

## **Examining Attitude, Beliefs and Thinking about the Integration of ICT in Teaching English among Secondary School Teachers in Nairobi County, Kenya.**

1. Michael Oduyo Ogalo  
Moi University, School of Education, P. O. Box 3900-30100, Eldoret, Kenya  
ogalo.michael@yahoo.com, +254 (0) 721-704-774

2. Prof. Carolyn Omulando  
Alupe University College, School of Education and Social Sciences, P.O Box 845-50400,  
Busia, Kenya

3. Prof. Peter Barasa  
Alupe University College, School of Education and Social Sciences, P.O Box 845-50400,  
Busia, Kenya

**\*Corresponding Author's E-mail: [ogalo.michael@yahoo.co](mailto:ogalo.michael@yahoo.co) +254 (0) 721-704-773**

### **Abstract**

Achieving a meaningful integration of Information Communication Technology tools in teaching English can be influenced by many factors such as teachers' attitudes, beliefs and thinking.. Therefore, this study aimed to ascertain teachers' attitudes, beliefs, and thinking about the integration of ICT in teaching English in secondary schools in Nairobi, Kenya.. The study was guided by Teacher Cognition and TPACK frameworks viewed from two main landscapes: personal and professional constructs of teachers involving technological pedagogical and content knowledge; and contextual involving: attitudes, thoughts and beliefs of a teacher about information and communication technology integration. The study utilised a descriptive research design based on a mixed methods approach. The researcher surveyed and interviewed 19 teachers of English selected from 10 secondary schools. The study established that teachers hold negative attitudes towards the use of ICT in teaching English, thus unlikely to contribute effectively to the implementation of ICT for teaching and learning.

**Keywords:** Attitudes, Beliefs, Thinking, Information Communication Technology Tools, Integration of ICT, Teaching English.

### **1.1 Introduction**

The issue of Information and Communication Technology (ICT) in education is complex and, while it is accepted that ICT is not a 'silver bullet', it continues to play an important role in education (Underwood, 2014). The introduction of ICT in education is part of the more fundamental objectives to improve education globally and to make it accessible to everyone. The review of literatures for this study established that teachers are critical for the success of ICT implementation in schools because they are the ultimate decision-makers on implementation of ICT in teaching and

learning. Information and Communication Technology is a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information (Blurton, 2002). Extended synonym for Information Technology (IT) include integration of technology as computers, the Internet, broadcasting technologies (radio and television), and telephone with various services and applications associated with them which enable users to access, store, transmit, and manipulate information (Buttner, 2014). The use of ICT in education has the potential to enhance the quality of teaching and learning, the research productivity of teachers and students, and the management and effectiveness of institutions (Kashorda et al. 2007).

Lankshear & Knobel (2006) and de Winter et al (2010) state that ICT has enabled new and more efficient ways of doing things and provides new tools that facilitate students' construction of learning. Yet studies show that ICT use, particularly by teachers, remains limited (European Union, 2013), therefore developing understanding of how and why ICT is used and not used continues to be of interest. Research has suggested that using ICT in education enables students to take a more active role in their learning rather than be a passive observers or listeners (Gao & Hargis, 2010; Saleh, 2008). Information and communication technology (ICT) is also perceived to have many advantages in education including, pursuing problem-solving skills, fostering collaborative learning, providing flexible learning opportunities and increasing productivity (Bitter & Legacy, 2008; Chambers, 2011). Furthermore, ICT is considered important for following the effectiveness of teaching and learning in schools (Lin, Wang & Lin, 2012). Consequently, with the potential that it offers, ICT has become an important part of educational reform efforts. Many countries have allocated substantial budgets for ICT implementation in education. Since the late 1990s, many governments have developed strategic plans to increase their investments in ICT in their education systems. In 2011, the Organisation for Economic Cooperation and Development found that many governments are making sizeable investments in ICT. Australian government estimated that about AUD \$8 billion was invested in ICT in education in 2008 (Lane, 2012).

In 2006, the United States Department of Education reported spending more than USD \$9.5 billion for educational technology in public schools (Brunk, 2008). Like the Australia and United States, the United Kingdom has also made substantial investments in educational technology. The British Educational Communications and Technology Agency (BECTA, 2009) estimated that the overall figure for ICT investment in the United Kingdom between 2008 and 2009 WAS at GBP £880 million. The importance and benefits of ICT has also been recognised by many European countries. With the last decade, many school subjects have seen the implementation of ICT into the educational process (Balcon, 2003). Similarly, Saudi Arabia has realised that the use of computers and information technology tools in academic settings is very important (Almuqayteeb, 2009). In 2007, Saudi Arabia's King Abdullah began to pursue major reforms to the Saudi academic system. One of the most important of these reforms is King Abdullah's Public Education Development Project (Tatweer) which was seeking to equip classrooms with ICT equipment including laptop computers, projectors, and interactive whiteboards. In addition to the equipment, nearly 400,000 teachers in various subjects received the training necessary to use this equipment. This project was launched with a budget of SAR 9 billion over a six-year period (Ministry of Education, 2007).

In 2005, Kenya began to pursue major reforms to the Kenya education system. One of the most important reforms was on the ICT master plan which was seeking to equip classrooms with ICT equipment including laptop computers, with the first phase of laptop computers supplied to some primary schools for standard one pupil (GoK 2016). The Government has put in place the National ICT Policy and E-Government Strategy that provides guidelines for transformation of the Kenyan into a digital society. In both documents the Government recognises that an ICT literate workforce

is the foundation on which the nation would become a knowledge-based economy. With these considerable investments in ICT for education, it is prudent to question to what extent have Kenyan English language teachers integrated ICT into their classroom practices? Does the reality on the ground match the expectations? Although few studies have produced useful information, they do not provide a deep insight into how ICT is being used in Kenya classrooms and the rationale for not integrating ICT in the educational processes. The study thesis alternatively, and more comprehensively, considered the role of teachers' attitudes, beliefs and thinking in the effective integration of ICT in teaching English.

### **1.1.1 Teacher beliefs about use of ICT**

Throughout the literature many authors refer to teachers' beliefs as having a significant impact on the integration of ICT, as teachers' beliefs are reflected in their classroom practices (Ottenbreit-Leftwich et al, 2010). However, teachers' beliefs are difficult to articulate, as they are often tacit and implicit in practice (Donnelly et al., 2011). This section examined teachers' beliefs further, including beliefs about pedagogy, attitude to the use of ICT, confidence and competence in using technology, and also the relationship between these aspects. Ertmer et al, 2012). Liu (2011) suggests that while some studies find that teachers use ICT in ways that support their beliefs in terms of teacher-centred or student-centred learning, beliefs in student-centred learning are not always translated into practice. Ertmer et al, (2012), Kim et al (2013) focussed on teacher beliefs in investigating why technology is integrated differently by teachers. They identified variances in how teachers view the efficacy of ICT and beliefs about student-centred or teacher-centred pedagogy in terms of what is considered to be effective teaching and the nature of knowledge and learning. Kim et al (2013) explain that these beliefs are connected, as how teachers view the nature of knowledge and learning affects their views of what is effective teaching and how ICT is used to support this.

John (2005) identifies how teachers of different secondary school subjects integrate and view ICT differently based on how they view their subject. Meyer et al (2011) found that collaborative support from other teachers could develop positive beliefs in the use of ICT to support teaching and learning. Teachers need to have a positive attitude towards ICT to make use of it in the classroom and teachers who develop their own skills often have a more positive attitude (Kreijns et al, 2013). Ertmer & Ottenbreit -Leftwich (2010) explain that teacher-level factors affecting ICT use include self-efficacy, but this takes time to develop. Teachers do not need high levels of personal ICT competence to use ICT in the classroom but need a high-level of personal confidence to make use of it (Loveless, 2003). ICT integration is affected by second-order barriers, in particular teacher beliefs about their attitudes to ICT and skills (Mueller et al, 2008). Teachers who choose to develop their own ICT skills often have a positive belief in the use of ICT to support teaching (Meyer et al, 2011). Hammond et al (2011) identified teacher-level factors affecting ICT use including subject taught, self-efficacy, and beliefs in terms of whether ICT has a positive impact on learning. Teachers who are confident in their own skills make more use of ICT and teachers who believe that ICT will have a positive impact on learning make more use of ICT. Teacher confidence and ICT competence is positively related to how they make use of ICT in the classroom (Wastiau et al, 2013). Also teachers who are more confident in their own ICT ability are more likely to make use of ICT in student-centred ways (Wastiau et al, 2013). Kreijns et al (2013) found that teacher confidence and competence were linked but the causal relationship was unclear. Celik & Yesilyurt (2013) considered relationships between teachers' computer anxiety, self-efficacy, attitudes towards ICT use and use of ICT to support teaching and learning. They found that low anxiety, high self-efficacy and a positive attitude to ICT use are all indicators of likelihood to use ICT within the classroom

and those teachers who develop positive attitudes to ICT also increase their confidence and decrease anxiety. Beliefs about learning and teaching are often established by the time a student completes schooling (Johnson, 1994, cited Khonamiri & Salimi, 2010, p.97). The knowledge, beliefs and theories are the makeup of teacher cognition (Borg, 2007). Understanding teachers' beliefs is important in development and implementation of new programmes and effective education (Richardson et al., 2012). Teachers' beliefs clearly play an important role in making decisions about the use of technology in classrooms (Gilakjani, 2012).

### **1.1.2 Teachers' thoughts about use of ICT**

Teachers' behaviour is substantially influenced and even determined by teachers' thought processes. Clark and Peterson (1986 p.258) argued that 'the process of teaching will be fully understood only when teachers' thought processes and teachers' actions and their observable effects are brought together and examined in relation to one another. It is therefore important to note that what teachers think about ICT in an English language classroom will determine whether to integrate it in their teaching. Several issues regarding teachers' thinking about technology use in the EFL writing classroom emerged from participants' views on technology-enhanced classroom scenarios (Suwannasom, 2010). It was found that participants' underlying beliefs about a typical use of technology in EFL writing instruction were highly influenced by their perceptions about how students should learn to write in English and how technology can support the learning process. Cox *et al.* (2003) recognised the additional complexity in pedagogical reasoning when ICT resources are involved, whether that is as a resource, a tutor, an environment or a tool. The knowledge, skills and understanding that teachers require have long been a matter of interest, and there have been studies to explore the characteristics of teacher professional knowledge (Woollard, 2005). Koehler *et al.*, (2007) offer a model to describe the interactive, relational nature of teacher knowledge which encompasses content, pedagogy and technology. Building on Shulman's early theoretical framework, they conceptualise their model as "Technological Pedagogical Content Knowledge" (TPCK), and "argue that intelligent pedagogical uses of technology require the development of a complex, situated form of knowledge" (Koehler et al., 2007). The current research focused only on technological pedagogical knowledge (TPK), technological content knowledge (TCK) and technological knowledge (TK) components and the ICT integration in English language teaching. Since teacher cognition (beliefs, thoughts and knowledge) is critical in ensuring effective implementation of ICT and that TPACK is a relatively new theory in the educational field, "there are many areas that still need to be researched" (Riales, 2011, p. 10). English language is one of such areas, and this is what informed the current study.

### **1.2 Study Objective**

The objective of the current study was ascertain teachers' attitudes, beliefs, thinking about integrating ICT in teaching English in secondary schools in Nairobi County, Kenya.

### **1.3 Theoretical Framework**

This study utilised two teacher frameworks: TPACK theory and teacher cognition theory. The two theories were then triangulated in order to off-set the weakness of one theory with the strengths of another as a means of improving the reliability and validity of the two theories and to compare the results of this study. Based on these facts, a theoretical triangulation (methodological pluralism) was applied in an attempt to increase the confidence in the accuracy and truth of the research findings.

## **2. Related Literature Review**

Since knowledge does not exist in a vacuum, the researcher reviewed a number of literatures. The purpose was to refine the research ideas, demonstrate awareness of the current state of knowledge on the study, linking it with the study in a wider context. This section presents an analysis of the literature that has informed the development of this study. The chapter has reviewed both the empirical and related literature.

The focus of this study involved not only English language teachers but also their cognition and attitudes towards ICT integration in English language instruction in the Kenyan context. This section presents teachers' attitudes, beliefs, and thoughts towards ICT integration in teaching English and the related studies pertinent to the current study topic.

### **2.1 Teachers' Beliefs and Knowledge in Language Teaching**

Caldrehead (1996) makes a distinction between beliefs and knowledge, suggesting that beliefs generally refer to "suppositions, commitments, and ideologies while knowledge refers to factual propositions and the understandings that inform skilful action. However, many researchers agree that teachers' beliefs act as a filter through which new knowledge and experiences are screened and transformed into teachers' practice and behaviour (Campbell et al., 2004). Although research studies have attempted to distinguish beliefs and knowledge and some have pointed out that teachers' beliefs have a greater influence on classroom practices than their knowledge, there are strong connections between them. Ertmer (2005) explains that while people gain specific knowledge, they do not necessarily believe in it. In the area of language teaching, researchers have examined how pedagogical beliefs and knowledge have informed the instructional practices and decisions of teachers of English as a second language (Borg, 2003; 2006; 2015). Although understanding teachers' personal principles is essential to improving teaching practices and teacher education programmes, Johnson (1994) notes that teacher beliefs are not easily defined or investigated because they are often held tacitly. Thus, they do not usually articulate their teaching beliefs to themselves or to others and may therefore not be aware of what is influencing their teaching. As indicated in the literature, understanding teachers' beliefs and knowledge may explain how and why teachers select particular content, place different emphasis on the same content, and use different styles of teaching and modes of learning. The next section will discuss teacher cognition and technological pedagogical knowledge.

### **2.2 Teacher as a Critical Factor towards Successful ICT Integration**

The general assumption common in the past is that once ICT requirements, for example, ready access to technology, increased technical training for teachers, and favourable policy and support environment, is in place, ICT integration will automatically follow (Lim & Khine, 2006). However, more research studies have indicated that one of the key determinants of whether ICT integration is successful is the teacher (Albirini, 2006; Hew & Brush, 2007; Tezci, 2009). While some researchers (Kozma, 2003) reported that the presence of ICT in the classroom leads to effective use, other research results indicated that ineffective use is also linked to teachers' attitudes and levels of knowledge (Lim & Khine, 2006; Zhang, 2007). Similarly, Ertmer (2005) stated that the decision of whether and how to use ICT for educational purposes significantly depends on the teachers and their related factors, for example, beliefs, confidence and skills, with regards to ICT integration. Research has suggested that teachers' attitudes and beliefs may either decrease or increase the influence of the other barriers, for example, the lack of resources or the lack of technical and administrative support (Hativa & Lesgold, 1996). ICT becomes significant when teachers use it in classroom practices, otherwise it does not have an educational value in itself (Tezci, 2009).



Therefore, we could recognise “teachers, not technology, hold the key to achieving integrated technology use”. To understand how to achieve successful technology integration, we need to understand the factors that influence teachers’ decisions and actions relating to ICT in their teaching. One of the most important of these factors is teachers’ knowledge and skills. The next paragraphs present this issue.

### **2.3 Teachers’ Attitudes, Beliefs, Thoughts towards ICT Integration in Teaching English**

The article by Samwuel and Zaitun (2007) examined the availability of ICT resources and the level of ICT skills of English language teachers. The study was done to determine whether serving teachers were able to promote ICT integration in the teaching and learning of English language in Malaysian schools. The research was conducted in the five districts in Selangor which included Kuala Langat District, Hulu Langat District, Bangar Area, Taman DatoHarun Area and Taman Melawati Area. A similar research was done by Melor (2007) regarding the Malaysia ESL teachers’ use of ICT in their classrooms expectations and realities. This study was done among the ESL teachers in technical schools in Malaysia through surveys and semi-structured interviews with teachers. The aim of the study was to know the use of ICT, the factors that affect the use of ICT and the teachers’ perception of the ICT skills in teaching. The Davis’ Technology Acceptance Model (TAM) was adopted as a basis for determining ICT attitudes and factors affecting the usage of ICT in teaching. The findings indicated that majority of the teachers had positive attitudes towards using ICT in teaching ESL. The teachers expressed that having ICT in the teaching process supports new learning experiences.

Besides, many teachers had access to computer at home and had positive effects on teachers’ attitudes to ICT including increased knowledge, confidence and motivation. About 76% teachers reported that they only had access to one computer lab and this was a major obstacle to integrate ICT into teaching and learning. Low quality hardware is also an issue as teachers (75%) found it difficult to search for information on the internet. During the interview session, the teachers requested for training and provide expertise to render help with the basic issues and exploring possibilities. Both Melor (2007) and Samuel & Zaituni (2007) findings concluded that ESL teachers had the positive attitude but are still lacking in skills as they were not well versed with many new software and limited infrastructure. Teachers too were lacking in training as well as expertise to offer help and guidance to enhance the learning process. Study conducted by Pamela and Noraza (2007) looked at the challenges that ESL teachers faced in using the ICT in the teaching and learning routine as well as the changes which they needed to go through in the new learning environment. A total of nine in-service teachers were interviewed to find out their views on ICT and how ICT helps in teaching. All these teachers regarded that ICT is an important and useful tool to help them convey or present their teaching interestingly as pupils look forward to classes conducted with multimedia as compared to traditional and conventional method of teaching. These teachers too had expressed that they needed to spend more time in getting prepared to use ICT as they were not well equipped with the knowledge and skills required.

Abdul Rahim and Shamsiah (2008) conducted a survey on 645 trainee teachers where they had to complete a questionnaire. The research design was quantitative. The data collected were analysed using the frequencies, percentage, means, t-test and ANOVA. The study was done to assess the trainee teachers’ confidence in integrating ICT in teaching and their readiness to use ICT showed moderate which was  $M=3.999$  and confident to evaluate the software for teaching purposes which showed  $M=3.84$ . The male respondents were found more confident than female respondents. Teachers must be challenged in using ICT, where they have to achieve a level of technological

competence which enables them to understand and able to meaningfully integrate ICT in teaching. The findings too revealed that there was no significant correlation between academic performance and level of confident in integration of ICT in teaching. This study was found to differ from the other three earlier studies mentioned as it presented the readiness of the respondents in integrating ICT in teaching and the respondents were trained teachers.

However, the other findings were similar to Samuel and Zaituni (2007) and Pamela and Noraza (2007) where the confidence level and attitude towards ICT among the respondents tended to be positive. It has to be noted that findings by Abdul Rahim and Shamsiah (2008) pointed out that the vocational teachers felt more confident in integrating ICT in teaching which was similar to the research done by Melor (2007). The reason was vocational teachers handled technical subjects and their experience enabled them to integrate ICT effectively in the teaching. Teachers' knowledge was an essential element in imparting knowledge to pupils. Knowledge in ICT was a must among teachers. The central question is, do teachers have the required knowledge of ICT? There are studies which reveal that teachers do not acquire the necessary level of knowledge. Findings by Rosnaini & Mohd Aris (2010) showed that a minority group of teachers were knowledgeable in basic ICT. The majority of them only had average knowledge in ICT. There were even a group of teachers who demonstrated having very minimal knowledge in ICT. This scenario clearly shows that the key factor in making ICT programmes successfully in school is to upgrade the level of ICT knowledge among teachers.

A similar study was done by Erdogan (2010). The study comprised of the knowledge of teachers in ICT use among Turkish teachers. The findings indicated that the most widely used ICT type is the internet followed by word processing. The mean scores of the responses showed the respondents having close to little information. The results also revealed that teachers had a high level of knowledge about the software but low level of ICT knowledge and those previously trained about computers had higher level of use than those who did not receive any training. This clearly shows that training is important for teachers. Most teachers tend to use internet, email, word processing, graphics and presentation software as these skills are essential for the job scope. It could be concluded that the higher the level of knowledge on ICT the higher the level of use in education. Imparting such knowledge to pupils would promote student-centred learning and improve individual performance. Teachers' positive attitude towards ICT is a must and also an added advantage to the implementation of ICT related programmes. The positive attitude of teachers too will help themselves to receive the input and enable them to impart the knowledge to the students. Positive attitude will be a catalyst to make changes more inviting. The effective implementation of ICT programmes clearly depends on teachers' readiness and also positive attitudes towards ICT and those who perceive it to be useful in promoting learning will surely integrate ICT more easily (Papanastasiou & Angeli, 2008). Pedagogy is a generic form of knowledge that is involved in all issues of student learning, classroom management, lesson plan development and implementation, and student evaluation. It includes knowledge about techniques or methods to be used in the classroom; the nature of the target audience; and strategies for evaluating student understanding (Deshmukh, 2013). A teacher with deep pedagogical knowledge understands how students construct knowledge, acquire skills, and develop habits of mind and positive dispositions towards learning. There are two main aspects where ICT is used as a tool for teaching English and English is taught via ICT. Both the aspects demand modification in teacher's pedagogical approach. An effective blend of these two methodologies can justify the efficacy of using wide range of ICT application. ELT practitioners are expected to teach content knowledge using pragmatic pedagogical method in indissoluble conjunction with ICT skills and knowledge. The quality use of ICT and the use of ICT

and the use with a pedagogical incentive become urgency where English material should be the only focus and ICT facilities become pedagogical and environment agent (Deshmukh, 2013).

Wanjala (2013) conducted a study on teachers' perceptions on the use of ICT in the administration of public secondary schools in Kimilili District, Bungoma County, Kenya. Guided by the Diffusion of Innovations Theory, this research study adopted a mixed method research design, where cross-sectional survey and phenomenology were used. The study population comprised all twenty five public secondary schools, the 344 teachers and all twenty five head teachers of the schools. The study used questionnaire, interview guide for head teachers and observation guide to collect data. Data analysis included Statistical Package for Social Sciences (SPSS) Version 20.0 for quantitative and narrative form for qualitative data. The results revealed that basic ICT hardware and software were available in most schools but they were entirely not adequate for use in performing administrative tasks. The study concluded that ICT facilities in public secondary schools were used in day to day activities in administration and registration matters. The average use was quite low. Usage largely depended upon the size and category of the school. National and county schools had computerised most of the administrative functions unlike district schools. Perceptions of teachers on the use of ICT tools in administration in public secondary schools in Kimilili District were generally positive, with teachers hailing its use for speed and convenience.

Regarding the effects of using ICT for administration in public secondary schools in Kimilili District, it was concluded that effective use of ICT could be to address administrative issues. The review of literature above has found that these contextual factors of a teacher were studied singly. Therefore, the current study set to ascertain teachers' attitudes, beliefs and thinking about the integration of ICT in teaching English in secondary schools in Nairobi County, Kenya.

### **3. Research Design and Methodology**

This study was conducted in Nairobi County, Kenya. Nairobi County has an area of about 700 km<sup>2</sup> and lies at 1,600 to 1,850 m above sea level. The area lies between longitudes 36° 45' East and latitudes 1° 18' South. Nairobi County is one of the 47 counties in the republic of Kenya. Nairobi County hosts Kenya's political, educational, commercial and industrial capital. The County has a total of 84 public (government owned and assisted) secondary schools and has all the categories namely: National 7, Extra-County 6, County 61, and Sub-County 10 public secondary schools according to new orientation regarding types of schools in Kenya. These ranges allowed the researcher to further group and randomly pick the required schools which were used for the study. A descriptive survey research design was used to establish and understand the meaning teachers of English derive from their experiences of using or not using ICT in their English instructions. Descriptive survey research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way. Many scientific disciplines, especially social science and psychology, use this method to obtain a general overview of the subject. Descriptive survey research describes behaviours by gathering people's perceptions, opinions, attitudes, and beliefs about a current issue (For example educational issues). Descriptive survey research provides quantitative or numerical descriptions of trends, attitudes, or opinions of a population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaires or structured interviews for data collection-with the intent of generalising from a sample (Fowler, 2008). The descriptions are then summarized by reporting the number or percentage of persons reporting each response. This study sought to ascertain teachers' attitudes about using technology in their English language classrooms. By conducting surveys and inquiring their comfortableness' using technology through in-depth face-to-face interview methods,



the researcher could be able to gauge what helped understand if fully-fledged integration could face issues.

This also helped the researcher in understanding if teachers of English are impacted in any way with this new innovation. The choice of this survey research design informed the research philosophical paradigm and the research methodology. Therefore, a descriptive survey study was the most appropriate research design. It was believed that the design would allow for a more rich description of the teachers' experiences of teaching with technology and their views on the contributions of ICT to the teaching and learning of English language. The study sampled 10 secondary schools in Nairobi County; and a total of 19 secondary school teachers of English language participated in the study. In the study, the techniques of purposive, stratified and systematic random sampling were used to get the sample size. Data collection was conducted using in-depth interview and questionnaire. Data obtained from the study were analysed through the content and factor analyses. The methods chosen helped to achieve the objectives stated earlier. The results were analysed, discussed, interpreted, summarised, and conclusions and recommendations drawn. The study used a mixed research methods approach that combined quantitative (survey) and qualitative (in-depth interviews), which explored in-depth teachers' attitudes, beliefs and thinking about integrating ICT in teaching English, integrating the two, and then draws interpretations based on the combined strengths of both sets of data" (Creswell, 2015.P.2). The current study applied QUAN-QUAL mixed methods design to collect data.

The research design approach combined quantitative and qualitative methods to collect almost similar data.

#### **4. Study Findings**

This section presents the study findings with the view of answering the research questions outlined in the previous section of this study.

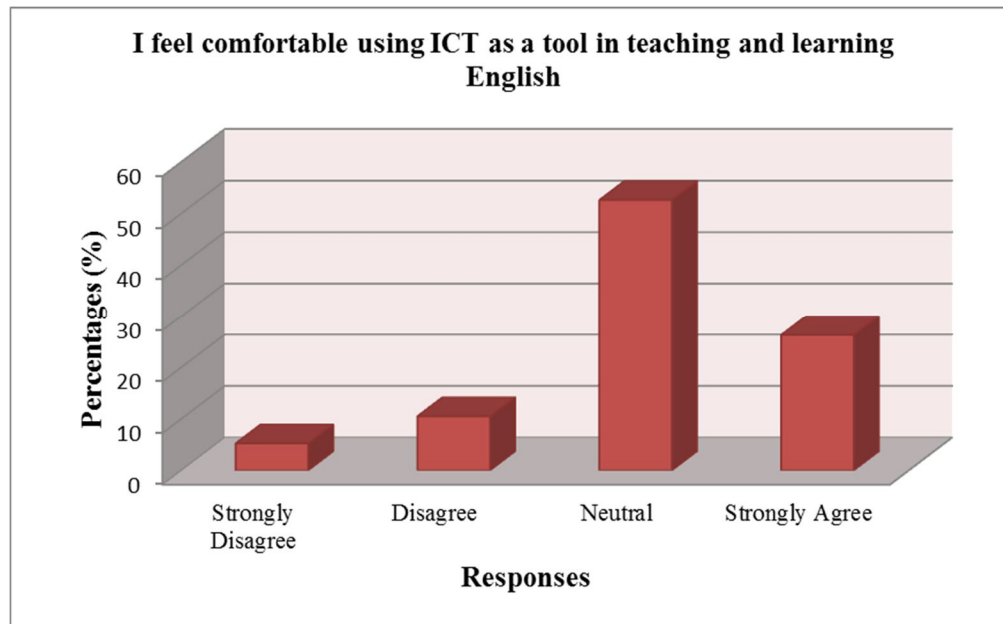
##### **4.1 Teachers' Attitudes, Beliefs, Thoughts and towards Teaching with Technology**

**This Research Question** asked, "What are teachers' attitudes, beliefs, and thoughts towards integrating ICT in teaching English language?" The last part in the quantitative analysis was the teachers' beliefs, thoughts and attitudes towards integrating ICT in teaching English. The questionnaire dealt with these concepts: teachers' attitudes, beliefs, and thoughts. The analyses of the quantitative results on this objective were arranged into; Teachers' beliefs, teachers' thoughts and teachers' attitudes.

The findings were presented and analysed descriptively using frequencies, percentages, tables, graphs and pie charts while the qualitative was analysed through narration.

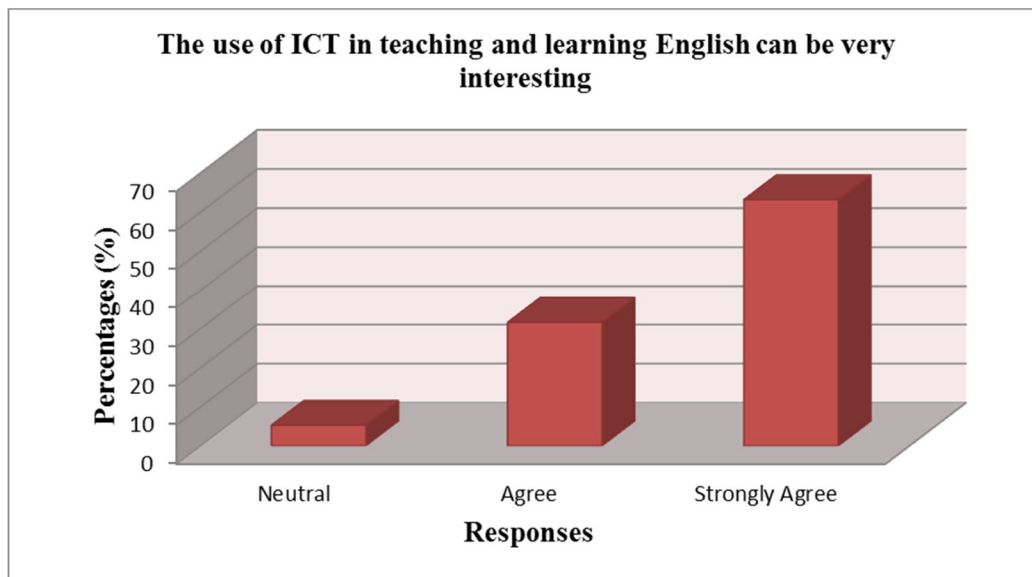
##### **4.1.1 Teachers' beliefs in the Integration of ICT in teaching English**

In order to answer this part of the research question, a 5-Point item Likert-Type scale was used. Each item was rated; Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4 and Strongly Agree=5. Data were first entered into an SPSS programme. The analysed output were then transferred into Microsoft Excel for further analysis and presented using bar graphs, tables and pie charts. Teachers of English were asked to respond to a statement; "I feel comfortable using ICT in teaching and learning English" The results revealed that majority of the teachers (53%) remained neutral, 26% answered strongly agree, 11% disagreed, while 5% strongly disagreed showing that many of these teachers were uncertain about teaching English with ICT tools, indicating their wavering beliefs. Figure 1 gives a summary of teachers' responses.



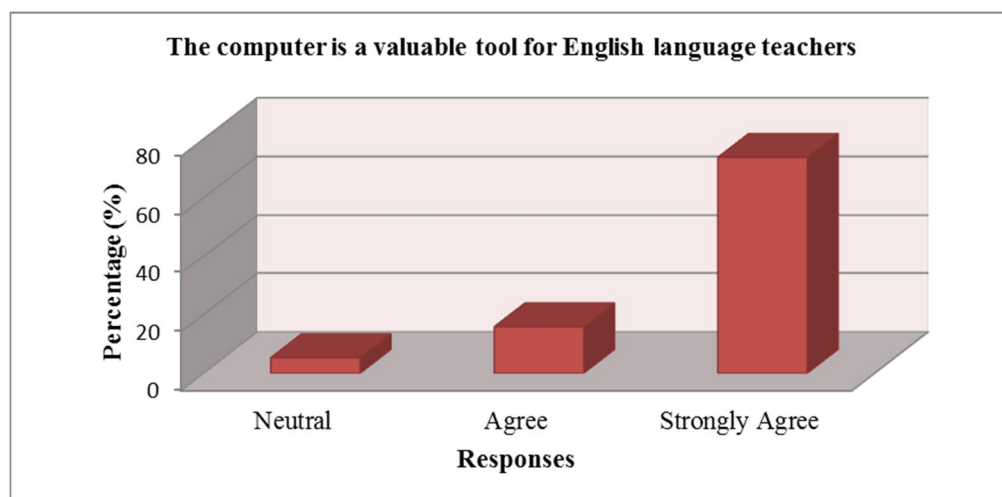
**Figure 1** Frequency of responses on teachers' beliefs and comfortable in using ICT

In order to further ascertain their beliefs, teachers of English were asked to respond to a statement; "The use of ICT in teaching and learning English can be very interesting". Majority of the teachers of English (63%) strongly agreed with the statement, 33% of them agreed while 5% were neutral. This result shows that teachers believed that ICT could have the potential to positively aid the teaching English. Figure 2 gives a summary of this information.



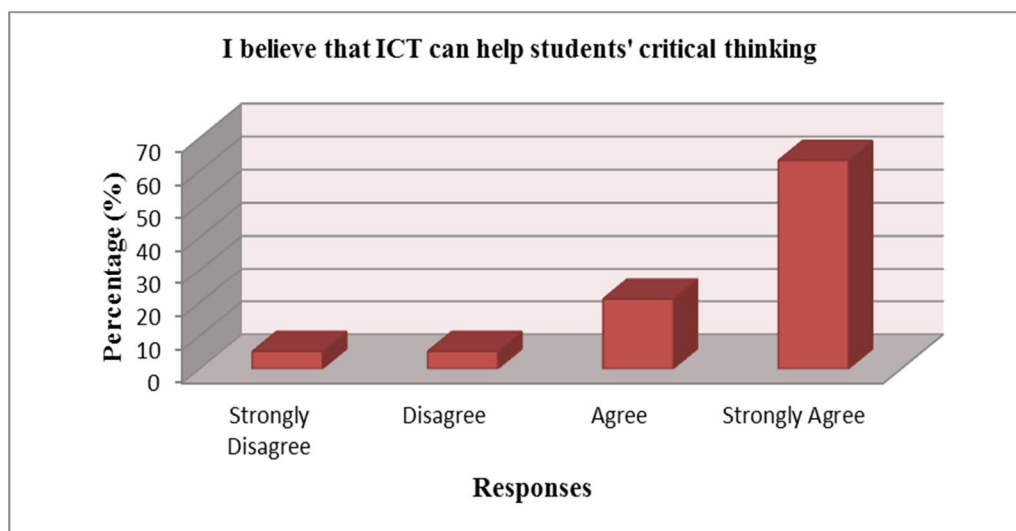
**Figure 2** Frequency of teachers' beliefs in teaching and learning with ICT

A further statement read; "The computer is a valuable tool for teacher of English language", majority of the teachers (74%) strongly agreed that the computer is a valuable tool for teachers of English language, 16% of the teachers agreed with the statement, while 5% remained neutral about the statement revealing that majority of teachers had positive beliefs in the potentials of integrating ICT in teaching English. Their responses are summarised in Figure 3



**Figure 3 Frequency of result on teachers' beliefs about computer as a valuable tool for Teaching English**

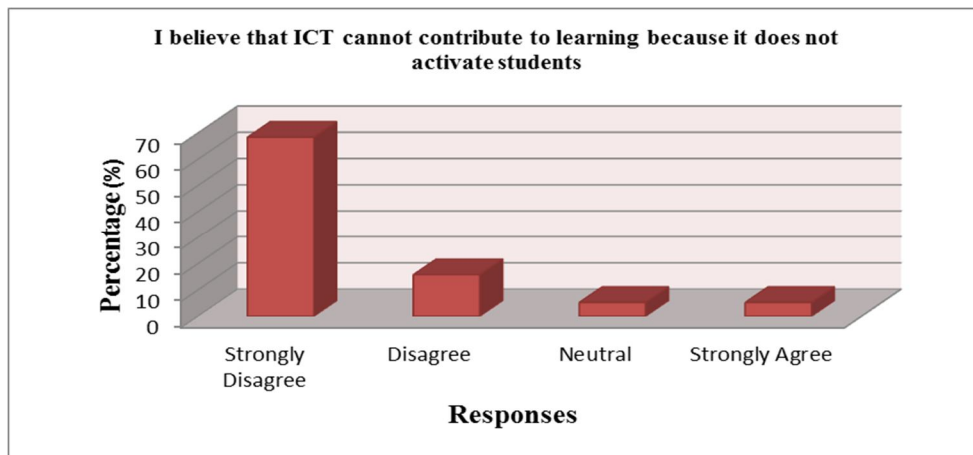
In order to establish teachers' attitudes towards integrating ICT in teaching English, they were asked to respond to the statement; "I believe that ICT can help students' critical thinking", majority of teachers (63%) strongly agreed with the statement, 21% of the teachers agreed, 5% disagreed, strongly disagree respectively that ICT can help students' critical thinking. From the responses, teachers had strong beliefs that ICT can help students' critical thinking. This information is summarised in Figure 4.



**Figure 4 Teachers' beliefs in ICT and Students Critical thinking**

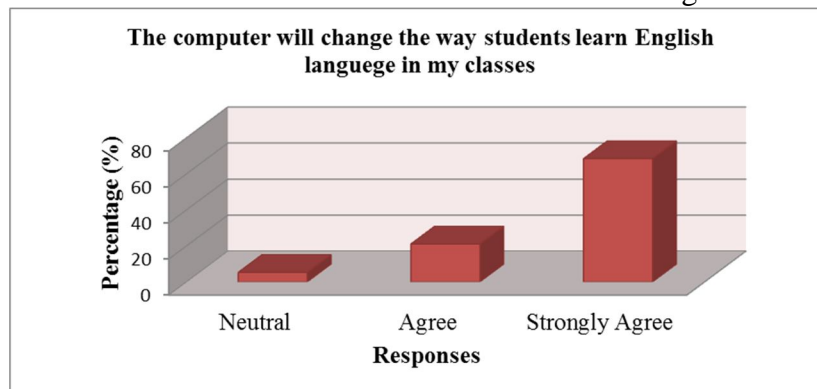
The same applies to a statement; "I believe that ICT cannot contribute to learning because it does not activate students", majority of the teachers of English (68%) strongly disagreed with the statement, 16% disagreed, while 5% of the teachers of English were neutral and strongly agreed respectively. This shows their strong beliefs in the potentials of ICT in teaching English. Further, teachers were also asked to respond to a statement, "I feel comfortable using ICT as a tool in teaching and learning English" Results indicate that majority (53%) of the respondents were neutral, indicating uncertainties of the teachers beliefs about teaching with ICT tools, 26% strongly agreed, 11% disagreed and (5%) strongly disagreed that they feel comfortable using ICT as a tool in teaching and learning English. Similarly, on the statement, "The computer will change the way

students learn English language in my class”, majority (68%) strongly agreed, 21% agreed and only 5% of the respondents remained neutral. Teachers were also asked to respond to the statement, “The computer will change the way I teach”. majority (53%) strongly agreed with the statement, 26% of the teachers agreed with the statement, 16% remained neutral and only 5% of them strongly disagreed with the statement that the computer will change the way they teach. These results reveal that teachers of English had positive beliefs in the potentials ICT tools have in teaching and learning even though majority of these teachers were not using ICT in their English instructions. Figure 5 summarises this information.



**Figure 5 Teachers’ Beliefs that Computer cannot contribute to Learning English**

Teachers were also asked to respond to a statement: “The computer will change the way student learn English language in my class”, majority (68%) strongly agreed with the statement, 21% agreed and 5% answered neutral. This information is summarised in Figure 7



**Figure 7 Frequency of the response on the computer and students’ learning**

#### 4.1.2 Teachers’ Thoughts about Integrating ICT in Teaching English

In order to establish teachers’ thoughts about integrating ICT in teaching English, teachers were asked to respond to a statement, “If something goes wrong I will not know how to fix it”. Majority of the teachers, (47%) disagreed with the statement, 21% of the teachers remained neutral, and 32% of them agreed that if something goes wrong I will not know how to fix it. Similarly, the respondents were asked to respond to a statement, “I feel technology is necessary in teaching, but there is a serious lack in my school”. Majority, (42%) strongly agreed with the statement, 16% of the teachers were neutral, and 21% of them disagreed, while another 16% strongly disagreed that they feel technology is necessary in teaching, but there is a serious lack in my school. On the use of

computer as the means of instructions the respondents were asked to respond; ‘‘I want to use computers in the instruction of my subject matter, but it frightens me that students are more skilled in ICT’’. Majority (53%) strongly disagreed with the statement, 16% of the teachers disagreed, 16% remained neutral, while 11% agreed I want to use computer in the instruction of my subject matter, but it frightens me that students are more skilled in ICT. When teachers were asked to respond to a statement, ‘‘As an English teacher, I should have permanent access to technological means such as computer, projector, videos, and cassette players.’’ Majority (47%) strongly agreed with the statement. ‘‘If something goes wrong I will not know how to fix it’’, majority (47%) disagreed with the statement, 21% of the teachers remained neutral, while 32% agreed in support of the statement. The second item, ‘‘I feel technology is necessary in teaching, but there is a serious lack in my school’’, majority of the teachers (42%) strongly agreed with the statement, 16% remained neutral, and 21% of the teachers disagreed, while a further 16% strongly agreed with the statement. On the statement, ‘‘I want to use computers in the instruction in English teaching, but it frightens me that students are more skilled in ICT’’. Fifty three percent (53%), that is, majority strongly disagreed with the statement, 16% disagreed, and further 16% were neutral, while 11% of the teachers agreed in support of the statement. ‘‘As an English teacher, I should have permanent access to technological means such as computer, projector, videos, and cassette player’’, 47% strongly agreed with the statement, 32% of the teachers agreed with the statement, 16% of the teachers disagreed with the statement, while 5% of the teachers strongly disagreed with the statement. Similarly, on the statement, ‘‘The idea of using a computer in teaching and learning English makes me sceptical’’. A few teachers, (5%) strongly agreed with the statement, 68% of the teachers agreed, 11% of them disagreed, 5% of the teachers strongly disagreed with the statement. On whether the ICT is conducive to students learning or not, the respondents were asked to respond on the given statement ‘‘The ICT is not conducive to student learning because it is not easy to use’’. (16%) strongly disagreed with the statement, 16% of the teachers were neutral, and 37% disagreed, while 21% strongly disagreed with the statement. Results reflect a wavering response from teachers’ uncertainties about teachers’ skills in ICT and their potentials. Table 1 gives a summary of the average and overall information.

**Table 1 Overall Teachers’ Thoughts about Integrating ICT in Teaching English**

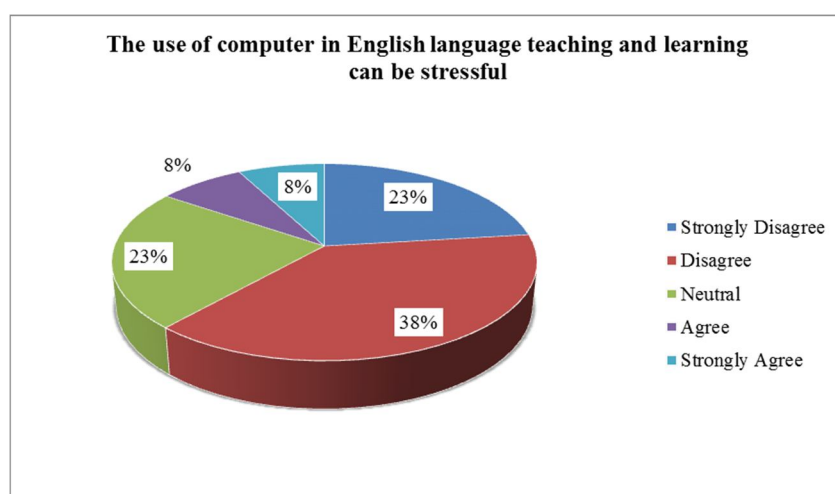
Statement ( n=19)	Strong Agree	Agree	Neutral	Disagree	Strong Disagree
If something goes wrong I will not know how to fix it	0 %	32%	21%	47%	0%
I feel technology is necessary in teaching, but there is a serious lack in my school	42%	16%	0%	21 %	16%
As an English teacher, I should have permanent access to technological means such as computer, projector, videos, and cassette player	47%	32%	0%	16%	5%
I want to use computers in the instruction of my subject matter, but it frightens me that students are more skilled in ICT.	0 %	11 %	16%	16%	53 %



The idea of using a computer in teaching and learning English makes me sceptical	5%	68%	0%	11%	5%
The ICT is not conducive to student learning because it is not easy to use.	16%	0%	16%	37%	21%

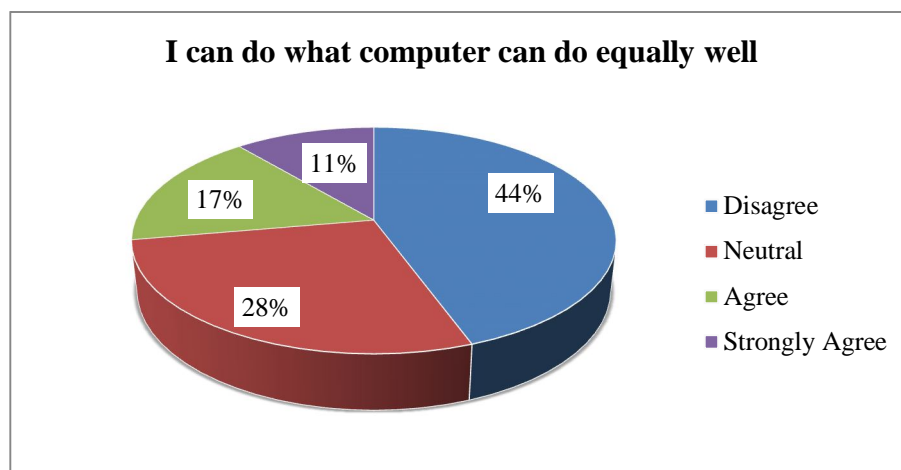
#### 4.1.3 Teachers Attitudes towards Integrating ICT in Teaching English

Each item was rated; strongly Disagree=1, Disagree=2, Neutral=3, Agree=4 and Strongly Agree=5. This part of the questionnaire sought to find out teachers of English attitudes towards integrating ICT in teaching English. Results showed that 38% disagreed that the use of computer in teaching and learning English can be stressful, 23% strongly agreed with the statement, another 23% were neutral, 8% agreed, and a further 8% strongly disagreed with the statement. These results are summarised in Figure 6.



**Figure 6: Computer and English language Teaching and Learning**

Similarly on the statement regarding teachers' attitudes, "The computer is not conducive to good teaching because it creates technical problems", majority (44%) disagreed with this statement, 17% strongly disagreed, and 17% agreed with the statement, while 22% strongly disagreed with the statement. On the ability of the teachers of English, they were asked to respond to the statement, "I can do what computer can do equally well", majority (44%) disagreed with the statement, 28% of the teachers remained neutral, 17% agreed, while 11% strongly disagreed with the statement. Figure 7 gives a summary of this information.

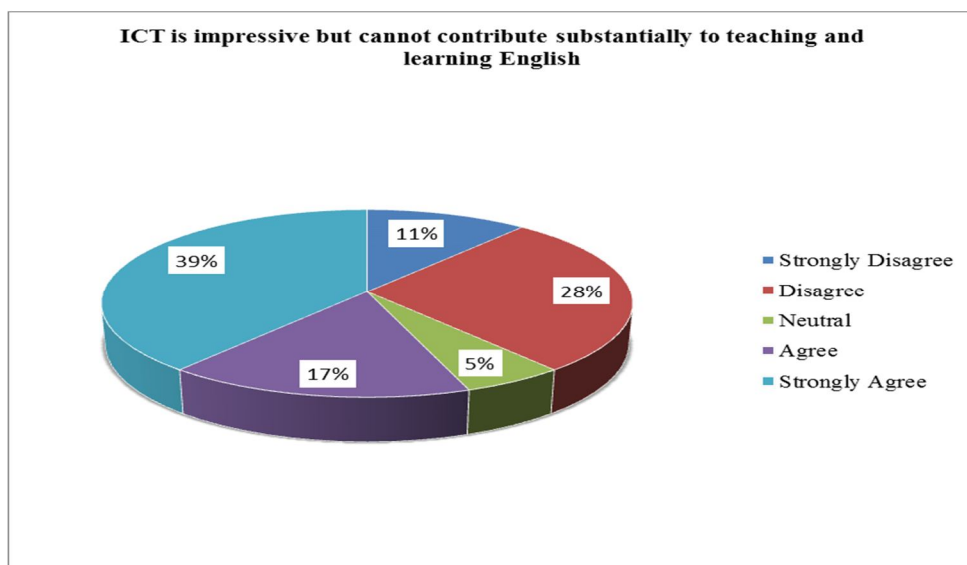


**Figure 7: Computer and the Teacher**

On the impressiveness, one teacher of English responded,

“ICT is impressive but cannot contribute substantially to teaching and learning English”.

The results showed that majority (38%) of the teachers who participated in the questionnaire strongly agreed with the statement, 28% disagreed, 17% agreed, 11% strongly disagreed, while 5% of the teachers remained neutral, showing negative attitudes. Figure 8 gives a summary of this information.



**Figure 8: Computer cannot contribute to Teaching and Learning English**

Data regarding teachers’ beliefs about integrating ICT in teaching English revealed that, majority of the participants’ responses revolved around Agree and Strongly Agree. This is an indication that secondary school English language teachers’ in Nairobi County beliefs about integrating ICT in teaching English seemed positive. This is to show that integrating ICT can contribute to effective

teaching and learning English. The other part of this question was based on teachers' thoughts towards integrating ICT in teaching English language. Data regarding what teachers think about integrating ICT in teaching English revealed that, majority (68%) of the teachers of English doubted the idea of using computer in teaching and learning English in the classroom. From the statement, "The idea of using computer in teaching and learning makes me sceptical", most teachers concurred with this statement, an indication that majority on the English teachers have negative thoughts either they are not competent in using computer in teaching or for other reasons. On the part of teachers' attitudes towards integrating ICT in teaching English, data were analysed using pie charts. Most teachers disagreed with the statement that Computer cannot contribute to teaching and learning English,, majority (39%) strongly agreed in response to this statement.. although teachers believed that ICT can contribute to teaching and learning English, their attitudes towards integrating ICT integrating English is negative.

#### **4.2 Discussion of Findings**

The research objective sought to ascertain teachers' attitudes, beliefs and thinking about integrating ICT in teaching English in secondary schools in Nairobi County, Kenya. One of the most significant findings the multiple regression analysis has derived is that teachers of English exhibited a varied and consistent network of attitudes, beliefs and thinking about integrating ICT in teaching throughout the questionnaire and interview. Both quantitative and the qualitative results for this research objective revealed that majority of teachers of English had a positive attitude towards ICT integration in teaching and learning process. These results are in congruent with that of Melor (2007) whose finding indicated that majority of the teachers had positive attitudes towards using ICT in teaching ESL, whereby teachers expressed that having ICT in the teaching process supports the learning process. Research studies have pointed out that teachers play a crucial role in the implementation of ICT into the school curriculum and their attitudes, beliefs and thoughts have clearly proved to be significant predictors of whether to use or not to use technology, in particular, teachers' attitudes towards integrating ICT in teaching and learning process, which is a key factor for the success of ICT use in education. Different researchers believe that the use of ICT tools for educational purposes sole depends upon teachers' attitudes towards the ICT (Albirini, 2004; Huang & Liaw, 2005; Teo, 2008).

Teachers' existing attitudes, skills, beliefs and thoughts will have significant influence on their responses, style of implementation, and outcome of using computers fro teaching (Summers 1990). The analyses of data from the teachers reported that they either strongly disagree or disagree with the statements reflected their attitudes towards integrating ICT, others were undecided, while others reported that they agree or strongly agree with the statements measuring their levels of attitudes towards the integration of ICT in teaching English language. These findings are congruent with other research (Albirini, 2004; Abdullah, 2006) showing the importance of teachers' attitudes as a crucial factor encouraging or discouraging ICT use. Enhancing teachers' favourable attitudes towards the integration of ICT in teaching English might be a result of the significant role of ICT in the field of education in general. Therefore, in order to enhance the effective use of ICT their instructions, teachers of English particularly in this context, should utilise ICT more often, use ICT for various English teaching tasks, and should believe that ICT makes a difference in their students' learning and in the quality of their teaching. The findings of the current study revealed that teachers' attitudes level, beliefs and thoughts towards ICT integration had a direct relation with the integration of ICT in teaching and learning English. The correlation matrix revealed that there was a significant positive correlation between teachers' level of ICT integration and their attitudes, beliefs and thinking. A similar finding was reported by Melor (2007) and Samuel & Zaituni (2007).. The

findings of their research showed that there is a significant relationship between teachers' attitudes towards computers and their actual level of computer utilisation. This is a clear indication that teachers who hold negative attitudes towards ICT integration are unlikely to contribute effectively to the implementation of ICT in the teaching and learning processes.

### **Conclusion**

Based on the findings, this researcher concludes that teachers of English in secondary schools in Nairobi County hold positive attitudes towards the use of ICT in teaching English; yet they were not integrating ICT in teaching English. There were teachers who hold negative attitudes towards ICT integration. as a result they are unlikely to contribute effectively to the implementation of ICT for teaching and learning purposes, therefore, such teachers should be encouraged to rethink towards their ICT skills in order to utilize ICT in their practicum.

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