

EXPLORING THE EFL LEARNERS' ATTITUDES TOWARDS THE INTEGRATION OF ACTIVE READING SOFTWARE IN LEARNING READING COMPREHENSION AT TERTIARY LEVEL

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The role of technology in language pedagogy and learning is significant both in EFL and ESL contexts. Educational technology facilitates language teachers to enhance their teaching practices by implementing certain strategies to assist learners to achieve their academic goals successfully. However, the adoption and effective use of technology in EFL classes depends on the positive attitudes of the learners. An attempt was made to explore EFL learners' attitude towards technology-enhanced instructions of reading comprehension at Majmaah University, Saudi Arabia. The sample consisted of 60 male EFL learners, divided into two groups. The research tools used for collecting the data were quantitative approach and an attitude scale questionnaire to explore the learners' attitude towards Active Reading Software (ARS) instruction. The experimental group received four-week treatment in the computer labs using ARS. The analysis of data showed positive attitudes of EFL learners toward Active Reading Software as a learning tool in improving reading comprehension achievement.

KEYWORDS: Technology-Enhanced Learning, Computer Software, ARS, Learner's Attitude

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INTRODUCTION

Reading comprehension is one of the essential language skills for developing learners' English language proficiency. Enhanced language proficiency is a key to academic success both in EFL and ESL contexts (Martirosyan, Hwang, & Wanjohi, 2015). Reading comprehension is considered as the major objective of reading instruction. It is also simply defined as the reader's ability to construct meaning from the text. In order to achieve high academic goals, EFL learners need to comprehend the reading contents either in digital or print forms. However, reading is a complex cognitive process which involves the interaction between the text, reader and the reader's prior knowledge outside the text. Reading failure may cause a critical problem to a learner's academic, professional, and social achievement (Dodick et al., 2017). Learners having problem with reading comprehension face hindrance in learning other subjects in their field of study (Kuhail, 2017). Learners at tertiary level need to enrich their reading skills which provides them an access to the world of knowledge.

The nature of reading is very complex, and it poses a challenge for language instructors. Teaching reading in Saudi context, where English is taught as a foreign language has many challenges. Many students even at tertiary level read without understanding the main theme and purpose of the author behind the text. According to Khan (2011), there are many factors responsible for Saudi EFL learners' poor reading performance or outcomes. First, they lack enriched vocabulary and are unable to employ certain reading strategies and comprehension skills (skimming, scanning, making inferences, references and prediction etc.) which are necessary for understanding the deeper meaning of the text. Second, lack of motivation and insufficient exposure to English reading materials often yield poor and unsatisfactory results in reading. Third, the traditional approach to teaching in which technological aids is seldom used in the classrooms usually fails to elicit positive attitudes of the learners toward learning. Finally, teacher-centered pedagogical practices in Saudi universities are some of the factors that cause demotivation among EFL learners in learning reading comprehension. Hence, there is a dire need to enhance EFL reading teaching and learning practices at tertiary level in Saudi Arabia. This is only possible when modern technology is integrated in teaching and learning process. It is generally believed that the effective use of computer technologies in education has positive effects on learners' language proficiency and attitudes towards language learning (Edmunds, Thorpe, & Conole, 2012). New technologies are effectively used by many countries in language teaching, but Saudi EFL language instructions are to a greater extent text-book based and the new technologies are seldom used in classrooms (Alkhalaf, Drew, AlGhamdi, & Alfarraj, 2012). Technology-integrated instruction may help overcome the

challenges to implement reading practices successfully in classrooms (Sung et al., 2007). Furthermore, technology can promote autonomous and personalized learning which provides learners an opportunity to pursue their learning goals at their own pace in a stress-free digital learning environment (Lai, Yeung, & Hu, 2016).

Attitude is a psychological construct or a set of emotions which influences human behaviour and is acquired through experiences (Noreen, 2012). Positive attitude is an essential element for learning a foreign language; many studies conducted recently in the field of CALL have revealed significant effects of using computer technologies on learners' attitudes toward learning (Golshan & Tafazoli, 2014). Attitude correlates with the learning experiences of using technology by the learners and has great impact on language learning and learning outcomes (Jafarian, Soori, & Kafipour, 2012). To a great extent, a learner's success or failure in any learning task is determined by his or her attitude (Durak & Saritepeci, 2017). Therefore, for successful learning, the factors affecting learners' attitude toward learning should be considered. There are several factors that are associated with learning attitudes of the learners, such as the input stimulus, delivery and evaluation of learning tools, the teaching environment, and classmates and teachers (Zhao, 2015). Thus, learners' attitudes toward technology integrated instructions should be investigated as a key factor in the current study to evaluate the effective role of technology in learning reading comprehension and its acceptance for future use (Machado & Chung, 2015). The acceptance of technology by the users mainly depends on certain factors such as perceived usefulness, perceived ease of use and effectiveness (Peek et al., 2014). According to Myers (1998), the successful operation of any new technology is connected with attractive features of interface design.

Various EFL/ESL studies (Yang & Wu, 2012; Yeh, Chang, & Chang, 2011) have claimed that technology-integrated language instructions can enhance learners' academic achievement, increase motivation, develop positive attitude and promote learning. Therefore, the current study suggests that employing Active Reading Software (ARS) as a learning tool could overcome the challenges faced by Saudi EFL learners in improving their reading comprehension skills for academic success and English proficiency for general purposes. ARS is one of the effective learning tools developed and designed by ClarityEnglish.com for improving students' reading skill for general and academic language proficiency exams across the world (Chen, 2012). Moreover, no study has been conducted in Saudi EFL context to explore the effects of ARS on learners' attitudes in learning reading comprehension at tertiary level. Therefore, the present study aims to fill the existing gap in

literature in the field of CALL.

STATEMENT OF THE PROBLEM

Reading is one of the essential language skills for EFL and ESL learners to achieve their academic goals and success in language achievement at all levels (Soe, Koki, & Chang, 2000). However, Saudi EFL learners at tertiary level do not acquire this skill successfully to pursue their academic goals and enhance their language proficiency. The reading performance of Saudi EFL learners remained unsatisfactory because many students read without comprehension. Saudi EFL learners' poor reading performance can be attributed to teacher-centered pedagogical practices, lack of motivation and indifferent attitude of learners towards reading comprehension (Khan, 2011). Computer integrated language learning tools are being used across the globe in educational institutions to improve learners' language proficiency for academic purposes. Moreover, computer integrated learning tools promote positive attitude among learners which is considered as a fundamental element for learning process. Learners' positive attitude towards using technology depends on its effectiveness in learning certain tasks (Barhoumi, 2015). The current study aims to explore students' attitude towards ARS used as a learning tool in improving reading comprehension performance of EFL learners at Majmaah University.

REVIEW OF LITERATURE

The rapid growth and advancement of educational technology has encouraged the researchers to divert their attention towards the implementation of ICT in language teaching and learning process (Zhao, 2013). Technology has been viewed as an essential tool in language teaching for decades and there exists a strong association between ICT and foreign language learning (Biagi & Loi, 2013). Comprehension is regarded as a complex cognitive process and it plays a key role in learners' language proficiency. Learners need to acquire certain skills to comprehend reading texts and topics. Therefore, the effective use of technology helps learners to develop and learn these reading skills such as decoding, making prediction, inferences, activating prior knowledge, visualizing, creating mental pictures and summarizing. However, to understand the relationship between reading and technology, it is essential to identify the theoretical concepts related to the study of reading. Most of the EFL and ESL reading research in the field of CALL draws its framework from Krashen (1981) Second Language Acquisition theory and Schema theory. Krashen's affective filter hypothesis suggests that comprehensible input can be promoted in enhancing language acquisition when language input is delivered in a low affective filter environment (Dulay & Burt, 1978; Krashen, 1981)

environment. Technology enhanced instruction provides learners an opportunity to understand language input in a stress-free and low affective filter digital environment. Technology not only motivates learners to read more but also develops their critical thinking to analyse the reading texts for deeper understanding. According to Preisinger (1988) the principles of Schema Theory can be applied to evaluate the effectiveness of reading enhancement software. The criteria to evaluate the reading software are: 1) interactivity 2) processing information, 3) background knowledge, 4) re-construction and implementation. The present study utilizes ARS as an assistive tool to develop learners' reading skills and their attitudes towards its use.

The current study reviews the literature of some of the relevant studies conducted in the past to evaluate the efficacy of using technology in improving reading comprehension performance and learners' attitudes towards educational technologies in EFL and ESL contexts across the globe.

The effectiveness of technology in educational context is influenced by learners' attitudes. Positive attitude towards technology is essential for technology integration into language pedagogy. Schmitt, McCallum, Hawkins, Stephenson, and Vicencio (2018) conducted an experimental study examining the effects of reading improvement software on reading comprehension and attitudes of middle school participants, representative of both genders with different social and demographic background, in the US. The experimental group received 10 weeks of training from the reading software used as a learning tool while the control group did not get any treatment from the reading software. Quantitative analysis indicated significant improvement in the reading comprehension performance of the experimental group. Additionally, the participants in the experimental group were reported as more motivated to use reading software in practicing and developing reading skill in their classroom. The study used four variables for exploring learners' attitudes towards reading software. Perceived ease of use was the variable which received the highest mean score for accepting reading software in learning reading skill. Thus, the study revealed positive attitudes of the learners towards technology in learning reading.

Al-Seghayer (2017) evaluated the efficacy of hypertext structure on 40 ESL learners' attitudes in the United States. The participants were randomly divided into experimental and control groups. In this experimental study, a pre-test and post-test were used to collect the data. The experimental group used hypertext structure in reading class as a treatment. Findings of the study revealed a significant difference in the mean scores of the two groups. Findings showed that the experimental group outperformed the participants in the

control group in terms of reading performance. Moreover, the treatment group showed positive attitudes towards incorporating hypertext structure software in enhancing reading comprehension. The study used three subscales; interface design, practicality and perceived ease of use to examine learners' attitudes. Among the variables of the study that could affect learners' attitudes, immediate corrective feedback provided by hypertext structure software feedback received the highest mean score in the quantitative analysis. This study was carried out in ESL context and the participants belonged to a heterogeneous group from different social backgrounds.

ICT integrated programs have been broadly used in classroom settings with a fundamental desire that learners' language skills can be improved (Naqvi & Al Mahrooqi, 2016). Schneider et al. (2016) explored the effects of ICT integrated instruction and teacher prepared program on reading achievement and attitudes of elementary school students in the US. A total of 209 students participated in their study, of which 107 were clustered into treatment group and 102 into control group. The treatment group received Mind Play Educational (MPE) Software training for more than six months while the control group did not receive any training from MPE software. Data collected from pre-test and post-test were analysed using ANCOVA. Findings of the study revealed significant difference in the reading achievement of both groups. The treatment group performed better than the comparison group in all the variables of reading test. The findings also indicated positive attitudes of the learners' towards MPE software in terms of interface features, perceived usefulness and perceived ease of use.

Tunde-Awe (2014) examined the relationship between using IT in reading classes and their effects on learners' attitudes in Nigeria. In this quantitative study, 800 students participated from 28 schools and the main research instruments used in this study were reading attitudes questionnaire (RATQ) and reading performance test. The treatment and controlled groups were formed following random sampling procedure. Online reading materials were used to explore learners' attitudes towards technology-integrated reading instruction in EFL classes. The attitude questionnaire included 30 items on learners' motivation, variety of reading topics, interactive, tasks easy to use, attractive features and instant feedback on completion of reading tasks. Quantitative analysis showed a positive and significant relationship between the use of IT and learners' reading attitudes ($r=.0835$ df 798 $P \leq 0.05$). However, this study showed positive relationship between technology and learner's attitudes, but this study didn't show specific CALL program that was used as intervention of the study. Second, it was carried out in different social context taking middle school students as the participants.

A quantitative study was carried out by Oz (2015) to determine the effect of CALL on learners' attitudes in learning English as a foreign language in Turkey. A total of 128 university level students participated in this study and their selection was randomized. In this cross-sectional survey, four subscales were utilized to measure the relationship between CALL and learners' attitudes. The data on 7-point Likert scale were analysed using one-way ANOVA. Findings of the study revealed 75 % participants expressed positive attitudes towards CALL in learning a foreign language. In addition, the finding of the study implied a significant relation between CALL and learners' attitudes towards a foreign language. However, this study was a quantitative survey to measure the learners' attitudes towards CALL, conducted in a different social and demographic background. In Saudi EFL setting, relatively few studies focused on learners' attitudes towards technology- based instruction at college level and the factors which affect their attitudes. Therefore, there is a need to carry out a more generalized study in Saudi EFL context exploring EFL learners' attitudes towards Active Reading Software (ARS) and the factors affecting their attitudes.

THEORETICAL UNDERPINNING

The current study is based on Technology Acceptance Model (TAM) presented by Fred Davis in 1989. Technology Acceptance Model (TAM) is considered as the most convincing and generally utilized model for depicting a person's behaviour to accept a new technology. With rapid growth of technology needs in the 1970's, and rising failure in technologies acceptance in many institutions, predicting individual behaviour to accept or reject any new technology has become an area of interest for several researchers (Chuttur, 2009). TAM is an information system that explains how users can be influenced to accept new technology and how they utilize that technology. According to TAM, there are three salient factors that influence users' behaviour: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) and Attitude Toward Using the system (ATUS). Fred Davis proposed that individual's attitude toward a system was a dominant factor that could determine the acceptance or rejection of a technology by the users. Fred further added that individual attitude could be influenced by two important beliefs: perceived ease of use and perceived usefulness. Perceived ease of use is interwoven with the significant features of the system information displayed on the interface of the system. In addition, perceived ease of use has a direct impact on perceived usefulness. The adoption of a system is a behaviour that can be best explained by individual' motivation and attitude which are directly affected by an external stimulus including the capabilities and actual features of the system (Davis, 1985). In the current study,

ARS instruction will be used as an external stimulus to determine its effects on learners' attitudes. The actual system use is the acceptance of ARS as a tool for learning reading comprehension. Figure 1 explains the effect of the stimulus (ARS) on learners' attitudes towards the acceptance and actual use of the system for enhancing their reading skill.

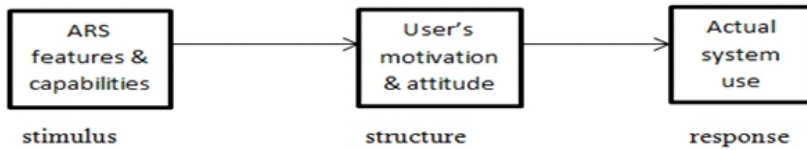


Figure 1. Technology Acceptance Model (Davis, 1985).

RESEARCH QUESTIONS

The following questions set the parameters of this study:

(A) What are the Saudi EFL learners' attitudes toward ARS in learning reading comprehension skills?

The main question is split into the following sub-questions:

1. What are the Saudi EFL learners' attitudes toward ARS in terms of interface design?
2. What are the Saudi EFL learners' attitudes toward ARS in terms of effectiveness?
3. What are the Saudi EFL learners' attitudes toward ARS in terms of curriculum and instruction?
4. What are the Saudi EFL learners' attitudes toward ARS as a learning tool?
5. What are the Saudi EFL learners' attitudes toward ARS in terms of retention?

DESIGN OF THE STUDY

The current study employed a quantitative research design to investigate the effect of ARS on EFL learners' attitudes towards learning reading comprehension and the factors affecting their attitudes. The current study is also descriptive in nature because it expands the variables of the current topic with the end goal of developing a more comprehensive understanding of it. Hence, the research aim is to obtain a profound comprehension of the effect of ARS on learners' attitudes and explore the underlying factors affecting their attitudes in EFL setting in Saudi Arabia. Therefore, this study will utilize a

quantitative tool to collect data on the surveys used as the main research instruments.

INSTRUCTIONAL TREATMENT PROCEDURE

The current study was carried out in the fall of 2017/2018 in the college of education, Majmaah University Saudi Arabia. The subjects of the study were first level B.A English major students. The instructional instrument used in this study was Active Reading Software (ARS). The participants were clustered into the experimental and the control groups. Each group comprised of 30 participants and the selection process followed randomized sampling procedure. In order to avoid any difference in the mode of teaching, both groups were taught by the same instructor. The experimental group received treatment from ARS as a supplementary tool for four weeks, covered two reading sections of upper intermediate and pre-advanced levels. The instructional treatment lasted for 90 minutes twice a week in the computer lab. Each level contained ten reading topics with reading tasks focusing on eight reading comprehension skills. Each reading topic was introduced with a video presentation featuring a native speaker. Five reading passages were covered in each week of the intervention. Students completed a variety of reading tasks by themselves in a specified time allocated for each task in the system, whereas the control group received only the textbook instruction (Reading and Speaking 1, Interaction Access) in a regular classroom setting and did not get any training from ARS. An attitude survey questionnaire containing 35 items on five subscales was administered to the participants in the experimental group.

RESEARCH INSTRUMENTS USED

The attitude scale questionnaire was adopted and modified from an experimental study conducted by Al Shebli and Abdulla (2014). The survey questionnaire contained two main parts: first, the demographic information and second, the main part with five sub-sections pertaining to learners' attitudes towards ARS. The main part of the questionnaire included 35 items on five-point Likert-scale format. The participants were required to complete their responses arranged on the questionnaire from strongly disagree, disagree, uncertain, agree, and strongly agree. The validity of the questionnaire was established by ten experts from the university. Some of the items of the questionnaire were modified according to the recommendations of the experts. A modified questionnaire was translated by two native Arab professors in the English department. The participants were presented the

Arabic version of the questionnaire to avoid any confusion on their part. The reliability of the questionnaire was measured through Cronbach's Alpha and it was 0.85, which means that it is highly reliable tool to be used in the study.

POPULATION AND SAMPLING

Participants in the current study were 60 male undergraduate Saudi EFL learners. The participants were enrolled in first year B.A English program at Majmaah University, Saudi Arabia. Prior to the study their English language proficiency level was almost the same as they were equally distributed into groups by college administration on the basis of the college entry test and intensive course results. In Majmaah University all English-major students are required to take English intensive course prior to registration in B.A. program. In addition, they studied English language for seven years in the school prior to admission at the university. Majority of the participants belonged to the same age group ranging from 17 to 19 and shared almost the same demographic background. They volunteered to take part in the current study and their distribution into respective groups, the experimental and the control groups, followed the randomized sampling technique. Participants were equally divided into the two groups, experimental (30) and control (30).

RESULTS OF THE STUDY

Table 1 shows the mean scores and standard deviations of ARS interface design on the first subscale of the attitude questionnaire. There were 6 items on ARS interface design seeking learners' responses on some of the essential functions and features of interface; easy to use, understand, level of language used, consistency, attractive and feedback. The highest mean score ($M=4.76$, $SD=0.531$) was received on item no 5 that was related to the integration of different functions of interface design of ARS. The mean and standard deviation emerged for this subscale was 4.22 and 0.377. This result indicates that majority of the participants have positive attitudes towards ARS interface design.

Table 1**Results of Independent Sample t-test on ARS Interface Design.**

No	Items	Means	SD
1	The interface design of ARS is easy to understand.	4.27	0.691
2	The interface of ARS is easy to use.	3.70	1.11
3	ARS interface design is appealing.	4.00	0.91
4	The interface of ARS is adaptable all through the entire program.	3.87	0.937
5	The different functions of ARS interface design are well integrated.	4.76	0.531
6	The interface of ARS gives me the right feedback.	4.67	0.661
Total		4.22	0.377

Table 2 describes the means and standard deviations of the second subscale of the questionnaire i.e. the effectiveness of ARS as a learning tool in enhancing reading comprehension. Item no 8, pertaining to ARS as a helpful tool in developing reading skills received the highest mean and standard deviation (M=4.50, SD=0.820). Whereas the overall mean and standard deviation of this subscale was 4.18 and 0.609.

Table 2**Results of Independent Sample t-test on Effectiveness of ARS.**

No	Items	Means	SD
1	ARS is an effective learning instrument for practicing English skills.	4.10	0.845
2	I found ARS useful in improving my reading ability.	4.50	0.820
3	ARS encouraged me to read more reading passages.	4.17	0.874
4	ARS gave greater adaptability to language learning.	4.17	0.791
5	I found the level of the language used in ARS simple and clear.	3.67	1.42
6	I felt comfortable when I used ARS for learning reading.	4.49	0.820
Total		4.18	0.609

Table 3 shows the means and standard deviations of the participants' responses on ARS curriculum and instruction. The highest mean score (M=4.50, SD=0.777) was received on item no 7 which is related to ARS reading topics. The overall mean and standard deviation for this subscale emerged as 4.08 and 0.577.

Table 3

Results of Independent Sample t-test on ARS Curriculum and Instruction.

No	Items	Means	SD
1	I found the ARS reading topics interesting.	4.10	0.923
2	I found the ARS reading exercises more effective than the conventional classroom reading exercises .	4.43	0.728
3	I found the instructions in the ARS to practice activities clear.	3.77	1.04
4	I found the ARS reading activities motivating.	4.17	0.950
5	I found ARS helpful to practice the reading strategies that I learnt earlier .	3.53	1.13
6	I found ARS reading tasks well -integrated .	3.10	1.19
7	I enjoy ed ARS reading topics since they are related to my experience.	4.50	0.777
8	I found the feedback in the ARS program very interesting.	4.47	0.730
Total		4.08	0.577

Table 4 describes the means and standard deviations of all the items in the fourth subscale of the questionnaire. The highest mean score and standard deviation (M=4.63, SD=0.556) was obtained on item no 3 pertaining to ARS develops learners' skimming and scanning skills. The average mean scores and standard deviation for this subscale was 4.10 and 0.436.

Table 4

Independent Sample t-test Results on ARS as a Learning Tool.

No	Items	Means	SD
1	I found ARS reading tasks very effective for enhancing reading comprehension skills.	4.40	0.814
2	ARS help ed me understand the reading passages more effectively .	3.63	0.999
3	ARS help ed me develop my skimming and scanning skills.	4.63	0.556
4	I found it easier to locate the main ideas of the reading texts after using ARS .	4.43	0.728
5	ARS help ed me understand the unstated details of the reading texts.	3.73	1.14
6	ARS help ed me comprehend the meaning of new vocabulary.	4.57	0.626
7	ARS help ed me draw conclusions from reading texts .	3.87	0.73
8	ARS help ed me develop my computer skills for learning a language.	3.73	1.08
9	ARS helped me recognize the sequence of events in the text .	3.50	1.13
10	I believe d that after learning with ARS, I f ound it simpler to learn and practice reading comprehension skills.	4.50	0.861
Total		4.10	.436

Table 5 presents the mean scores and standard deviations of all the items included in the fifth subscale of the questionnaire. There are five items and the highest mean score, and standard deviation is on item no 1 (M= 4.71, SD=0.652). Item no 31 is related to learners' intention to suggest ARS to their friends for learning reading comprehension. The overall mean and standard deviation calculated for this subscale was 4.56 and 0.248.

Table 5**Independent t-test results on Retention of ARS.**

No	Items	Means	SD
1	I like to suggest ARS to my friends for improving reading comprehension.	4.71	0.652
2	I love to use ARS at home.	4.42	0.567
3	I would love to use ARS for learning subjects also .	4.36	0.764
4	I like utilize ARS as a supportive tool to build up my reading proficiency.	4.72	0.522
5	My reading instructor suggested me to carry on ARS.	4.56	0.678
Total		4.55	2.48

Table 6 shows the overall mean score and standard deviation of all the subscales of the attitude questionnaire. As shown in Table 6, the highest mean score (M=4.56, SD=.249) is on the fifth subscale i.e. Retention. The average mean scores ranged between 4.08 and 4.56. The result also shows high degree of mean in all subscales which indicates a strong positive attitude of the participants towards ARS as a learning tool in learning reading.

Table 6**Independent Sample t-Test Results of all the Subscales of the Questionnaire.**

No	Subscal	Means	SD	Degree
1	Interface design of ARS	4.21	0.378	High
2	Effectiveness of ARS	4.18	0.609	High
3	Curriculum and instruction of ARS	4.08	0.577	High
4	ARS as a learning tool	4.10	0.436	High
5	Retension	4.56	0.249	High

High level (3.5-5) Moderate (2.5-3.4) Low (1.2.4)

DISCUSSION

The current study was conducted to explore Saudi undergraduates' attitudes towards ARS as a supportive learning tool in enhancing their reading achievement. Attitude questionnaire; which has five subscales, was administered to the experimental group. Findings of first subscale indicated that most of the participants had positive attitudes towards ARS interface in terms of perceived ease of use, clear, integrated functions, consistency throughout and variety. Subscale two was about effectiveness of ARS in practicing language skills especially reading ability. The third subscale was ARS curriculum and instruction. The highest mean score received by item no 19 which was about the relevance of reading topics to students' learning experiences. The fourth subscale sought participants' attitudes about ARS as a learning tool. It included various reading skills like scanning, skimming, locating main ideas, understanding stated, unstated details and drawing conclusion. Majority of the participants revealed positive attitudes towards ARS as a learning tool for developing reading ability. The last subscale dealt with retention of ARS by students for studying other subjects in the future. Vast number of participants showed readiness to use and recommend ARS to their friends enhancing their language skills. The mean scores of all the variables in the questionnaire ranged between 4.08 and 4.56, which show high degree of motivation (Abuhattab & Yousef, 2017).

The finding of this study was consistent with the study conducted by Al Shebli & Abdulla, (2015). They employed Merit Software to examine its effects on learners' attitudes. The study investigated the effects of four variables and the highest mean score was received by interface design. The result of this study cannot be generalized to all because it was conducted in different social setting employing female students. The study of Chen, (2014) also confirmed that students' attitudes towards technology are influenced by attractive features on the interface design. Moreover, self-directed learning is the factor which can affect learners' attitudes towards the integration of technology Oz (2015). Similarly, ARS instruction is merely self-directed focusing on student-centre approach. In addition, the findings of the present study confirmed the analysis of Schmitt et al. (2018) which utilized two factors; perceived ease of use and perceived usefulness to measure learners' attitudes towards a learning software. Perceived ease of use and perceived usefulness are two dominant factors that could affect learners' attitudes (Davis, 1985). The results of the present study revealed strong positive attitudes of the participants towards ARS as an effective learning tool in learning reading comprehension. In view of the results, it can be concluded that the adoption of any innovative technology depends on learners' positive

attitudes and motivation. Therefore, the factors that affect learners' attitudes should be given due consideration for incorporating technology into EFL classes.

CONCLUSIONS AND RECOMMENDATIONS

In the age of technology advancement, the learners' success in achieving their academic goals to a greater extent is determined by their perception and attitude towards the adoption of effective technology in learning (Rahamat, Shah, Din, & Aziz, 2017). The integration of innovative technology into the process of teaching and learning has greatly influenced the standard of education around the globe (Bulman & Fairlie, 2016). In the EFL or ESL context, the aim of using technology is to assist teachers and learners to find possible ways to boost the quality of learning and teaching in a student-centered learning environment (Englund, Olofsson, & Price, 2017). However, the acceptance and adoption of technology by the users depends on certain factors, namely perceived ease of use, perceived usefulness, availability of hardware, provision of technical support and attitudes toward technology (Bulman & Fairlie, 2016; F. D. Davis, 1989; Teo, Fan, & Du, 2015). The present study used an attitude questionnaire to examine the effects of ARS on learners' attitudes. Findings of the study revealed that the participated students had positive attitudes towards ARS in terms of interface design, effectiveness, curriculum and instruction, as a learning tool and retention. It has been confirmed by many previous studies that attractive interface design elicits positive attitudes of the learners (Abuhattab & Yousef, 2017; Alowayr & McCrindle, 2016; Hong, Tai, Hwang, Kuo, & Chen, 2017). In the present study, majority of the participants admired the integrated features of ARS. They reported that the features of ARS interface are easy to use, understand and the program is consistent throughout. The effectiveness of ARS in enhancing language skills more specifically reading skills was explored in research question 2. The participants responded positively about the level of language used in the ARS instruction, reading topics; simple, clear and understandable. It was also reported on the questionnaire that ARS could be an effective learning tool for learning reading comprehension. Many studies advocated the efficacy of CALL materials on learners' attitudes (Izquierdo, Simard, & Pulido, 2015) therefore, findings of the present study indicated that great number of the participants favoured ARS instruction because of the variety and flexibility of reading topics and learning tasks. Moreover, learners' positive attitudes can be measured on account of their satisfaction with the learning tool they use (Kitchakarn, 2015). This is because of the overall attitude of the learners towards ARS that they were motivated to use

ARS in future for studying other academic subjects. Besides this, they showed positive attitudes towards the last subscale of the questionnaire i.e. retention. In the result of average mean scores of the variables of the study, retention received the highest mean score and standard deviation.

The acceptance or rejection of any new technology in EFL/ESL contexts depends on learners' attitudes. Moreover, the adoption and integration of innovative technology in EFL classroom can assist learners to enhance their language proficiency. The present study attempted to explore Saudi EFL learners' attitude toward the acceptance of ARS as supportive learning tool in developing reading comprehension. The study took male participants from a single college and therefore, it is recommended, that the future researchers should include female participants for more generalized results. The present study utilized ARS for teaching and learning reading skill, thus, it is recommended that other language skills such as listening, writing, speaking and pronunciation should be taught through ARS. In the present study, ARS was used in Saudi public university, to determine its efficacy; it should be used in private universities and schools as well. Based on the findings, the present study outlines useful pedagogical implications for the language instructors intending to integrate technological tools in their teaching practices. First, the integration of ARS in language classes can help teachers to motivate their students achieve their academic goals effectively. Second, teacher can use ARS to develop critical thinking skills of the learners and promote self-directed and individualized mode of learning. Finally, teachers can use ARS as a supportive tool for improving learners' reading comprehension skills for language proficiency.

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