

TEACHERS' ATTITUDES ON THE USE OF INFORMATION COMMUNICATION TECHNOLOGY IN TEACHING READING SKILLS IN LIMURU ZONE, KIAMBU COUNTY, KENYA.

Veronicah Wanjiru Karanja

(Corresponding Authors)

Dr. Suleiman Mwangi, Dr Esther Marima

ABSTRACT

The use of information and communication technology (ICT) is a vital component of improving educational quality. Despite the numerous advantages of ICT in everyday life, both in and out of school, studies have revealed that integration is slow, especially at the ECDE level. Technology is advantageous when is used to improve reading skills. However, it is unclear to what extent this has been achieved in Limuru Zone in terms of reading skills. The study's objective was to determine teachers' attitudes toward the use of ICT in teaching English reading skills. The study targeted 15 head teachers, 28 teachers, and 1233 grade three pupils in Limuru zone public primary schools. Simple random sampling technique was used to select 5 schools, 5 head teachers, and 10 grade three teachers. A sample of 250 grade three pupils were also chosen from table of random numbers. Questionnaire was used for data collection for the selected teachers. Statistical Package for the Social Sciences (SPSS) was used to analyze the data collected. The data was analyzed using descriptive statistics such as frequencies and percentages. The data was presented using tables and graphs. The study revealed that majority of teachers have a positive attitude toward ICT use in teaching. Further, recommended that Kenya Institute for Curriculum Development (KICD) should develop a capacity-building program to improve teacher ICT training, with a focus on integrating ICT into teaching and learning.

Key words: Attitude on the use of information communication technology in teaching reading skills

INTRODUCTION

Technology provides learners with a platform offering a range of activities thus facilitating individual learning. Technology in education has grown to the point that it can no longer be thought of as a separate class in a lab, as it once was (Marcinek, 2015). Today, technology must be integrated into the educational process. Alharbi (2014) further states that Information and Communication Technology (ICT) has grown increasingly important in all educational institutions. When technology is integrated into education, it has the ability for improving teacher effectiveness, and their planning and cooperation in matters pertaining to learner-centered learning teaching strategies (Laaria, 2013).

Teachers' attitudes and use of technology, according to Tan and Mishra (2001), are strongly intertwined. They suggest that teachers' readiness to use ICT in the learning and teaching process is significantly influenced by their perceived views toward the technology use in learning. Positive attitudes about the usage of ICT will make it easier for the teacher to teach and facilitate an interactive ICT platform with their learners. According to Andoh (2012), teachers need computer skills on how to effectively integrate ICT into their teaching and learning in order to foster positive attitudes towards ICT.

Despite the government's emphasis on technology's importance in learning, there is little published literature on teachers' readiness from public primary schools to integrate technology into learning and teaching. The Ministry of Education rolled out the Competency Based Curriculum (CBC) in all primary schools in 2017 that will eventually replace the 8-4-4 curriculum. One of the core competencies is digital literacy which should be taught in all learning areas. ICT resources according to the KICD designs should be used as teaching aids in almost all the sub-strands in teaching instruction. The government through the Education ministry provided the tablets to public primary schools, this was only done once. The ministry of Education has never added more tablets to cater for shortage or allocate funds to repair those damaged like it usually does for books.

The study investigates teachers' attitude toward use of ICT resources when teaching acquisition of reading skills in grade three in Limuru, Kiambu County, Kenya. The study was based on the Technological Acceptance Model (TAM).

Research objective

To find out teachers' attitude in use of ICT in teaching reading skills in Limuru zone.

LITERATURE REVIEW

Theoretical Framework

Technology Acceptance Model

This used Davis' Technology Acceptance Model (TAM) (1989). Following this approach, two key factors are used to define information system's acceptability to perceived ease of use and usefulness. The individual's attitude toward adopting any new technology, according to TAM, determines specific behaviour, beliefs, perceived ease of use, and perceived utility. Perceived usefulness refers to an individual's belief that utilizing technology improves their performance, whereas perceived ease of use influences perceived usefulness.

As described in the TAM, using technology enhances self-efficacy in the use of ICT and has a considerable influence on perceived ease of use. If an Early Childhood Education teacher finds it difficult to incorporate ICT into reading skills while teaching young children, they may consider it a waste of time and refuse to use it. If a teacher believes that using digital media into teaching and learning reading abilities will help children develop their language skills, the

teacher will be motivated to do so. In contrast, if a preschool teacher does not believe that the system will increase his or her work performance, the likelihood of using it is minimal. Teachers are more inclined to employ ICT while teaching if they believe it is simple to use and will meet their requirements as well as those of their learners.

The attitude of teachers regarding the usage of ICT will determine their behavioural purpose for ICT integration into the process of teaching and learning. Early Childhood Education teachers will be convinced to include ICT into their practices to help children in Early Childhood Education develop their reading skills if they believe that using ICT tools will increase their performance in disseminating knowledge to the pupils. Children's listening skills and focus are improved by a programmed reading material read aloud by a human or computer-generated voice. The perceived ease of use of ECE teachers is dependent on their ICT competencies, and their skills with ICT resources and attitudes regarding ICT integration into teaching and learning activities, according to this research. When a teacher is instructed on how to utilize ICT to assist students in reading written text, they are more possibly to employ it in reading activities.

In this study, the researcher used Davis's (1989) TAM model to find out the teachers' attitude towards integration of ICT in the teaching and learning of reading skills in Limuru zone grade three class. Instead of the traditional passive manner of pupils sitting and listening, teachers and pupils will require active participation. Pupils should be willing to participate in a variety of activities integrating ICT, such as reading a narrative on a tablet and answering questions on their own. This will only be effective if the teachers have a positive attitude towards ICT integration in teaching process.

Teachers Attitudes towards ICT Integration in Education

Teachers attitudes are the primary determinants of how they practice and process new material. If teachers disagree with an innovation's goals, their attitude may lead to the innovation's failure to be implemented properly. When it comes to curriculum implementation, a teacher is thus a critical component. Because the teacher is the architect of the educational environment, the teachers' attitude toward ICT integration is extremely important. The key elements impacting a teacher's application of ICT, according to Kaino (2004), are the individual's beliefs and attitudes. The teacher's attitude or belief plays a key part in determining whether or not technology is adopted and used in the classroom, as well as whether or not the integration succeeds (Pierce and Ball, 2009). This implies that the teacher must instill a positive attitude toward ICT in his or her pupils.

Teachers are the determining factors in effective ICT integration in schools, according to research. Teachers' attitudes toward using ICT will influence their attitude toward integrating ICT in teaching, having the influence on the process of implementation, affecting program performance and delivery (Teo, 2006). They also emphasized that teachers need to have the ability, confidence, and access to required resources to integrate technology in their teaching practices, according to Heppel, (2004). According to Kidombo (2009), teachers who have a favorable attitude toward technology and consistently use it will feel relieved when applying it, and the likelihood of them planning to include it into their day-to-day classroom activities is high.

As a result, if teachers are enthusiastic on ICT use in teaching and learning, it will be simple to put it into practice (Keengewe and Onchwari 2011). According to Keengewe and Onchwari (2011), it is not sufficient to simply offer ICT equipment to teachers; it is how the teacher

perceives the equipment to be advantageous that determines how quickly the instructor adopts and integrates the new technology into classroom instruction. If a teacher notices that using ICT in a session motivates learners to read more, he or she will be encouraged to utilize it more during reading skills. Teachers will use ICT, according to Mingaine (2013), if teachers see it as a critical teaching method that will help them enhance their pedagogy output.

Teachers' skills, perceptions and attitudes influence their acceptance and adoption of the ICT usefulness in achieving desired learning results according to Huang and Liaw (2008). This is supported by Simonson (2008), who found a link between teacher competency, perceptions, and attitudes, and ICT adoption in the classroom. The more skilled teachers were in ICT, the more likely they were to use it in the classroom. In Germany, studies on ICT integration in classrooms found that teachers' attitudes toward ICT are the most important component in successful ICT integration in classrooms. Teachers need to be provided with chances to learn how to teach using technology and effectively connect with the technology according to Teo (2006), because the efficiency of the integration process will be primarily determined by teachers' attitudes about ICT. Tan and Mishra (2001) state that teacher's attitudes can influence their willingness to apply ICT in teaching and gaining knowledge. He concluded that teacher attitudes and the usage of ICT in the classroom are linked.

The study by Ayub, Baker and Ismail (2015) looked at the factors that influence teachers' views on the ICT use in learning and teaching. A total of 187 mathematics teachers were chosen at random from a Stratified cluster sample in the Malaysian state of Selangor. Teachers' views for integrating ICT in teaching and learning showed positive correlation from the findings. According to Bumen (2012), the educator's attitudes are key in deciding if the technology introduction in education fails or succeeds. According to a study conducted in Israel, teachers with positive attitudes, interests, and skill in ICT, according to Wong and Li (2008), have more possibility to be cooperative and dedicated toward implementation of a successful ICT.

Palak and Walls (2009) did a mixed-methods study to see if teachers who use technology regularly altered their actions and beliefs to be more student-centered. Their findings revealed that while their methods remained same, teachers' attitudes about technology were found to be a major predictor of teacher and student technology use. Sang (2010) focused on the gender of Chinese students and teachers, as well as their computer self-efficacy and attitudes toward future ICT use. The findings supported the findings of Palak and Walls (2009), who found that instructors' attitudes toward ICT were the strongest predictor of future ICT use.

Positive attitudes can only get established if the teacher is comfortable with and embraces the technology, as well as being educated on the manner to effectively use it, according to Afshari (2009). When a teacher lacks self-efficacy in using ICT to teach reading skills, they will almost certainly have a negative attitude toward using technology in their classroom. Furthermore, Afshari (2012) found a link between school leaders' computer ability and attitudes toward the adoption and use of ICT in school in a research of 30 learning institution team leading individuals in a second cycle institution in Tehran. He proposed that the education sector should concentrate on instilling a positive mindset in teachers so that they can use ICT in their classrooms.

Conceptual Framework

Figure 1 below shows interrelatedness of independent and dependent variables.

Independent variables

Dependent variable

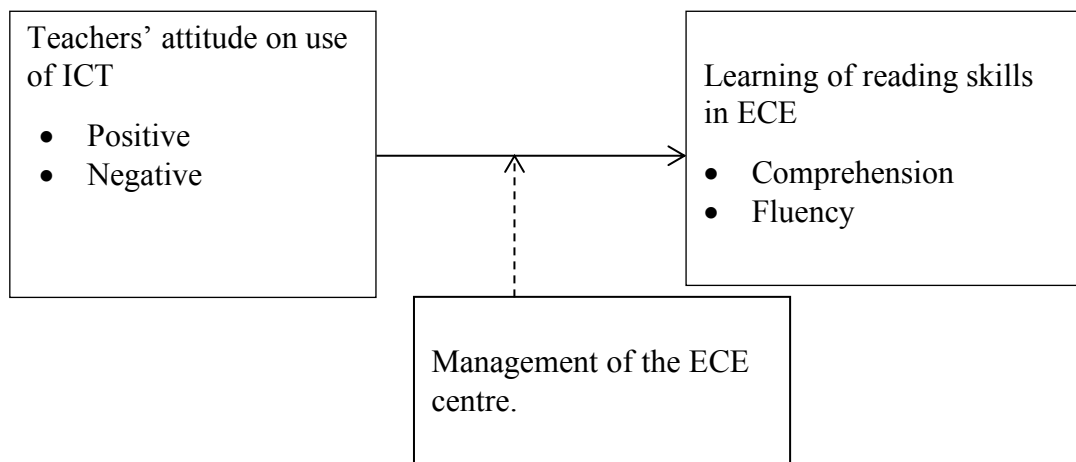


Figure 1: Conceptual Framework

Intervening variables

The dependent variable is teachers' attitude that will either be positive or negative. Teachers will readily accept technology in favor of traditional techniques if they have a positive mindset. Teachers with a negative attitude will always have excuses of not integrating ICT in their teaching activities.

RESEARCH METHODOLOGY

Research Design

The study used the descriptive research approach employing both qualitative and quantitative data. Because the goal of the study was to investigate occurrences that already existed, a descriptive research approach was adopted because the researcher intended to describe, record and analyze conditions as they existed. In order to meet research objectives and determine whether there is a relationship between variables, the descriptive research design allows for multidimensional data processing and analysis. The design aided in the collection of data on facts that portrayed the current scenario regarding the teachers' attitudes towards the use of ICT resources in the teaching of reading skills.

The research was done in Limuru zone, Limuru sub-county in Kiambu County. Limuru region is a town in Kenya's central region. The descriptive approach was chosen because it allows for data gathering in a natural setting and provides a diversity of data through methods such as questionnaires, observations, and interviews.

Target Population

The target population for the study was a total of 15 head teachers, 28 teachers, and 1233 grade three pupils make up the population sample.

Sample Size and Sampling Techniques

A random sampling was used to pick 5 public primary schools out of 15, 5 head teachers out of 15, and 10 teachers out of 28. 250 grade three pupils were purposively sampled from a total of 1233 pupils using simple random sampling and a table of random numbers was used. The study sample had 5 schools, 5 head teachers, 10 teachers, and 250 children, representing 33.3 percent, 33.3 percent, 35.7 percent, and 20.3 percent of the total schools, head teachers, teachers, and pupils, respectively. To account for dropouts, the sample size is greater than 10%. Simple random sampling meant that every person in the population had an equal and independent probability of being chosen (Creswell, 2012).

Table 1: Sample size

	Population	Sample	Percentage
Schools	15	5	33.3%
Head teachers	15	5	33.3%
Teachers	28	10	35.7%
Pupils	1233	250	20.3%

Information obtained from the County Education office Limuru sub-County.

RESEARCH METHODOLOGY

Research Instruments

The study employed the use of questionnaires to collect data from teachers' attitudes towards the use of ICT resources in the teaching of reading skills in grade three. In comparison to other data gathering devices, the use of questionnaires was chosen as it encouraged honesty and accurate responses, especially to sensitive issues, because they ensure confidentiality. This provided the researcher with a clear image of teachers' attitudes about integrating ICT into the classroom.

Data Analysis

The completed questionnaires and observations were edited, validated, and coded for analysis, completeness, and consistency before being processed. The Statistical Package for Social Sciences (SPSS) was applied to examine the data. The data will be analyzed both quantitatively and qualitatively. The quantitative data from the questionnaire was processed to yield frequencies, percentages, and distributions. Bar graphs, pie charts and tables were used to illustrate the data. The qualitative data was transcribed, thematically evaluated, and presented through verbatim quotation and narration.

DATA PRESENTATION, ANALYSIS AND DISCUSSIONS

Demographic Information

Table 2: Grade Three Pupils Age

Age	Frequencies	Percentages
8 years	4	1.6
9 years	157	62.8
10 years	70	28
11 years	19	7.6
Total	250	100

The research used the interview schedule to determine the respondents' age bracket. According to the Kenyan government's ECD guideline from 2006, the ECE class should have children ages 0 to 8. However, because to the detrimental impact of Covid 19, which resulted in schools being closed for 9 months, the researcher discovered that many of the responding pupils were above the ECE age range. As a result, some of the grade three pupils who should be in that age range are now older. Grade three children have spent around 5 years in ECE classrooms and can give data about the availability and ICT tools use in the process of learning. The learners are also old enough to identify ICT resources they have used during learning of reading skills.

Teacher Years of Service in the School.

Table 3: Teachers Years of Service in the School

Years	Sample Size	Frequencies	Percentages
Less than 5 year	10	2	20
6-10 years	10	3	30
More than 10 years	10	5	50
Total		10	100

The service length of respondents is presented in this section. The purpose of this information was to see if the teachers had enough teaching experience to employ ICT resources in the learning and teaching of reading skills. The length of employment of teachers should also assist them in discovering available ICT resources in their schools.

Teachers in grades three were asked to state the years they had been teaching ECE at their respective learning institutions, as shown in table 3 above. Twenty percent of the respondents claimed they have been teaching for less than five years in their particular schools. About a third of the teachers had been in the same school for six to ten years. Finally, half of the teachers had been in the same school for more than ten years.

As a result of the findings, the bigger percentage of the teachers had been at the learning institution for more than 5 years. They should be aware of the ICT resources available for teaching, as well as if the available ICT resources are used in teaching, and more importantly, if they are used to help children improve their reading skills. According to the data, the majority of teachers who have taught ECE classes for many years were hesitant to adopt the new teaching technique. The majority of them continue to rely on the traditional tactics they've used for years. They view the usage of technology in the classroom to be complicated and difficult to adopt.

Teachers Attitudes towards ICT Integration

The objective of this study aimed at establishing teacher's attitude in use of ICT in teaching of reading skills in Limuru zone. The findings in table 4 below show the teachers response on various statements. The researcher used a Likert scale 1-5. 1- Strongly Disagree, 2-Disagree, 3- Undecided, 4-Agree, 5-Strongly Agree.

Table 4: Teachers Attitudes towards ICT Integration

Statement	SD	D	UD	A	SA	MEAN
Teachers (n=10)						
ICT tools are easy to use	1	2	1	6	0	3.2
	60%	10%	20%	10%	0%	
I make an effort to improve my ICT skills	0	1	2	4	3	3.9
	0%	10%	20%	40%	30%	
Use of ICT can help make difficult topics easier to understand	0	0	2	2	6	4.4
	0%	0%	20%	20%	60%	
I feel comfort using ICT tools	2	5	2	1	0	2.2
	20%	50%	20%	10%	0%	
I encourage my pupils to use ICT tool	0	1	1	4	4	4.1
	0%	10%	10%	40%	40%	

Key = SD- Strongly Disagree, D-Disagree, UD- Undecided, A-Agree, SA-Strongly Agree

According to the findings, 60% of teachers think that ICT resources are difficult to utilize. 40% of teachers said they are working to improve their ICT skills. ICT can help make difficult things easier to understand, according to 60% of respondents. There was no single teacher who strongly agreed to feeling comfortable in using ICT devices in teaching, only 10% of the respondent agreed to feeling comfortable when using ICT resources. It was discovered that teachers felt uncomfortable utilizing ICT in class due to lack of abilities to teach with them. As a result, some teachers found it difficult to encourage learners to utilize ICT when they themselves were unable to model it. Fifty percent of the teachers stated they were hesitant to use ICT gadgets in the classroom. 40% of the teachers, on the other hand, agreed that they encourage their learners to use ICT resources.

Teachers' attitudes have been found to influence the integration of ICT use in schools. This study is consistent with Mishra's (2001) findings, according to which teachers' attitudes influence their readiness to employ ICT in teaching and learning. These findings corroborated those of Ndibalema (2014), who discovered that while teachers have good attitudes toward the use of ICT as a pedagogical tool, they are unable to effectively incorporate it into teaching due to a lack of appropriate ICT training.

Teachers' negative attitudes toward computer use can be related to a lack of computer application skills combined with knowledge of how to integrate computers into the classroom. For example, one teacher stated, "I learnt how to integrate ICT in learning from my colleague," while another stated, "I taught myself how to use computers." since they have different ways of incorporating the resources in their class instruction, such teachers may lack the self-efficacy required while using ICT resources in teaching. Inefficient computer use, causes people to be too slow when dealing with computers, making computer work seem tedious and time consuming. This could lead to the perception that computers are ineffective, resulting in negative attitudes toward their use. Elsevier's (2012) asserts that teachers' attitudes toward ICT are generally positive but that their use in the classroom is limited due to a lack of ICT knowledge.

CONCLUSION

The objective of the study was to establish teacher's attitude in use of ICT in teaching of reading skills in Limuru zone. The study found that teachers' attitudes had both a positive and negative impact on ICT integration in teaching and learning. The majority of respondents had a favorable attitude regarding the use of ICT in the classroom,

The study in conclusion shows teachers are crucial in integrating ICT into the curriculum, and their attitude toward using ICT for educational purposes has been highlighted as a key factor in the success of ICT implementation in schools. According to the study, teachers utilize ICT for educational purposes at a low rate, and there is a significant positive correlation between their ICT use and their attitudes toward ICT integration.

Higgins (2000) found that teachers with high self-efficacy used computers more frequently than teachers with low self-efficacy. According to the findings, the attitude of teachers has a major impact on ICT integration in the teaching-learning process. The findings reveal that majority of teachers have a negative attitude toward ICT integration since they do not have enough knowledge about how to use ICT in the class instruction.

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