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inferences, and agreeing or disagreeing with the author's point of view skills. Moreover, the most developed main skills were EFL creative comprehension and EFL inferential comprehension. To sum up, the findings of the study indicated that Canvas application is effective for developing some EFL reading comprehension skills.

**Recommendations of the study:**

Based on the findings of the study, the following recommendations could be presented:

- Developers of English language curriculum and teachers should benefit from mobile applications such as Edmodo, Kindle, Newsela, Moodle, etc.,.
- Teaching and learning EFL reading comprehension skills through using Mobile Applications should be emphasized.
- Online and offline instruction should be used.
- Researchers, teachers, and students should be trained to use mobile applications and other technologies in general.

**Suggestions for further research:**

The following areas are suggested for further research:

- 1- Investigating the effectiveness of mobile learning applications in developing other EFL skills among faculty of education students.
- 2- Investigating the effectiveness of mobile learning applications for developing speaking skills among students with special needs.
- 3- Investigating the effectiveness of mobile learning applications for developing English at the commercial, industrial, and agricultural education.
- 4- Investigating the effectiveness of other applications such as Newsela, Socrative, Google Classroom, Class DOJO, Moodle, Quizlet, Khan Academy, Duolingo, Kahoot, Edmodo, Remind, Zoom, Udemy, Epic, Khan Academy Kids, Read Along, etc., in developing other EFL skills such as listening, speaking, and writing and aspects such as vocabulary, grammar, and pronunciation among university and pre-university stages students.

### **Discussion of Results**

The results of the present study revealed the effectiveness of the Canvas application in developing EFL reading comprehension skills. Therefore, it can be concluded that the Canvas application proved to be statistically and educationally significant in developing the participants' overall reading comprehension skills.

Participants' development in overall reading comprehension skills may be due to the characteristics of Canvas application that permit the participants to learn and work on modules at their convenient time and according to their learning pace. They also repeatedly practiced modules to get a satisfying degree. Moreover, the participants reported that their errors decreased because of the immediate and continuous feedback to MCQ or delayed feedback for WH questions that Canvas application presented resulting in an increase in EFL reading comprehension skills.

The researcher introduced several modules that contained several warm-up activities, multimedia (video, PowerPoint), practice activities. Students accessed modules several times for more understanding. It could also be due group work, and discussion between participants through the discussion board of Canvas app. The development could be due to the use of some other apps such as Microsoft Office 365, PowToon, PDF, and recorder to deliver explanation of the EFL reading comprehension skills. The researcher held meetings using Microsoft Office 365 Teams app and created PDF files with clues concerning the skills.

Nonetheless, some students reported that they found difficulty in moving the pages up and down to answer the question concerning the summarizing and identifying the point of view of the author skills. They explained that due to the small screen of mobile devices, it was difficult to go back and forth from the passage to the summarizing question. They also reported that this was time consuming and exhausting to the eyes. They also added that they enjoyed the module that explains the identifying the point of view of the author skill, however, they preferred if it was a paper and pen question. By the end of the program, the participants reported that they have benefited from the application.

In sum, the participants performed well on the post-test in the skimming the text for general information, determining stated information in the text, making predictions and envisioning outcomes or results, inferring the relationship between ideas and sentences, making

**Table 5**

*Findings of the “t” test and  $\eta^2$  between the mean scores of the participants in the pre and post-test of the EFL application reading comprehension sub-skill*

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
Use gained information from the text or the hypertext to solve problems	Pre	30	1.37	0.72	7.93	29	0.01	0.68
	Post	30	3.17	0.75				
EFL Application comprehension	Pre	30	1.37	0.72	7.93	29	0.01	0.68
	Post	<b>30</b>	<b>3.17</b>	<b>0.75</b>				

Table (5) shows that there is a statistically significant difference between the mean score of the participants in the pre-test and post-test in favor of the post-test in EFL application comprehension skills. Therefore, the fourth hypothesis was verified.

#### ***Findings of the Sixth Hypothesis***

To validate the sixth hypothesis, i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in EFL creative comprehension skills”, the mean scores, standard deviations, the t-test, and  $\eta^2$  were calculated.

**Table 6**

*Findings of the “t” test and  $\eta^2$  between the mean scores of the participants in the pre and post-test of the EFL creative reading comprehension sub-skills*

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
Suggest different solutions for a problem	Pre	30	1.50	0.63	11.13	29	0.01	0.81
	Post	30	3.20	0.85				
Suggest different titles for the text	Pre	30	1.77	0.86	8.35	29	0.01	0.70
	Post	30	3.43	0.77				
EFL Creative Comprehension	Pre	30	3.27	1.23	23.32	29	0.01	0.94
	Post	<b>30</b>	<b>13.27</b>	<b>2.38</b>				

Table (6) shows that “There is a statistically significant difference between the mean scores of the participants in the pre and post-test in EFL creative comprehension skills”. The difference is in favor of the post-test at significance level (0.01). Hence, the fifth hypothesis was verified.

### ***Findings of the Fourth Hypothesis***

In order to check the validity of the fourth hypothesis, i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in EFL critical comprehension skills” the mean scores, standard deviations and the t-test in addition to  $\eta^2$  were calculated.

**Table 4**

*Findings of the “t” test and  $\eta^2$  between the mean scores of the participants in the pre and post-test of the EFL critical reading comprehension sub-skills*

Skills	Test	No .	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
Form a justified personal point of view or opinions	Pre	30	0.90	0.48	9.28	29	0.01	0.74
	Post	30	1.77	0.43				
Agree or disagree with the author’s point of view	Pre	30	0.97	0.96	13.00	29	0.01	0.85
	Post	30	1.90	0.31				
Identify the point of view and opinion of the author	Pre	30	1.77	0.81	1.00	29	0.32	0.03
	Post	30	1.87	0.73				
Judge credibility of the text	Pre	30	0.47	0.51	10.03	29	0.01	0.77
	Post	30	1.73	0.45				
EFL Critical Comprehension	Pre	30	4.67	1..32	20.71	29	0.01	0.93
	Post	30	9.83	1.49				

Table (4) indicates that the mean score of the post-test is higher than that of the pre-test in the EFL critical comprehension. The “t” value is (20.71) which is significant at (0.01).Table (4) also indicates that there is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the mean scores of the participants in the pre and post-test for all EFL critical comprehension sub-skills of the EFL reading comprehension skills test in favor of the post-test scores except for identifying the point of view of the author skill.

### ***Findings of the Fifth Hypothesis***

To verify the fifth hypothesis, i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in EFL application comprehension skills”, the mean score, standard deviations, the t-test, and  $\eta^2$  were calculated.

**Table 3**

*Findings of the “t” test and  $\eta^2$  between the mean scores of the participants in the pre and post-test of the EFL inferential reading comprehension sub-skills*

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
Identify the meaning of unfamiliar words from the context	Pre	30	1.23	0.82	4.13	29	0.01	0.37
	Post	30	1.90	0.31				
Draw conclusions	Pre	30	0.97	0.96	4.07	29	0.01	0.36
	Post	30	1.83	0.46				
Make predictions and envisioning outcomes or results	Pre	30	1.37	0.67	12.47	29	0.01	0.84
	Post	30	3.50	0.68				
Identify the tone of the author	Pre	30	0.77	0.73	6.66	29	0.01	0.60
	Post	30	1.80	0.41				
Identify the purpose of the author	Pre	30	0.83	0.75	5.95	29	0.01	0.55
	Post	30	1.80	0.41				
Differentiate between opinions and facts.	Pre	30	0.97	1.00	4.96	29	0.01	0.45
	Post	30	1.87	0.35				
Summarize	Pre	30	1.60	0.67	0.81	29	0.42	0.02
	Post	30	1.67	0.66				
Make inferences	Pre	30	1.03	0.85	10.87	29	0.01	0.80
	Post	30	3.30	0.79				
Understand implicit information and ideas	Pre	30	1.13	0.90	4.04	29	0.01	0.36
	Post	30	1.90	0.31				
Infer the relationship between ideas and sentences	Pre	30	0.50	0.68	8.96	29	0.01	0.73
	Post	30	1.80	0.48				
Identify overall organizational patterns	Pre	30	0.97	0.96	4.73	29	0.01	0.43
	Post	30	1.90	0.31				
EFL Inferential Comprehension	Pre	30	11.37	2.37	21.33	29	0.01	0.94
	Post	30	23.27	1.51				

Table (3) indicates that the mean scores of the post test is higher than that of the pre-test in the EFL inferential comprehension. The “t” value is (21.33) which is significant at the (0.01). Table (3) indicates that there is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the mean scores of the participants in the pre and post-test for all EFL inferential comprehension sub-skills of the EFL reading comprehension skills test in favor of the post-test scores except for the summarizing skill.

**Table 2**

*Findings of the “t” test and  $\eta^2$  between the mean scores of the participants in the pre and post-test of the EFL literal reading comprehension sub-skills*

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
Identify main ideas	Pre	30	1.37	0.67	3.29	29	0.01	0.27
	Post	30	1.83	0.38				
Identify supporting details	Pre	30	0.90	0.96	5.12	29	0.01	0.47
	Post	30	1.87	0.35				
Determine stated information in the text	Pre	30	0.87	0.78	7.44	29	0.01	0.65
	Post	30	1.93	0.25				
Determine sequence of events	Pre	30	1.10	0.99	3.92	29	0.01	0.34
	Post	30	1.87	0.43				
Scan the text for specific information	Pre	30	1.17	0.91	3.67	29	0.01	0.31
	Post	30	1.83	0.38				
Skim the text for general information	Pre	30	0.67	0.80	7.87	29	0.01	0.68
	Post	30	1.90	0.31				
EFL Literal Comprehension	Pre	30	6.07	2.19	12.12	29	0.01	0.83
	Post	30	11.23	0.77				

Thus, table (2) indicates that the mean score of the post-test is higher than that of the pre-test in the EFL literal comprehension. The “t” value is (12.12) which is significant at the (0.01). Table (2) also shows that there were significant differences between the mean scores of the participants in the pre and post-test in favor of the post-test in all EFL literal comprehension sub-skills. In addition  $\eta^2$  values ranged from moderate to high showing the effect of the use of Canvas app on EFL literal comprehension sub-skills. Therefore, the second hypothesis was supported.

### ***Findings of the Third Hypothesis***

To verify the third hypothesis, i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in EFL inferential comprehension skills”, the mean scores, standard deviations and the t-test in addition to  $\eta^2$  were calculated.

### Findings and Discussion of the Study

The overall aim of using Canvas Applications was to develop EFL reading comprehension skills for second year students in the English Section at the Faculty of Education, Benha University. The findings of the study will be presented in relation to the hypotheses of the study.

#### *Findings of the First Hypothesis*

To verify the first hypothesis i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in the overall EFL reading comprehension skills test”, the t-test was used to compare the mean scores of the participants in EFL reading comprehension skills test as a whole in the pre and post-test. In addition  $\eta^2$  was calculated.. Table (1) presents the students' mean scores, standard deviation-value, and the level of the significance of the participants in the pre and post-test of the EFL reading comprehension skills test.

**Table 1**

*Findings of the t-test between pre-testing and post-testing in favor of the post-test in overall EFL reading comprehension skills*

Skills	Test	No.	Mean	Std. Deviation	t-value	DF	A Sig	$\eta^2$
<b>EFL Reading comprehension</b>	Pre	30	26.73	4.48	29.72	29	0.01	0.96
	Post	30	60.77	3.95				

This table indicates that the mean score in the post-test of the overall EFL reading comprehension skills test (60.77) was higher than the mean score of the pre-test (26.73), where the t-value was (29.72), which is significant at the 0.01 level. In addition,  $\eta^2$  reached (0.96) which shows high effectiveness of the Canvas app on developing EFL reading comprehension skills. Thus, the main hypothesis was confirmed.

#### *Findings of the Second Hypothesis*

In order to verify the second hypothesis, i.e., “There is a statistically significant difference between the mean scores of the participants in the pre and post-test of EFL reading comprehension skills in favor of the post-test in EFL literal comprehension skills”, t-test, mean scores, t-value and effect size ( $2\eta$ ) were calculated.

modules ended with a discussion on the discussion board of the app or more activities and quizzes.

In addition, other mobile applications were used such as PowToon, Recorder, Microsoft Office 365 apps, Facebook, and YouTube. Several teaching strategies were used such as brain storming, explicit teaching, eliciting, discussion, review, scaffolding, group work, individual work, and modelling. The researcher adopted Churchill's, Fox's, and King's (2016) proposed framework (RASE), that consists of circular four elements: resources, activity, support and evaluation, for creating and presenting modules.

The researcher used in Canvas application both formative and summative evaluation. Formative Assessment was used for assessing the progress of the participants in EFL reading comprehension skills and for providing immediate feedback. The online activities and quizzes provided the present study researcher with the sufficient information about the progress of the participants and development in EFL reading comprehension skills.

Summative Assessment was administrated at the end of the treatment through the application of the EFL reading comprehension skills test to measure the achievement of the participants.

### **Data Collection**

The Following procedures were conducted in the present study.

#### ***Pre-testing***

The study participants were pre-tested using the EFL reading comprehension skills test to measure their level in EFL reading comprehension skills before using Canvas application. The participants' answers were analyzed and scored.

#### ***Treatment***

After pre-testing, the study participants (N=30) were taught using Canvas app following the teachers' guide prepared by the researcher. The treatment lasted for nine weeks with two sessions per week. Each session presented specific skills to be dealt with, and the time allocated for each session is according to students' own pace.

#### ***Post-testing***

The participants were post-tested to investigate the effectiveness of the Canvas application. This was conducted online due to covid-19 third wave and the precautions that prevented the participants from being present in one place.

which is familiar and of interest to the learners, is at the appropriate language level, and authentic for pedagogic purposes.

#### ***The Validity of the EFL Reading Comprehension Skills Test***

To validate the EFL reading comprehension skills test, it was submitted to number jury members specialized in curricula and methods of teaching English. They were requested to judge whether the test items were clear and appropriate to the study sample (second year English Section students at Benha Faculty of Education) and whether the test items measure the EFL reading comprehension skills that they are supposed to measure. They indicated the suitability of the test to its main objectives and the consistency of questions to the test's objectives. The jury members suggested some modifications concerning rephrasing some items and the researcher has taken them into consideration to get the final form of the test.

#### ***The Reliability of The EFL Reading Comprehension Skills Test***

To estimate the reliability of The EFL reading comprehension skills test, the following two methods were used: Alpha Cronbach method and Test re-test method. The correlation coefficient of Alpha Cronbach was (0.90) which is a high value. The correlation coefficient of the test re-test method reached (0.93) which is high showing high reliability of the test.

#### **A Teacher's Guide for Using Canvas Application for developing EFL Reading Comprehension Skills**

A teacher's guide was prepared to give a detailed description of how to use Canvas application. At the introductory session, the objectives, importance, and characteristics of the treatment were presented to the study sample. The guide included 18 sessions presented in the form of modules. The researcher set about creating the content for each of the 18 modules. These modules represent the 24 sub-skills of the main five skills of EFL reading comprehension. The core of the course was built in 18 learning modules. The final course site (<https://canvas.instructure.com/courses/2389305>) was then designed and made available to the participants. Each module consisted of four items. The first item contained a warm-up activity. The second item contained a PowerPoint presentation, PDF file, animated self-made video, recording, and an embedded link to a Teams meeting in which an explanation of the skills was presented. The third item was tasks and activities. Then the

- An EFL reading comprehension skills pre-posttest prepared by the researcher and a rubric to score it.
- A teacher's guide describes how to use Canvas app in developing EFL reading comprehension skills.

### **The EFL Reading Comprehension Skills Checklist**

#### ***Purpose***

The researcher prepared a list of EFL reading comprehension skills to identify the necessary reading comprehension skills for the second-year English Language Section students at the Faculty of Education, Benha University who study reading as a specialized course.

#### ***Description***

The EFL reading comprehension skills checklist consisted of five main levels. The first level, literal comprehension, included 6 sub-skills. The second level, inferential comprehension, included 11 sub-skills. The third level, critical comprehension, included 4 sub skills. The fourth level, application comprehension, included 1 sub skills, whereas the fifth level, creative comprehension, included 2 sub-skills. The total number is 24 sub-skills

#### ***Sources***

The sources of EFL reading comprehension skills checklist, main and subskills, were:

- Review of literature
- Related studies
- National Academic Reference Standards (NARS)
- Program specification

### **The EFL Reading Comprehension Skills Test**

#### ***Purpose of the Test***

The EFL reading comprehension skills test was used as a pre-posttest to identify the level of second-year students enrolled at the English Language Section at the Faculty of Education, Benha University in the EFL reading comprehension skills and to identify the effectiveness of Canvas applications in developing EFL reading comprehension.

#### ***Description of the test***

The EFL reading comprehension skills test consisted of two passages, selected from the web page <https://www.myenglishpages.com>. The test included 24 questions, 15 MCQs and 9 WH questions; one question for each sub-skill. The passages were selected according to Murray's and Christison's (2011) criteria. They presented content

Application in developing EFL reading comprehension skills among second year students at the Faculty of Education, Benha University.

### **Questions of the Study**

To investigate this problem, the present study attempted to answer the following questions:

1. What are the EFL reading comprehension skills required for second year students at the Faculty of Education, Benha University?
2. How can Canvas application be used for developing EFL reading comprehension skills among second year students at the Faculty of Education, Benha University?
3. What is the effectiveness of using Canvas application in developing EFL reading comprehension skills among second year students at the Faculty of Education, Benha University?

### **Delimitations of the Study**

The present study was delimited to:

1. Thirty second year students enrolled at the English section at the Faculty of Education, Benha University at the first term of the academic year 2020/2021.
2. Five main levels of EFL reading comprehension skills including 24 sub-skills required for second year students enrolled at the English section Faculty of Education, Benha University.
3. Eight mobile applications for content creation and delivery (Canvas, Recorder, PDF, Microsoft Office 365 apps, PowToon, Facebook, YouTube, Meriam Webster Dictionary).

### **Method**

#### **Design of the study**

The present study followed the pre-post, one experimental group design.

#### **Participants of the study**

The participants were 30 second year students enrolled at the English section at Faculty of Education, Benha University at the first semester of 2020-2021 academic year.

#### **Instruments and materials of the study**

The following instruments and materials were prepared and used to achieve the aims of the study.

- An EFL reading comprehension skills checklist prepared by the researcher.

context, renew their linguistic knowledge continually, and express the content of various texts and their meaning in their voice. They also should use grammar and rhetoric in understanding and writing text and understand content of various texts and the bases of their organization.

Despite the importance of EFL reading comprehension skills, there is a lack in them among second year students at Faculty of Education, Benha University. Many researchers investigated the weakness of reading comprehension skills among students in all stages. Previous studies concerning the Egyptian context indicated that the Egyptian students have poor mastery of reading comprehension skills (Zaza, 2001; Shehata, 2006; Ramadan, 2009; El-Garawany, 2010; Helwa, 2010; Mahmoud, 2010; Helmy, 2012; Hasan, 2013; Soliman, 2014; Sayed, 2017). These studies revealed the lack in EFL reading comprehension skills among university students.

To document the problem of the present study, the researcher conducted a pilot study. The participants consisted of a random (30) EFL second year students at Faculty of Education, Benha University, at the beginning of the first term of academic year 2018/2019. The researcher used an EFL reading comprehension skills test prepared by Salameh (2008). The result of the pilot study revealed that the level of most of the students is low in reading comprehension skills. Moreover, the pilot study revealed that two students got more than 60% of the score while 28 got below 60%.

To sum up, second year students experience a gap in moving from the comparatively simple, short, adapted, direct and varied texts at secondary stage to the authentic, long, complex texts that they face at college. Second year students enrolled in the English section Faculty of Education, Benha University lack EFL reading comprehension skills. So, the researcher suggests using Canvas Application for developing their EFL reading comprehension skills.

### **Statement of the Problem**

Despite the importance of the EFL reading comprehension skills and the need for enhancing them among second year students at Faculty of Education, they seem to lack these skills. Thus, there is a need for an effective application for developing some EFL reading comprehension skills among second year students at the Faculty of Education. So, the following study aimed at examining the effectiveness of using Canvas

applications are a software application that is intended to run on mobile devices such as iPhones, tablets, etc.. Mobile apps have some categories such as gaming, entertainment, and education. Furthermore, the extensive usage of mobile devices has resulted in plethora of mobile applications for English language instruction. Language learners can download a variety of applications through the internet's accessibility.

After reviewing various applications, Canvas LMS app has been selected for the study as it is free easy to use app. Canvas app is a platform which can be used by different types and sizes of educational institutions with a fully virtual learning or blended environment. It provides educators with tools that allow them to customize courses, monitor engagement with classes or individual students, author course content, customize student assessments, have gradebooks, have mobile communication, etc.,. Canvas app follows a logical organizational structure (modules and sub-module items) and includes a powerful internal quiz application. This quiz application allows for assessments to be designed for each module that can provide immediate feedback for incorrect answers. Moreover, it simultaneously grades and sends results back to both the instructor and the learner, allowing for real-time updates on course progress (Canvas, 2020).

### **Context of the Problem**

Examining the specification of English Language Teacher Education Program at Benha University, Faculty of Education, showed that 10 theoretical hours and two practical hours were allocated from a total of 218 hours for the development of reading and creative writing skills distributed over a total of four courses throughout the four study years. The English Language Teacher Education reading courses aim to enhance students' silent and oral EFL reading comprehension, help students develop learning strategies necessary for reading comprehension, and train student teachers on skills necessary for using dictionaries.

Besides, examining the National Academic Reference Standards (NARS) (2013) revealed that it focused on reading skills as a basic skill in the EFL Teacher Preparation Program. NARS noted that English section, Faculty of Education graduates must understand author's aim, analyze and criticize texts to elicit implicit meaning, identify main idea and detailed ideas, and explain the relationship between concepts and linguistic knowledge. In addition graduate should derive meaning from

To McQuiggan, Kosturko, McQuiggan, and Sabourin (2015), it is anywhere, anytime learning which is identified by its on-demand and instant access to various resources and tools that is used for generating knowledge, collaborating with other individuals, satisfying curiosities, and sustaining impossible experiences. Therefore, ML is considered a learning experience that uses mobile devices or technologies to support, facilitate and enhance the process of learning anywhere anytime through learners' personal, portable, and wireless devices.

Mobile learning offers several advantages to educators including using mobile devices for reporting attendance, reviewing students' marks, accessing school data, managing their schedules effectively, providing course material to students, including due dates for assignments and information (Naismith et al., 2004). Moreover, it is more informal as it embeds learning in daily life and can occur outside the classroom (Arreymbi, Agbor, & Dastbaz, 2008; Naismith, Sharples, & Vavolua, 2004). Mobile devices offer several m-learning opportunities through voice capabilities, video clips, audio clips, global positioning systems (GPS), short message system (SMS), Internet browsing, file transfers, cameras, and Bluetooth.

ML technologies include e-readers, tablets, smartphone, handheld computers, MP3 players, notebooks and mobile phones. Pegrum (2014) explained that mobile devices and their apps provide excellent opportunities for comprehensive reading, making it possible to access and engage in the content of e-books and e-magazines. Learners can read general web content on any internet-connected device. Furthermore, intensive reading on mobile devices with the support of scaffolding features, which also assist with vocabulary and grammar, has the potential to transform texts into comprehensible and understandable input. This may include built-in dictionaries and translation applications, as well as the traditional pre- and post-reading activities. Budiharso (2014) and Munzur (2017) added that teachers need to assist students in employing various reading strategies to be prepared for the technological changes in reading, as they encounter informal texts followed by videos or images, hypertexts, and other formats such as audiobooks and e-books.

Apps are the abbreviation of the phrase "application software". It can be downloaded from "app stores such as BlackBerry App World, Google Play, App Store, and Windows Phone Store". Mobile

1. Integrate reading skill instruction with both extensive practice and exposure to print text.
2. Use interesting, varied, attractive, abundant and accessible reading resources.
3. Provide students with some degree of choice in selecting topics.
4. Introduce reading skills first by drawing on the passages in textbooks.
5. Connect students' background knowledge to textbook readings.
6. Structure lessons around pre-reading, during-reading and post-reading tasks
7. Provide students with opportunities to experience success of comprehension.
8. Plan instruction around a curricular structure that includes goals for improving reading abilities.

There are a number of various different interventions that proved to improve EFL reading comprehension skills such as technology-based instruction, internet, etc.,. Technology has been used to improve English language learning. It enables teachers to adjust classroom activities, thus enhancing the process of English language learning. Technology's importance will continue to grow as a tool to facilitate English language learning. An example of technology is Canvas application.

Traditional learning emphasizes face to face interaction which restricts students to a specific location and time; e-learning widens students' horizons through the internet or the intranet in the campus whereas mobile learning frees them from time and space. Moreover, technology enables learners to perform authentic activities and tasks that promote their learning, retention and use of delivered techniques on frequent basis. One of the most attractive technologies is mobile technology that represents an educational revolutionary approach. Mobile/smartphone apps fall under the umbrella of Mobile Assisted Language Learning (MALL) or m-learning/ML which is derived from Computer Assisted Language Learning (CALL) (Jones,2011; Kim & Kwon, 2012; Yang, 2013). M-Learning is a subset of e-Learning which uses wireless, portable and handheld technologies such as laptops, smartphones and other wireless computing devices to provide learning experience in more dynamic environments.

Pandey and Singh (2015:111) defined ML as "the ability to obtain or provide educational content on personal pocket devices such as personal digital assistants (PDAs), smart phones, and mobile phones."

Reading comprehension includes five main levels: literal comprehension, inferential comprehension, critical comprehension, application comprehension, and creative comprehension (Brassell&Rasinski, 2008; Griffith, Beach, Ruan& Dunn, 2008; Jones, 2010). The literal level is considered the lowest level of reading comprehension. It requires the students' ability to recall or retell information that is stated in a text. Kaplan and McCune (2011) listed some subskills of this level: identifying main ideas and supporting details, determining events sequence, and understanding explicitly stated opinions and facts.

The inferential level empowers the ability of readers to understand implied or inferred information within a text. It includes information manipulation from both the text and the readers' information. Moreover, Kaplan and McCune (2011) presented some sub-skills of this level such as understanding implicit information, drawing conclusions and inferences, making predictions, recognizing the author's purpose, tone, bias, understanding the difference between opinions and facts, and inferring relations.

Moreover, the critical level includes critical or evaluative comprehension. It requires making critical judgments about the information in the text. It requires a high level of interaction between the reader, text information and other readers or other texts. Moreover, both in-depth analysis and critical thinking are required when making critical judgment and evaluations, critical thinking and in-depth analysis are needed. Students must depend on their background knowledge, personality, and interest to answer questions concerning this level (Brassell&Rasinski, 2008; Griffith, Beach, Ruan& Dunn, 2008; Jones, 2010).

The application level links texts to the readers' experiences and knowledge within these texts. In addition, the readers use the gained information or knowledge in solving problems. On the other hand, the creative level or appreciation level expects the readers to recognize the literary techniques, styles, forms along with language uses that the author uses to arouse readers' emotions towards and identification with both incidents and characters (Griffith, Beach, Ruan& Dunn, 2008).

Grabe and Stoller (2011) explained nine curricular principles for teaching reading. Teachers should:

## **Introduction**

Reading is one of the most important skills that students need to master. With the help of environmental and cognitive growth during adolescence, students can quickly learn listening and speaking skills in a language. Humans have been talking and communicating for at least 100,000 years. Humans, on the other hand, do not have a natural ability to read; they must be trained by others because their brains are not programmed to read (Conner & Weston, 2016; Grabe & Stoller, 2020). Reading is a human invention dated from 3500 to 5000 years ago prior to the invention of writing (Jennings, 1982; Campbell, 2013).

Cartwright, Hodgkiss, and Isaac (2008), Pardede (2008), The National Assessment Governing Board (2008) and Olmez (2016) described reading as a complicated cognitive skill that includes several processes: understanding, using, developing and interpreting meaning in a written text according to the text's type, situation and purpose. It entails linguistic, logical, and perceptual activities, among other mental orchestrated processes.

Grabe and Stoller (2020) defined reading as the ability of learners to get and interpret meaning from a text. Moreover, Taylor and MacKenney (2008) explained reading as a process which is unique, dynamic, and complicated for students that requires their engagement and mental interaction to create and generate meaning. As a result, the text is not the only source for comprehension any longer. Students use both their schema (background knowledge) and mental interactions with the text to construct and create meaning which may lead to successful comprehension.

Reading comprehension is an active process through which readers construct meaning to create an in-depth understanding of presented concepts and information within a text (Westood, 2008). To Cain (2010), reading comprehension is the retrieval of individual words' meaning, combination of clauses to make and create sentences, and the construction of meaning from ensuing sentences and paragraphs. To Woolley (2011) and Cartwright (2015), it is the process through which readers extract and construct meaning simultaneously through interaction and engagement with texts. Reading comprehension is readers' ability to process texts, understand their meaning, and to integrate with what they already know.

## المستخلص باللغة العربية

هدف هذا البحث إلى التعرف على فاعلية استخدام تطبيق Canvas في تنمية مهارات الفهم القرائي في اللغة الانجليزية كلغة أجنبية لدى طلاب الفرقة الثانية شعبة اللغة الانجليزية بكلية التربية جامعة بنها. لقد تم استخدام التصميم التجريبي ذو المجموعة الواحدة (قبلي بعدي) و لقد بلغت عينة الدراسة ثلاثين طالبا تم اختيارهم عشوائياً من طلاب الفرقة الثانية المقيدون بشعبة اللغة الإنجليزية بكلية التربية بنها. شملت أدوات الدراسة: قائمة بالمهارات اللازمة لهؤلاء الطلاب مقسمة إلى خمس مستويات رئيسية و ٢٤ مهارة فرعية واختبار قبلي بعدي لقياس مهارات الفهم القرائي لدي العينة. تم تطبيق اختبار الفهم القرائي للغة الإنجليزية كلغة أجنبية قبلها على المشاركين ثم التدريس لهم باستخدام تطبيق Canvas. بعد ذلك، تم تطبيق الاختبار بعدياً لقياس مدى التقدم في مستوى أدائهم. تم إجراء الدراسة في الفصل الدراسي الأول من العام ٢٠٢٠/٢٠٢١. وقد كشفت النتائج أن مهارات الفهم القرائي للغة الإنجليزية كلغة أجنبية تم تنميتها باستخدام تطبيق Canvas. و أكدت النتائج فاعلية استخدام تطبيق Canvas في تنمية بعض مهارات الفهم القرائي للغة الإنجليزية كلغة أجنبية لدى طلاب الفرقة الثانية في شعبة اللغة الإنجليزية بكلية التربية.

**كلمات مفتاحية:** التعلم النقال، تطبيق Canvas، مهارات الفهم القرائي باللغة الانجليزية كلغة اجنبية.

## **Using Canvas Application for Developing EFL Reading Comprehension Skills Among Students at Faculty of Education**

**By Nourhan Ashraf Mohammed Mohammed Alnahhas**

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### **Abstract**

The present study investigated the effectiveness of Canvas application in developing some EFL reading comprehension skills among Faculty of Education students. The design of the study was pre-post one experimental group design. The study sample consisted of 30 students selected from second year students enrolled at the English section at Faculty of Education, Benha University. The instruments of the study were: an EFL reading comprehension skills checklist included five main skills and 24 sub-skills, an EFL reading comprehension skills pre-posttest and a rubric for scoring it. The EFL reading comprehension skills test was administrated to the participants then they were taught using Canvas application. After that, they were post-tested using the EFL reading comprehension skills test. The study was implemented in the first semester of the year 2020/2021. The findings of the study revealed that EFL reading comprehension skills were developed due to the use of Canvas application. The results confirmed the effectiveness of using Canvas application for developing some EFL reading comprehension skills among second year students enrolled at English section Faculty of Education.

**Key words:** Mobile learning – Canvas application – EFL reading comprehension skills





# **Using Canvas Application for Developing EFL Reading Comprehension Skills Among Students at Faculty of Education**

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