

## Influence of Computer Assisted Instruction on Teaching of English Language in Secondary Schools in Kisumu Central Sub-County: Amyth or Reality?

Onyango Janet Auma\*, Prof. Chris Mukwa, Prof. Marcella Mwaka Kyalo

Department of and Educational Communication and Technology, Moi University, Usain Gishu County, Academic Highway, Eldoret, Kenya

### \*Corresponding author

Onyango Janet Auma

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**Abstract:** Teacher shortage in both primary and secondary schools causes concern to educators and the general public, despite the numerous efforts by the government to reverse the trend. The purpose of this study was to find out whether computer assisted Instruction (CAI) in teaching English Language in Secondary schools is a myth or a reality. This was done by first establishing the challenges faced by teachers in the use of CAI in teaching English in Secondary schools and secondly determining whether computer assisted instructions is used in teaching English language. This study was based on the social science technological innovation theory proposed by Robert Red field (1980) an American. Survey research design was used to gather information from secondary school teachers. The findings from the study indicated that the teaching of English using Computer Assisted Instruction is a myth but not a reality since very few teachers adopted the method in teaching English based on the findings of the study.

**Keywords:** Computer assisted Instruction, teaching English language, amyth, reality, Secondary schools.

### INTRODUCTION

The greatest contribution of the present day technology is the development of computer and its use in all sectors of life. The invention of computer has made an increasing and powerful impact on working method especially in education.

Changes and innovations are being introduced in education system at that a higher speed that Cass [1] observed education reporting today is very much high like snapping a photo of a moving object. Therefore with this rapid change it is inevitable that the use of education and technology is to improve the methods of education and learning in particular and educational system as a whole.

Computer assisted instructions (CAI) has emerged as an effective and efficient media of the instruction in the advanced countries of the world. It is being used to impart formal and informal education to cope with the challenges of a technologically oriented society. According to UNESCO publication [2] schools have moved well beyond emerging stage to what are termed as applying and infusing stages in their use and adoption in ICT. According to UNESCO there is a need to embrace ICT and integrate it into our instruction. Newer materials and methods such as computers, DVDs, CD-ROMs, the Internet and interactive video conferencing for it can be said that a good aid is like a window, it should call attention to itself; it should just let in the light.

The use of CAI as supplement to conventional instruction produces higher achievement because student develop writing skills through the use of word processors hence quality written work than other writing methods(paper and pencil, conventional typewriters)

As well as enabling learners to achieve higher levels, researchers have also found that CAI enhances learning rate. Students learning rate is faster with CAI than with conventional instruction. Capper and Coppie [3] notes that CAI users learn as 40% more than those receiving traditional teacher directed. The teaching of English language concepts and skills, the students encounter in schools shape their understanding, their ability to speak and deposition towards English as a language Biato and Sivira [4].Computer Assisted Instruction (CAI) is a teaching process that uses a computer in a presentation of instructional materials. The CAI use in the teaching of English language when embraced can produce higher achievements in the long run. For example, when learning the meaning of English words, a student sits at a terminal and is presented with a word and its meaning.

The student studies this and when satisfied tells the computer she/he is ready for questions. The computer may then present several sentences in which the word is used. The student is asked to indicate the correct usage. The word can be presented as many times as the student wishes.

The use of Computer Assisted Instruction in teaching English language in the world is deplorable and there is need for Improvement. In the process of teaching English language skills, computer software would generate a word display it on the screen associate a picture with the word and then pronounce it so that a student may hear it and would say it out aloud. This would make students to make progress with their reading ability so that they could see the benefits of learning a language with the computer.

In the USA most schools have the computers available for use in the classroom and some colleges. Many educators in the US prefer learning by doing an approach best suited for teaching English language H.L Capron [5] and Davies. Kenya has not been left out in the use of Computer Assisted Instruction in teaching English language in secondary schools although there are some barriers to this new method of instructions, for example lack of technical and theoretical knowledge to the use of CAI in English language teaching and learning. Many teachers in Kenya do not understand how to use technologies, furthermore, little is known by them about integrating the new reason of learning into an overall plan. Benard Nyongesa July [6] Kitale Daily Nation. Consequently, the Ministry of Education (MOE) through the Kenya Education Sector Support Program (KESSP) republic of Kenya [7] observes that there are still many challenges in the society that directly impacts on Education at all levels and hence teaching English language using CAI.

Computer programs are interactive and can illustrate a concept in English language through attractive animation sound and demonstration.

Computer assisted instructions allow students to progress at their own pace and work individually or problem solve in a group. Computers also provide intermediate feedback letting students know whether their answer is correct or not. If the answer is not correct the program shows the student how to correctly answer the question.

For example computer program for writing help students with the developing ideas, organizing outlining and brainstorming. A template provides a framework and reduces the physical effort spent on writing so that students can pay attention to organization and content. There are programs that identifies words that students uses repeatedly the program may list the frequently used words that are difficult to spell, the students may speak onto the

microphone and the program types the words but the student should be taught how to use the program. This program may also help the students to identify misspelled words, automatically corrects words if the teacher sets the program that way.

According to MC Arthur [8] word processors are excellent tools for students who find handwriting tedious. Often students with disabilities have difficulty with all requirements for the writing process. Examples of a computer program that assist students in writing process are rock fish, crabs, swimming and rescue. The use of computer assisted instruction as supplement to teacher -directed instructions produces achievement effects superior to those obtained with the traditional alone. CAI is suitable for students of different ages and abilities and learning to different curricular areas. Stemmata's [9] review of well designed and implemented Drill and practice or tutorial CAI, used as a supplement to traditional instruction, produces an educational significant improvement in students final examination achievement because students are regularly using the internet together and assimilate information for use in research assignments .They are preparing electronic presentation using computer presentation programme and LCD projectors.

#### **Motivation of the Study**

Computer assisted instruction is very useful in curbing teacher shortage. Dr. Fred Matiangi reports that Kenya currently experiences acute teacher shortage of 75,000; therefore he launched the ICT monitoring centre for schools for example computer assisted instruction to fill the gap of teachers. Farrant [10] notes that for effective teaching the teacher needs to use methods of teaching that free him or her from the traditional role of dispensing knowledge to the whole class and give him the opportunity to attend to his or her students individually.

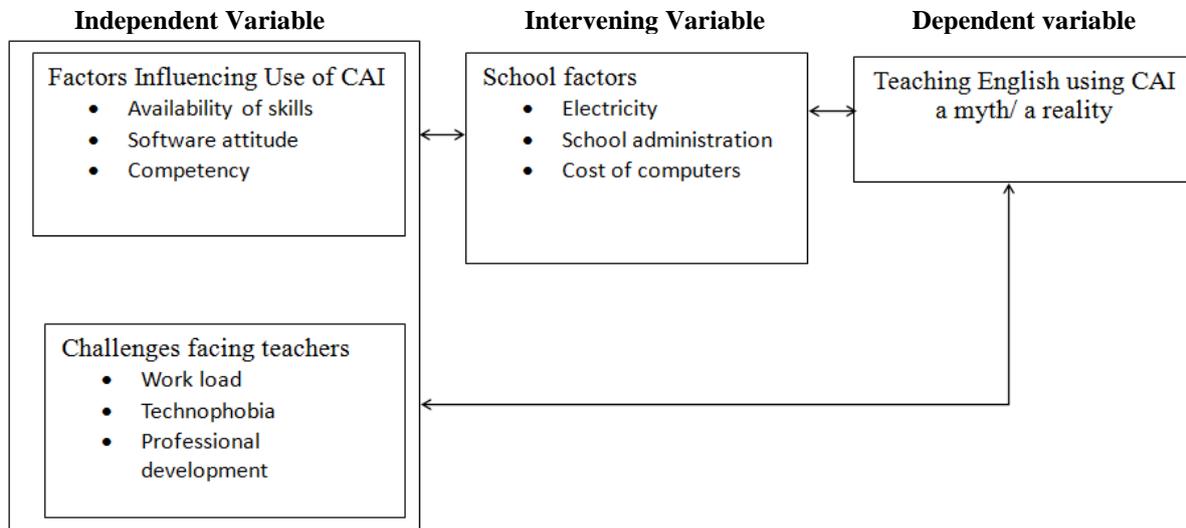
The KNEC [11] reports further recommends that drastic changes in the teaching of English language are required to deal with teacher shortage. Mbuthia [12] advocates that if an existing traditional methods does not yield results then non traditional approaches should be adopted.

The Kenya National Examinations Council [13] attributes the poor performance of English as a language to teaching methods. The use of non-traditional approaches in English instruction could be a possible means of improving English achievement. Senge [14] advocates that education process is shifting from teaching disconnected content to teaching learning skills and new education learning models are now adapted. He further comments that a good school should embrace a vast majority of teaching methods. Because of the failure of teachers to use Computer Assisted Instruction maximally in teaching English language is a big factor that has led to diminishing performance in the

language, this has led to negative impact in the achievement of the millennium goal of ICT integration in education. Because of this lack of achievement, the

researcher was motivated to undertake the study to confirm whether CAI is a myth or a reality.

**CONCEPTUAL FRAMEWORK**



Source: Researchers

**Computer Assisted Instruction**

A study carried out in Fakuoka Japan (makamura Oaken Sanyo High school) [15] revealed that out of the one hundred and eighty six students who took part in the study, of this only ninety five students studied in the computer classroom and only twenty eight students were given computer classes without guidance from a teacher other than simple instructions on how to use the computer and the course ware. The other sixty- seven students were offered computer classes with teacher instructions on how to use the computer and the courseware, and they were also given English lessons directly related to subject matter prior to the students using the computers. In all cases, the classroom size was limited to a minimum of ten students and a maximum of 20 students per computer classroom. Computer Assisted Language Learning (CALL) embraces a wide range of ICT applications and approaches to teaching and learning English Language from the traditional drill- and –practice programs that characterized Computer Assisted English language learning in the 2011 and 2012 to more recent manifestations of Computer Assisted Instructions in teaching English. e.g. as used in virtual learning environment. Language learning in virtual words and computer-Mediated Communication (CMC).

According Davies and Higgins [16] Computer Assisted Language Instruction was in use before Computer Assisted Language Learning (CALL.) reflecting its origin as a subject of the general term ICT (Computer Assisted Instruction) Computer Assisted Instruction fell out of favor among Language teachers whereas it approached to imply a teacher centered approach (Instructional) most English teachers

prefer a student centered approach, focusing on learning rather than instruction. According to Davies and Higgins Computer Assisted Language Instruction is now corporate into names of the growing number of professional assistants worldwide.

Computer Assisted instruction can be used in vocabulary acquisition in during English Language Instruction. This is done using flash cards, which require quite simple programs; such programs make use of spaced repetition, a technique whereby the learner is presented with the vocabulary items that need to be committed to the memory at increasingly longer intervals until long-term retention is achieved. This has lead to the development of number applications known as Special Repetition System (SRS) including the super memo\_package and programs such as BYKI and prose b which have been designed specifically for English Language.

Teacher knowledge, attitude and skills about computer assisted instruction are still minimal. Thus according to the office of technical assessment [17]. A lack of technical and theoretical knowledge is a draw to the use of computer assisted. English language learning technology.

Not only is there a shortage of knowledge about developing software to promote learning, but many instructors do not understand how to use the new technologies. Furthermore, little is still known by teachers about integrating the computer assisted instructions into an overall plan.

According to Dede [18] more powerful technologies such as artificial intelligence in computers might promote learning of higher – order cognitive skills especially in English that are difficult to access with today’s evaluations procedures and therefore the resulting pedagogical gains may be under – valued. Therefore, improper use of technologies can affect both the teacher and the learner in learning English language through computer assisted instructions.

Engaging in computer assisted English language learning is a continuing challenge that requires time and commitment which is lacking in Kenyan secondary school teachers about computer assisted instruction Benson [19]. As we approach the 21<sup>st</sup> century, we realize that technology as such is not the answer to all our problems. What really matters is how we use technology. Computers can and will never substitute teachers as some would think but computer assisted instruction offer new opportunity for better language practice. They may actually make the process of language learning significantly richer and play a key role in the reform of a country’s educational system.

### **Software Design and Pedagogy**

Above all, careful consideration before must be given to pedagogy in designing Computer Assisted Instruction in English Language software but most publishers of Computer Assisted English Language Learning software tend to follow latest trend regardless of its desirability .Moreover approaches to teaching English Language is constantly changing dating back to grammar translation , Through the direct method audio – lingualism and a variety of and other approaches to the more recent communication approach and constructivism [20]. Computer assisted instructions can help students strengthen their linguistic skills by positively affecting their attitude and by helping them build- self instructions strategies and promote their self confidence.

Although teachers and students can still use their books in teaching and learning of English through computer assisted instructions, they are given a chance to escape from canned knowledge and discover thousands of information. As a result their education fulfils the need for disciplinary learning in a multicultural world.

English as foreign language is studied in a cultural context. In a world where the use of computer (internet) has become more and more widespread. Therefore English teacher’s duty is to facilitate students’ access to the web and make them feel citizens of a global classroom practicing communication on a global level.

### **What can be done to teach English using a CAI?**

On-line applications which are already available for use in teaching English Language, which

includes Dictionaries and Encyclopedia links for teachers chart rooms pronunciation tutors, grammar and vocabulary quizzes and word puzzles literally extracts etc. Computers can be used as a lot of food for thought for example the word processor word procession can be used in writing compositions in preparing a class newsletter or in producing a school home page.

The role of the teacher should change as the only source of information anymore but act as facilitators so that students can actively interpret and organize the information they are given, fitting it into prior knowledge Dole [21]. Digital literacy has truly transformed teaching and learning with global learning for the 21<sup>st</sup> century (Asie society org). This is because studies indicate that students retain approximately 20% of what they see 30% of what they hear and 50% of what they see and hear. When a student has a chance to see, hear and interact with a learning environment he/she can retain as much as 80% of the information. This makes digital media a powerful tool for teaching and learning English Language. Computer Assisted Instructions (CAI ) are instructional activities that use a computer as the primary vehicle for teaching content or processes rather than one to one interaction with a student [22]. Today computer assisted instruction is also referred to as computer aided learning or computer aided instructions. It has emerged as effective and efficient media of instructions in the advanced countries of the world. It is used to import formal and informal education to cope with the challenges of a technologically oriented society.

The invention of the computer has revolutionized the education system. The Computer Assisted instruction has improved the method of teaching and the quality of teaching too. Education research for [23] example Msingi peak produced by Kenya Institute of Education for primary classes’ six to eight.

This arises as a result of the increased involvement and the large classes that imply a wide range in ability and preference between students. There is also the need to create enjoyable classrooms mathematical activities. Several studies and reports have established the causes of the opening state of mathematics O` Connor, Kenya Babia [24] SMASSE [25, 26]. These causes were identified as (a) negative attitude of students towards mathematics (b) Lack of appropriate teaching methodology and inadequate coverage of the syllabus amongst others.

CAI is a teaching process that uses computer in the presentation of instructional materials, often in a way which requires the students to interact with it; also called computer- assisted learning. In teaching English language, computer assisted instruction may follow different paths to the same end. One example is how computer assisted instructions is used in relation to

other language teaching methods or presentations. CAI can be used either in isolation learning the whole responsibility for conveying instructions to students or in combination with conventional i.e. face to face teaching methods. Research has shown that the combination of conventional and CAI instruction has been most effective in raising student achievement scores in English language.

The internet and the rise of the computer-mechanized communication in particular have reshaped the uses of computer for learning English language. Brown [27] notes that students can become active participants in 'learning English and are encouraged to be explorers and creators of language rather than passive recipients. Computers offer new opportunities for better English. Language practice for practicing English language skills also thus Benson G.M Jr [28] New ways of using computers in English language Teaching.

Computer assisted instruction is used through the entire range of education from preschool to professional school. It has been offered in a wide variety of fields, including the entire main school subject taught in elementary and secondary schools. At CALI- the centre of computer –Assisted legal instruction, law students from across The United States and other countries such as Belgium, Brazil, Canada, China, Denmark, Ireland, Kenya, Korea, Mexico etc. to CAI Law school Lessons to students.

#### **School Based Factors Influencing CAI Use**

Computers are familiar sight in the classroom in the twenty –first century and technology has been used to stream line many Educational tasks. According to Elizabeth and Harris [29], there are different types of Educational computer use, and not every use of a computer in the classroom is considered Computer – Assisted Instruction The Educational use of a computer that are considered to be Computer Assisted Instruction (CAI) or computer base instruction (CBI) are those cases in which either instruction is presented through a computer program to a passive student or the computer a platform for an interactive and personalized learning environment. In broad definition, Computer Assisted Instruction may form different paths to the same end: one example is how the Computer Assisted Instruction is used in relation to other teaching presentations. CAI can be used in isolation bearing in mind the whole responsibility of conveying instruction to students or in combination with conventional i.e. face-to-face teaching methods. The research has shown that the combination of the conventional and CAI has been most effective in raising student achievement scores

Students have seem not only to support the idea that the computer is a machine that has the capacity to motivate students to learn by reducing the teacher's verbal instructions in the classroom while encouraging

learner's participation but also is a technology that puts new inputs into our lifestyles [30]. In Kenya the computer machine were first developed in 1996 in the Kenyan secondary schools. Computer Assisted Instruction in the secondary schools was first introduced in 2003 by the NARC government then, by 2007 students' sat the first batch of Exams in CAI was sat by students during KCSE Examination.

#### **General Challenges Facing Teacher in implementation of computer assisted instruction (CAI)**

Provision of computer assisted instruction to students is one of the duties and responsibilities of teachers [31], While appreciating the fact that all teachers should have basic skills in computer programmes, Stephen Mburu [32] carried out a sample study on Computer Assisted Instructional programme in secondary schools in Kenya. He noted that much of the teaching and learning in secondary schools was done in theory forms but in practical. However he confined his study to the effectiveness of Computer Assisted Instructional programme where as his study examined at the inputs process and outcomes of Computer Assisted Instructions and other electronic media. The Nation team, practical approach in language learning [33] while reflecting on a speech made by educational officials in Nyandarwa stressed the importance of Computer Assisted Instructional programme in both primary and secondary schools. They emphasized that Computer Assisted Instruction programme should be used to teach practical subjects like Biology, Chemistry, Physics etc. Limited Time and Training for Computer Assisted Instruction in Secondary Schools is a major problem. A study by Onyiego [43] found out that schools in Asego Division Homa Bay District, did not implement CAI effectively in teaching relevant subjects in the school -syllabus, this is because time allocated for it is very minimal. Teaching presupposes a teacher and the existence of a teacher implies the activity of teaching. According to Ornestein and Hunkins [34] the role of the teacher is to help learners cope with their psychological needs and problems to facilitate self understanding among students and help them develop fully.

The teacher should facilitate and provide an environment in which the students are free to develop emotionally and intellectually.

#### **School Factors Influencing CAI Use**

Teachers' beliefs about teaching and learning with ICT needs to address three interlocking framework for change. The teacher, the school and policy makers. A number of early studies investigated why teachers do not use computers in their teachings, Rosen and Weil [35] suggest that teachers lack teaching experiences with ICT. The dominant style of computing among teachers is that of avoidance, here teachers typically distance themselves from computer related activities.

According to Hardley and Sheingold [36] teachers sustain low level of interrogation generally embraces computers. They intergrated the technology into their teaching methods and curriculum and the working daily and learning experiences of students. Davis [37] advocates that teachers who resist change are not rejecting ICT. In a study of projects to promote educational changes in America, Canada and United Kingdom, Fulan [38] found that one of the most fundamental problems in educational reform is that people do not have a clear and coherent sense of educational changes, what it is and how to proceed. Cuban (2012) provides an explanation as to why new technology has not changed schools as much as other organizations, first, cultural beliefs about what teaching is, how learning occurs, what knowledge is proper in schools, and the student teacher, not student machine relationship dominate popular views of proper schooling.

### **Differences between Students Taught Using CAI and Traditional Method**

Computer assisted instruction is effective in improving students achievement in English pronunciation as opposed to traditional method of learning Wanjala [39]. The CAI helped students to pronounce words correctly despite the native interferences; moreover, the interactive nature of computers offers opportunity for the students to develop greater understanding of many English concepts which they need. Computer Assisted Instruction is effective as a mode of learning in other areas. It has been found to improve achievements in learning of pronunciation among the learners. This could be attributed to the fact that using computer as a way of learning meets the varied demands of different individuals at individual level, Vincent [23]. He further explains that Computer based Learning in Kenyan primary schools will improve rather wrong pronunciation in English.

Lin and Kuo [40] advocates that computer polishes the accent of the student, improve quality of teaching, teachers pronounce better and effectively. Computer is amusing, motivating and is more beneficial to the students than the traditional method of teaching. Computers reduces burden on teaches when teaching pronunciation, this sis because students accent is polished by pronunciation drill. It is also interesting and the learner can practice at their own time at their own phase.

Hsieh [41] explain that KK phonetic symbols, phonics or combining KK phonetic symbols and phonics to teach English pronunciation with modern technology to assist in teaching English pronunciation.

### **The Gap CAI is supposed to fill in the Learning of English Language**

Computer-assisted instruction (CAI) in English-Language environments offer practice time,

motivates students, enhance student learning, increase authentic materials that students can study, and has the potential to encourage teamwork between students. The findings from this particular study suggested that students who used computer assisted program had a greater chance of closing achievement gap and meeting No Child Left behind (NCLB) requirements than those students who did not use computer-assisted instruction. Additionally, the students that used computer-assisted classroom instruction gained scores in reading and English language. Based on these findings, teachers, school administrators, and other educational stakeholder should explore strategies for technology integration to close the achievement gap.

This chapter has discussed the use of computers as a medium of teaching and learning of English language in secondary schools. Trends of computer use in other countries, computer programs that support the teaching and learning of English language and the potential benefits of computer use in teaching and learning English language. It can be observed that USA and Western Europe have built a strong base for the use of computers in education. This largely has been attributed to developed infrastructure and large investment in computer technology.

Despite the notable progress in readiness in Africa, there still exists a large digital divide between the developing and the developed countries. In Kenya the government's prioritization of using computers in teaching and learning English as a language is very low and there is need for paradigm shift in matters pertaining to leadership in computer technology so that the country can leap the benefits of computer technology in education.

The study aimed at investigating whether the influence of computer Assisted Instruction on teaching of English language in secondary schools a myth or a reality.

The Kenyan government recognizes the role of computer technology in helping to attain the education goals vision 2030 which are to provide globally competitive education, training and research for development. Among the implementation strategies specified by the government is to establish a computer supply program that will equip students with modern ICT skills, Karanja [42]. There however exists a gap in knowledge today as pertains to the factors affecting the use of computer in teaching and learning English language.

This study therefore aimed to fill this gap by describing the factors affecting use of computers in teaching and learning of English language so as to help in achieving the education aspirations vision 2030 which are to reduce illiteracy by increasing access to education, improve transition rate from primary to

secondary and raise the quality of education and relevance of education. The study has also shown the importance of practice and drill to encourage learning through self reinforcement a component of computer use. It is therefore worrying for a country in its nascent state of development and targeting a leap in industrial and technological advancement that such an important tool is not a major component in the training of its future work force. The study intends to point out the main impediments to the non-integration of computer in the teaching and learning process.

**RESEARCH METHODOLOGY**

This study adopted descriptive survey research design. Therefore the study used the descriptive survey

research design to collect information on an investigation of the use of computer Assisted Instruction in teaching English language in secondary schools in Kisumu County. Information from this study was collected by use of interviews or questionnaire.

The study was carried out in Kisumu Central Sub-county which covers a small portion of Kisumu City in Kisumu County. The target population for this study was 78 secondary school English teachers, 11 principals and 1 County Director of Education.

**Table-1: categories of sampled schools and teachers in Kisumu Central Sub-county**

School category	Name of school	Population	Sample size
National 2	National 2	20	12
County 6	County 6	42	27
Sub County 3	Sub County 3	16	2
Total 11	11	78	41

Both qualitative and quantitative methods were used. Closed ended questions were analyzed using descriptive statistics i.e. arithmetic means, frequencies, percentage and standard deviations whereas open-ended questions were awarded numerical score. Qualitative analysis involved grouping all the data that similar in content. It was then organized in relation to research objectives and was analyzed using inferential statistics. The analyzed data was presented using tables, graphs and charts.

**RESEARCH FINDINGS**

The study was carried out with the main purpose of examining whether Computer Assisted Instructions is a myth or a reality in Kisumu Central Sub-County. The findings in this section are presented in the context of specific objectives and the implications of the same are given.

Data analysis and report of findings was done using descriptive statistics in the form of tables, frequencies and percentages. The findings of the study were discussed under the following research objectives:

- To establish whether Computer Assisted Instruction in teaching English language in secondary schools in Kisumu Central Sub County is a reality or a myth.
- To determine whether there are challenges faced by teachers in the use of CAI for teaching English in secondary schools in Kisumu Central Sub County.
- To establish school factors that may influence the effective teaching of English language using CAI in the school.

The study sought to investigate how teachers use Computer Assisted Instruction in teaching English language. The teachers were asked to state whether they use Computer Assisted Instruction in their teaching English language.

**Table-2: Computer Assisted Instruction in Teaching English Language**

Teacher	Frequency	Percent	Valid percent	Cumulative percent
SA	16	39.0	39.0	39.0
A	16	39.0	39.0	78.0
N/A	4	9.8	9.8	87.8
D	2	4.9	4.9	92.7
SD	3	7.3	7.3	100.00
<b>TOTAL</b>	<b>41</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

The results from the table 2 indicate that Computer Assisted Instruction was not adequately used by the teachers. The results indicate that 39% of the teachers strongly agree with the teaching English language using CAI. This could be attributed to the fact that they lack interest. Some are not sure whether they

like CAI or not and the technical problem experienced when using them. The KNEC [13] reports further recommends that drastic changes in the teaching of English language are required to deal with teacher shortage.

**Challenges faced by teachers in the use of CAI for teaching English Language**

Computer assisted instruction is a teaching process that uses a computer in a presentation of instructional materials often in a way that requires the student to interact with it.

The study sought to find challenges facing the teaching of English language using CAI with the hope of finding solutions to the challenges. To answer these

objectives, the researcher gave questionnaires to 41 teachers who were asked to identify challenges they face in the teaching of English language using Computer Assisted Instruction they were identified in relation to the syllabus methodology and resources used by the teachers. In methodology the teachers identified failure to use syllabus on resources they identified, lack of books and few computer machines. The findings provided as follows;

**Table-3: the challenges encountered by teachers using CAI**

Challenges	Frequency	Percentage	Valid percentage	Cumulative percentage
Lack of enough computer machines	21	51.2	51.2	51.2
Little time allocated for CAI	10	24.4	24.4	75.6
Lack of interest	1	2.4	2.4	85.4
Lack of maintenance	1	2.4	2.4	87.8
Lack of training	1	2.4	2.4	90.2
Lack of syllabus	1	2.4	2.4	95.1
Lack of reference books	3	7.3	7.3	92.7
Lack of enough preparation	2	4.9	4.9	82.9
<b>TOTAL</b>	<b>41</b>	<b>100.00</b>	<b>100.00</b>	<b>100.0</b>

The result from the table 3 indicates that most teachers mostly agreed with the challenges that face them in teaching English using CAI.

Findings from the study revealed that 95.1% agreed that there was no syllabus to support CAI use. A bigger number of English teachers have also not attended any training as pertains CAI use in teaching English language.

The findings from this study is supported by those of Oyiengo [43] who found out that computer assisted Instruction is not used effectively in teaching relevant subjects in the school curriculum, this is because time allocated for it is very minimal. He found that most profound problem encountered by the teachers in providing Computer Assisted Instruction programme is lack of skilled and trained teachers in these areas. However, it was also noted that 21 (51.2%) of the teachers agreed that there were no enough computer machines in the schools. This could hinder a lot the teaching of English using CAI. At same time 75.6% of the teachers lacked interest in technology most of them are technophobia.

Computer Assisted Instruction is not used effectively in teaching relevant subjects in the school syllabus this is because time allocated for it is very

minimal. Fuller [44] found out that most profound problems encountered by the head teacher in providing Computer Assisted Instruction programme is the lack of adequate time and lack of skilled and trained teachers in these areas.

**School Resources That Influences the Effective Teaching English Language Using CAI**

School resources are instructional materials needed for teaching a particular content for objectives to be realized. They are significant in that they assist and create interest in learning. They also enhance student participation in class for effective learning.

The study sought to find out particular resources teachers may use to facilitate learning in order to attain teaching and learning. To achieve this, the researcher used a questionnaire interview and observation and the results are reported as follows;

The researcher gave questionnaires to 41 English teachers who were asked to state the school factors that influence the effective teaching of English language using Computer Assisted Instruction as presented in the table.

**Table-4: School Resources that may influence the teaching of English using CAI**

School factors	Frequency	Percent	Valid percent	Cumulative percent
Very few computer machines	21	51.2	51.2	51.2
Lack of resource persons	10	24.4	24.4	75.6
Lack of interest with the teachers	3	7.3	7.3	82.9
Lack of computer maintenance	1	2.4	2.4	87.8
Teachers lacking training	1	2.4	2.4	90.2
No defined syllabus	1	2.4	2.4	95.1
Lack of consistency in teaching English	1	2.4	2.4	95.1
Computer laboratory missing	1	2.4	2.4	95.1
No reference materials/text books for CAI	2	4.9	4.9	95.1
<b>TOTAL</b>	<b>41</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

The results from table 4 indicate that most teachers agreed with the negative school factors that face them in teaching English language using CAI. These hinder them from attaining their set objectives. From the table it was noted that 21 teachers agreed that the computers in their schools set up are very few. This could hinder the attainment of effective use of CAI in teaching English language. From the study 95% of the respondents agreed that there are no computer laboratories in their schools. Lack of Reference Materials and Text Books This was also noted to be a major problem. 95% of the teachers agreed that they lack reference books to be used in teaching English using CAI.

From the table 75% of the respondents agreed that they lack resource persons to facilitate their teaching and learning. The researcher also interviewed 10 teachers on the school factors that may influence the effective teaching English using CAI. The teachers agreed that they don't have resource persons given that the syllabus is wide and limited time they have for teaching to complete it. They complained of heavy work load given that they teach other subjects within their combinations in other classes hence resort to teaching without lesson preparations.

Lack of reference materials that were not enough for teachers and students. There was problem in technicality in using other resources such as films hindering the successful use of CAI in teaching English. The findings of this study are in line with those of Kinale [45] who asserted that the syllabus was too wide to be converted in terms of integration technology into the curriculum to be covered within a specified period. The study established that English teachers are under a lot of pressure to complete it for examination purposes. This possesses and challenge to them since a lot of concentration will be put on transmission of knowledge at the expense of effective as aspect of learning concerned with development of desirable attitudes and values. Such a situation is contradictory to the aim of transformation of teaching methodologies to include use of information communication technology (ICT) to enable the country attain the millennium development goals and much trusted vision 2030 [46].

Using research instruments questionnaires and interview schedule, the researcher sought views of the respondents on solutions to the factors influencing the use of CAI in teaching English language in the schools.

They gave the following suggestions;

1. The need for administrative support to the teachers on provision of reference materials and other resources.
2. Organizing in service/refresher courses, seminars and workshops for English teachers to enhance and equip those valuing skills.

3. The need for varied and appropriate teaching methods that aim at attainment of millennium educational goal of ICT integration in Education.

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

Computer Assisted Instruction is not adequately used by the teachers. Very few teachers strongly agree with the teaching of English using CAI. The traditional method of instruction is still widely used to teach the language despite the recommendation of the ministry of Education that ICT should be integrated mostly in teaching languages. KNEC [13] recommends that drastic changes in the teaching of English language are required to deal with the teacher shortage. CAI makes learning more interesting and focused and in turn captures learner's attention. However, some teachers lacked interest in using technology in teaching.

As reported in the findings English is a subject that moulds a student in totality since every subject in the school curriculum is instructed in the language. The Kenya National Examinations are also presented in English except Kiswahili. The syllabus stipulates that the ultimate goal of the subject is to produce an individual of critical thinking mind who is ICT compliant [47]. Mbutia [12] advocates that if existing traditional methods does not yield results then non-traditional approaches should be adopted.

Several challenges in the schools hindered the effective use of CAI in teaching English. The study confirmed that teachers faced challenges such as lack of enough computer machines, little time allocated for instruction in CAI, lack of training, lack of reference materials could hamper the effective use of CAI in teaching and hence prevention of attainment of the millennium goal of ICT integration in education and professionally the teachers should be inspired trained and attend seminars/workshops for effective delivery of the contents.

Fuller [44] points out that the quality of education to attain intended objectives depends heavily on the teacher's competence since they are at the forefront in the instructional delivery system. The teacher in the school interprets the objectives and the contents plans and manages the learning situation through which intention is transformed into practice.

English language teachers were asked about the difficulties they faced in teaching the subject using computer. They rated their computer literacy skills highly 2.4 (90.2%) reported lack of English language software, inadequately equipped computer laboratory, lack of computer skills, extra responsibilities and more work from their second teaching subjects as the main hindrance to effective use of computer to teach English language. Hence they suggested that English language

be allocated time to use computers in the laboratory, all English teachers to be in-serviced on ICT, skills, improvement of computer infrastructure in schools purchase English language computer software and revision of the current syllabus to integrate use of computers in teaching and learning of English language among other remedial actions.

Challenges in the management and use of computers listed the following as the major source of challenges; lack of funding, power blackouts, frequent computer breakdown, high maintenance costs, fewer computers, most language teachers lack computer skills and computer viruses make it difficult for English language teachers to use computers in their teaching. Hence they recommend installation of power back-up generators, employment of computer technician, installation of antivirus in all computers, regular servicing of computers and training of English teachers in computer technology for them to be able to use computers in their teaching.

Several resources are used to promote greater understanding of the experience the teachers are equipped with. They are used to provide the richest possible learning environment which helps the learners and the teachers to attain specific objectives. Findings from the study revealed that teachers experienced scarcity of the resources to be used in teaching to effective use of Computer Assisted Instruction in teaching to attain the millennium of ICT integration in education. Some of the resources were delicate to handle such as the video clips hence hindering effective teaching of English using CAI. The selection of resources are contradictory to Onsongo [48] who proposed that teachers should select resources that help them use CAI effectively in teaching English language. The English syllabus also proposed that resources should be properly selected for the purposes of the attainment of effective teaching of English.

The teaching and learning of English in secondary schools reveals that the subject has continued to be less prominent among students in secondary schools. Eshiwani [49] in his research in quality secondary education in Kenya noted the challenge associated with the teaching of English language. The study confirmed that the teachers and learners together perceive English as having a minimal contribution to job market. This is compounded with the fact that the subject is not a prerequisite for entry to highly ranked courses like medicine, engineering, law and computer science. Many students are opting for science subjects. English teachers face a number of challenges which hinder them achieve efficiency in the English language. The findings from the study also revealed that the subject for a long time has been using old resources that have never been changed. The other problem is the negative influence of the newly established resources such as the internet which the students have been

hooked influences English teaching using CAI. The teachers also cited that the syllabus is overloaded and pressure of examination force the teacher to resort to teaching without planning and using CAI in teaching English language. This makes the teacher to resort to traditional methods or expository methods of teaching which may not make the teachers to achieve their objectives.

The computer machines are very few in most of the secondary schools. From the research it was realized that most schools had few computers which in some schools were not used effectively in teaching.

Lack of reference materials and enough computer machines was a challenge to the teachers interviewed since they decried of the few reference materials that were not enough for teachers and students. There was a problem of technicality in using other resources such as films, video conferencing, hindering the effective use of CAI in teaching English language.

The findings of this study are in line with those of Kinale [50] who asserted that the syllabus was too wide to be covered in terms of integrating ICT in the curriculum within a specified period. The study revealed that teachers are under a lot of pressure to complete the syllabus for examination purposes. This poses a great challenge to them since a lot of concentration is put on transmission of knowledge in theory form at the expense of practical aspect of it.

## **CONCLUSION**

English is one of the subjects in the school curriculum that is expected to contribute to the development of positive attitude, behavior and interest among learners. The effective teaching of English language using CAI in secondary schools have not been achieved as revealed in the study because not all teachers do what is expected to achieve the set goals. On factors influencing the effective use if CAI in teaching English language, there is emphasis on the need for teachers to use CAI in teaching English language. There is need for teachers to enhance learners' participation in the learning process by using valuing skills and ICT integration in education and life skills. These help the learners to be self-motivated. These also help the learners to deal with issues affecting the society in effective and gain confidence in them by making informed choices and decisions in their lives. Poor methodology in the teaching of English if not checked the subjective future in the curriculum will be doomed.

As revealed in the study there is need for curriculum developers and stakeholders to renew the syllabus and the resources used in teaching of the subject.

Secondary schools in Kisumu Central Sub-county sampled in the study lacked enough computers, power generator and lacked adequately equipped computer laboratories to ensure use of computers in teaching and learning English language. The computer laboratories are not big enough in size to accommodate all students, indicating that the average number of students per computer is very high for effective use of computers in teaching and learning English language. This was attributed to lack of funding by both the parents and the Government on computers. Lack of English language computer software prevented teachers' and students from using computers in teaching and learning English. The most common models of computers in the sampled schools were HP with 8 out of the 11 sampled schools stocking a total of 518 desktops of the brand.

Very few English language teachers have acquired the requisite skills and training on computer technology to enhance effective usage of computers in teaching English language. Integration courses organized by MOE through Kenya curriculum development on ICT are not accessible to all English language teachers, making it difficult for them to use computers in teaching English language. From the foregoing summary, it can be concluded that computer use in teaching and learning of English language in Kisumu Central Sub-county is still in its early phase. Integration of computer in the teaching and learning of English language in the district suffer from inadequate computer infrastructure in schools, ill equipped and overburdened teaching force and overstretched school budgets incapable of sorting out the financial challenges that the schools face relative to computer integration in the teaching and learning process. There is need to address those factors affecting computer use in teaching and learning of English language in order to integrate its use in the teaching and learning of English language in schools.

### Recommendations

Based on the findings of the study, the following recommendations can be made:

- Education stakeholders in the country should finance provision of computers, power generator, English language computer software, and expand computer laboratories in all secondary schools. This will enhance the use of computers in the teaching and learning of English language.
- Due to varied types of computer models, it is recommended that schools should use HP models due to their durability.
- All English language teachers should be trained on using computers to teach English language due to lack of computer skills.
- The government through KIE should make curricular re-design of the English language syllabus to accommodate the use of computer in the teaching and learning of English language.

- The PTA, educational stakeholders and the government through MOE who finance free secondary education should increase its allocation on tuition fees and encourage schools to have a specific vote head for computers so as to ensure reliable funding of computers by schools. However MOE should ensure use of the funds efficiently and effectively to create sustainable computer programmes in their schools.
- Universities and teacher training institutions should include a course of study on skills of teaching values (valuing) not only for English teachers but for other subjects.
- There is need for KIE as a curriculum developer to produce a syllabus that would include teaching English using CAI.
- The Ministry of Education should assign the quality assurance standards officers to closely monitor the school resources and their availability in school.
- The research should be extended to all schools in Kenya to confirm if the conclusions drawn from the study following the findings is the same reflection of what is prevailing on the ground and in the country at large to improve students' performance in K.C.S.E and teaching English at secondary level. There is need to conduct further research studies on different topics in English to be taught using CAI have full understanding of factors which contribute to problems in teaching and learning of English in secondary schools.

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