The Effect of an E-Formative Assessment based Program on Enhancing EFL Primary Stage pupils' Reading Comprehension and their Motivation

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Abstract

The present study aimed at investigating the effect of using E-formative assessment based program on improving primary stage pupils' reading comprehension skills and their motivation towards reading comprehension. The targeted reading subskills were (skimming for general ideas – scanning for specific information – guessing the meaning of unfamiliar words from context - making inferences – expressing opinions- sequencing of events). The study adopted the quasi-experimental design using thirty two 6th year primary stage pupils as the study participants. They were divided into two groups: an experimental group received the E-formative assessment treatment and a control group received the regular classroom activities. Instruments designed by the researcher and used in the study were an EFL reading comprehension skills test , reading comprehension skills questionnaire and a reading motivation scale. The experimental treatment was conducted during the first semester in the academic year 2022/2023. Results showed that the experimental group outperformed the control group both in reading comprehension and motivation due to the experimental treatment. These results indicated that the E-formative assessment led to developing pupils' EFL reading comprehension skills and motivation in English language. It was recommended that E-formative assessment through Nearpod should be used in EFL teaching to enhance reading comprehension skills and other language skills.

Keywords: E-formative assessment, EFL reading comprehension skills, Motivation, Primary pupils.

Introduction and Overview

Reading is the foundation of instruction in all aspects of language learning." Furthermore, reading is important not just for skill development but also for broader learning, success in education, career, and social life Oakhill et.al, (2015). Reading for foreign language students according to Alderson (1984),is responsible for academic studies, professional success,

and personal growth. In the same vein, Rivers (1981: 259) indicated that "reading is the most important activity."

AlQahtani (2015) mentioned that vocabulary learning is an important element of learning a foreign language that is frequently emphasized, whether in books or in classrooms. It is also essential for language learners and is important to language teaching. According to recent study, teaching vocabulary may be difficult because many teachers are unsure of best practices in vocabulary teaching and, at times, don't know where to begin to develop an instructional emphasis on word learning Berne & Blachowicz, (2008). All of this is related to elementary school students' low reading motivation. One of the most essential aspects influencing language learning is motivation. Reading motivation is one of the most significant characteristics that receives special attention in foreign language teaching.

Pachtman and Wilson (2006) asserted that it is critical to engage students to read by providing them with opportunities to choose items of interest to them. In other words, when readers are allowed to choose their reading materials, they are more likely to read because they must learn that reading is an enjoyable activity. According to Hairul, Ahmadi, and Pourhosein (2012), reading motivation is the large amount of motivation that students have to concentrate their positive or negative opinions about reading. For instance, learners who read for pleasure and employing approaches to help their comprehension are extremely motivated readers. Learners of this kind often regard reading to be an important part of their daily activities, accept obstacles in the reading process, and are likely to be effective readers.

The benefits of technology cannot be ignored, and new technological applications enter into our life almost every day. In this regard, the employment of technological devices in the field of education for efficient teaching and learning is unavoidable. Information and communication technologies become indispensable due to being used in various fields of study. In recent years, as in many fields, technology has become more widely employed in education, and steps have been taken to effectively benefit from technology in all aspects of education (Çiftçi, et al., 2013). Many educators, teachers, and researchers regard the use of technology as an indicator of a high-quality education (akr, & Yldrm, 2009). There are numerous websites and software applications utilized in the learning and teaching process, which assists instructors in drawing students' attention to the topic being taught in the classroom.

Learner engagement is essential during the learning process since unengaged students do not listen or participate in learning activities (Terrion & Aceti, 2012). In this instance, related technologies help to improve teaching and learning motivation. Smart boards, tablets, cellphones, computers, projectors, and other technology are available in today's classrooms to motivate students. It is simple to combine all of these devices using software, and they all of them provide a wide range of various modalities for instructors to engage students in the topic being taught (Dervan, 2014). Integrating smartphones with other classroom devices improves individual and group learning results along with allowing for more interactive discussions among pupils (Duncan et al., 2012).

Reading comprehension skills

Aarnoutse & Schellings (2003) mentioned that reading comprehension is the process of creating a text's meaning . The interplay between the reader's knowledge, skills, and motivation and the text, which has a specific goal, structure, and degree of difficulty, produces this meaning. Beside, Pang"et al." (2003) mentioned that reading involves comprehending written materials. It is a difficult task that calls for both perception and thought. Word recognition and comprehension are two connected reading processes. Word recognition refers to the process of perceiving how written symbols correspond to one's spoken language.

Kirby (2007) noted that reading comprehension is the use of a skill that developed for another purpose (such as oral or listening comprehension) with a new type of input (text). Our brains have not evolved to be capable of reading comprehension, in contrast to listening comprehension. Whereas oral comprehension seems to develop "naturally" with minimal deliberate intervention, reading comprehension is more challenging and requires deliberate instruction. Reading comprehension has only been practiced for 5,000 years, and for most of that time the majority of humans did not do. It should not be surprising that reading comprehension is difficult.

There are numbers of challenges that face students reading comprehension. According to Graham &Bellert (2004) . Lynch (2020) argued that these challenges are difficulties in recognizing and applying background knowledge, poor decoding and word recognition skills, limited vocabulary knowledge, underdeveloped reading fluency, a less-than-strategic approach to comprehension, including the use of ineffective or inefficient strategies, and limited understandings of common text structures. Furthermore, there are some reading challenges among EFL learners, such

as showing no interest in reading, avoiding reading, and writing, which is one of the most basic indications of a reading comprehension problem. Much of this avoidance is caused by a lack of self-confidence in pupils who do have a problem.

Gözüküçük & Günbaş (2020) investigated the effect of computer-based reading texts on support fourth graders' reading comprehension. In an experimental research design, elementary school fourth grade students (n = 60) were randomly assigned to either computer-based reading. The results indicated that the computer-based group had significantly better posttest scores than the traditional group had and had significantly better improvement from pretest to posttest. However, there was no significant difference between students' reading comprehension results from pretest to posttest in the traditional group. As a result, presenting students with multimedia-supported reading activities had a positive effect on their reading comprehension.

Motivation

Thohir (2017) defined Motivation as "some kind of internal drive which pushes someone to do things in order to achieve something" Motivation is best described as a complex and critical component responsible for "why people decide to do something, how long they are willing to sustain the activity, and how hard they are going to pursue it."

According to Filgona & Okoronka (2020), There are several definitions of motivation. Motivation has been related to the amount of intellectual energy typically used in learning activities, and this led to a belief that motivation could be seen as a stable characteristic of the individual. Motivation is what causes a person wants to know, act, understand, believe or gain particular skills. Motivation can also be defined as the drive to satisfy the individual's need e.g., a learner who wants to learn how to read and count so that he/she won't be cheated when s/he goes out shopping. Other scholars have also defined motivation in several ways. The existence of this variety of definitions shows the difficulty in describing motivation and its role in the process of learning.

Pachina (2020) mentioned that motivation is very important in teaching foreign languages, especially the English language. The teacher plays an important role in motivating students especially in the foreign language classroom. Also, he suggested some of the strategies that teachers can apply in the EFL classroom to motivate students to develop a positive learning attitude. These strategies as following. Teachers should establish a good rapport with students by welcoming them, remembering their names,

and smiling at them during the teaching process. Also, create a pleasant and supportive classroom atmosphere by bringing humor that relates to the material to make students feel comfortable and happy, and serious but relaxes.

Ahmed (2016) investigated the effectiveness of motivation in developing EFL reading comprehending. It focuses on reading comprehension because it is the most essential of all four skills in English as a foreign language (EFL). The participants are university teachers of English language and undergraduate English language students at Blue Nile University in Sudan. The researcher used the descriptive analytical approach because it is suitable for such studies. The data of this study collected by means of questionnaire and tests. This study leads to the findings that there are: Motivational strategies improve EFL learners' intrinsic motivation to read, motivation and attitudes influence EFL learners' reading comprehension skills, and various reading comprehension teaching techniques help in comprehending English texts.

Assary (2021) examined the correlation between students' motivation in online learning and their reading comprehension of the eighth graders. In this study, the researcher used quantitative method. This research applied correlative research to know the correlation between students' motivation. This study used purposive sampling with thirty-one samples. The technique of data collection is questionnaire and reading comprehension test. The result of this study is that there is strong enough correlation between students☐ motivation in online learning and their reading comprehension.

Assessment

Ghaicha (2016) regarded assessment as a part of the educational process where instructors appraise students' achievements by collecting, measuring, analyzing, synthesizing and interpreting relevant information about a particular object of interest in their performance under controlled conditions in relation to curricula objectives set for their levels, and according to the procedures that are systematic and substantively grounded. It entails assigning numerical descriptions of students' performances based on the extent to which they possess specific characteristics or traits measured against specific standards or criteria that serve as a source of evidence for many aspects of an individual student's knowledge, understanding, skills, and/or abilities.

Pierce (2002), Lee (2016) , Tosuncuoglu (2018), González (2019) , Johnson (2021) Johnson (2021) stated that assessment is a vital part of any

learning and teaching activity. It not only influences daily instructional decisions, but it also helps in the diagnosis of student strengths and weaknesses related to classroom instruction, but also provides specific feedback to students in support of their learning. Assessment also provides immediate feedback for teachers to shape their teaching practices according to the learning styles of their students. Teachers should use a variety of examinations to measure student achievement and provide grades. tests, examinations and evaluation models are important tools, utilized as a measure of the learning process. Pierce (2002)

E – formative assessment

Ghouali & Cecilia (2020) defined e-assessment as a type of electronic evaluation that relies on the computer or any other technological devices in order to conduct all the process of the assessment, moving from the presentation of the assignments, till the recording of students' answers for summative or formative objectives. In line with this statement, e assessment enables educators and trainers to author, schedule, deliver, and report on surveys, quizzes, tests, and exams.

According to Doğan 'et al' (2020), online teaching or e-learning, in general, has become the dominant method at almost every level in the world. especially with the COVID-19 epidemic that emerged at the beginning of 2020, Teachers/instructors switched from face-to-face instruction to online education and they have been experiencing some difficulties in e-learning, teaching, and the e-assessment. While face-to-face teaching has a long history, online teaching is relatively new, and its significance in the teaching process is ambiguous. These uncertainties also have an impact on assessment procedures. The electronification of the learning process has shown a need for the electronification of various evaluation techniques. While designing online teaching practices, there is a need to develop an assessment addressing these practices.

According to Crisp (2011), E-assessment has a wide range of potential and benefits for instructors, students, and institutions. a) efficiency which includes timeless, flexible delivery, automatic processing responses, effective storage results and grades. b) effectiveness which includes, immediate feedback, analysis of question validity. C) authenticity which includes, access to people and resources, can be designed to simulate real words, can set complex tasks. D) Engagement which includes, multimodal formats, can use virtual words and can use self and peer review.

Knowly (2020) mentioned that the implementation of online assessments saves institutions a lot of time and money. Assessments can

often be done in less time, numerous students can take the online assessment at the same time, and there is no need for specialized (and costly) personnel. Additionally, test takers can complete the assessment in class or at home using their own devices. You may check their results and responses, as well as get immediate feedback on your chosen topic. That helps you, as a researcher, recruiter, teacher or trainer, to learn more about your users and adapt to their needs, strengths and weaknesses.

Kiennert 'et al' (2017) asserted that there are many challenges that have been identified. First of all, the recognition of the student's identity in case of being utilized by someone other than the actual student to be assessed. This is known as identity misuse. Second, private and sensitive data are exchanged during the E-assessment process, posing a new challenge: it is related to the disclosure of information to unauthorized parties. Third, E assessment data are maintained in records and databases, which might be exposed to fraudulent alteration. Their alteration may result in major E assessment issues for students and educators.

Moreover, Appiah and Tonder (2018) mentioned that hackers may intercept E assessment activities and students may be impersonated during E assessment activities, these security measures should be in place when assessing high stakes examinations. Also, some problems for institutions in E assessment include developing an E assessment policy that integrates educational and practical goals; the introduction of viable approaches to support computer-based assessment; the setting up of a viable IT infrastructure to support e-assessment; and the compilation of policies and procedures to ensure reliability and validity of e-assessment.

Nearpod

As mentioned before E-formative assessment is very important for reading comprehension and increasing student's motivation. Also, e assessment includes many tools such as kahoot, plickers, Nearpod, quizzes and many other tools. in this study the researcher will use "Nearpod" to improve student's reading comprehension and motivation as it's one of the popular tools that used by many educators.

Shahrokni (2018) defined Nearpod as a presenting tool that synchronizes the presentation with other devices. The process works in four stages. First, the teacher develops the presentation by combining various material types such as slideshows, quizzes, resources, videos, polls, and other activities. Second, the teacher distributes the presentation to the students via an auto-generated code distributed by email, social media applications, online links, and/or Google Classroom. Third, once the code

has been obtained, students log in and load the presentation. During this stage, depending on the teacher's decision, the students will either experience a "live" session, in which they all progress through the slideshow as the teacher changes the slides, or a "homework" session, in which students interact with the content at their own pace. Finally, once the activity is completed, the teacher may analyze the students' responses and provide feedback.

Sanmugam "et al "(2019) explained that Nearpod can be accessed via an internet connection. During a lecture, students can access their learning materials via a web browser or the free Nearpod app on their own electronic devices such as smartphones, tablets, and computers. By providing a unique code at the start of the session, lecturers can share their presentation slides with their students. Students will be able to see the presentation in their individual screens after they have gained access. The lecturer will have control over the pace of presentation. Students can only view the slide until the lecturer chose to reveal it, and the students are barred from accessing subsequent slides. The teacher can see how many pupils who are active during the class session. This allows the teacher to monitor student participation and comprehend learning progress via online exercises created with the program.

Hirtz (2020) investigated the effect of Nearpod on student engagement in a high school anatomy and physiology class. A quasi-experimental static-group comparison design was used to investigate the effects of a mobile app, Nearpod, on student engagement in an anatomy and physiology class. The study included forty-eight high school students as participants. Results showed Nearpod had a statistically significant increase on student's intrinsic motivation and self-determination.

Pupah & Sholihah (2022) examined EFL students' reading learning process in COVID-19 pandemic through Nearpod. This study included twenty-six pupils in the preparatory stage. This study's data was both qualitative and quantitative. The researchers gathered information through interviews, observations, field notes, and reading test results. According to the findings, students learnt how to determine the main point, make an inference, and distinguish particular information from the texts. They also considered Nearpod as an accommodating and encouraging tool in learning. To guarantee that Nearpod operated successfully, the teacher addressed how to enhance the students' reading learning process by careful consideration, preparation, and reflection.

Statement of the problem:

Based on the previous literature, related studies, the researcher experience as a teacher of English, and the results of the pilot study, the problem of the study was stated as follows: "Sixth grade EFL primary stage pupils have some difficulties in reading comprehension skills (skimming for general ideas-scanning for specific information- guessing the meaning of unfamiliar words from context- making inferences - expressing opinions-sequencing of events) that should be mastered at their level, these difficulties led to a lack of high motivation toward learning reading. Thus, there is a need to apply e formative assessment activities that might improve EFL reading skills and motivation of those pupils".

Questions of the study:

The problem of the study will be explored through answering the following questions:

1- What are the features of an E-formative assessment based program to develop reading comprehension and motivation for EFL student?
2- What is the effect of an E-formative assessment program on developing EFL students' reading comprehension skill?
3- What is the effect of an E-formative assessment program on developing EFL students' motivation?

Purposes of the study:

1- Identifying the features of the proposed E-formative assessment based program for improving the EFL student reading competence.
2- Measuring the effectiveness of the proposed program by using E-formative assessment in enhancing the EFL students' reading comprehension and motivation.

Hypotheses of the study:

The current study will verify the following hypotheses:

1. There is a statistically significant difference at 0.05 level between the mean scores of the control group and experimental group pupils on the post administration of the EFL reading test in favor of the experimental group.
2. There is a statistically significant difference at 0.05 level between the mean scores of the experimental group pupils on the pre and post administration of the EFL reading test in favor of the post one.
3. There is a statistically significant difference at 0.05 level between the mean scores of the control group and experimental group pupils on the post administration of the motivation scale in favor of the experimental group.

4. There is a statistically significant difference at 0.05 level between the mean scores of the experimental group pupils on the pre and post administration of the motivation scale in favor of the post one.

Method of the study
Participants:

A randomly selected sample of pupils of the primary stage in Al-safwa International Language Schools, Western Mansoura, Dakahlya Governorate will take part in the present study. This study will be conducted on two classes where the sample randomly will be assigned to an experimental group and control group. The experimental group will be trained according E-assessment applications and the control group will be taught according to regular instruction of teaching English reading.

Delimitations of the study:

The study was delimited to the following circumstances:
1. Sixth grade primary school pupils from Al-Safwa international Schools.
2. Some EFL reading skills necessary for sixth grade primary stage (skimming for general ideas- scanning for specific information- guessing the meaning of unfamiliar words from context- making inferences- expressing opinions- sequencing of events)

Instruments:

The researcher will design the following instruments in order to be used in the study:-
1. A pre-post EFL reading skills test for assessing the performance of the sixth primary stage.
2. A motivation scale to measure pupils' motivation towards reading before and after the experiment.

Design:

The researcher will adopt a quasi-experimental design to investigate the effectiveness of using e assessment on developing the primary pupils' EFL reading skills. In this study; two classes will be selected randomly to present the experimental and the control groups. The experimental group and control group will be exposed to (pre-post) test. The experimental group is to be instructed and trained using e assessment tools while the control group is to be taught in the traditional method.

The following figure shows the quasi-experimental design of the current study:
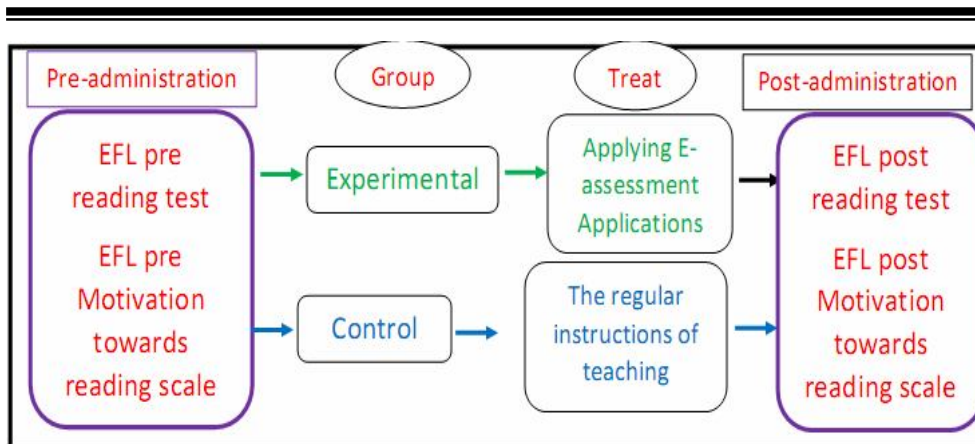
Figure (1) Quasi experimental research

Procedures
Procedures:
The following steps will be carried out in order to answer the questions of the present study:

1. Reviewing the literature and related studies to EFL reading competence and E- formative assessment strategies.

2- Preparing a reading competence test and motivation scale test to evaluate EFL students 'reading skills.

3- Presenting the instrument to a group of jurors for validation.

4- Modifying tests according to jurors' points of view.

5- Administering the instruments to a pilot sample to establish validity and reliability the tests to the sample to determine how far they master the EFL oral reading competence skills.

6- Designing the proposed training program based on E- formative assessment strategies in the light of the review of literature.

7-Administering the instrument to participant of the study (control and experimental) before conducting the treatment Pre-posttest oral EFL reading competence test to the study sample .

8- Applying the E-formative assessment based program to the experimental pupils while the control group pupils study the traditional method.

9- Collecting and analyzing data.

10- Providing the study conclusions, recommendations and suggestions for further research.

Definition of the terms:
1-Reading comprehension:

Veeravagu, et al (2010:206) defined reading comprehension as "a thinking process by which a reader selects facts, information, or ideas from printed materials; determines the meanings the author intended to transmit; decide how they relate to previous knowledge; and judge their appropriateness and worth for meeting the learner's own objectives"

Reading comprehension is defined operationally as the ability to comprehend written text, understand its meaning, and integrate it with what the reader already knows. Reading comprehension depends on two connected abilities: word reading and language comprehension. Comprehension, in particular, is a "creative, multifaceted process" that relies on four language skills: phonology, syntax, semantics, and pragmatics.

2-Motivation :-

According to Vansteenkiste (2006), motivation is a student's desire to participate in the learning process. Some pupils learn because they are intrinsically motivated, while others require external motivation. Dornyei (2001) defined It as a combination of internal and external stimuli that activates learner's desire and energy to remain engaged and committed to a job, role, subject, or to make an effort to reach a goal.

Motivation is defined operationally as the force that drives people to act in order to attain their goals. It is the activators of human behaviors to do something. People are willing to act cause they are motivated toward their goals. Money need, success need, position need, and their best potentiality may be driving their activities.

3-Formative Assessment

Khairil & Mokshein (2018) defined formative assessment as a question or exercise on an exam, quiz, or other form of evaluation. Assessment is a part of the teaching and learning process that aims to enhance both the assessor and the individual assessed.

Anandan (2015) defined formative assessment as "the wide range of methods used by educators to evaluate, measure, and document students' academic readiness, learning progress, and skill acquisition from preschool through college and adulthood." It is the systematic collection of information as part of an evaluation.

Formative assessment can be defined operationally as the process of determining a complex attribute of a person or group of individuals. This requires gathering and analyzing data on students' attainment of learning objectives.

4-Electronic assessment (E- formative assessment):-

Electronic assessment is defined as the use of information technology for any assessment-related activity (Graff 2004). Moreover, JISC [4] defined E-assessment as an end-to-end electronic assessment procedure in which ICT (Information Communication Technology) is used for the entire assessment process, from question display to the saving learners responses.

Online assessment can be defined operationally as any assessment activity that requires the use of the internet. In fact, only a few high-stakes assessment sessions are conducted online in real time, but data transfer prior to and after the assessment session is done via the internet and there are lots of examples of real-time practice and diagnostic tests being done through the internet.

5-Nearpod:-

Nearpod (www.nearpod.com) is a free app for the iPad, iPod touch, and iPhone. It could be used by educators to develop interactive presentations. These could include poll questions, videos, slideshows, and quizzes. The system is accessible with iOS, Android, and the majority of web-enabled devices. Its platform provides a secure sharing environment. This application is used in a classroom for synchronized learning among a group of iPads. Teachers might evaluate students' progress in real time. Students use their devices to launch the Nearpod presentation, but the teacher controls the slides and presentation (Schwab, 2013).

Nearpod can be defined operationally as a student engagement platform that can be utilized to great benefit in the classroom. The concept is simple. A teacher can develop presentations. include quizzes, polls, videos, images, drawing boards, web content, and so on. A code allows the pupils to view a teacher's presentation.

Statistical Analysis and Results

The results of the research are discussed in light of the statistical analysis of each instrument. A discussion of the results is provided after each statistical analysis as well as a discussion of the overall results.

Establishing the homogeneity of the groups

To establish the homogeneity of both the experimental and the control group, two (z) value were administered. One is for reading comprehension skills and the other is for reading motivation scale. The following table (4) shows the results of the (z) value concerning reading comprehension skills:

Table(4)

Establishing homogeneity between the two groups on the EFL reading comprehension skill test

Skills	The group	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.
Sequencing of Events	Control	16	14.31	229.00	-1.361	0.174 Not Sig.
	Experimental	16	18.69	299.00		
Scanning	Control	16	14.47	231.50	-1.398	0.162 Not Sig.
	Experimental	16	18.53	296.50		
Skimming	Control	16	14.94	239.00	-1.003	0.316 Not Sig.
	Experimental	16	18.06	289.00		
Guessing	Control	16	14.84	237.50	-1.066	0.286 Not Sig.
	Experimental	16	18.16	290.50		
Expressing	Control	16	16.09	257.50	-0.261	0.794 Not Sig.
	Experimental	16	16.91	270.50		
Making	Control	16	17.31	277.00	-0.545	0.586 Not Sig.
	Experimental	16	15.69	251.00		
Total score of Test	Control	16	14.09	225.50	-1.460	0.144 Not Sig.
	Experimental	16	18.91	302.50		

Results in table (4) that there are no statistically significant differences between the mean ranks of the experimental and control groups in the reading comprehension skill test. This means that the two groups are homogeneous before applying the program to them. This result indicates that the students were at the same level before the implementation of the proposed learning program.

The following table (6) shows the homogeneity between the two groups in the reading motivating scale.

Skills	The group	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.
Total degree of the Scale	Control	16	14.41	230.50	-1.268	0.205 Not Sig.
	Experimental	16	18.59	297.50		

It is clear from the table (6) that there are no statistically significant differences between the mean ranks of the students of the experimental and control groups in the total score of the reading motivation scale in the pre-measurement, where all the "Z" values were not statistically significant, and this indicates the equivalence between the two groups.

Results of the Statistical Treatment

To investigate the change fostered by the implementation of the proposed program employing E- formative assessment Program on the target students' reading comprehension test and motivation scale, the

hypotheses of the study were tested. The following section tests each hypothesis individually.

Testing the Hypotheses

The first hypothesis One

" There is a statistically significant difference at 0.05 level between the mean scores of the control group and experimental group pupils on the post administration of the EFL reading test in favor of the experimental group"

In order to compare the reading comprehension performance the Mann- whitney U test was used. The results are presented in table (9)

Table (9)

Comparison between the experimental and control groups on the post-reading comprehension skills test

Skills	The group	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.
Sequencing of Events	Control	16	10.50	168.00	-3.737	0.01 Sig.
	Experimental	16	22.50	360.00		
Scanning	Control	16	11.81	189.00	-3.078	0.01 Sig.
	Experimental	16	21.19	339.00		
Skimming	Control	16	11.75	188.00	-2.970	0.01 Sig.
	Experimental	16	21.25	340.00		
Guessing	Control	16	10.09	161.50	-4.027	0.01 Sig.
	Experimental	16	22.91	366.50		
Expressing	Control	16	9.56	153.00	-4.378	0.01 Sig.
	Experimental	16	23.44	375.00		
Making	Control	16	12.13	194.00	-2.785	0.01 Sig.
	Experimental	16	20.88	334.00		
Total score of Test	Control	16	9.03	144.50	-4.518	0.01 Sig.
	Experimental	16	23.97	383.50		

The second hypothesis :

" There is a statistically significant difference at 0.05 level between the mean scores of the experimental group pupils on the pre and post administration of the EFL reading test in favor of the post one"

Table (10)
Comparison between the pre and post administration of the EFL
reading comprehension skills test on the experimental group.

Skills	Rank	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.	Effect size η2	Effect size
Sequencing of Events	Negative Ranks	0	0.00	0.00	-3.618	0.01	%90.5	High
	Positive Ranks	16	8.50	136.00				
	Ties	0						
	Total	16						
Scanning	Negative Ranks	1	4.50	4.50	-2.803	0.01	%70.1	High
	Positive Ranks	11	6.68	73.50				
	Ties	4						
	Total	16						
Skimming	Negative Ranks	1	3.50	3.50	-2.676	0.01	%66.9	High
	Positive Ranks	10	6.25	62.50				
	Ties	5						
	Total	16						
Guessing the meaning	Negative Ranks	0	0.00	0.00	-2.969	0.01	%74.2	High
	Positive Ranks	11	6.00	66.00				
	Ties	5						
	Total	16						
Expressing opinions	Negative Ranks	0	0.00	0.00	-3.256	0.01	%81.4	High
	Positive Ranks	13	7.00	91.00				
	Ties	3						
	Total	16						
Making inferences	Negative Ranks	3	4.67	14.00	-2.447	0.05	%61.2	High
	Positive Ranks	11	8.27	91.00				
	Ties	2						
	Total	16						
Total score of Test	Negative Ranks	0	0.00	0.00	-3.526	0.01	%88.2	High
	Positive Ranks	16	8.50	136.00				
	Ties	0						
	Total	16						

Results in table (10) indicate that there is a statistically significant difference between the mean ranks of the experimental group students in the pre and post administration of the reading comprehension skills test and the total ranks in favor of post administration, where all the values of (z) are statistically significant at the level of significance (0.01) . These results confirm validity of the hypothesis. The researcher attributes these differences to using the E -formative assessment. This indicates that the proposed learning program has a positive effect on developing the targeted reading comprehension skills.

Estimating the Effect Size (η 2)

Table 11: The effect size of the treatment on improving the reading comprehension skills of the experimental group

Skills	η^2		Effect size
Sequencing of Events	**90.5**	**%**	High
Scanning	**70.1**	**%**	High
Skimming	**66.9**	**%**	High
Guessing	**74.2**	**%**	High
Expressing	**81.4**	**%**	High
Making	**61.2**	**%**	High
Total degree of Test	**88.2**	**%**	**High**

It is clear from the table (11) the strength of the influence of the program on the total score of the reading comprehension test and its sub-skills, as the values of (η^2) in each skill and in the total score of the test ranged between (0.612, 0.905).

The Third hypothesis:

" There is a statistically significant difference at 0.05 level between the mean scores of the control group and experimental group pupils on the post administration of the motivation scale in favor of the experimental group ".

Mann-Whitney test was used for assessing the difference between the mean ranks of the students of the experimental and control groups in the post administration of the reading motivation scale as illustrated in the following table.

Table(12)

Skills	The group	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.
Total score of Scale	Control	16	12.59	201.50	-2.366	0.05 Sig.
	Experimental	16	20.41	326.50		

It is clear from table (12) that there are statistically significant differences between the mean ranks of the students of the experimental and control groups in the total score of the motivation to read scale in the post-measurement in favor of the students of the experimental group (mean of ranks = 20.41), where the value of " Z = 2.366" was statistically was significant at the level of (0.05) significance. These results are consistent with or confirm the validity of the third hypothesis.

The Fourth hypothesis stated that:

" There is a statistically significant difference at 0.05 level between the mean scores of the experimental group pupils on the pre and post administration of the motivation scale in favor of the post one".

The value of z and its statistical significance for the Wilcoxon Signed Ranks Test was used for assessing the difference between the mean ranks of the experimental group students' scores in the pre and post measurements of the reading motivation scale.

Table (13) Wilcoxon Signed Ranks Test

Skills	Rank	N.of cases	Mean Rank	Sum of Ranks	Z.Value	Sig.	Effect size η2	Effect size
Total score of Scale	Negative Ranks	0	0.00	0.00	-3.523	0.01	%88.2	High
	Positive Ranks	16	8.50	136.00				
	Ties	0						
	Total	16						

It is clear from the table (13) that there are no negative cases after the arrangement against 16 positive cases in the total score of the reading motivation scale, meaning that the post administration got 16 times higher ranks than the pre administration in the total score of the reading motivation scale. This, in turn, indicates that there are statistically significant differences between the mean scores of the experimental group students in the pre and post administrations in the total score of the reading motivation scale, in favor of the post administration (where the mean rank of the positive cases = 8.5, while the mean rank of the negative cases = 0); The value of "Z = 3.523" which was statistically significant at the (0.01) level . The size of the effect of the experimental treatment (Nearpod) on the total

score of the reading motivation scale was (88.1%), which indicates that 88.1% of the variation in the total score of the reading motivation scale was due to the effect of the experimental treatment, and the rest is due to other factors, and this indicates that the size of the effect was big.

Results and discussion

Based on the previously mentioned findings, it can be concluded that the participants' performance in EFL reading comprehension and motivation has been significantly developed. This result may be attributed to the use of E- formative assessment and Nearpod. Concerning the first main hypothesis of the EFL reading comprehension , the participants' EFL reading comprehension has been developed significantly. This development can be attributed to the use of E formative assessment principles and elements. It provided the researcher with many facilities and features that were simply not possible in the ordinary classroom. These features included slideshow in which the teacher can create a mini-slideshow within one slide of a lesson that is student-controlled. Furthermore, polls which allow the teacher to create a question to pose to the whole class during a presentation and then show the results to the whole class. Polls, like other activities in Nearpod, can include a reference photo, PDF, video, audio, or website. It also provided live formative assessment and interactive gamification and activities. Moreover , it provided Self-assessment , modeling and open-ended tasks.

Similar results were conveyed by Delacruz (2014), Peyghambaria "et al" (2015) and Gottfried (2016) who stated that Nearpod is a tool that support learning, peer learning, differentiated instruction, and scaffolding instruction. It is a motivational and engaging tool for reading, fostering pupil independence, participation, enthusiasm to complete reading activities. They also confirmed that this type of guided reading to be beneficial and motivating in learning the content presented through the application. It is recommended that the Nearpod application can be used in guided reading lessons because of its user-friendliness, ability to engage students, and monitor their progress.

Increased Interaction, enjoyment and higher motivation of the participants during instruction process. Pupils zest for learning was enhanced by the element of surprise that Nearpod can bring to a lesson as it left pupils wondering what will happen next. Pupils were given the chance to physically manipulate elements around on the board. It contributed to making lessons "more enjoyable and fun," which in turn increased motivation. It provided directed learning; pupils took control of their own

learning and were actively engaged in the learning process, where teachers were considered as the facilitators of learning.

Similar results were reported by Hirtz (2020), Pupah & Sholihah (2022) and Abdullah "et al "(2022) who concluded that pupils were positive and motivated about instruction with Nearpod. Nearpod appealed to both intrinsically and extrinsically motivated learners, this includes: High level of interaction – learners enjoy interacting physically with Nearpod; manipulating text; image, matching; dragging and dropping objects;keeping the class on task and raising their self-esteem.

Participants made positive comments during the program implementation. For example, some of them mentioned that "having the opportunity to practice Nearpod activities helped them in organizing and conveying thoughts more quickly". Others said that "through using the Nearpod activities they were able to gather ideas and come up with a plan to guide their reading comprehension". Moreover , some of them mentioned that "Nearpod made me reflect on the book a bit more. I liked it. It made me really think about what I just read." Another student mentioned "I liked the Nearpod activity because it keeps you more engaged than just reading alone. Because you can look forward to do something with what you read instead of just sitting there with your thoughts to yourself."

On the other hand, the researcher noticed that the participants in the control group were not paying attention in the reading comprehension lesson and they only cared about the exams' score. Moreover, there was not much interaction between the pupils and the researcher. The teacher showed them the context to read and they just followed their teacher's instructions and models of reading she provided. This in turn did not help them to improve their reading comprehension skills.

The literature on E-formative assessment and reading comprehension revealed that it supported new opportunities for reexamining how pupils learn. By using E-formative assessment (Nearpod), pupils could learn in a funny and relaxed learning environment. They could write, think, and assess their reading comprehension through playing games and activities. Really, Nearpod is one of the amazing ways for learners to be good readers from the beginning. Pupils' reading was impacted by visually seeing the reading context and manipulating items. Their comprehension of the texts was not perfect but reading skills such as skimming , scanning and guessing of difficult words improved based on samples. Hence, Nearpod may allow teachers to arrange their classes according to their pupils' needs

and different learning styles such as visual, auditory and kinesthetic; appeals to the three senses (touch, hearing and sight).

The previous results and discussion indicated that EFL sixth primary grade pupils' reading comprehension skills (skimming – scanning– sequencing of events -guessing the meaning of unfamiliar words from context- expressing opinions – making inferences) had been improved. The experimental treatment (Nearpod- based activities program) was effective in improving pupils' reading comprehension skills and their motivation. The high increase in the motivation level in the experimental group post-administration was mainly due to employing specific activities in the program such as *(polls-Draw it -collaborations- matching pairs- Quizzes – Open ended questions – Fill in the blanks -drag and drop – time to climb-memorize game)*. Also, the Nearpod activities made the pupils enjoy learning and have tendencies towards reading and expressing their thoughts. The effective use of Nearpod program result in a collaborative productive and interactive platform that improved the reading process.

Recommendations of the study

In the light of the results obtained, the researcher recommends that technology such as *Nearpod* should be used accurately in order to facilitate teaching and provide fun opportunities for learners to learn English language. The responsibility is shared between schools' administration and teachers themselves to integrate the Nearpod into teaching and learning English language, and reduce the challenges when they occur:

- English language teachers should share ideas, resources and experiences to help develop professionally.

- Teachers should upgrade their knowledge and skills of using computer to minimize challenges when they occur inside the classroom.

- Schools should provide strong pedagogical support as well as technical support.

- The importance of motivation should have more interest for EFL primary students.

- More attention should be paid to E assessment principles and elements in designing EFL primary students' courses.

- There should be greater focus on the effectiveness of E assessment in developing English language in general and EFL reading comprehension in particular.

- Higher consideration should be given to E assessment effectiveness in increasing EFL students' motivation.

- Nearpod based activities should be given more attention to help students learn in an enjoyable environment.

Suggestions for Further Research

Based on the result of the present study, the following suggestions can be provided for further research:

1- using E-formative assessment (Nearpod) for developing EFL reading comprehension an increasing students' engagement among preparatory and secondary school pupils.

2- using E-formative assessment (Nearpod) for developing EFL listening and writing skills among primary and preparatory school pupils.

3- Searching for different strategies for increasing students' motivation toward reading.

4- Ministry of education should provide programs and workshops to train teachers on the effective E- formative assessment program (Nearpod).

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