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Teachers' Attitude TowardsUptake and Integration of Laptop Computers in Public Primary Schools: The Case of Digital Literacy Programme (DLP) in Homa Bay County, Kenya

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Abstract: Kenya has joined many other countries in the world in embracing technology in teaching and learning. The Digital Literacy Programme (DLP) in Kenyan public primary schools forced the teachers to quickly change their teaching methodologies to accommodate the use of technology in teaching and learning. The purpose of the study was to assess the teachers' attitude towards the adoption of DLP in selected public primary schools in Homa Bay County, Kenya. The study adopted a mixed research approach with a cross sectional survey design. A total of 6529 public primary school teachers in Homa Bay County were used as the population of the study. The sample size of 362 teachers was generated from the study population. The sample size was then stratified to capture all the six sub counties of Homa Bay based on the population of teachers in each and every sub county. Questionnaires and interview schedules were used to collect data. Subject area experts were used to validate the contents of the research instruments as the reliability index for the questionnaires stood at 0.96 based on the pilot study. Descriptive statistics such as tables, frequencies, average means and percentages were used to analyze the quantitative data from questionnaires. One Way ANOVA was also used to establish differences in teachers' attitude and their work experience. Interviews were analyzed quantitatively by recording, transcribing, coding and then major themes reported. The research findings showed that teachers' attitude was high and welcoming. The findings were based on teachers' perception on usefulness of laptop computers which was found to be higher than the expected e-learning readiness levels (3.61> 3.41). The research also pointed out that teachers' perception on ease of use of laptop computers was also high when compared to the expected e-learning readiness levels (3.81>3.41). The results also indicated that there were no statistical differences between teachers' attitude and work experience. F observed was 1.117 while F critical was 2.02. It was concluded that primary school teachers were ready for the uptake and integration of DLP in Kenya.

Keywords: Digital Literacy Programme, Perception, Attitude, Laptop Computer, Schools

1. Introduction

1.1. Background of the Study

To be successful in computer use and integration, Khan et al. [1] suggested that teachers needed to engage in conceptual change regarding their beliefs about the nature of learning that was supported by the use of computers, the specific roles of the students during the learning process, and their facilitation role as teachers. The Kenyan Digital Literacy Programme (DLP) was no different. Teachers were trained on

DLP but still their authority to completely handle computers in class was questionable [2]. In that respect, successful use of laptop computers into classroom could largely depend on teachers' attitudes and belief [3]. Therefore, less technologically capable teachers, who possess positive attitudes towards ICT, required less effort and encouragement to learn the skills necessary for the implementation of ICT in their activities into the classroom [1].

According to Bertea [3] an attitude indicated a certain degree of the possibility of adopting certain behaviors. He further noted that a favorable attitude showed a greater

probability that learners and teachers would accept the new learning system as a bad attitude may come as a result of lack of understanding, poor communication and absence of trust or conflicting agendas in appropriate use of technology. Attitude formation especially on the host institution and participants was seen as a major contributor to the success of any learning program worldwide. In concurrence, Ali and Elgabar [4] observed that learning institutions do not only require a robust technical infrastructure to support the delivery of the courses, but more importantly, the complete acceptance of its major would-be users by faculty members and students. One of the most relevant barriers to the effective diffusion of ICT in schools also concerned the cultural and personal attitudes of teachers towards ICT [5]. Research showed that teachers' perceptions and attitudes towards technologies could influence the effective use of technologies in teaching and learning [6].

In Africa, a notable and remarkable move to introduce computers in schools was sported in all corners of the continent. In South Africa, for example, in a case study conducted by

Plessis and Webb [7] that involved 30 participating teachers from six previously disadvantaged South African schools provided data on teacher perceptions of the challenges related to implementing Information and Communication Technology.

Kenya introduced Digital Learning Programme (DLP) in public primary schools and by 2015, the Government of Kenya claimed to have trained 62,500 teachers. Over 19,000 public primary schools was also said to have been connected to electricity. A number of public primary schools had also received funds for design and construction of storage cabinets [8].

In Homa Bay County where this research was conducted, the situation was same. An average of 3 teachers had been trained on DLP in each public primary school and so far 551 DLP devices had been distributed in public primary schools as shown in table 1 [9]. Therefore to adopt e-learning, e-learning users needed necessary positive attitude and perception towards e-learning [10].

Table 1 Schools with DLP devices in Homa Bay County.

Sub-County	Number of schools with DLP devicesN=551
Homa Bay	111
Mbita	97
Ndhiwa	98
Rachuonyo North	109
Rachuonyo South	48
Suba	88
Total	551

Source: Kenya. ICTA [9]

1.2. Statement of the Problem

The Government of Kenya had all the indications that DLP in public primary schools was on course. A number of teachers in public primary schools in Kenya had been trained and to some extent public primary schools had already received DLP devices. But the question was: Were teachers'

attitude for or against the DLP?

1.3. Purpose of the Study

The purpose of the study was to assess the teachers' attitude towards the adoption of DLP in selected public primary schools in Homa Bay County, Kenya.

2. Literature Review

According to Meenaksi [11], many teachers were reluctant to use ICTs, especially computers and the internet. Some of the reasons for reluctance included:
i.   poor software design,
ii.   Skepticism about the effectiveness of computers in improving learning outcomes,
iii. lack of administrative support,
iv.   Increased time and effort needed to learn the technology and how to use it for teaching,
v.   The fear of losing their authority in the classroom as it becomes more learner-centered.

The perception on usefulness and ease of use of computers were found to be significant contributors of uptake and integration of computers in Singapore. In a study conducted among the 239 pre-service teachers at the National Institute of Education revealed that teachers' perception that computers were useful (b=0.46, P< 0.001) and easy to use (b=0.24, P < 0.001) both positively contributed to the attitude of the teachers towards integration of computers in teaching and learning [12].

Salehi andSalehi [13] conducted a studyto determine the attitude of secondary teachers towards the integration of ICT in schools in Iran. The survey design was used with the sample size being 30 secondary school teachers. When the respondents were asked about their personal experience with ICT, it was found that the majority of high school teachers, (70%), considered themselves as frequent or confident users of ICT. However the findings did not mean that the teachers were integrating technology in class. To further investigate teachers' usage of ICT in classroom, it was found that the majority of them (76.6%) never use ICT in the classroom or they prefer to use it very little.

In a case study by Tella, et al. as cited by Hennessy, et al. [14], some 700 Nigerian secondary school teachers' perception towards integration of ICT in teaching and learning was investigated. The findings revealed that teachers regarded ICT as very useful and was easier to use in teaching and learning. The case study recommended further professional development of ICT policies with the aim of coming up with ICT models that would encourage teachers and learners to play an active role in teaching and learning activities.

In a study done in Malaysia to determine the attitude of teachers who were undergoing training at the university, it was found that prospective teachers overall computer attitude (M = 3.99, SD = 0.37) was well above mid-point scale of (3.00). The study also realized that the mean average of perceived usefulness and ease of use of computers also stood higher at (M = 4.31, SD = 0.47) and (M = 3.44, SD = 0.36)

respectively. The study had a sample size of 38 prospective teachers who responded on five-point Likert scale of strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). It was concluded that the prospective teachers had more positive attitude to computer use in classroom practice [15].

Scholars in education such as Gakuu [16]; and Juma [17] added that positive attitude towards ICT was widely recognized as a necessary condition for the effective implementation of e-learning. At the same time, it was noted that developing countries still lacked sufficient awareness of ICTs and distance learning [18]. In Libya, for instance, Rhema and Miliszewska [18] went ahead to say that:

'The level of educational technology awareness and even basic computer skills is generally low among educators in all types of higher education institutions, which leads to resistance in adopting ICT for teaching. Most students and teachers have had little, or even no, experience in using a computer; and those who are familiar with computers, generally only use them as a tool for entertainment and communication (the Internet). Thus students tend to feel anxious and even worried when engaging with technology for learning purposes, because of their perceived sense of incompetence. On the other hand, they find interacting with computers pleasant, helpful and easy, as they use online chat-rooms, and download music and films'.

In another perspective, Sabzian and Gilakjani [19] noted that technology resources alone could not guarantee teachers better instruction. They said that teachers should be convinced of the usefulness and benefits of these resources in improving teaching and learning. And in that respect, ICT uptake should not only be confined to training of teachers on computer skills, it should also aim at building teachers' confidence towards technology integration in education.

The findings were in concurrence with Juma [17] who said that many people did not believe that quality education could be delivered through information technology. One reason for such a negative attitude was technophobia. Ironically, Britain and Liber [20] saw technophobes differently. They said technophobes see technology as the solution to all human problems. An idea that was refuted by Soong [21] who said:

"The technophobes are most likely those who did not grow using computer…their personal aversion and anxiety about computers may be due to many reasons. They may like what they are used to doing and do not wish to change. They may feel experienced…. They may not want their awkward efforts to learn the new technology subjected to public scrutiny. They may feel that it is too late in their lives to learn something completely new and different…they may be afraid of breaking a complicated and expensive piece of equipment".

In Egypt, gender and work experience did not play a major role in teachers' attitude towards uptake and integration of computers in schools. In a study that involved 53 (45%) male and 65 (55%) female teachers in government secondary schools in Egypt, teachers were surveyed using questionnaires in which the findings showed that teachers' attitude towards computer at governmental schools was relatively higher and that no significant gender differences existed among them. The same study also revealed no significant differences among teachers' attitude towards using computer at governmental schools in terms of work experience [22].

The technology used in classrooms, therefore, should be seen as either a substitute or supplement of the physical teacher and, therefore, was expected to share some characteristics of the physical teacher. Integration of technology should, therefore, display no differences in consumer characteristics. Parker [23] supported this by saying that the teachers and learners who were comfortable with technology and had a positive attitude towards it were more likely to succeed within a learning environment.

In addition, Shashaani [24] argued that for positive attitude formation, prior knowledge and experience with the use of technology was critical. This was supported by Woodrow [25] who pointed out that awareness of students' attitudes towards computers was a critical criterion in the evaluation of computer courses and in the development of computer-based curricula.

In a study that was done at the University of Nairobi to establish barriers for the uptake of e-learning among the teachers who were undergoing an in-service training, enthusiasm for using technology to teach and learn was found to be strong among the participants in educational process. This was evident especially among teachers and learners who had a special interest in computers as a technological tool for teaching and learning [26]. In this research, a total of 217 respondents who were mostly primary school teachers in the Kenyan schools and at the same time were distance learners of the University of Nairobi were investigated. It was realized that 60 (27.65%) students who were the majority of the respondents found working with computers enjoyable despite the fact that they had very limited time to interact and learn with computers. The findings, however, were not in concurrence with the observations of the Standard Digital [27] which reiterated that the duration for training DLP teachers in Kenya was too short to enable teachers who had no prior ICT training to train their colleagues and master the required ICT skills for teaching children in their schools. For the Standard Digital, teachers looked more messed up than before and as a result the tablets were kept under lock and key in schools as teachers continued with their ways of teaching.

3. Research Methodology

3.1. Research Design

The research used both quantitative and qualitative data collection techniques for data collection and analysis. According to Creswell [28] both quantitative and qualitative data for this research were collected concurrently. The researcher mixed the two forms of data concurrently by

combining or having them built on one another. In this case the research design used for this study was the concurrent triangulation cross-sectional survey. The researcher found survey design suitable for collection of data by the use either questionnaires or structured interviews because data was collected to the group (primary school teachers) were similar in nearly all other characteristics [29]. The similarity was based on the fact that the teachers under study were employees of the Government of Kenya and as well serving in public primary schools in Kenya.

3.2. Population of the Study

The population for this study was made up of 6529 teachers who were teaching in public primary schools in Homa Bay County, Kenya. To attain representativeness, the population under study was stratified into 6 existing sub-counties of Homa Bay as follows: Mbita, Homa Bay, Rachuonyo North, Rachuonyo South, Suba and Ndhiwa. Teachers were particularly selected as respondentsin this research based on their key roles of implementing curriculum at the primary schools level. They engaged learners directly in teaching and learning using laptop computers in classrooms. The public primary school teachers were recruited and deployed by the Government of Kenya through the Teachers Service Commission of Kenya.

3.3. Sampling Procedure

The sample size for teachers was determined using hyper geometric distribution formulae [30].

$$n = \frac{NZ^2pq}{(E^2(N-1) + Z^2pq)}$$

Where; N is the population (6529); n is the required sample size; p and q are the proportion of the targeted population (0.5); E is the accuracy of sample proportions (0.05), Z is standard deviation at a given confidence level of 95% (1.96). Based on this available information, the sample size was determined. Therefore:

$$n = \frac{6529 \times 1.96^2(0.5 \times 0.5)}{(0.05^2(6529-1) + 1.96^2(0.5 \times 0.5))}$$

$$= 362.8650$$

$$= 362 \text{ teachers}$$

Each sub-county of Homa Bay had different sample sizes based on the strength of the teacher population in their respective sub-counties as shown in table 2. The sampled teachers were then randomly picked for study based on the sample size of each sub-county.

Table 2. Sample size for teachers.

Sub-County	Teachers' population N= 6529	Sample sizen=362	Percentage
Homa Bay	1482	82	22.7
Rachuonyo North	1172	65	18.0
Rachuonyo South	1318	73	20.2
Suba	625	35	10.0
Mbita	727	40	11.1
Ndhiwa	1205	67	18.0
Total	6529	362	100.0

3.4. Sampling Procedure for Interview Schedules

Interviews were conducted to any two randomly picked teachers in each of the six sub-counties of Homa Bay. Teachers serving in public primary schools in Homa Bay County were the respondents of these interviews. The interviews were needed for data triangulation. The interview questions mainly tested the perception of the teachers on usefulness and ease of use of technology in teaching and learning. Teachers were interviewed because their attitude in the process of DLP in schools could determine either the success or failure of the project. In total 12 teachers were interviewed.

3.5. Research Instruments

Both questionnaires and interview schedules were used for data collection. Questionnaires were administered to 362 teachers. On the other hand 12 teachers were also interviewed. Questionnaires proved suitable for data collection because the population under study waswide spread. Questionnaires had the ability to enumerate data from a big population of respondents that could not fit in interview schedules. Ethical considerations were taken into account to ensure anonymity and confidentiality the respondents. The questionnaires for teachersaimed at enumerating data on teachers' perception on the uptake of laptop computers particularly on ease of use and usefulness of laptop computers. The data in the section of perception was generated using a five point likert scale of Strongly Disagree (D)=1, Disagree (D) =2, Undecided (U)=3, Agree (A)=4, Strongly Agree (SA)=5. Interview schedules were also equally important for the study because the respondents had the ability to make clearer the points of discussion. In support Feeney, Grace and Brandt [30] observed that interview schedules could allow the respondents to generate a lot of data in a short time.

3.6. Pilot Study

Piloting was successfully done to ensure that the research instruments used were accurate and reliable. Ten percent of the sample size for the questionnaire respondents was used. According to Connelly [32], 10% of the sample size was adequate to be used for pilot study. All the respondents in the pilot study were subjected to simple random selection. In total, 36 teachers were participants in the pilot study involving the use of questionnaires. Care was taken to ensure thatparticipants in the pilot study were not picked for the main study. A teacher from any of the six sub-counties of Homa Bay was also randomly picked for pilot interviews.

3.7. Instrument Validityand Reliability

Content validity was picked. The content validated varied from the general outlook of the research instruments to selected questions that were posed to the respondents during piloting. In support, Hertzog [33] also recommended the use of 10% of the research sample size as most appropriate for piloting. The researcher ensured that the already piloted participants did not take part in the main study. For interview schedules, the questions and responses from the respondents during a pilot study were reviewed to make them simple and meaningful for data capture. Thorough editing and reframing of research questions were done to get rid of unclear and inconsistent questions. Reliability co-efficient was worked out for a total of 31 items that were in the teachers' questionnaire. A Cronbach alpha of 0.96 was realized. The result was good and sufficient measuring for reliability since the expected value should be 0.7 and above. For interview schedules, the inconsistencies such as inability to record, difficulties in transcription and many others were taken care of during piloting. Content experts assisted the researcher in validating and working out reliability coefficients of the research instruments.

3.8. Data Collection Procedures

To collect data, the researcher obtained a research authorisation permit from the National Commission for Science and Technology Innovation (NACOSTI). The main research instruments used for data collection were questionnaires and interview schedules. Questionnaires were administered to sampled primary school teachers in their respective sample schools in different sub-counties of Homa Bay. The collected data from questionnaires were coded for data analysis using SPSS. Interviews were also conducted to 12 teachers in Homa Bay County.

3.9. Data Analysis Techniques

The researcher used both inferential and descriptive statistics to analyse quantitative data. Qualitative data analysis techniques were used to analyse qualitative data from interview schedules. Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyze both descriptive and inferential statistics obtained from the respondents. Descriptive statistics such as the average mean scores on a five point likert scale of Strongly Disagree (D) =1, Disagree (D) =2, Undecided (U)=3, Agree (A)=4, Strongly Agree (SA)=5 was used and the average mean compared to the e-learning readiness level of 3.41 [10]. The researcher then interpreted the results as shown in table 3.

Table 3. E-learning readiness scale.

Means	Scale
1.0-2.6	Not ready, needs a lot of work
2.6-3.4	Not ready, needs some work
3.4-4.2	Ready but needs a few improvements
4.2-5	Ready to go a head

Source: Ouma et al. [10].

The research findings with a mean score above 3.41 showed ICT readiness and a positive attitude towards the use of DLP devices in public primary schools. On the other hand, respondents whose perceptions fell below an average mean of 3.41 were deemed by this research to have a negative attitude towards DLP. To come out with a reasonable conclusion, One way ANOVA was used to further establish if there were significant differences in attitudes of teachers towards the use of computers for teaching and related the same to their work experience. Interviews were recorded, transcribed, coded and then grouped into major themes before reporting.

4. Research Findings

4.1. Response Rate

The response rate for questionnaires was 97.5%. The response for teachers who were interviewed stood at 100%. In terms of sub-counties, Homa Bay, Mbita, Rachuonyo North and Ndhiwa recorded 100% response rate. Rachuonyo South had 90.4% while Suba registered 94.3% response rate. The data received was adequate for analysis.

4.2. Perceived Usefulness of Laptop Computers

The researcher used a five point likert scale to establish teachers' perception on ease of use and usefulness of laptop computers. Likert scales have been used in marketing research as interval or ordinal scales for attitude measurement because they enable researchers to calculate mean scores which can then be compared [16]. In this study the researcher used: Strongly Disagree (SD)=1, Disagree (D)=2, Undecided (U)=3, Agree (A)=4 and Strongly Agree (SA)=5. Theinterpretation of the results was then done based on table 4.

Table 4. Perceived usefulness of laptop computers..

Code	Statementn=353	Mean
T6	Laptop computers will improve delivery of mylesson as a teacher	3.85
T7	Laptop computers will reduce time spent on writing assignmenton the chalk wall	4.12
T8	Laptop computers are useful in addressing lack of teachers in school	2.62
T9	Laptop computers will improve my Information Communication and Technology skills such as writing and drawing	3.85
Mean		3.61

From table 4, 272 out of 353 respondents' perception on the statement 'laptop computers will improve my delivery as a teacher' was high (M_{T6}=3.85>M_{elr}=3.41). 291 out of 353 respondents agreed that laptop computers could reduce time spent writing assignments on the chalk boards (M_{T7}=4.12>M_{elr}=3.41). The findings in table 4 also showed that 184 out of 353 respondents who were the majority disagreed with the statement 'laptop computers are useful in addressing lack of teachers'. The arithmetic mean of M_{T8}=2.62 which was less than the expected mean for e-

learning readiness, (M_{elr}=3.41), was obtained. Finally when respondents were asked whether laptop computers would improve their Information Communication and Technology, 272 out of 353 respondentswho werethe overwhelming majority agreed as was displayed in theaverage mean of M_{T9}=3.85 which was greater than the expected e-learning readiness mean (M_{elr}=3.41). In general, the findings based on all tested areas of perception on usefulness of the technology studied in this research showed that the average mean for the respondents' perception on the usefulness of laptop computers in teaching and learning was 3.81 which was greater than the e-readiness level mean of 3.41. This suggested to the researcher that the respondents had a positive attitude towards the uptake and integration of laptop computers by registering their perception of ICT as useful for teaching and learning.

4.3. Teachers' Perception on Ease of Use of Laptop Computers

Table 5. Teachers' perception on ease of use of laptop computers.

Code	Statementn=353	Mean
T10	Laptop computers support users in typing word documents	4.31
T11	I make minimal errors when using laptop computers	3.68
T12	Doing my work using laptop computers is enjoyable	4.14
T13	I require little mental effort when using laptop computers	3.11
T14	I can easily recover from errors encountered while using laptop computer	3.81
Mean		3.81

From table 5, it was established that 304 out 353 respondents who were the majority (M_{T10}=4.31) agreed that laptop computers could support users when typing word documents. The findings were equally above the expected e-learning readiness level (M_{elr}=3.41). On the declarative

statement 'I make minimal errors when using laptop computers', 260 out of 353 respondents who were the majority (M_{T11}=3.68 >M_{elr}=3.41), agreed that they could make minimal errors when using laptop computers. Working with laptop computers was found to be enjoyable among the 292 out of 353 respondents who were the majority (M_{T12}=4.14>M_{elr}=3.41).220 respondents out 353 on the other hand disagreed with the fact that use of laptop computers required little mental effort. This was based on an arithmetic mean of M_{T13}=3.11 that was slightly lower than the expected e-learning readiness mean of M_{elr}=3.41. Lastly when respondents were asked to state whether it was easy to recover from errors encountered when using laptop computers, the arithmetic mean rating was M_{T14}=3.81 >M_{elr}=3.41 which indicated that 269 out of the 353 teachers studied agreed that it was easy to recover from errors when working with computers. The findings showed that the mean for the respondents' perception on the ease of use of laptop computers, 3.81, was above the e-readiness mean of 3.41. It was a proof that the respondents had positive attitude towards the uptake and integration of laptop computers.

From the interviews conducted to teachers and head teachers, 12 (100%) respondents agreed that computers were both useful and easy to use in teaching and learning. Therefore, both teachers and head teachers had positive attitude towards the introduction of DLP in Kenyan schools.

The study furtherestablished if there were differences in attitudes of teachers towards the use of computers for teaching and related the same to their work experience.

H_02: There is no significant statistical difference in the means of teachers' attitude towards the use of computers in teaching and their work experience. The hypothesis was tested using One Way ANOVA. The test was done at 95% confidence level.

Table 6. One Way ANOVA on teachers' attitude.

	Sum of Squares	Df	Mean Squares	F	Sig.
Between Groups	6.653	7	.950	1.117	.352
WithinGroups	293.546	345	.851		
Total	300.198	352			

*. The mean difference is significant at the 0.05 level.

In this study, a total of 353 sample teachers participated. The results showed that the mean of squares between groups was 6.653 while the mean of squares within groups was 293.546. F observed was 1.117 while the p value stood at 0.352. F critical based on DF (7, 345) was 2.02. Since F observed was less than F critical, null hypothesis was accepted. The acceptance of null hypothesis was further confirmed by the fact that the p value observed (0.352) was greater than the significance level of 0.05. It was concluded that there was no statistical difference in teachers' attitude compared to the number of years a teacher has been in the teaching service.

4.4. Discussion

The findings of the study revealed a positive attitude of the

respondents both on the ease of use and usefulness of laptop computers in teaching and learning. In support, the researchers were keen to note that among the most relevant barriers to the effective diffusion of e-learning concerned the cultural and personal attitudes of teachers towards e-learning [5]. Bakr [22] added that gender and work experience of teachers had no significant impact on attitude towards technology uptake.

Therefore, the introduction of laptop computer project in primary schools in Kenya needed the attention of the facilitators who in a primary school level in Kenya was a teacher. Teachers in Kenya were mandated an active role of facilitating learning by use of an appropriate teaching approach and technology. The teachers' attitudes towards the technology and the digital content to be taught were

considered by this research as great determinants of the outcome of any e-learning process. The findings were also in concurrence with the findings of Ali and Elgabar [4] who also observed that learning institutions do not only require a robust technical infrastructure to support the delivery of the courses, but more importantly, the complete acceptance of its major would-be users who in Kenya were the teachers and pupils.

Sharples and Moldéus [2] lamented that perceptions of participants on the usefulness and ease of use of laptop computers were regarded as the main factors that influence technology adoption in any educational system and could obviously lead to an attitude formation. They observed that the ease of use and usefulness are the degrees to which an individual's attitude towards ICT is based.

The findings, therefore, indicated that as the government rolled out laptop computers in public primary schools, teachers had confidence with the DLP and instead of replacing teachers with technology, more teachers ought to be employed and trained by the government to make DLP more effective. This is because research has shown that teachers' perceptions and attitudes towards technologies can influence greatly the effective use of technologies in teaching and learning [6].

In summary, the aggregate means of all areas of teachers' perception on usefulness and ease of use of laptop computers overwhelmingly showed that Kenyan teachers were set and willing to migrate into the digital world. The researcher interpreted this as a positive attitude. In support, Hennessy, et al. [14] revealed that teachers who regard ICT as very useful find them easier to use in teaching and learning. Going by the robust nature of technology around the world [33], teachers were fast joining the rest of the world in embracing technology as an ally and thus increasing the chances of the government wooing teachers and other stakeholders to adopt technology in the process of teaching and learning in the Kenyan schools.

As an emerging theme, 1 (8.3%) out the 12 respondent who was interviewed viewed technology as a way of fulfilling the goals of vision 2030 in various sector of the Kenyan economy. Education being at the epicenter of all productive sectors of the economy, acceptance and adoption of technology in this sector was inevitable. This concurred with the findings of Teo, Lee and Chai [12] who observed that perception on usefulness and ease of use of computers were found to be significant contributors of uptake and integration of computers in Singapore.

5. Conclusion

In conclusion, the aggregate means of all areas of teachers' perception on usefulness and ease of use of laptop computers overwhelmingly showed that the respondents were set and willing to migrate into the digital world. The researcher interpreted this to mean a positive attitude. Going by the robust nature of technology around the world, teachers were fast joining the rest of the world in embracing technology as

an ally and thus increasing the chances of the government wooing teachers and other stakeholders to adopt technology in the process of teaching and learning in the Kenyan schools. Many view technology as a way of fulfilling the goals of vision 2030 in various sectors of the economy. Education being at the epicenter of all productive sectors of the economy, acceptance and adoption of technology in this sector was inevitable.

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