



# Attitude and Perception of Learners Toward the Use of E-learning in Educational Practices: A Case of Tertiary Institutions in Kiambu County, Kenya

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**Abstract:** *The purpose of this study was to investigate the attitudes and perception of learners towards the use of e-learning in tertiary institutions in Kiambu County, Kenya. Descriptive survey design was adopted for this study. Purposive sampling design was used to obtain the sample comprising of 300 students 12 teaching staff and 6 non-teaching staff from three tertiary institutions in Kiambu County. The study established that majority of the stakeholders in tertiary institutions in Kiambu county have a positive attitude towards use of e-learning. Further, it suggests that e-learning plays a crucial role when it comes to educational practices. This mode of learning has provided a platform on which learners can access education efficiently and in a fast manner. The study recommends that universities should allocate more resources towards e-learning program and that basic computer skills should be a requirement for all students intending to use e-learning as their mode of study.*

**Keywords:** *Attitude, Learners, E-learning Institutions of higher learning, Kiambu,*

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## 1. Introduction

In the modern days, e-learning has been given much prominence. Many institutions have adopted technology in teaching and learning. There are various authors who have defined e-learning based on their personal perspectives and knowledge, but most seem to agree that e-learning encompasses all forms of electronically supported teaching and learning that are procedural and aim at effecting the construction of knowledge in regard to individual experience, knowledge and practice of the learner. According to Garrison and Kanuka (2004), e-learning in the broadest sense is concerned with learning that occurs online through the internet, offline through the

use of CD-ROM or other facilities like television, radio, and telephone. E-learning involves learning at all levels, both formal and non-formal that use an information network, and the internet, whether wholly or in part, for course delivery, evaluation, interaction, and facilitation. This form of learning makes use of network technologies to come up with, deliver and facilitate learning anywhere, and any time (Wagner, Hassanein & Head, 2008).

E-learning encompasses learning at all levels, both formal and non-formal that uses an information network, the internet, an intranet (LAN) or extranet (WAN), whether wholly or in part, for course delivery, interaction, evaluation and facilitation which Salawudeen (2010)

explained, uses network technologies to create, deliver and facilitate learning any time, and anywhere.

According to Vlachopoulos, and Cabrera, (2012), e-learning is a natural revolution of distance learning that takes advantage of the latest tools to emerge in the context of technologies for structuring education. Garrison (2000) argues that e-learning is classified into two broad categories i.e. synchronous and asynchronous. Synchronous learning makes use of a learning model that initiates a classroom course, lecture or meeting using internet technologies. On the other hand, asynchronous learning is a live interaction that needs all those participating to be available. Asynchronous learning is a web-based version of computer-based training that is typically offered across a local area network of an institution or through a CD-ROM. This means that learners can access the material at their own time.

Cantoni, (2004) is of the opinion that e-learning is becoming more and more popular with learners as they can combine their learning experience together with the advancement of information technology. It is a mode of learning that is offering learners more autonomy to do their studies at their own pace while their progress is being monitored in order to assess their achievement. E-Learning is an ideal learning environment that uses modern means of information technology via effective integration of information technology and the curriculum. The aim of doing this is to meet the new learning style that reflects the main role of learners to reform the traditional teaching method and the essence of education and to equip large numbers of students with quality education (Khan, Hasan, & Clement, 2012).

In the modern world, there is need for continued improvement of skills and training. This has been made possible through technological advances that have made it possible to teach various courses at a distance. The modern technologies have served to push knowledge acquisition into the domain of the individual. Affiliated with individualization, these technologies have seen growing autonomy of learners. Technology and particularly the use of e-learning is a vital tool that will ensure increased and widened access to learning by learners. The flexibility of e-learning methodologies is the key factor in their emergence as the primary mode for lifelong learning (Farrell, 2007).

In the modern days, new technologies such as Information Communication Technology (ICT) and e-learning are the main driving forces in most tertiary institutions across the world, and Kenya is no exception. Juma (2003) argues that when e-learning and ICT were set to be acknowledged by most institutions as a savior, their limitations have surfaced and now there is a call to have blended learning. According to Garrison (2000), blended learning is a thoughtful fusion of online learning and face-to-face experiences. For this reason, many institutions across the

world have opted to blended learning in order to deliver various courses. In Kenya, most schools have not effectively adopted the use of ICT in learning, teaching and managing as it was intended (Farrell, 2007). However, many tertiary institutions like universities have adopted the blended learning model because they lack skill and infrastructure needed to adopt e-learning. By implementing e-learning fully, tertiary institutions will reap many benefits. According to Garrison (2000), e-learning comes with a number of benefits as it encourages the learners to take responsibility for their learning. In addition, it will help them build self-confidence and self-knowledge. The adoption and use of e-learning in tertiary institutions can lead to collaborative and active learning, increased motivation amongst students, better access to information and sharing of experiences, deepened understanding of courses, and help students communicate and think in a creative manner (Omwenga, 2004).

E-learning in tertiary institutions in Kenya has kept growing up at an unprecedented rate despite having a number of challenges. Recently, the advancement in Information Communication and Technology has culminated in the supplementation and near phase-out of traditional educational delivery system. The new technology that is being adopted in the education sector has seen more flexibility in learning and a wide reach for education in many countries across the world (Omwenga, Waema & Wagacha ., 2004). Kenyan tertiary institutions are said to be behind in the adoption of these technologies because there is evidently an extremely low rate of diffusion of e-learning. As a consequence, there is a low rate of e-learning usage. This is attributed to the fact that Kenya is a developing country that has inadequate financial resources. In addition, it is highly deficient in the area of engineering and technological development (Garrison & Kanuka, 2004; Gupta, Dasgupta & Gupta, 2008).

## 1.1 Statement of the Problem

There are a number of challenges that need to be surpassed when adopting and implementing e-learning in tertiary institutions in Kenya. Salmon (2005) opines that focusing training on the technological features of the e-learning system is one of the major steps toward ensuring success. However, at this step, the real challenge will be training for changes to pedagogy. According to Pityana (2009), the success of e-learning implementation rests on the vital requirement that instructors and students possess adequate technical skills to use e-learning tools effectively. In addition, Rennie & Morrison (2013) argue that e-learning is still at an early stage in most tertiary institutions in Kenya due to a number of challenges that are related to implementation.

Tertiary institutions in Kenya that are planning to implement e-learning should be ready to respond to a

number of challenges that are likely to come up during implementation. Whereas there are a number of studies that have been done to show how e-learning is being used in many tertiary learning institutions in Kenya, less has been done to show the challenges it is facing when it comes to implementation. Therefore, this study aimed at exploring challenges facing e-learning implementation in tertiary institutions in Kenya.

## 1.2 Research Questions

The following research questions were used to address the issues in this study:

1. What is the attitude of learners and lecturers towards the use of e-learning in Kiambu County, Kenya?
2. What are the perceived effects of E-learning in educational practices?

## 2. Literature Review

### 2.1 Learners' Attitude Toward the Use of E-learning in Educational Practices

One of the key goals of technology in education is to promote technological literacy of an encompassing and broad nature (Garrison, 2011). In order to meet this goal, technology education need to prepare students to understand, control, and use technology. There is need for students to learn how to adopt and utilize technology and how to handle forces that impact their lives and have the potential to influence their future. The past few years have seen the paradigms for teaching technology education change. There are a number of instructional approaches that have been recommended by curriculum experts and technological education teachers. They include self-paced modules, problem solving, and interdisciplinary methodology. All these approaches aim at informing students about technology and show its effects on society (Govindasamy, 2001). Of importance to note is that these approaches come with merits and demerits. According to Steeples, Jones, & Goodyear (2002), the self-paced modular instruction is a good approach as it tends to accommodate diversity in both learning levels and learning styles. Sun, Tsai, Finger, Chen, and Yeh (2008) suggest that technology is interrelated to other disciplines and therefore, there is need for learners to see the connection between technology and other disciplines like math, English, and science. This means that teachers need to use interdisciplinary instruction. On the other hand, Sife et al., (2007) plead the case for problem-centered instruction as it is seen to be authentic especially when it comes to the development of the cognitive skills of the learner.

According to Bates (2005), research done has substantiated the benefits of educational technology in enhancing learning environments. In addition, it has the potential of boosting the learning outcomes of students. This is owed to the active engagement of students, collaborative learning, immediate and frequent feedback, and real-time learning contexts. On top of this, the use of Information Communication and Technology tends to enhance high order thinking among learners and it impacts on their motivation, attitudes, social competencies and self-esteem. Nevertheless, the extent to which technology facilitates and enhances teaching and learning will depend on the attitude of learners towards new technologies.

Wagner et al. (2008) argues that the integration of technology into teaching and learning process is an effective way of widening educational opportunities, but it is yet to be fully exploited by teachers as an instructional system of delivering education. Alexander (2001) found out that some teachers had high skills in regard to use of technology but they were not good at integrating the same consistently in learning and teaching process, reason being the attitude of learners towards it. Many learners think that the use of technology in delivering higher education is a bit challenging. Wanjala et al. (2011) indicate that at the start, teachers may want to use technology and they have adequate skills to do so, but they lack knowledge on how to do so. It is worth noting that technology integration is a process that needs cooperation from different stakeholders in the education sector. For it to be done effectively, teachers and learners need to have same skills and have positive attitude towards it. These stakeholders need to know how and why to use technology in the process of teaching and learning.

Research done has shown that there is a significant link between beliefs and attitudes and links between behaviors and attitudes. It is good to note that attitude is what forms the foundation of one's belief that in return influences behavior. When people have a favorable attitude towards a given technology, then they are likely to use it. In addition, people can get influenced by subjective norms i.e. one's perception when it comes to significant of a particular technology that is likely to discourage or encourage one from utilizing such technology. Universities across the world are adding learning programs to meet the needs of growing numbers of students that want to seek the convenience of online courses and remain competitive in the ever-changing educational field. E-learning offers a good opportunity for learning institutions to create environments where teachers and students can exchange knowledge. Therefore, it is very crucial to design an efficient e-learning platform for resources, teaching, learning, and administration for higher education (Aixia and Wang, 2011).

A list of research studies available have shown that demographic impacts have been measured based on attitudes of users towards e-learning in a number of

countries. In addition, research tells that key factors that have led to internet use are social demographic factors like race, age, and gender. In developing countries, the state of affairs regarding demographic implications is alarming. Therefore, the knowledge about the characteristics of the user in development and use of e-learning system of a developing country is what determined the success of such a system.

A research done by Yacob, Kadir, Zainudin and Zurairah, (2012) involving students from TATI University College in Malaysia, showed that both females and males have a significant awareness towards e-learning. Liaw and Huang (2011) looked at the behaviors and attitudes when it comes to using e-learning with regard to computer related experience, motivation, and self-efficacy aspects. The results showed that male students have more positive attitudes than the female ones. It is good to note that computer related experience is significant when it comes to motivation towards e-learning. A study done by Aixia and Wang (2011) to look at the critical factors affecting the learner's satisfaction in e-learning environment, the perception of e-learning is influenced by its flexibility, time management, and widening access to information. According to these researchers, there are five factors that can be used in modeling the attitude of students to adapt e-learning. They include intention towards e-learning, perceived ease of e-learning use, perceived usefulness of e-learning, pressure to use e-learning, and resource availability that are needed to execute e-learning.

A research done by Elina and Erkki (2007) showed that the level of e-learning training students have undergone has a correlation with their level of satisfaction when it comes to support by the institution. The results showed that the attitude students have towards the support they are given by the university determined their attitudes. For a university that offers enough support, the students tend to have a positive attitude, whereas for universities that offer low support, the students tend to have a negative attitude. In addition, this study reveals that the skills in e-learning and the attitude of faculty also tend to affect the attitude of learners towards e-learning. The study found out that the general positive opinion of e-learning and educational technologies and the positive disposition of the faculty when it comes to use of technology tend to affect attitude towards e-learning.

## **2.2 Effects of E-learning in Education Practices**

E-learning comes with both merits and demerits. It is good to understand both, especially when considering making learning and instructional decisions. It is good that both the pros and cons are considered in equal measure. Many institutions and organizations offer different forms of instruction and training to their learners. Basically, they provide the needed training by offering training class and

providing manuals. E-learning is one of the forms of learning that is now being preferred by many as compared to traditional training (Garrison & Kanuka, 2004). According to Alexander (2001) e-learning is beneficial in that class work can be arranged around professional and personal work. This clearly indicates that e-learning is a flexible method of learning. It is cheap; hence reduced time and cost of travelling to and from learning institutions. On top of this, the learners will have the option to select learning materials that meet their interest and knowledge. It is a good learning approach since it gives learners chance to study whenever they are free and have access to internet. It is a self-paced form of learning that will allow learners to do their studies at their own pace. Wagner et al. (2008) notes that e-learning is good in that it is malleable and can allow classmates to meet remotely in chat rooms where they can actively engage in discussions and exchange ideas. Through e-learning, different learning styles will be addressed and facilitation of learning will take place using different activities. The internet and computers that are used in e-learning can be transferred to other facets of the learners' lives. Through e-learning, learners are able to build self-confidence, self-knowledge and self-confidence as they take responsibility for their learning.

According to Elina and Erkki (2007), e-learning empowers students to engage in take part in the process of learning in regard to their personal education. Anywhere, anytime students will have an opportunity to access internet-based tool that are necessary to encourage them learn more effectively through exploring the world around them and collaborate with each other. E-learning is necessary to encourage learners when in class and beyond. It gives learners an opportunity to collaborate with each other. It is worth noting that e-learning is a flexible mode of learning for those students who may be busy doing their own things. For instance, for those people who are working, then it will be easy for them to do their studies at the same time. This useful method will benefit them.

In the modern world, ICT has brought in many benefits for the younger generation. For instance, for students who work part-time, they can also find time to engage in their studies. On top of this, most of the time students tend to use word processing on their computers to edit their work easily and quickly. This will in return boost their presentation using ICT. Through e-learning, students can access knowledge and ICT that can help them learn online. One of the good things about e-learning is that it helps in improving behavior management by better tracking of learners. It helps learners to gain an understanding and analytical skills that include boosting their comprehension skills and knowledge. For instance, through reading on journals, the students are able to improve their understanding of given subjects. Moreover, students are able to become a bit fluent and original in their studies (Andersson & Grönlund, 2009; Crisolo, 2018).

E-learning also offers educators a chance to transform the way learning occurs and enable students to develop. It offers a wide number of tools that lecturers and teachers use to present their teaching and help educators get in touch with their student and engage them in a more meaningful way. E-learning has become a good avenue through which lecturers can deliver knowledge at their own convenience. Huynh, Umesh & Valacich, (2003) argue that even though many people still take traditional universities as the main way through which knowledge can be achieved, online learning is a great option. It offers students chance to study at their own convenient times and for free. It is a great way through which students can study in a number of fields and boost their level of self-motivation. E-learning is so effective owed to the fact that students can be in a position to finish their homework quickly and still have enough time for their hobbies or jobs. This mode of learning offers access to all resources under one channel, something that helps learners to learn wherever they are; hence, giving them freedom to choose time for study. All one needs is basically an internet connection and a computer and they will be good to attend their classes. In addition, E-learning helps in promoting self-discipline and responsibility of students.

Despite the merits that e-learning comes with, it has a number of disadvantages. There are high chances that learners who are not motivated or the ones that have poor study habits will fall behind. In some cases, there are learners who are unfamiliar with the routine and structure and it may take them time to get used to the same (Sangrà et al., 2012). A study done by Bates, (2005) found out that in some situations, students may feel isolated and lack social interaction, something that may affect their social life. This may in return affect their educational performance. Another demerit is that instructors may not be always available on demand. This is unlike in traditional classes where students have chance to ask for clarification. In some cases, technology may fail; hence delayed learning. Students may have slow or unreliable internet connection that can be so frustrating. It is also difficult to simulate some courses like the traditional hands-on courses.

With e-learning, only in a small group that a student will gain knowledge properly. This is unlike in traditional classrooms where students make friends, and get rid of any disappointment. In a normal classroom, there is health competition, something that will stimulate students to work hard. On the other hand, online learning does not give student physical interaction; hence, no competition. This is something that will make students lazy. Another limitation is that online courses cannot cope where thousands of students are trying to do online discussions. In cases the course involves practical, then e-learning will prove not useful (Rajesh, 2003). This mode of learning is technology dependent. This means that for learners to fully make use of this learning technique, they need to access a machine that has given specifications in order to

accommodate materials that have been design for the course. They will also need to access service with high bandwidth in order to transfer course materials in time.

Material incompatibility is another limitation of this mode of learning since some materials may be designed in such a way that they are accessible to a given system only. This means that they may not operate normally on some systems. In a case where learners are nit highly disciplined, then this method will be an exercise in futility. The students need to be well when it comes to time management. In addition, these students will need to be highly self-motivated so that they can take advantage of the medium. It is good to note that working through tailored programs can be irritating for some students.

### **3. Methodology**

#### **3.1 Research Design**

Descriptive survey was adopted in this study. This was the most appropriate approach because it was concerned with conditions of relationships that exist, practices that prevail, beliefs, points of view or attitudes that are being felt or trends that are developing (Best & Kahn, 2000). Descriptive survey saw the collection of information from different entities and compare their views. For this research, the descriptive survey research design was used to explain how the variables relate. In this particular study, descriptive survey viewed comprehensively the use of e-learning in the delivery of educational practices in tertiary institutions located within Kiambu County, Kenya with the intent of finding out if they are utilizing technology in delivering education to learners.

#### **3.2 Population and Sampling Technique**

The target population is that population to which the researcher wants to generalize the results of the study (Mugenda and Mugenda, 2013). The study population included 300 learners, 12 teaching staff, and 6 support staff (total of 318) in tertiary learning institutions in Kiambu County, Kenya that use the e-learning as a mode of instruction. However only 292 learners participated, 10 lectures and all the 6-support staff total of 308.

The study made use of purposive sampling in determining the study area. A purposive sample simply refers to a non-probability sample that is selected based on characteristics of a population and the objective of the study. This sampling method was satisfactory because it observed the samples chosen on account of how they are familiar with present-day technology. Moreover, this technique was favorable as it ensured balance in group size. The researcher made an effort to obtain a list of all tertiary

institutions within Kiambu County. Stratified sampling was then used to group these institutions since they vary i.e. private and public institutions. The simple random procedure was used by the researcher to choose randomly the participants of the study.

Purposive sampling was used in selecting the subjects of the study concerning their relevance to the research questions. This meant that the researcher deliberately handpicked the respondents from those who had the required information. Later, the researcher visited the participants and administer research instruments to gather data. The data gathered was analyzed with the aim of identifying the challenges that face e-learning in tertiary institutions in Kenya.

### **3.3 Sample Size**

The sample was drawn from students in year 3 and 4 in tertiary institutions. It consists of 3 tertiary institutions i.e. Kenyatta University, Mt. Kenya University and, Jomo Kenyatta University of Agriculture and Technology to act as a sample. Fifty students were selected from each year, making a total of 100 from each institution. This made it a total of 300 students. Four teaching staff members were selected from each institution, making it a total of 12 teaching staff members. In addition, 2 support staff from each tertiary institution were selected for the study. This made it a total of 6 support staff. The sample size therefore was made up of 318 participants. This sample was assumed to be adequate to make generalization on the actual population size.

### **3.4 Research Instruments**

In order to collect information from students, teaching staff and support staff of tertiary institutions found within Kiambu County, questionnaires and arranged interviews were used. The research instruments were developed with proper conceptualization from review of literature and in accordance with the objectives of the study. The questionnaires were developed into two parts. One part comprised of bio information while the other sought to answer questions regarding the objectives of the study.

The questionnaire comprised measures of the following variables: forms of e-learning used, attitudes towards e-learning, perceived effects of e-learning on educational practices, and challenges facing implementation of e-learning.

The interview schedule ensured that the research questions were answered effectively. This technique was preferred as it helped minimize the time spent to gather data. It also provided the researcher permission to completely oversee the research. Moreover, it was of great help as it promoted interaction between the participants and the researcher. The researcher came up with the items on the research instruments. Prior arrangements were made to improve

interpretation just in case there were learners who found it difficult to interpret the items on the questionnaires.

### **3.5 Validity of the Instruments**

Authenticity of the instruments to be used in the study had to be ensured; hence, the researcher enacted whether the variables under study had included the components in the research instruments. In addition, professional advice was sought from the supervisors. Each research item was inspected in terms of its applicability to the variables under study and the research motive. To conclude the reliability of the instruments, further, the researcher had to search for various researches if they are subsequent to the same approach to verify if results was duped. If results are comparable, the method is concluded as reliable. The results were scrutinized in detail and complemented to adjust the research instruments. Qualitative data can be made reliable and authentic by triangulating different sources of data by considering clues from the source and using it to form approval for themes.

To ensure validity of the instruments, the researcher established whether the variables under study were reflected in the items in the instrument. An expert opinion was also be sought from the supervisors. Each item was examined in terms of its relevance to the variables under study and the research objectives.

### **3.6 Reliability of the Instruments**

According to Kothari, (2005) piloting research instruments help in eliminating misunderstanding and doubt in the research items. The accuracy of question, applicability, suitability and thoroughness of the research instruments will be done through a pilot study. The researcher piloted the instrument at the University of Nairobi, in Nairobi County. University of Nairobi was used for the pilot study because it has comparable qualities as the sample county, but then it was not constituted in the sample for this study. The data gathered from pilot study was used to compute the Cronbach's alpha coefficient. The cut-off point was set to 0.60. The results from the pilot study were used to improve on the research items in order to promote accuracy of needed information.

### **3.7 Data Gathering Procedures**

After the approval of the thesis proposal a research permit was sought from the National Commission for Science, Technology and Innovation (NACOSTI) through an introduction letter from the Director of Research and Graduate Studies of University of Eastern Africa Baraton, before data collection. The researcher took the authorization letters and the permit to the County Director

of Education Kiambu County and a copy to the Academic Registrar of the tertiary institutions to be visited.

The researcher made an appointment in person to tertiary institutions within Kiambu County with the objective of handing out questionnaires to the respondents and interview them face-to-face. At the same time, the researcher carried interviews with the correspondents beginning with the administrators of the institution to other associates like teaching staff and students as well. The researcher also utilized fully the services of a research assistant because of the detailed research. To establish that there was to be high return of questionnaires, the researcher allocated sufficient time. This was made certain that they take ample time to give the feedback appropriately.

### 3.8 Statistical Treatment of Data

The significant data assembled on the challenges facing e-learning in higher institutions of learning in Kiambu County was summarized and evaluated using the strata package. The unprocessed data gathered from the respondents was organized methodically to assist in

clearing data that had no use. The methodical arrangement was also of use in explanation of dubious answers and be able to focus errors and rectify them.

Pie charts, percentages and frequency tables were used in order to represent profiles of respondents. Descriptive statistics (means and standard deviations) was used to analyze the data addressing research questions 1, 2, 3, and 4. Statistical Package for the Social Sciences (SPSS) was used for data analysis. The level of significance was set at 0.05.

## 4. Results and Discussion

The second research question was to determine the attitude of learners and lecturers towards the use of e-learning in tertiary institutions in Kiambu County, Kenya. This question tested the null hypothesis: there is no significant difference between the attitude of learners and lecturers towards the use of e-learning in Kiambu county, Kenya. Below are the findings. From the study, out of the 308 respondents, 3 disagreed, 5 tended to disagree, 92 tended to agree, 208 agreed that it is worth using e-learning in institutions.

**Table 1: Descriptive Statistics on Attitudes towards E-learning**

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
It is worth to use e- learning in institutions	308	1	4	1121	3.64	0.568
E- learning has many benefits to students	308	2	4	1108	3.60	0.504
E-learning is better than traditional Classroom Learning	308	1	4	1094	3.55	0.685
Valid N	308					

**Table 2: Frequency table on Attitudes towards E-learning**

Response	Frequency	Percentage
Disagree	3	1.0%
Tend to Disagree	5	1.6%
Tend to Agree	92	29.9%
Agree	208	67.5%
Total	308	100%

From the findings above, it is clear that majority of the stakeholders in tertiary institutions in Kiambu county have a positive attitude towards use of e-learning.

### 4.1 Effects of E-Learning on Educational Practices

The second objective of this study was to establish the perceived effects of e-learning in educational practices at

Kiambu County, Kenya. From the study, out of the 308 respondents that took part, 70 agreed that e-learning is efficient and fast, 30 agreed that e-learning boosts capacity of educational delivery, 22 agreed that e-learning enhances retention capacity, 50 agreed that e-learning improved performance of learners, 13 agreed that e-learning enhances speed of educational delivery, 21 agreed that this mode of learning gives students more time to do their studies, 42 agreed that e-learning has helped

students to be independent learners while 60 agreed that e-learning has given learners great access to education.

**Table 3: Perceived Effects of E-learning on Educational Practices in Tertiary Institutions in Kiambu County**

<b>Effect</b>	<b>Frequency</b>	<b>Percentage</b>
E-learning is efficient and fast	70	22.7%
E-learning boosts capacity of educational delivery	30	9.7%
E-learning enhances retention capacity	22	7.1%
E-learning improved performance of learners	50	16.2%
E-learning enhances speed of educational delivery	13	4.2%
E-learning gives students more time to do their studies	21	6.8%
E-learning has helped students to be independent learners	42	13.6%
E-learning has given learners great access to education	60	19.5%
<b>Total</b>	<b>308</b>	<b>100%</b>

From the study results, it comes out clear that e-learning plays a crucial role when it comes to educational practices. This mode of learning has provided a platform on which learners can access education efficiently and in a fast manner. Bates (2004) argues that through e-learning, those students who are disadvantaged, disabled, or exceptionally gifted have been able to have a learning opportunity. It has helped students to be self-directed independent, something that has in return boosted their performance.

## 5. Conclusion and Recommendations

The study established that majority of the stakeholders in tertiary institutions in Kiambu county have a positive attitude towards use of e-learning. Further, it suggests that e-learning plays a crucial role when it comes to educational practices. This mode of learning has provided a platform on which learners can access education efficiently and in a fast manner. The study recommends that universities should allocate more resources towards e-learning program and that basic computer skills should be a requirement for all students intending to use e-learning as their mode of study

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