and private primary schools could influence parental choice of school in favour of private schools due to parents' choice of such schools on the basis of their aesthetic appeal.

According to Alsuiadi (2015^a) many parents make decisions on school choice based on attractiveness and general outlook of the buildings, ventilation, furniture, the size of the library and computer rooms and the aesthetic appeal of outdoor play areas. Thus, the head teachers were requested to indicate the availability and adequacy of other physical facilities in the schools. Table 2 presents the study findings.

Table 2: Availability of physical facilities in schools

Responses	Public		Private	
	Frequency	Percent	Frequency	Percent
Well stocked library	3	15.8	46	61.5
Well-equipped computer laboratory	2	8.7	40	54.1
Adequate playground	14	71.9	12	16.2
Spacious classrooms	1	5.1	33	44.9
	N = 19		N = 74	

Table 2 shows that public and private primary schools in Embakasi Sub-County had distinct differences in the provision of adequate physical facilities. For instance, in public primary schools 71.9 percent of head teachers indicated that they had adequate playgrounds compared to 16.2 percent in private schools. In addition, 61.5 percent of head teachers in private schools indicated that their schools had a well-stocked library compared to 15.8 percent in public primary schools. The findings indicated a difference in adequacy of physical facilities between public and private primary schools; which could have informed the parents' preference for private schools.

To establish whether availability and adequacy of physical facilities influenced parental choice of primary schools, the head teachers were given statements to show their perception of parents' preference for their children's schools using the scale 1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly disagree. Table 3 shows the study findings.

Table 3: Parental choice of schools due to adequacy of physical facilities

Responses	Adequate resources				Inadequate resources			
	F	%	f	%	f	%	f	%
The school has spacious classrooms	151	28.4	45	8.5	257	48.4	78	14.7
The school has good furniture for learners	210	39.5	201	37.9	39	7.3	81	15.3
The school has permanent buildings	365	68.7	87	16.4	26	4.9	53	10.0
The school has a well-stocked library	289	54.4	196	36.9	22	4.1	24	4.5
The school has a well-equipped computer laboratory	64	12.1	71	13.4	163	30.7	233	43.9
The school has a spacious, well maintained playground.	53	10.0	22	4.1	197	37.1	259	48.8

Data presented in Table 3 shows that most parents (48.4%) in primary schools disagreed with the statement that their schools had spacious classrooms, while more than half of the parents agreed with the statement that their schools had good furniture and permanent buildings. Although, majority of the parents (54.5%) strongly agreed that the schools had well stocked libraries, 57.5 percent disagreed on the existence of well-equipped computer laboratories.

These findings showed that majority of the parents' preferred good furniture and permanent buildings in the choice of primary school for their children. However, physical facilities like playgrounds and computer laboratories were not reported to be a major determinant of school choice. The study findings concurred with Hsu and Yuan-fang (2013) who found that parents have a high interest on the learning environment. The findings are also in agreement with Alsuiadi (2015^a) who found that many parents make decisions on school choice based on attractiveness and general outlook of the buildings, ventilation, furniture, the size of the library and computer rooms, and the aesthetic appeal of outdoor play areas. The findings also agree with observations by Beamish and Morey (2013) that while a number of parents placed physical facilities as a preference, a number of parents did not consider it a factor that influenced school choice.

The summary of the model is presented in Table 4.10 below. The study supposed that there is no significant relationship between adequacy of physical facilities and parental choice of schools for their children in primary schools. From the results shown in Table 4.10, the model shows a good fit as indicated by the coefficient of determination (r^2) with a value of 0.9066.

Table 4: Regression analysis on physical facilities and parental choice of school

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.955 ^a	.9066	.905	.15519

Information contained in Table 4 shows there was a significant relationship between physical facilities and parents' choice of school. This implies that the physical facilities explain 90.66 percent of the variations of parental choice of schools. This shows that 9.34% of the dependent variable is explained by other variables not in this model. The findings are consistent with studies by Rehman, et al. (2010), Yaacob, et al. (2014) and Alsuiadi (2015^b). This is due to widely held perceptions by parents that academic achievement is directly related to physical facilities. However, the findings conflict with results of studies by Alsuiadi (2015^a) and Beamish and Morey (2013) who found that student safety, social skills, class size and academic orientation were more important than physical facilities.

4. Conclusions

The study concluded that availability, adequacy and appropriateness of the physical facilities had a high significance on the parental choice of primary school due to the association of the school learning environment with academic achievement. Permanent buildings, good furniture and well-stocked libraries were found to have highest influence on parents' school choice while availability of play grounds and well equipped computer laboratories had the lowest influence.

5. Recommendations

Based on the interest of parents on spacious classrooms, good furniture and well-stocked libraries, the Ministry of Education, Science and Technology (MoEST) in partnership with other stakeholders should allocate adequate financial resources to improve these physical facilities in public schools. The proprietors of private schools should also ensure that these facilities are adequate to cater for the pupils who enroll in their schools. An improvement of the physical facilities in public schools would make the schools more attractive to parents who prefer private schools. There is also need for regular assessment of both public and private schools by MoEST to ensure that they all operate above a given minimum standard of physical facilities, below which MoEST may need to close such schools.

6. Suggestions for further research

In light of the foregoing findings, it is recommended that:

- i). A similar study to be done in other sub-counties particularly in urban areas with a view to comparing and contrasting the determinants of parental choice of the type of schools that they choose.
- ii). A study be conducted on adequacy of learning resources and physical infrastructure as a "pull" factor for parents to schools.

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