



Motivation: the most Ignored Factor in Classroom Instruction in Kenyan Secondary Schools

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ABSTRACT

Motivation is one of the most important forces that guide students' actions. It involves a direction, a goal or an objective and the arousal of one or more drives. A teacher needs to consider motivational strategies that can be used to enhance learners' motivation and increase their active participation in learning. Research and experience indicates that students who are intrinsically motivated will work hard and learn more because of their personal interest in the materials. The use of educational media and technology is one that is considered to provide motivation to learners during teaching –learning situation. The purpose of this study was to investigate if the use of computers as an instructional tool motivates students to learn effectively in secondary schools. The study used a descriptive survey design conducted in 25 secondary schools in Nyanza province that had computers at the time of the research. Participants included 25 principals, 140 heads of departments and 20 computer teachers. The secondary schools were drawn from rural, urban, and suburban areas in Nyanza Province, Kenya. Data was collected using questionnaire for the Principals and Heads of Departments, while Semi-structured interview schedule was used for the teachers. Data analysis involved the use of descriptive statistics that combined qualitative and quantitative methods. Data collection involved the use of questionnaire and semi-structured interviews. The overall findings confirmed that the majority of the participants agreed that the use of computers increased their students' motivation to learn different subjects effectively. The study therefore recommended that public secondary schools should be assisted to purchase enough computers for teaching and learning.

Keywords: *motivation, media, computer, Kenya, learning, secondary students*

1. INTRODUCTION

Motivation is an essential aspect of teaching and learning. A teacher can plan a lesson that is perfectly sequenced and well presented yet fail to teach and students end up being bored and restless during periods of passive learning. The teacher needs to provide motivational or strategies to hold learners attention and sustain it throughout the lesson. Research finding from developed countries indicates that the use of media resources plays a major part in motivating students to learn (Bates 1984, Heinich et al 2002, Koumi 1991). Once students are motivated they will learn from any media if it is completely used and adapted to their needs. They become stimulated when they are actively and emotionally involved in their own learning. (Ellington and Race, 1995)

Motivation has also been regarded by experienced and inexperienced teachers' alike as a prerequisite for effective learning, and the greatest challenge that many teachers face is to make their students want to learn (Petty 2004). Therefore, the teacher needs to provide motivational activities or strategies to hold the learners attention and sustain it throughout the lesson. Research findings from developed countries indicate that the use of media resources plays a major part in motivating students to learn (Carol 1997), Heinich , Molenda, Russell and Smaldino (2002), Koumi 1991). Once the students are motivated they will learn from any media if it is completely used and adapted to their needs.

Students become stimulated when they are actively and emotionally involved in their own learning. A study by Carol (1997) noted specifically that the use of computers in teaching and learning provide motivational activities.

For example, the use of computer applications has been part of classroom teaching and learning for more than twenty years in developed countries. Computer began to make an impact after the introduction of Micro-computers in 1976. Originally the computer was not designed as a teaching and learning resource. It was invented for commercial and scientific purposes. However, educators soon became aware of its vast capabilities and potential in education. The use of computer applications are now so firmly established throughout all sectors of education and training and are now grouped under the new technologies of education. Computers are now available in pre-primary, primary, Secondary schools to University education in developed and developing countries.

One of the reasons for the massive expansion of the introduction of computers in teaching and learning was because of its capability to motivate children by producing a graphic representation that they can control. By introducing computers into education system the aim of the educators was to enable the learners to learn by doing make them want to learn, create, manipulate and evoke experiences that are vivid to enhance learning (Ellington & Race (1993) Heinich et al (2002).



2. FACTORS THAT PROMOTE MOTIVATION IN THE CLASS

Motivation is an essential aspect of teaching and learning. There are many factors that contribute to students' motivation in the classroom during teaching and learning. Such motivational programmes could be based on motivational theory that provides suggestions for increasing students' level of desire to learn effectively. One such model is known as "Keller's motivational Theory. Keller's (1983) motivational component includes interest, attention, relevance, confidence and satisfaction. (ACRES). (Allessi and Trollip 1991:32). They emphasize that motivation is an essential aspect of teaching and learning. Motivational factors in school learning have been the subject of endless discourse. There are however, enough evidence that can serve the general guide to the use of technology.

Motivating students by increasing attention and interest

One of the reasons for the massive expansion of the use of computers in schools is that of motivating students to learn effectively. According to Heinich, Molenda, Russell and Smaldino (2002) motivation is an internal state that leads people to choose to pursue certain goals and experiences. Many researchers (Christman, Budget and Lucking 1997 and Carol 1997) discussing the use of computers in teaching and learning found that motivational factors are indisputably important in education. Heinich et al (2002) also report that "various emotional factors have been found to influence what we pay attention to, how long we pay attention, how much effort we invest in learning and how feeling may interfere with learning. Many students do not perform well in school subjects due to lack of interest and end up dropping out of school. Therefore, if teachers can create an enduring fascination for the subjects under discussion, then students can learn more effectively. Teachers needs also to be aware that promotion of motivation depends upon two kinds of motivation: that is intrinsic and extrinsic motivation.

Intrinsic motivation

Heinich et al (2002) report that researchers have found that intrinsic motivation is generally more effective. Students who are intrinsically motivated will work harder to learn more because of their personal interest in the materials because the learner derives pleasure in performing activity. It arises out of direct interest in the materials to be learnt. Intrinsic rewards include a feeling of a job well done, and a feeling of satisfaction. Allessi and Trollip (1991) add that intrinsic motivation is the thing inherent in the instruction that motivate students if they consider it to be fun. Allessi and Trollip (1991) suggest a number of ways that could enhance intrinsic

motivation such as: use of game technique; use of audio, visual and audio visual technique increase students intensity of work, attention and encourage deeper cognitive processing; use of exploratory environment, give the student personal control, arouse the students curiosity and give encouragement even when errors are made.

Carol (1997), Christman, Budget and Lucking (1997), have suggested that the computer can be an ideal medium for developing such motivation. The motivational function of the computer has been considered an important factor in many computer-based instructional programs (Baron, Hogarty, Kromey 1997, and Johnson 1996). These studies show that intrinsic features of the computer such as immediate feedback, animation, sound, active interaction and individualization are more likely than any other media to motivate students to learn. A study by Johnson (1996) found that computers were good motivators that heightened students' interest and enjoyment and were also seen to have a positive effect upon the status of the subject.

Provide self- directed learning activities

Similarly, Christman, Budget and Lucking (1997) noted that computers provide opportunities for students to engage in self directed learning activities, which can promote intrinsic academic motivation. Barron et al also found that in addition to motivation to learn, students expressed increased self-esteem and self-confidence when using computers. Carol (1997) also reported that several heads of department in her study noted the benefits of technology in terms of pupils' motivation gained from the use of computers.

Motivating students to learn difficult subjects

The integration of computers in the curriculum can help to heighten students' motivation to learn and introduce them to variety of new learning experiences. Motivation can also do much to increase students' interest thereby helping them to learn difficult subjects like science and mathematics (Azita 1999). For example in science, Hargron and Kenton (2000) report that simulation is often used to stimulate students interests in a topic in order to promote active learning of problem solving and the study process. This can be emotionally stimulating as well as being intellectually rewarding and can encourage them to learn more. It is due to the capabilities of computer technology as a teaching and learning resource capable of motivating students to learn effectively that led developing countries like Kenya to introduce computers in public secondary schools.

3. RESEARCH METHODOLOGY

A descriptive survey design that combined qualitative and quantitative methods and data analysis was used in the study. Questionnaire and structured interview schedule was the main instrument used to collect data.



Area of study

The study was carried out in Nyanza Province in Kenya. Kenya is a country situated in the Eastern part of Africa. It is a multiracial society and English is the official medium of classroom instruction from primary grade four to university education and for official correspondences, but Kiswahili is the official national language. There are eight provinces and forty seven counties in Kenya and Nyanza province is one of them. It is situated in the western part of Kenya near Lake Victoria. There were over 500 secondary schools at the time of this research.

Study population and participants

The study was conducted in 25 public secondary schools that had computers. This included 11 girls, 12 boys and 2 mixed secondary schools representing rural, urban and sub-urban areas. The participants included 25 principals, 140 heads of department and 20 computer teachers.

The sample and Sampling

Saturated sampling technique was used to select 25 principals, 140 heads of department and 20 computer teachers from public secondary schools that used computers in teaching and learning. Saturated sampling is a non-probability sampling procedures in which all the members of a target population are selected because they are too few to make a sample out of them (Borg and gall 2007).

Research Instrument

The main research tools that were used to collect data were the questionnaire and semi- structured interviews developed by the researcher. The questions were grouped under nine topics that included for example: personal information of respondents, background information, information about the participants and the use of computers in teaching and learning.

Data collection procedures

Data was collected from 25 principals of secondary schools 140 heads of department and 20 computer teachers by use of questionnaire. Semi-structured interview was also used to collect data from 20 computer teachers.

Data Analysis

Data was analyzed by use of descriptive statistics. This included the use of frequency counts, percentages and tables. Responses from open and closed questionnaire

were coded and analysed both qualitatively and quantitatively using descriptive statistics.

4. RESULTS AND DISCUSSION

All schools were public institutions that belong to the community and are run by parents Teachers Association (PTA) on behalf of the parents, and the Board of Governors (BOG) on behalf of the government. The parents oversee the general welfare of their children in schools, in terms of academic performance, health care, and security and assist the school with funding. Most of the schools 76% were located in rural, 12% in urban and 12 from suburban. The schools consisted of 44% girls boarding schools, 48% boys boarding, and 8% mixed school.

Responses from the Principals of Secondary schools

The principals' knowledge about the benefits of using computers in education was considered an important factor in the integration of computers into teaching and learning in their schools.

Their comments on the use of computers to motivate students to learn were summarized and presented in Table 1.

Table 1: Response from Principals of secondary schools

Responses	Principals	Percentage
Yes	18	90%
Not sure	6	30%
No	1	4%
No response	0	0

The principals are key to the effective implementation of computers in education. Most of them were convinced that computer motivates students to learn

Response from Heads of Department

Most HODs also indicated that the use of computer applications in teaching and learning motivates students to learn different subjects effectively as shown in table 2.

Table 2: Comments from Heads of departments

Responses	Heads of department	Percentage
Yes	84	60%
No	56	40%
Total	140	100%



From the above table it can be seen that the majority of HODs reported that computer motivates students to learn various subjects. They indicated that once the learners are motivated they concentrate and learn effectively so computer arouses learner's curiosity and creative thinking.

Response from computer teachers

According to Underwood (1994) computer packages motivates students, encourage collaboration and social interaction, and offers greater parity of access to learning the curriculum. In this connection, computer teachers were asked to identify what they felt to be the main impact of computer on motivating students' learning. They were also asked to state whether they could think of specific examples when students' learning was motivated and stimulated or enhanced by computer programmes.

In response, the majority of the interviewees noted that students are motivated to learn when they use computers technology. One of the teachers reported that *"there is no sleeping during computer class, a sign that they appreciate their use of computers and what they learn from them. It increases students desire to learn. They are normally very happy and this enables them to learn even more on their subject areas."* Table 3 gives other responses from the teachers

Table 3: The impact of computer on students' motivation to learn

Responses	Teachers	Percentages
Students recall what they learn	18	90
Students discuss what they learn	12	60
Improve writing skills	8	40
Increase motivation and attention	24	90
Students learn new ideas	12	60
No Response	0	0

It is evident from the findings that all the interviewees recognised the contribution computer make towards students learning. The learners were able to recall what they have learnt, discuss with other students what they have learnt as well as obtaining new ideas because they were interested to learn. The majority of the teachers also noted the use of computers to increase students' motivation to learn new ideas.

Increase attention and motivation to learn

The findings from classroom teachers regarding the use of computer to increase learners' attention and

motivation of the students provided a wide range of responses that were summarized and presented in Table 4

Table 4: Teachers' responses on computer increasing attention and motivation

Responses	No of teachers	Percentage
Motivates students to learn individually	10	50%
Motivates them to search for more ideas	16	80%
Motivates them to learn creatively	17	85%
Motivates them to want to learn	12	60%
Helps to solve mathematical problems	15	75%
Motivates encourage them to learn new words	18	90%
Increase interest in communication skills	19	95%

As shown in table 4 teachers reported that computer motivates students to learn on their own and improve in various subjects. They noted particularly the contribution of computers to improve students' writing skills, learning new subjects and solving mathematical skills or problems. For example one teacher from a suburban school reported that *"the use of computers have really increased students desire to learn."* Thus, motivation is an important factor that has been identified by scholars to influence what students pay attention to, how long, they pay attention and how much effort they invest in learning. According to Heinich et al. (2002: 58) students who are intrinsically motivated will work hard and learn more because of their personal interest in the materials.

Computer teachers also observed that students were keen and interested during computer classes. As one of the interviewees reported *"once the students are in the computer class they do not want to stop working unless they are forced to leave"*. The interviewees also noted that *"the computer is particularly successful in stimulating students to attend to the information contained in the program because it sustains their interest, they are not bored by it, compared to the teachers' chalk and talk."* Teachers also reported that students enjoyed working on computers and this was essential in discovering new ideas of solving difficult problems in their subject areas.

Teachers view about the capabilities of computer to motivate students to learn

All of the computer teachers were asked to



express their views about the effects of computers on students' motivation. This question was very important because if the students pay attention to and enjoy working with the computer, then the program may be regarded as effective as well as motivating. The findings were summarized and presented in Table 5

Table 5: Teachers rating of computer motivating students to learn

Responses	Teachers	Percentage
Highly motivating	67	50%
Very motivating	47	35%
Motivating	15	11%
Not sure	5	4%

Table 5 presents the overall findings indicating that the majority of the interviewees believed that computers highly motivate students to learn. For example one teacher from a suburban school reported that students are *normally very motivated and this enables them to learn even more on the subject area*. Another teacher from a rural area said. *"In mathematics there are computer programs dealing with mathematical calculations that motivates students, so any time they are free they ask me to allow them to go to the computer room to learn with computers on their own*. Moreover, a science teacher from an urban school noted that *"students are eager to respond to physics programs in the computer. It challenges them to search information from the computer and Internet then they come and ask me what they learn in science."*

Moreover, most of the teachers interviewed reported that computer programs are presented in simple and interesting manner. Some teacher noted that *students are always excited and lively when it is time for computer lessons*. They felt that computer programs are organized and involve more practical work linking with what has been covered by the class teacher in the class so the students are motivated and encouraged to learn.

Thus effective learning in class depends on the teachers' ability to maintain the interests that encourage students to learn the subject well. However, not all students are motivated by the use of technology or by some values, needs, desire or wants. Some students will be motivated by the approval of others, some by overcoming challenges. The teacher needs to identify and adopt those aspects of teaching situation that enhance students' self motivation. The learners' own effort to learn is also very important. Mellon (1999:31) points out that no matter how much technology is available, no matter how well it is integrated into instructional content, it is the learners' willingness or ability to learn that is paramount.

The other question was to find out from the teachers students view about use of computer to motivate them to learn new things. The findings were summarised and indicated that majority of the students were aware of the capability of computer technology to motivate them to learn. Most of them (95%) agreed that computer motivates them and increases their attention to learn new things.

On whether the use of computer in teaching and learning increase their desire and make them want to learn , the response from the learners showed that majority of tem (85%) of the learners agreed that computer heighten students" interest and make them want to learn on their own. Johnson (1996) also noted that computers were good motivators that heighten students interest and enjoyment that had positive effect on the subject they learn.

5. CONCLUSION

Motivation for learning is an essential factor in instruction. It is also a key element in problem solving. If the use of computers in teaching and learning can help students to learn effectively then it is worth investing in computer education in developing countries where there is lack of relevant textbooks and inadequate supply of teachers in secondary schools Teachers need to employ motivational strategies in the classroom to try to arouse learners' curiosity and sustain their interest throughout the lesson. There are also many factors that contribute to students' motivation in the classroom. Such factors include interest, attention, relevance, confidence, doing, satisfaction and revolve around intrinsic and motivation.

Evidence from research indicates that the use of media technology such as computers motivates students to learn various subjects effectively by making them wants to learn on their own and challenges them to search information from the computer and the internet any time they are free. The majority of the teachers in the study reported that the use of computers increased their students desire to learn and they confirmed that their students learnt new ideas about mathematics and science subjects. Principals of secondary schools are advised to invest in computers education to provide students access to new relevant information on various school subjects topics to help improve and provide quality education and acquire new knowledge.

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