

Parental influence on students' choice of computer studies in public and private secondary schools in Machakos Sub-County, Kenya

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Abstract: The main purpose of this study was to investigate the factors influencing students' choice of computer studies in public and private secondary schools in Machakos Sub-County. The objective of the study was to establish the parental influence on students' choice of computer studies in public and private secondary schools in Machakos Sub-County. Related literature was reviewed that provided an overview of computer studies in secondary schools and findings from previous researches on factors which determine students' choice of computer studies in public and private secondary schools in regard to the research objective. The study used mixed method research design. The study embraced purposive sampling and simple random sampling techniques to select the sample size of the computer studies students and parents. Data was collected through questionnaires and focus group discussion schedule. Data analysis was done by use of the Statistical Package for Social Sciences (SPSS). The audio recorded responses from the focus group discussion were organized into themes and integrated with rest of the data for purposes of triangulation. Data was presented in percentages, frequency distribution tables and verbatim quotations. The study established that parental factors influenced students' choice of computer studies in both public and private secondary schools though with some variations; and that most of the students in both public and private secondary schools were guided by their parents on their choice of computer studies. The study recommended that parents need to make follow up in order to establish whether their children choose subjects in line with the courses they have been aspiring to pursue. This was due to the finding that in private secondary schools the directors determine the school curriculum. In view of this paper, computer studies should be made compulsory for all the students in the Kenyan education system.

Key words: Students' choice, parental influence, computer studies, public and private schools

I. INTRODUCTION

Acquisition of computer skills plays a significant role in equipping learners with skills for adaption in the world of technology. To alleviate this, the Kenyan government through the Ministry of Education Science and Technology introduced computer studies as a subject in the Kenyan education curriculum in 1994 (MOE, 2000). The introduction of computer studies in Kenyan schools was either societal oriented where students are trained to operate and fit in the technology dominated society or vocationally aligned to equip students with skills required by the computer driven job market (Kavagi, 2001). Due to technological changes, there is need to

ensure that students acquire the emerging new technologies to enable them fit in the competitive world-class work force.

The Kenyan secondary school curriculum consists of five major groups of subjects. Group I - English, Kiswahili and Mathematics Alternative-A/Mathematics Alternative-B. Group II - Biology, Physics, Chemistry and General Science. Group III - History and Government, Geography, C.R.E, I.R.E and H.R.E. Group IV - Home science, Art and Design, Agriculture, Aviation Technology and Computer studies. Group V - French, German, Arabic, Music, Kenya Sign Language and Business studies. Candidates select at least seven subjects as follows: All the three subjects in group I (Either Mathematics Alternative A or B). At least two subjects from group II. At least one subject from group III. At least one subject from groups II, III, IV and V. Candidates can sit for a minimum of seven and a maximum of nine, the extra one or two subjects can be selected from any of groups III, IV and V (KNEC, 2014).

Computer studies is classified as a technical subject alongside others and it is important because it is a major source of skills, abilities, attitudes, work habit, knowledge and information required for individual and economic development (Kavagi, 2001). Students' subject choice is determined by students' career aspirations, school policies and practices, infrastructural availability, parental influence, and the family's social-economic background.

Mkapa (1986) alludes that the home being the first socializing agent has a remarkable impact on the child's later educational achievement and development. Parental expectations, education level, and the social economic status influences children subject choice and overall academic performance. According to Wailer (2003) Students in public and private secondary schools choose computer studies because their parents expect them to pursue computer related careers. Young (1994) asserts that parents social economic status plays a key role in determining the subject opportunities available for their children.

Coleman & Hoffer (1987) argues that students from low economic status families tend to choose subjects with minimal financial requirements compared to those from economically stable families. Secondary school candidates taking computer studies are charged extra two hundred shillings for project work

in addition to the normal examination fees (KNEC, 2021). This coupled up with other computer studies requirements like printing papers, computer learning software devices, power among others dictate students' choice of computer studies in both public and private secondary schools (Kavagi, 2001).

Despite the campaigns done in favour of computer studies hitherto, the candidature enrolment and schools offering the subject have continued to be low compared to candidature in other optional subjects. Machakos sub-county has 25 secondary schools which offer computer studies, 12 public secondary schools and 13 private secondary schools. The background reveals that the desire to include computer studies in the Kenyan secondary school curriculum has been derailed by a couple of factors making it difficult for the country to fully achieve the goals of education. This study sought to address this gap by examining how parents influence students' choice of computer studies in public and private secondary schools in Machakos Sub-County.

1.1 Statement of the problem

The globalized and technologically driven economy requires highly skilled educated workforce with skills and aptitude in the application of Information Communication Technology (ICT). The introduction of computer studies in the Kenyan education system was a step towards the realization of vision 2030 and national education aspirations through the acquisition of ICT skills for the production of globally competitive graduates. Computer skills acquired through teaching of computer studies lead to the acquisition of an array of skills and competencies needed for research, economic growth and individual innovation.

Notwithstanding the benefits anticipated from the introduction of computer studies, students lack proper guidance and information on the choice of the optional subjects; Computer studies in oftentimes is relegated to lower cadre subjects. Parental factors like, the social economic background, parents' level of education, and expectations dictate students' choice of optional subjects. This implies that competing interest among other optional subjects coupled with structural differences in public and private secondary schools influence students' choice of computer studies differently. This study therefore sought to establish how parents influence students' choice of computer studies in secondary schools.

1.2 Purpose of the study

The purpose of this study was to investigate the influence of parents on students' choice of computer studies in public and private secondary schools in Machakos Sub-County.

1.3 Objective of the study

The objective of the study was to;

- i) Establish how parents influence students' choice of computer studies in public and private secondary schools in Machakos Sub-County.

1.4 Research question

The study sought to answer the following research questions;

- 1) To what extent do parents influence students' choice of computer studies in public and private secondary schools in Machakos Sub-County?

II. REVIEW OF RELATED LITERATURE

Evans & Ashworth (2001) posit that students need parental guidance and counseling in their life choices and decisions at successive stages which shape their life patterns. Parents by the virtue of age, experience and education equip their children with skills to solve problems and make independent decisions (Moon & Shelton, 1995). Parents bring up their children with defined principles in mind which can influence the learners' choice of subjects (Young, 1994).

Parents enroll their children in private secondary schools voluntarily despite the financial obligations due to their economic ability and the careers they hold for them (Ogbu, 2003). Disadvantaged parents enroll their children in public secondary schools in the poor neighborhood which are geographically accessible, have poor infrastructure and lack electricity hence cannot offer computer studies which limit students' subject choice (Lippman et al., 1996). Owoyele & Toyobo (2008) assert that parents with low economic power discourage their children from choosing computer studies due to the extra expenses incurred in the subject study which influences students' choice of computer studies in public and private secondary schools.

Kavagi (2001) argues that computer studies act as a discriminatory investment that does not benefit all due to the additional fee of two hundred shillings for examination registration and other costly peripherals which negatively influence students' choice. Mkpa (1986) recognized that parents should be sensitized about schools broadly for they may not properly advice their children on subject choice due to lack of sufficient information.

Educated parents of high social economic status understand the curriculum hence can direct their children in public and private secondary schools to choose subjects suitable and relevant in the labour market (Coleman & Hoffer, 1987). Illiterate parents of low social economic status may lack any idea of the curriculum hence do not consider any subject or career important which influences students' choice of computer studies in both public and private secondary schools (Wikeley & Stables, 1999). Parental expectation is often the strongest factor in determining children educational plans and subject choice for they help students to choose relevant subjects and make progress towards achieving their goals (Ogbu, 2003).

Parents hold unrealistic expectations about their children which may precipitate anxiety and fear hence affect their subject choice and performance (Owoyele & Toyobo, 2008). Young (1994) asserts that though the acquisition of computer skills is highly adored amongst the youths, majority attend low status public secondary schools which lack adequate facilities to offer computer studies which is catalyzed by the family's social economic status. This study intended to investigate the extent to which parental factors influence students' choice of

computer studies in public and private secondary school in Machakos Sub-County.

III. RESEARCH METHODOLOGY

The research design adopted for the study was mixed method research design. The target population for this study included; 107 form three computer studies students from the public secondary schools and 110 from the private secondary schools. 12 parents of the computer studies students from the public secondary schools and 13 from the private secondary schools. The study employed purposive sampling and simple random sampling techniques in choosing the sample size. Data was collected by use of questionnaires and focus group discussion schedule. For face validity the study pre-tested the tools and for content validity the instruments were subjected to expert judgement. The focus group discussions were audio-recorded and transcribed into texts for comparison with field notes during analysis. The study used test-retest technique to ascertain the coefficient of reliability; while a follow up focus group discussion was conducted to clarify on any unclear issues. Data was analyzed descriptively by use of SPSS programme. For the focus group discussion, the audio-recorded responses were listened to, transcribed into texts and integrated with rest of the data for purposes of triangulation. The results were presented in percentages and frequency distribution tables. The focus group discussion results were reported by the researcher through verbatim quotations. The researcher distributed 246 questionnaires for completion. 122 questionnaires to the public secondary schools; 11 to the principals, 11 to the computer studies teachers and 100 to the computer studies students. 124 questionnaires to the private secondary schools; 12 to the directors, 12 to the computer studies teachers and 100 to the computer studies students. The questionnaire return rate was 100 percent.

IV. RESEARCH FINDINGS

The study sought to establish the parental influence on students' choice of computer studies in secondary schools. In line with this objective, the respondents were asked to indicate their views on various parental aspects in relation to their influence on students' choice of computer studies.

4.1 Analysis of the parents' education level

The students were asked to indicate their parents' education level. The results were as presented in Table 4.1.

Table 4.1 Parents' level of education

Parents level of Education	Public schools		Private schools	
	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Primary	6	6	0	0
Secondary	74	74	48	48
Diploma	10	10	14	14
University	10	10	38	38
Total	100	100	100	100

As indicated in Table 4.1, 74 percent of the parents with students in public secondary schools had secondary level education compared to 48 percent of the parents with children in private secondary schools. 38 percent of the parents with children in private secondary schools had university education as opposed to 10 percent of the parents with children in public secondary schools. This implied that most of the parents with university education had children in private secondary schools because they were better positioned financially to afford the cost.

The study also sought to establish the parents' attitude towards computer studies. Both students in public and private secondary schools responded and the results were as indicated in Table 4.2.

Table 4.2 Students' opinion of their parents' attitude towards computer studies

Responses	Public schools		Private schools	
	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Very positive	36	36	10	10
Positive	60	60	90	90
Negative	4	4	0	0
Total	100	100	100	100

The data presented in Table 4.2 showed that 60 percent and 90 percent of parents with children in public and private secondary schools had a positive attitude towards computer studies respectively. None of the private secondary school parents had a negative attitude towards the subject compared to 4 percent of their public secondary school counterparts. This was an indication that all the parents understood the technological changes in the world and the need of computer skills in the computer driven job market. This study finding agrees with a study which established that parents bring up their children with defined principles in mind which can influence the learners' choice of subjects (Young, 1994).

On subject selection guidance students were asked to indicate whether their parents guided them on their choice of computer studies. The results were contained in Table 4.3.

Table 4.3 Students responses on whether parents guided them on their choice of computer studies

	Public schools		Private schools	
	Frequency (F)	Percent (%)	Frequency (F)	Percentage (%)
Yes	84	84	100	100
No	16	16	0	0
Total	100	100	100	100

The analysis captured in Table 4.3 indicated that 100 percent of the students from private secondary schools were guided by their parents on their choice of computer studies compared to 84 percent of those from public secondary schools. 16 percent of the students from public secondary schools did not get guidance on computer studies selection. This implied that most

of the students were guided on selection of computer studies by their parents in both public and private secondary schools due to the entire need of computer skills in all the professions. This is in line with a study by Kitemu, (2003) which established that computer studies is vital for it enables students to acquire the emerging new technologies and fit in the global community.

In addition, the study sought the extent to which parents' career/subject guidance influenced students' choice of computer studies. The results were as indicated in Table 4.4.

Table 4.4 Students' opinion on the influence of parents' career/subject guidance on their choice of computer studies

Responses	Public schools		Private schools	
	Frequency (F)	Percent (%)	Frequency (F)	Percentage (%)
Very highly	22	22	8	8
Highly	38	38	58	58
Less highly	2	2	0	0

Low	38	38	34	34
Total	100	100	100	100

As presented in Table 4.4, 58 percent of the students from private secondary schools were highly influenced by the parents' guidance on selection of computer studies while 34 percent were lowly influenced. 38 percent of the students from public secondary schools were both highly and lowly influenced by the parents' guidance on selection of computer studies. This showed that a greater proportion of students from both public and private secondary schools chose computer studies due to the guidance they got from their parents. Students in public and private secondary schools choose computer studies because their parents expect them to pursue computer related careers (Wailer, 2003) which concurs with the findings of this study.

The study further sought the extent to which parental factors influenced students' choice of computer studies. The study results were presented in Table 4.5.

Table 4.5 Students' responses on parental factors which influenced their choice of computer studies

	Public schools								Private schools							
	LI		I		VI		Total		LI		I		VI		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Career held for you By parent	18	18	39	39	43	43	100	100	10	10	38	38	52	52	100	100
Parent's financial status	28	28	26	26	46	46	100	100	14	14	38	38	48	48	100	100
Education level	27	27	26	26	47	47	100	100	28	28	32	32	40	40	100	100
Familiarity with curriculum	54	54	32	32	14	14	100	100	48	48	40	40	12	12	100	100

Further the study sought student's opinion on the parental factors which influenced their choice of computer studies. They were requested to indicate their responses as; LI=Less Influential, I=Influential, and VI=Very Influential.

The data captured in Table 4.5 showed that 43 percent, 46 percent and 47 percent of the public secondary school students indicated that the career held by their parents for them, parent's financial status and the education level of the parents were very influential towards their choice of computer studies respectively. Similarly, 52 percent, 48 percent and 40 percent of the private secondary school students felt that the factors were very influential respectively. Parents' familiarity with the curriculum was less influential on students' choice of computer studies in both public and private secondary schools as attested by 54 percent and 48 percent respectively. This implied that parental related factors greatly influenced students' choice of computer studies in both public and private secondary schools.

The public secondary school's parent's views in the focus group discussion on the parental factors which influenced their children's choice of computer studies concurred with those of their children.

One parent stated that;

"My son first touched a computer in this school. I cannot afford a computer at home or pay fee for a private college, so I advised him to choose computer studies. I would like him to be a doctor and I know he will require the skills."

The private secondary school's parent's focus group discussion views echoed those of their children.

One parent commented that;

"I want my child to be an engineer and I am sure he cannot work without using a computer, I pay for all the requirements to ensure that he gets the right skills."

Another parent added that;

"I brought my daughter to this private secondary school despite the cost because they teach and train computer skills excellently. I am satisfied that she will fit well in her career after school."

Evans & Ashworth (2001) posited that students need parental guidance and counseling in their life choices and decisions at successive stages which shape their life patterns. This is in line with the findings of this study.

The study established that efforts were made by all the parents with children in private secondary schools to guide them on career/subject choice. The study also established that parents by the virtue of experience and education equip their children with skills and ideas which enhance better career choices. This concurs with Moon & Shelton, (1995) who also established that parents bring up their children with defined principles in mind which can influence the learners' choice of subjects.

Parents enroll their children in private secondary schools voluntarily despite the financial obligations due to their economic ability and the careers they hold for them (Ogbu, 2003). Disadvantaged parents enroll their children in public secondary schools in the poor neighborhood which are geographically inaccessible, have poor infrastructure and lack electricity hence cannot offer computer studies which limit students' subject choice (Lippman et al., 1996).

Owoyele & Toyobo (2008) asserted that parents with low economic power discourage their children from choosing computer studies due to the extra expenses incurred in the subject study which influences students' choice of computer studies in public and private secondary schools. All these studies attest the findings of this study.

V. CONCLUSIONS

The study has also established that parental factors influenced students' choice of computer studies in both public and private secondary schools though with some variations. It also concluded that most of the students in both public and private secondary schools were guided by their parents on their choice of computer studies.

VI. RECOMMENDATIONS

The study recommended that parents need to make follow up in order to establish whether their children choose the courses they have been aspiring to pursue. This is based on the finding

that in private secondary schools it is the directors of the schools who determines the school curriculum. This kills the morale of the students who are forced to take subjects not of their choice.

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