

Teachers' Attitude towards the Use of Computer Technology in Teaching English Vocabulary among Primary Schools in Nyamira County, Kenya

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Abstract: This paper investigated teachers' perception towards use of computer technology for teaching and learning English vocabulary in primary schools in Nyamira County, Kenya. The researchers adopted the descriptive design and employed stratified simple random and purposive sampling techniques to select 62 teachers and 23 Curriculum Support Officers (CSOs) who participated in the study through questionnaire and interview. Data was analyzed using both quantitative and qualitative techniques. The study revealed that teachers hold positive perception towards the use of computer technology in English vocabulary lessons. They perceived computer technology as important in improving the quality of vocabulary teaching and learning, increasing learners' engagement and promoting innovation in English vocabulary. The study thus recommends a need to support the positive perception of teachers through provision of regular professional development opportunities on technology use for successful use of the computer technology in teaching and learning.

Keywords: Teachers' Perception; Computer Technology Tools; English Vocabulary.

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Introduction

The use of computer technology has become an integral part of the teaching and learning of English as a Second Language (ESL) in the 21st century. It has been proven as an important tool for improving the quality of language teaching and learning (Zhang, 2021). The utilization of Computer Assisted Language Learning (CALL) in language classrooms

has a positive effect on language learning outcomes in general and vocabulary in particular (Benyo, 2020; Enayati & Gilakjani, 2020).

Vocabulary is an indispensable component of English language learning. It is also central to successful language learning and is of great importance to a language learner (Surmanov & Azimova, 2020). Besides, Yawiloeng (2020)

established that learners cannot effectively learn a language without initially acquiring substantial vocabulary foundation. This implies that vocabulary learning is fundamental to successful language learning and thus it is an essential aspect to be prioritized. While learning vocabulary in a second language (L2) is a daunting task for learners (Law et al. 2021; Rosyada-AS & Apoko (2023), teachers need to adopt innovative strategies in their teaching practices in order to facilitate the development of L2 vocabulary repertoire among learners.

Computer technology has gained prominence as an effective instructional tool for improving L2 vocabulary learning outcomes (Tang et al. 2020; Cakmak et al., 2021). CALL technology provides interactive audiovisual and digital resources that enhance vocabulary learning and retention. It also promotes autonomous learning, where learners can learn vocabulary on their own and it offers multiple opportunities for vocabulary practice (Regina & Anitha, 2022). In a similar vein, Robin and Aziz (2022) reported that digital tools such as graphics, video clips and online dictionaries incorporated in CALL platforms have great potential to enhance the development of learners' vocabulary. They also increase learners' motivation and create mental images that enhance recall and retention of vocabulary learnt. Moreover, Ridha, et al. (2022) indicated that teaching vocabulary using animated videos demonstrate significant gains in vocabulary mastery and make the learning process interesting and more productive.

Research has shown that teachers' positive perception is important for successful implementation of technology in teaching and learning (Akram, et al., 2022; Mahdrum et al. (2019). Ozer (2018) established a positive correlation between teachers' attitude and their use of computer technologies in language teaching. Hassan et al. (2019) revealed that teachers perceived CALL as an important tool for improving ESL learning outcomes among learners. The study also revealed that teachers' perception towards CALL has a strong influence on its integration in English as Second Language classrooms. Moreover, Talpur et al. (2021) found that ESL teachers exhibited positive perception towards the use of CALL in language teaching. They perceived CALL as a facilitating tool for improving language learning outcomes, boosting learners' motivation and enhancing their development of language skills, grammar and vocabulary.

Recognizing the importance of technology integration in education, the Kenyan government through the Ministry of Education Science and Technology (MoEST) established the Digital Learning Program (DLP) in schools. Through DLP, the government initiated the supply of computers for public primary schools to improve the quality of education as well as to equip learners with 21st century skills (Omito, et al., 2019). Additionally, the Kenya Institute of Curriculum Development (KICD) has digitalized content in various learning areas including English language in order to improve the quality of learning outcomes. It also advocates the use of computer-based resources to enrich the teaching and learning process for both teachers and learners (Kenya Institute of Curriculum Development, 2019). This study, therefore, sought to establish the perception of Kenyan primary school teachers towards the use of computer technology tools in the teaching and learning of English vocabulary.

Literature Review

Various studies have explored teachers' perception regarding the use of technology in language pedagogy. For instance, Khatatneh and Teh (2018) studied the attitudes of primary school teachers towards the use of computerized educational games in the teaching of English language in Jordan. The results show that teachers expressed positive attitude towards the use of computerized educational games in language teaching. Majority of teachers believed that computerized games improve the quality of teaching and learning outcomes, promote the development of language skills, and increase the motivation of learners to learn English language and their ability to retain information. Similarly, Tachaiyaphum and Hoffman (2018) investigated English as a Foreign Language (EFL) pre-service teachers' perception towards the use of CALL in Thailand. The findings indicate that teachers exhibited positive perception regarding the use of CALL in language teaching practices. Teachers also felt that CALL makes language lessons interesting and promotes active learner involvement in language learning activities.

Zohud (2019) investigated Palestinian and Spanish teachers' perspective on using online computer games in learning English vocabulary and revealed that both Palestinian and Spanish teachers believed that the use of online computer games has positive effect on students' vocabulary learning. Alam and Mizan (2019) explored the perception of teachers

about the use of CALL in L2 vocabulary learning among grade five and six learners in special schools. The study found out that teachers exhibited positive perception about the significant effect of CALL on vocabulary acquisition. Teachers believed that CALL enhances vocabulary retention.

In Yemen, the study of Ahmed et al. (2020) revealed that EFL teachers had positive attitude towards the use of computer technology in the teaching of English language. The study further revealed that although teachers expressed positive attitude towards computer assisted language instruction, they did not adequately utilize it in their language teaching classrooms. The study of Khan and Kuddus (2020) reported that ICT integrated teaching enhances the development of language skills and makes language lessons interactive, interesting and memorable. Katemba (2020) conducted a study on teachers' perceptions towards integration of technology in English language teaching and learning in Indonesia and established that teachers' positive perception towards technology is a determinant of successful implementation of technologies in English language lessons.

In Nepal, Bhandari (2020) explored English language teachers' perceptions and practices of ICT integration in English language teaching in secondary schools and discovered that teachers held positive attitude towards the integration of ICT tools in language teaching. They also perceived the use of ICT as an important tool for improving the quality of language teaching and learning. In Malaysia, Undi and Hashim (2021) examined teachers' attitudes about the use of ICT in primary ESL classrooms in Malaysia and revealed that teachers displayed positive attitude regarding the use of ICT in ESL teaching and learning activities.

Research Methodology

Design

This study adopted a descriptive research design which amalgamated both quantitative and qualitative data in a single study. In this design, the researchers collected both quantitative and qualitative data and then integrated the information in the interpretation of overall results as directed by Creswell (2014).

Population and Sampling

The study was carried out in Nyamira County, Kenya which has 408 public and 202 private primary

schools. The study also targeted the 23 Curriculum Support Officers (CSOs) in the study area. A total of 62 schools were involved in the study whereby 62 grade three teachers of English and 23 Curriculum Support Officers (CSOs) participated using the stratified and purposive sampling techniques. Grade three was targeted because learners at this level are expected to have acquired sufficient mastery of English vocabulary to enable them communicate effectively and follow instructions in English (KICD, 2019).

Instruments

Questionnaire and interview schedule were used for data collection. Data collection involved distribution of questionnaire sheets to teachers in the selected schools. Interviews were conducted with CSOs to obtain in-depth information and understanding of teachers' perception towards the use of computer technology in English vocabulary teaching and learning

Validity and Reliability

Validity of the research instruments was enhanced through expert judgment. This was achieved by consulting with experts (researcher's supervisors) who scrutinized the items formulated in the instruments for adequacy, relevance and clarity in relation to the objectives of the study. The reliability of the questionnaire was established using the test-retest method. The instrument was administered to the same group of respondents twice at different intervals and results were compared. Cronbach's alpha coefficient was calculated to determine the internal consistency of the items in the questionnaire. The resultant Cronbach's alpha coefficient of 0.80 indicates that the questionnaire was reliable.

Ethical Considerations

The researchers obtained informed consent from the respondents who participated in the study. The researchers informed the respondents about the objective of the study and also assured them that the information provided would be treated with utmost confidentiality and only used for the purpose of the study. Consequently, privacy and confidentiality of the respondents were upheld since the researchers ensured that all the respondents remained anonymous.

Statistical Treatment of Data

Data analysis involved both quantitative and qualitative methods. Quantitative data from the

questionnaire was analyzed using descriptive statistics such as frequencies and percentages with the aid of the Statistical Package for Social Sciences (SPSS) software. Qualitative data from the interview was analyzed using the thematic approach. The findings were then presented in form of narrative and verbatim.

Findings and Discussion

This section presents the findings based on the data obtained from the field. The analysis begins with Demographic Factors.

Demographic Factors

A total of 62 Grade three teachers of English language participated in the study. Out of the 62 teachers, 33(53.2%) were females while 29 (46.8%) were males. Additionally, 32 (51.6%) of the teachers were P1 certificate holders, 21(33.9%) had diploma in education and 9 (14.5 %) had bachelor's degree qualifications. Moreover, 22 (33.9 %) of the

teachers had a teaching experience ranging between 11 and 15 years followed by 15 (24.2%) who had between 6 and 10 years of teaching experience. Besides, 14 (22.6%) had the teaching experience of between 16 and 20 years, 8 (12.9%) between 1 and 5 years and three (4.8%) had the experience of above 20 years.

Research Question: What is the attitude of teachers towards the use of computer technology tools in teaching and learning English vocabulary?

The study sought to establish the attitude of teachers towards the use of computer technology tools in teaching and learning English vocabulary. To achieve this objective, teachers were asked to rate their perception regarding the use of computer technology using a three-point Likert scale: Agree, Neutral and Disagree. The findings are presented in Table.1:

Table 1. Teachers' Perception towards Use of Computer Technology Tools

Teachers' Attitude toward the Use of Computer Technology	Agree		Neutral		Disagree	
	f	%	f	%	f	%
The use of computer technology tools improves the quality of vocabulary teaching and learning	50	80.6	3	4.8	9	14.5
Using computer technology tools increases learners' engagement in vocabulary learning activities	47	75.8	5	8.1	10	16.1
Use of computer technology tools in vocabulary lessons distracts learners' attention and concertation	15	24.2	8	12.9	39	62.9
Using computer technology tools in vocabulary lessons is time consuming	14	22.6	7	11.3	41	66.1
Use of computer technology tools in vocabulary lessons facilitates learner-centered learning	40	64.5	8	12.9	14	22.6
Use of computer technology makes vocabulary lessons enjoyable and memorable	47	75.8	4	6.5	11	17.7
Using computer technology tools in vocabulary lessons reduces teacher and learner interaction	11	17.7	5	8.1	46	74.2
Using computer technology tools in vocabulary lessons increases teachers' workload	15	24.2	7	11.3	40	64.5
Use of computer technology tools in vocabulary teaching and learning is an innovative practice	48	77.4	4	6.5	10	16.1
Using computer technology tools in vocabulary teaching is a complex task for teachers	18	29.0	7	11.3	37	59.7

Findings from Table 1 indicates that most teachers expressed positive perception towards the use of computer technology tools in teaching and learning English vocabulary. For instance, 50 (80.6%) of the teachers agreed that the use of computer technology tools improves the quality of English vocabulary while three (4.8%) remained neutral and only 9 (14.5 %) disagreed. This means that most of

the teachers perceived the use of computer technology tools as a useful for improving the teaching and learning of English vocabulary. Likewise, during the interview schedule one of the CSOs had this to say:

Teachers perceive the use of computer technology as a valuable tool for teaching

various language areas including vocabulary. Majority hold the view that computer technology has potentials to facilitate the effective teaching and learning. Despite their positive perception, they encounter difficulties that hinder them to use computer technology in language teaching and learning.

The finding is in line with that by Fitri and Putro (2021) in Indonesia during Covid-19 pandemic. The study revealed that teachers demonstrated positive perception about ICT integration in language teaching due to its effectiveness in improving the quality of language teaching and learning. In addition, in the study of Undi and Hashim (2021) in Malaysia teachers displayed positive attitude towards the use of ICT in ELT despite of the challenges encountered while integrating ICTs in classroom instruction.

The study also found that 47 (75.8%) of the teachers agreed that the use of computer technology tools increases learners' engagement in vocabulary learning while 5(8.1%) were neutral and 10 (16.1%) disagreed. This indicates that majority of the teachers perceived that computer technology promotes learner engagement. Similar results were reported by Zohud (2019) in their study about teachers' perspective on using online computer games in teaching English vocabulary. The results indicate that teachers felt that online computer games increase learners' vocabulary knowledge and promote active engagement in the process of vocabulary learning. Similarly, 39 (62.9 %) teachers disagreed that the use of computer technology distracts learners' attention and concentration. Only 15 (24.2%) agreed and 8(12.9%) remained neutral.

The Table further indicates that 41 (66.1%) of the teachers disagreed that the use of computer technology is time consuming, 14 (22.6 %) agreed and 7(11.3%) were neutral. This shows that most of the teachers perceived the use of computer technology as an important practice in pedagogy and it is not a time-consuming attempt. Besides, the table reveals that 47 (75.8%) of the teachers agreed that the use of computer technology facilitates learner-centred acquisition of knowledge, 14(22.6%) disagreed with the assertion while 8(12.9%) remained neutral. Based on these findings, majority of the teachers perceived the use of computer technology as crucial in facilitating learner centred acquisition of knowledge. In agreement with this

finding, Khan and Kuddus (2020) found that teachers in Bangladesh believed that ICT integration in English language teaching encourages flexibility and autonomy to the learners, which allows them to meet their language learning needs.

Regarding the statement whether the use of computer technology makes vocabulary lessons enjoyable and memorable, 47 (75.8%) teachers agreed, four (6.5%) were neutral and 11 (17.7%) disagreed. This shows that most of the teachers perceived the use of computer technology tools as important in making vocabulary lessons enjoyable and memorable.

When probed whether the use of computer technology reduces teacher and learner interaction during vocabulary lessons, 11 (17.7%) agreed, five (8.1%) were neutral and 46 (74.2%) agreed. Therefore, most of the teachers denied that the use of computer technology reduces the interaction during vocabulary lessons. Similarly, during the interview session it was revealed that: "The use of computer technology can provide opportunities for active interaction during vocabulary lessons. Learners can meaningfully interact with computer-based learning resources and with their peers during vocabulary learning activities. Such situations create an interactive learning environment."

Moreover, majority of the teachers (64.5%) disagreed that the use of computer technology in vocabulary lessons increase teachers' workload. While 40% were neutral, 24.2% disagreed. This implies that the teachers considered the computer technology as supporting rather than hindering their professional work. Further, the majority pf respondents (77.4%) agreed that the use of computer technology in vocabulary teaching and learning is an innovative practice. While 16.1% disagreed, 6.5% were undecided. This implies that respondents considered computer technology as supportive in their daily undertakings especially in the teaching and learning of English vocabularies. Finally, whether using computer technology in vocabulary teaching is a complex task, the majority (59.7%) of teachers disagreed, 29% disagreed and 11.3% were undecided.

Conclusion and Recommendations

Teachers agreed that the use of computer technology improves the quality of vocabulary teaching and learning, increases learners' engagement, facilitates students-centered learning, makes vocabulary lessons enjoyable and memorable

and is an innovative practice. Furthermore, they disagreed that the use of computer technology distracts learners' attention and concentration, is time consuming, reduces teacher and learner interaction, increases teachers' workload and is a complex task for teachers. Therefore, teachers had positive attitude toward the use of computer technology in teaching and learning of English vocabularies. The study therefore concludes that teachers have a positive attitude towards the use of computer technology in teaching and learning English vocabularies.

Based on the conclusions, it is recommended that the established teachers' positive attitude towards the use of computer technology be supported by provision of regular professional training on the use of technology to support learning and provision of computer technology to enable their positive attitude turn into the reality of using the technology to improve the effective teaching and learning of English vocabularies.

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