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WEB-ASSISTED LANGUAGE LEARNING (WALL) IN ENGLISH FOR GLOBAL COMMUNICATION

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Abstract:

Despite significant investments in foreign language teaching in recent years, the competence level of North East Africa students continues to remain below expectations. Literature has revealed several challenges which include the availability or improperly trained teachers of foreign language learning (FLL) in a school setting, teacher-centred activities, lack of emphasis on developing skills rather on memorization and rote learning, textbooks and teacher's materials are not cultural-based, poor assessment methods and minimal exposure to English. Although traditional instructor-led classes cannot replace with web-based learning methods, the effectiveness of the learning method (web-based) especially in improving FLL and teaching is remarkable and significant. Web-based teaching/learning technology has been widely used as a language tool in language acquisition as it captures student's attention, improves the retention of skills and keeps it with a high level of interaction. In this study, the researcher has proposed Web-Assisted Language Learning (WALL), a window-based rich multimedia application (video, audio, pictures, animations and simulations help us walk through actual scenarios) built on conceptual-based curriculum structure that consists of English language skills (speaking, listening, writing, reading), grammar, pronounce and vocabulary along with a set of student's activities in drills, quizzes, exercises and tests and notification of the answer is correct or incorrect. Besides, a lecture/instructor-based curriculum was designed with the same curriculum structure. The present study conducted a pre-test/post-test experiment (design) to study the effectiveness of WALL in comparison to instructor-led classes. The initial findings showed that English language learned through WALL was more effective in term of understanding the material and also enhanced the motivation levels of North East Africa, Eritrea Institute of Technology student's motivation in English learning.

Key words: *Web-assisted Language Learning (WALL), North East Africa, English language, Traditional learning, Questionnaire, Pre-test, Post-test.*

1.0 Introduction

New technologies make a good difference in learning, and one such is Web-assisted language learning (WALL), which can be defined as a study learning through the application of computer (Ray, 2012). The main aim of WALL is to provide useful information to various categories in society. Most of the individuals understand web language in English, hence gain importance in uploading most of the information in universal language English (Shehab & Zek, 2015).

The usage of WALL in English in developed countries like United States and United Kingdom has proved an extensive progress and huge difference compared with other countries like India, South Africa, Arab and China for whom English is a foreign language. In order to break these barriers, other countries should also introduce WALL in schools, colleges, which make student literate and also provoke them to have rationale thinking, knowledge ability and self-sufficiency (Abidin et al., 2012).

Most widely, North East Africa is experiencing a problem in learning English, as it is a secondary language and style of learning is mostly face-to-face. Hours of hard work to understand English through outdated teaching mode attributes low efficiency in learning English rather than smart learning through

WALL (Al-Mansour & Al-Shorman, 2012; Leakey & Ranchoux, 2006).

Hence, for the present study, researcher aims to conduct a population based experiment on North East Africans to analyze the success of Web-assisted language learning (WALL) in English against traditional learning.

2.0 Literature Review

Several researches were examined to understand the impact of web-assisted learning in enhancing the processes of English learning. These skills can be improvised by the students through listening, speaking, reading and writing. Mostly, vision and hearing are the two perception modalities that increase the learning capacity. Regarding this vision, further studies were supported by Dwyer, 1978; Hannafin, 1983; Kobayashi, 1986; Levie, 1987; Arnhein, 1994 who emphasized that learning with visual aids exclusively improves the cognitive understanding of abstract concepts. The argument of Iheanacho (1997, p.19-20) was that a visual example can enrich a student's perception of ideas. Thus visuals can lead to development of perceptual thinking. However, increasing visual attributes in the processes of language learning through web-based technology was novel during the 1970s90s which gained momentum during the 2000s and early 2010s (Nachoua, 2012).

El-Seoud et al. (2015) in Egypt proposed the effectiveness of applying interactive aspects of E-learning by the students will inspire them in the process of learning. A survey questionnaire has been designed to analyse the student's attitude towards understanding web learning opposed to traditional face-to-face learning environments. Results revealed that E-learning could not be ignored in educational system in Egypt. Further, concluded that future advances through wireless bandwidth Internet connections will have a greater impact in motivation towards delivering and using more online learning and interactive lessons.

Shehab and Zek (2015) in Malaysia proposed the connection of Web-based Language Learning system and the learning system of cognate (words similar in meaning and pronunciation) to understand the language. To assess the system, Malay language was chosen to be stored in the database. The survey conducted between two groups of respondents consisted of five Malay-speaking learners (the first group) and were five teachers (the second group) who teach Arabic to Malaysian students. The questionnaire with 14 closed questions (five-point Likert scale) was used to conduct this research. Further, as per the results found, most of the participants were satisfied using the system that remained an active learning tool over traditional learning.

Wang et al. (2012) in China proposed web-assisted teaching model which can be more effective than the empirical studies. His study design included 60 new comers from business department and 60 students as a control group. With a survey questionnaire consisted of Pre-test and Post-test, the results showed that most of the students were not aware about the nature of web-assisted teaching model. Consequently, it was difficult to make them understand about the importance of web-assisted teaching model. Moreover, in improving students' listening proficiency like learning English telephone calls, new model was more active than the traditional model. Hence, it was concluded that the web learning can efficiently improve students listening, speaking, reading and writing skills.

Dong and Li (2012) in China proposed research questionnaires on learning English through web-assisted English teaching. Present research selected 32 non-English majors, with grade 2. Results were provided after a year stating that application of web-assisted English teaching method has made students to get motivated for e-learning, listening, speaking and writing were able to communicate skilfully.

Ma et al. (2012) in Taiwan proposed a new learning system which is digital game-based for high school students who were made to learn after school. As he designed the whole process of learning, the flash card game on mobile device can be used through web to improve learning proficiency. When they play learning flash card game on mobile device, they will reward for passing the test with the game cards

with collecting or exchanging the game cards with other team members to finish puzzle and get reward cards. Results state that reward card is used to exchange real pocket money from their parents or teacher for score. Hence, it was concluded that students' internal motivation of e-learning English is enhanced in this manner.

Al-Mansour and Al-Shorman (2012) investigated the consequence of computer-assisted English language instructions on Saudi students at King Saud University. From King Saud University, 60 experimental students and controls were randomly selected for the study. Data was collected within an eight-week period via a pre-test and post-test design for equivalent groups. The findings of the study resulted that utilizing computer-assisted English language teaching alongside the traditional method has a positive effect on the experimental group students.

Bele and Rugelj (2010) in China proposed whether web-based learning materials are better than traditional one for students to achieve better learning. Research results exhibited that students spent less time in learning through traditional learning material than students learning through web-based learning materials. However, they proved significant differences in terms of gained knowledge. Hence, it was concluded that students who use web-based learning resources performed meaningfully better than students who use traditional learning resources.

Butgereit and Botha (2009) from South African described a new language learning application called Hadeda designed to inspire primary and secondary school pupils to practise spelling or memorize L2 English words using their mobile phone. This system was pilot- tested in a private school with pupils from grades 4 to 7 and found to be more suitable method in learning language.

Huyssteen (2007), within the South African Context, introduced e-learning for multilingual through Intelligent Computer-Assisted Language Learning for Eleven South Africa Language (ICALLFESAL). Such a system had efficiently promoted knowledge of multilingualism through web learning.

Storey et al. (2002) in Canada proposed some tools based on web-based learning that give many technologies to support diverse educators and learners via the Internet. Results report a comparative study of experimentally learning tool with commercially available learning tools in a university course. The author in his conclusion recommends web-based learning tools taken into consideration positively enhance students' skills learning and instructors' teaching skills.

Most review studies have provided significant information on English learning through web-assisted technologies; demonstration through video, audio-based video, audio, pictures and animations has been imperative for the enhancement of language learning process. The most advanced Web-assisted Language Learning (WALL) is recognised as a better tool to enhance the processes of language learning in different cultural settings wherein its applicability in North East South African context to enhance English learning has been least examined. For learners, the web is applied as a tool to give a one-step source of information and opportunities to connect among themselves synchronously and/or asynchronously (Shehab & Zek, 2015). Hence, the present researcher attempts to display the efficiency of the use of WALL in North East African students towards learning English.

3.0 Methodology

The present study was carried out in North East Africa, Eritrea Institute of Technology students. In this process of evaluation, two different groups, an experimental group comprising 30 students and a control group of 30 students, were recruited. Further, they were subjected to the pre-test and post-test to evaluate the efficiency of 'WALL' against traditional learning. All students who studied the English language course were involved in the study. Further, the two groups were divided into computers alongside the traditional method as the experimental group and the traditional method alone as the control group. The first level of treatment was carried out by experimental group and the second level of treatment was carried

out by the control group. In the duration of eight-weeks of the experiment, the experimental group used computers for three '30-min periods' a week. Before starting an experiment both the groups took pre-test and after experiment the same test was administered as a post-test immediately after the intervention programme (WALL). Further, researcher developed a 46 item likert scale questionnaire with 8 constructs wherein the items in the questionnaire had 5 choices. The students were instructed to answer the questions by circling/ ticking the correct choice. Questions were put forth to perceive how WALL has facilitated the processes of English learning. 8 weeks time interval between the pre-test and the post-test is long enough to minimize the effects of the pre-test on the results and the conclusions of the experiment.

The instructional software developed by present researcher developed consisted of two major parts. The first part covers reading texts, explanation of the grammar items and presentation of the vocabulary items. However, exercises and drills on the reading passages and the grammar and vocabulary items were considered under the second part. To measure the gained scores from both the groups on the pre-test and post-test, an independent t test was used after modified according to their recommendations. The instructional software was also given to make sure that it suits the level of the students. To analyse the obtained results, the data was first entered into an excel file and exported into SPSS 20.0 version. With each variable, descriptive statistical measures were carried out. Further, independent t test was carried out to calculate the mean difference between two variables. However, the data conferred a statistically significant with $P < 0.05$.

4.0 Results

This study investigated the influence of Web-assisted instruction on North East South Africa, Eritrea Institute of Technology students learning English. In this section, the researcher provides the results of the quantitative data.

Table 1: Results of the t test of the means of the achievement of the two groups on the pretest

	Control group		Experimental Group		t value	p value
	Mean	SD	Mean	SD		
Self-assessment of skill improvement-Pre	1.50	0.46	1.54	0.63	-0.310	0.757
Reading Aspects-Pre	1.99	0.33	2.14	0.55	-1.270	0.209
Speaking Aspects-Pre	1.80	0.53	1.90	0.68	-0.629	0.532
Writing Aspects-Pre	2.01	0.29	2.12	0.57	-0.946	0.348
Learning Aspects-Pre	2.07	0.28	2.15	0.52	-0.696	0.489
Attitude to reading and English language learning-Pre	1.22	0.63	1.41	0.98	-0.857	0.395
Behavioural aspect of attitude-Pre	2.03	0.24	2.01	0.50	-0.566	0.574
Emotional aspect of attitude-Pre	2.01	0.18	2.11	0.48	-1.096	0.278

Table 1 inference indicates no statistically significant at $\alpha = 0.05$ between the accomplishment of both groups on the pre-test. As there is no statistically important variance between the control and experimental groups on the pre-test, the four groups were assumed equivalent.

Table 2: Results of the t test of the means of the achievement of the two groups on the post-test

	Control group		Experimental group		t value	p value
	Mean	SD	Mean	SD		
Self-assessment of skill improvement-Post	2.83	1.44	4.42	0.26	-5.934	**0.000****
Reading Aspects-Post	1.52	0.59	4.52	0.23	-25.562	**0.000****
Speaking Aspects-Post	1.78	0.65	4.60	0.35	-20.743	**0.000****
Writing Aspects-Post	2.29	0.49	4.44	0.27	-21.047	**0.000****
Learning Aspects-Post	1.70	0.52	4.56	0.33	-25.624	**0.000****
Attitude to reading and English language learning-Post	1.83	0.55	4.62	0.26	-24.844	**0.000****
Behavioural aspect of attitude-Post	1.94	0.21	4.50	0.18	-50.542	**0.000****
Emotional aspect of attitude-Post	1.78	0.54	4.53	0.12	-27.249	**0.000****

**$p < 0.01$

Table 2 indicates a statistically important variance at $\alpha = 0.05$ between the achievement of the experimental group and that of the control group on the post-test in support of the experimental group. This indicates that a positive effect on students' using the computer based web programmed for English language instruction. The mean score for the experiment group on the post-test for 'Self-assessment of skill improvement' is 2.83 while that of the control group for 'Attitude to reading and English language learning' is 4.62.

Table 3: Results of the paired t test of the means of the achievement of the two groups on the pre-post-test

	Pre-Post		t value	p value
	Mean	SD		
Self-assessment of skill improvement	-2.10	1.32	-12.304	**0.000****
Reading Aspects	-0.95	1.59	-4.627	**0.000****
Speaking Aspects	-1.34	1.60	-6.491	**0.000*****
Writing Aspect	-1.30	1.20	-8.454	**0.000****
Learning Aspects	-1.01	1.56	-5.039	**0.000****
Attitude to reading and English language learning	-1.90	1.55	-9.9490	**0.000*****
Behavioural aspect of attitude	-1.15	1.33	-6.735	**0.000****
Emotional aspect of attitude	-1.01	1.45	-5.846	**0.000****

**$p < 0.01$

Table 3 indicates a statistically important variance between the experimental group and the control group on the post-test. The experiment group, measured by the difference between the pre-test and the post-test, was meaningfully better than that of the control group. The mean score difference for 'Self-assessment of skill improvement' is -2.10, 'Attitude to reading and English language learning' is -1.90, 'Behavioural aspect of attitude' is -1.15 and 'Emotional aspect of attitude' is -1.01.

There was no statistically noteworthy variance between the control and experimental groups on the pre-test, moreover, the four groups were assumed equivalent. The post-test results gave a statistically significant difference at $\alpha = 0.05$ between the achievement of the experimental group and that of the

control group. Whereas, experimental group measured by the difference between the pre-test and the post-test, was significantly better than that of the control group.

5.0 Discussion and Conclusion

Dynamics related to teaching and learning on different levels have quickly changed due to the extensive usage of the Internet and cumulative software capabilities. Developers are continuously enhancing the Web-based learning tools to compete with other active tools. In this present paper, it has been discussed how the results of a study on learners' attitude towards English language are analysed. Even though there are English courses in their educational institution, the learners are still interested to know the need for extra care and requirement to visit private language centres for learning English. With the aim of saving working hours and money, there are several suggestions made to bring back the students into their class. It was found that the learners interested to learn all the language skills with equal emphasis are on the rise. Hence, it is essential to put lessons on listening and speaking in the mainstream English language curriculum.

We can understand that English language learning through Internet is highly important in our life. Moreover, web-based learning is a general term used to refer to the learning that is computer-enhanced. In several contexts, this kind of learning is called "e-learning". New possible solutions for the advancement of technology based on education were through web-based technologies and powerful internet connections (Sarıca & Cavu, 2008). The findings of the present paper clearly show that Web-based learning tools especially the use of WALL provide integrated environments of various technologies to support diverse educators' and learners' needs via the Internet. To enhance face-to-face instruction and to deliver distance-learning courses the Internet revolution in Behavioural research added the dimension of interactivity via a worldwide network that resulted in several advantageous characteristics of Internet-based studies (Boltz et al., 2013). Teachers need to select or develop high quality Web resources and use the resources through well-prepared WALL activities (Son, 2008). However, in the present paper, findings reveal that pre-test conferred no statistical significance which could be due to low exposure to WALL and post-test conferred a statistical significance due to the increased awareness and capabilities of learning through Web. Hence, the results are in accordance with studies by Chiu et al. (2007), Ma (2007) and (Romeo, 2008) All of these studies showed that using computer in English language instruction has positive effects to improve their language skills (Al-Mansour & Al-Shorman, 2012).

However, future work can be expanded to other subjects such as Maths, Physics and Chemistry and so on. Further improvisations such as larger population size and different research design will provide further insights and is the scope for future researches.

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