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The Effectiveness of Using Mobile on EFL Learners' Reading Practices in Najran University

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Abstract

This paper investigates the efficiency of using mobile technology in English as a Foreign Language (EFL) reading classroom of 30 male students at Preparatory Year, Najran University. Specifically, the study aims to explore the role of this new integrated method in enhancing the EFL learners' reading practices. Integrating Freebody and Luke's (1990) four resources model of reading practices within Mobile Assisted Language Learning (MALL), a mix-method research design was used in this study. The reading class was allowed and encouraged to implement specific mobile features and applications. A pretest was employed to construct the baseline data. During the treatment, WhatsApp group, self-reflection journals, posttest, and semi-structured interviews were used. The findings revealed that using mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos remarkably improved the participants' code breaking practices and text participation practices; text using and text analyzing practices were slightly improved. Participants used the aforementioned tools and features to share images, photos of summaries and mind maps and to look up for new vocabulary, pronunciations and parts of speech. The study recommends further investigation on the effect of WhatsApp on writing practices.

Keywords: dictionaries, EFL reading, four resources model, reading practices, WhatsApp

1. Introduction

Smartphones and internet users in Saudi Arabia as well as all over the world are glooming obviously day by day. Evidently, Saudi Arabia registered smartphone penetration rates of at least 72% last year—equivalent to gains of at least 10 percentage points in a single year. Mobile Internet use across smartphone owners has increased to 84 percent in Saudi Arabia (CITC, 2013). This use urges the need for an obligatory change in the ways and attitudes of literacy practices in the country as the world is becoming more digital and communication-mediated by smart technologies. Accordingly, Saudi educational institutions like universities have seen a promising potential in promoting computer and mobile technology to meet the needs of e-learning and distance learning (Intisab) programs as well as to functionally serve in unstable situations especially in the southern region on the border with Yemen. Recently, the war circumstances have pushed Najran University to offer its students alternative choices including ane-learning Blackboard system as essential means of learning and communication for recorded and virtual classes, assignments and exams. Preparatory Year at Najran University is compulsory for students who want to enroll Medical, Engineering, and other science colleges. Students take foundation courses including the English language program in which reading is an integral course of four hours a week.

Morevoer, most EFL (English as a Foreign Language) reading has been characterized as a traditional reading setting in which teachers direct the reading process, and students are then assumed to be passive or marginalized (See, e.g., Wallace, 1992 & Al-Hazmi, 2008). In addition, EFL reading has also been criticized as only an in-class- reading practice due to the limited exposure of EFL learners to reading taking place in the traditional classroom. Reflecting on their teaching experience inside a traditional reading classroom, the teacher-researchers observed that these methods have resulted in seriously disadvantageous issues among students: lack of motivation toward learning, coming to class unprepared, total dependence on the teacher, and weak competition. This reflected experience indicates the need for practical incorporation of a student-centered approach and contextualized reading practices. Thus mobile technology, like other e-learning and m-learning systems, needs to be used as a means to enhance various student-centered practices, where students become motivated and

cooperativeto create a meaningful learning environment and contextualized learning opportunities. This is because the issue of students' reluctance to participate and cooperate in class activities is a serious problem and can easily disrupt the instructional process.

In the Saudi context, the role of using mobile applications in improving EFL reading practices has not been investigated. Previous research showed a need to investigate the use of mobile applications and features in reading practices (Ahmed, 2015; Al-Homoud & Schmitt, 2009; Al-Musallam, 2009; Al Nooh, 2013; Alshumaimeri & Almasri, 2012; Khrisat & Mahmoud, 2013). One of these studies calls for a gradual shift from the traditional reading approach to a relatively stress-free extensive reading approach (Al-Homoud& Schmitt 2009). Similarly, Alshumaimeri and Almasri (2012) suggested that WebQuest can improve and promote participants' reading comprehension. In addition, Al-Musallam (2009) and Khrisat and Mahmoud (2013) found positive attitudes toward the use of both authentic materials and mobile phones in EFL classes.

Grounded in the literacy based approach, Freebody and Luke (1990) view reading practices as the ways and habits that EFL learners follow to decode and analyze reading passages in order to master reading skills. Accordingly, reading practices are perceived in the form of four sub-practices: code breaking, text participating, text using and text analysing. Reading practices need to be mediated via mobile tools and applications inside and outside classroom for more evident promising improvements.

Mobile Assisted Language Learning (MALL), a subset of m-learning, refers to the integration of mobile tools and applications to assist and enhance language learning inside or outside classroom (Chinnery, 2006; Kukulska-Hulme & Shield, 2008). MALL tackles the issues of mobile implementation in the field of language acquisition. Chen and Hsu (2008) claim that mobile applications help learners to enhance their vocabulary and vocabulary knowledge; subsequently, it helps them to promote reading comprehension. Similarly, Chang and Hsu (2011) argue that second language learners consider that a PDA/web-based translation/annotation application is useful and easy to use for an individual reading. Huang and Lin (2011) point out that to make reading on mobile phones more popular, the design of mobile phones can be improved based on the advantages of reading on other media.

Accordingly, the present study developed a conceptual framework of reading practices and MALL in an EFL context to examine the role of using mobile applications and features in a reading classroom at the Preparatory Year in Najran University, Saudi Arabia. To address the existing gaps in the previous research, this study investigates the use of mobile features and applications (namely; mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos) on EFL reading practices. Hence, this study aims to answer the following research question: How does the use of mobile features and applications affect EFL reading practices employed by the participants in an EFL context?

2. Literature Review

In the light of the research objective, this paper contextualizes the reading practices with previous research on mobile applications and features. It integrates the four resources model to reading literacy with the latest orientation on Mobile Assisted Language Learning (MALL).

The new digital world and the increasing amounts of reading data urge the need for new techniques of teaching reading as learners have become more globally connected due to technology of communication. Freebody and Luke (1990) proposed the four resources model to describe the reading practices where students need to meet the requirements of literacy in a global world through code breaking, text participating, text using and text analyzing. Code breaking practices can be manifested in written texts in the form of using alphabets, spellings, structural conventions and patterns. 'Text participating practices' refer to the ability to understand and compose meaningful written, visual, spoken, digital and multimodal texts. 'Text using practices' refer to the ability to use functionally those texts inside and outside the classroom settings. 'Text analyzing practices' are the ability to analyze those texts critically in terms of particular representations and views. Accordingly, mobile can have a promising role in formulating and changing the reading practices either inside or outside classroom through implementing certain features and applications.

Previewing the theory of MALL, which is solely concerned with the mediation of language learning process by mobile technology, the main focus as claimed by Kukulska-Hulme and Shield (2008) is to concentrate on design issues related to developing new kinds of learning materials and activities specifically tailored for mobile devices and mobile contexts of language learning as an exit to divert from content delivery to more collaboration and interaction. MALL is still considered immature and linked with other learning theories such as behaviorism, constructivism, situated learning, and collaborative learning (Naismith, et al. 2004). Taking the advantages mobile technology, Thornton and Houser (2005) showed that mobile devices can indeed be effective tools for

delivering language learning materials to the students. According to Ogata and Yano (2005) mobile learning is mainly characterized by permanency, accessibility, immediacy, interactivity, and situating of instructional activities. The rapid evolution of mobile devices with hardware high capabilities of storage, battery lasting, screen size, portability (Klopfer, Squire, & Jenkins, 2002) has motivated researchers and educators to consider this technology to meet the day-by-day evolving needs of EFL learners (Fisher, et al. 2009; Levy & Kennedy, 2005; Joseph & Uther, 2008; Demouy, Eardley, Shrestha, & Kukulska-Hulme, 2011). Such evolving needs are related to the continuing process of learning spontaneously, informally, personally and ubiquitously (Miangah & Nezarat, 2012).

EFL reading practices can be improved by using mobiles. Mobiles offer students chances to practice reading independently and get feedback. In his recent study, Ahmed (2015) states that the "challenge for mobile learning is to build a deeper and more pedagogically solid understanding of the ways in which learners use a variety of mobile devices and the effectiveness of these devices in offering various learning opportunities" (Ahmed, 2015, p. 123). Al-Seghayer (2013) finds out the importance of hypertext for less proficient readers i.e., such texts enrich students' vocabulary. Lan, Sung and Chang (2009) try to solve the problems of traditional EFL reading activities with a technology called CAREER, where students could cooperate and interact effectively. The availability of web-based activities and electronic dictionaries help students to be exposed to authentic texts and to practice reading extensively (Chun, 2006).

Therefore, reading practices within MALL can be operationalized in this study as ways with which students use mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos. These tools would facilitate breaking the code of reading texts through recognizing new words, main ideas, and parts of speech. The same tools could help make meaning from the texts via summarizing and comparing main ideas, mind mapping. Similarly, these tools would functionally facilitate using texts by making connections with the surrounding environment, making literal and inferential meanings, connecting one idea to another, and using diagrams, tables, and chart to construct the meaning. As for the critical analysis of texts, these tools would facilitate having a discussion with classmates, sharing ideas, linking with other reading texts, identifying the author's point of view, and writing similar texts.

Similarly, students' attitudes towards mobile use in General English and the effect of WebQuest on students' performance were investigated. For example, Khrisat and Mahmoud (2013) investigated the effectiveness of students' attitudes towards ten mobile features and applications on EFL General English classroom. It is found that students showed quite positive attitudes towards mobile integration in learning. Alshumaimeri and Almasri (2012) examined the effects of WebQuest on the comprehension performance of tertiary level in Saudi Arabia, and the results indicated that WebQuests have potential for use in promoting reading comprehension. These studies show that there is a need to examine the effect of mobile features and applications, namely, mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos on EFL reading practices of tertiary level male students in a Saudi EFL reading classroom.

Internationally, the role of MALL on EFL learners' reading practices has been generally examined (Azman, Bhooth, & Ismail, 2013; Salameh, 2011; Vihavainen, Kuula, & Federley, 2010; Wang & Smith, 2013; Wu, Sung, Huang, Yang, & Yang, 2011). Whereas some studies investigated mobile online and offline dictionaries and SMS on vocabulary learning and reach findings supporting mobile role in learning with some reservations (Allan, 2008; Azabdaftari & Mozaheb, 2012; Begum, 2011; Cavus & Ibrahim, 2009; Fisher et al., 2009; Hsu, He, & Chang, 2009; Knutsson, Nissilä, Räsänen, & Carlsson, 2011; Koyama, 2010; Tabatabaei & Goojani, 2012). Others probed EFL learners' perceptions and attitudes towards using mobile for learning in general and highlighted the learners' thirst for handy tools that keep them connected with teachers and classmates for better and continuous learning chances (Aamri & Suleiman, 2011; Brown, 2008; Deng & Shao, 2011; Zhang, 2013). For example, Azman, Bhooth and Ismail (2013) operationalized the four resources model in an EFL traditional reading classroom. This model was used to examine the reading practices that Yemeni students use as outlined by the four repertoires of practices. The model was also used to structure and guide interpretation of what it means to break the code, make meaning, use texts, and analyse texts.

The role of using mobile applications in improving EFL reading practices need to be investigated in the Saudi context. In traditional classes, Al-Homoud and Schmitt (2009) compared the effect of the extensive and intensive reading approaches on EFL Saudi reading practices and concluded with the need for gradual shift from traditional reading approaches to extensive reading approaches. Similarly, Al Nooh (2013) examined the effectiveness of the teaching strategies in an EFL reading classroom and highlighted significant discrepancies between the various perceived usefulness of common strategies. Another problematic area identified is the lack of support mechanisms that should supplement the classroom teaching of reading skills. Al-Musallam (2009)

elicited EFL learners' and teachers' beliefs and attitudes regarding the use of authentic reading materials at the college level in Saudi Arabia. Using smartphones, Ahmed's (2015) mixed-method experimental study emphasized how smartphones can enhance EFL learning where the focus was generally on linguistic knowledge and language skills among Saudi college students.

3. Method

The test deign was used to provide scores for each student before and after the treatment; where the scores were compared and analyzed. Accordingly, EFL Reading classroom of 30 male students at the Preparatory Year, Najran University was allowed and encouraged to use their mobiles in a reading classroom. For the treatment, a pre-test was administered to all the participants to construct the baseline data. During the treatment, WhatsApp group, self-reflection journals, and then semi-structured interviews with 5 participants were used. The post-test was then applied to measure the level of improvement in the reading practices.

This study lasted for fourteen weeks during which the class was allowed and encouraged to use mobile features and applications inside and outside the classroom. While offline and online dictionaries, camera, online resources were used inside the traditional classroom; mobile memos, WhatsApp, dictionaries and online resources were employed by the participants outside the classroom.

3.1 Study Setting and Participants

In this study, a 30-student-reading class at the Preparatory Year in Najran University was allowed to use the aforementioned mobile features and applications. The participants share similar characteristics (e.g. age, gender, English education background). All participants are males; their ages range from 18-20. English is considered a foreign language for them.

The current reading textbook for Saudi EFL undergraduates is *Interactions*: Middle East Diamond Edition, published by McGraw-Hill in 2012. Developed based on the literacy approach, the textbook incorporates vocabulary acquisition, scaffolding instruction and is accompanied by an audio program. It cultivates critical thinking through the incorporation of cross-cultural themes and self-assessment logs and outlines simple reading strategies such as recognition of topics, ideas, details and points of view; recognition of structure at the sentence and paragraph level including punctuation markers; skimming; inference; prediction and previewing. It contains ten learning exercises, each covering approximately twenty pages of reading material, together with instruction on skills and strategies for reading, critical thinking skills, vocabulary building, language skills and self-testing.

Prior to the implementation of mobile, the teachers had a brainstorming and orientation session, which lasted for one hour and a half for the students about the possibility of using mobile features and tools inside and outside classroom with reading practices. The brainstorming session shows that although all students have smart phones with internet free service provided by the university; as a common sense practice, students are not allowed to use their mobiles inside the traditional classroom. It is also reported that some students do switch off their mobiles once they enter the classroom. Students were using their mobile during the reading classroom; something that was not encouraged in a traditional class. Coming closer, it is noticed that these students use their WhatsApp application to chat with other people in Arabic language. On the one hand, such kind of mobile use does not only distract the students from the reading class, but it also creates no English language atmosphere while they are supposed to serve English learning.

However, students are not encouraged to use mobile inside the classroom because it could spoil the atmosphere, make noises, and/or be used for other learning purposes even though there are no university restrictions on using mobiles inside the classroom. Rather, teachers request students to switch off their mobiles and put them in their pockets. In addition, when students request a teacher to use mobile for learning purposes like translation, pronunciation, parts of speech, etc., he tells them to use it outside the classroom before the class for preparation and revision.

Moreover, the participants are eager to use mobile inside or outside the classroom for reading as they think it is a helpful tool for improving their reading skills. Furthermore, participants reported that they sometimes use their mobiles outside the classroom to improve their skills in writing, reading, grammar, listening, and speaking. At the end, after they were informed about the nature of the mobile experiment regarding what, where, when, and how to use some selected mobile features, they reported WhatsApp, mobile camera, social networking, installed applications such as dictionaries and the internet for online resources can be exploited either inside or outside classroom for better reading outcomes.

3.2 Self-reflection Journals

A data-gathering worksheet was designed. The worksheet shows the basic information such as week number, date and day, reading chapter and skills as well as a column for every lesson notes and observations.

A coding system for the self-reflection journals (SRJ-1) is used; where SRJ stands for the abbreviated form and 1 for the week number. The observation was recorded by the teachers while encouraging using mobiles in the reading class, which gives a very clear picture on taking this experience. The two researchers participated in this case study; one researcher facilitates the classroom treatment with self-reflection notes, the other researcher observes some classes and documents these lessons with photos and notes writing. The two researchers have enough experience in smart phone features and applications; something that helps in underling and highlighting the parts and exercises in the reading activities.

3.3 Pre and Post Tests

A pretest was prepared by the teacher-researchers to examine the participants' actual reading practices before introducing the mobile features and applications in this study. Based on the textbook, the pretest and the posttest include a passage followed by long questions. The questions follow Freebody and Luke's (1990) four resources model of reading practices. The first part covers code breaking; matching vocabulary with their definitions and items with their categories, crossing out the odd word from the list of words given, adding the opposites of the words provided, categorizing words based on their parts of speech and function, and identifying the key points such as grammar, classes, punctuation, and contractions. The second part covers text participant; identifying the main idea and supporting details, explaining cause and effect, filling out a chart, bringing background knowledge to the text, making predictions, and answering presupposed questions. The third part is about text using; stating the topic, adding a suitable title, summarizing the main idea, identifying the audience the text is for, incorporating the learned material to improve personal and social skills, identifying the text genre and the social purposes, and drawing maps to organize ideas in the text. The fourth part, which is text analyzing, focuses on reading the text to other similar text, relating the text to the reader's context, sharing ideas about the author choice of words, rewriting the text in other words, and explaining the form of the text in its expected reception. At the end of the fourteen-week treatment, the posttest, which is the same pretest, was administered after introducing mobile features and applications to the participants to examine the progress in their reading practices after the treatment. A Paired-Samples T-Test (SPSS) was used for calculations and getting the means, standard deviations, significance, and correlation. The means of the pretest and the posttest were compared.

3.4 Reliability and Validity of the Test

The test was reviewed by two referees to evaluate its reliability and apprporiateness. According to the reviewers' comments, the test was improved and categorized based on the four reading practices: code breaking, text participation, text use, and text analysis. Validity was measured by the test-retest method, where the same students took the test twice with a separating period of two weeks. The coefficient value of Pearson Correlation scored is 0.93 %.

3.5 WhatsApp Group

A group of WhatsApp was initiated and named with the course name and code (Reading-1 section 215) and the reading textbook's cover as the group picture. The participants were informed about the purpose and the conditions of participation in the group: to keep close and in contact with each other at any time and from any place with regard to our reading class; to share textbook exercises and external reading materials; and to improve our reading practices using WhatsApp. It is also stipulated that all comments and postings are to be in English language. The participants and teacher interactions on a topic for one week are considered one segment for the data analysis. A coding system for the teacher-researcher participation namely, WTW-8 and for a student participation namely, WSW-8 are used; where WTW stands for the abbreviated form of WhatsApp Teacher Week and WSW for WhatsApp Student Week.

3.6 Semi-structured Interviews

Guided by the theoretical orientation on MALL and reading practices, a semi-structured interview was developed to elicit the information from the participants. This interview was used in the post treatment stage to see the use of WhatsApp during reading sessions. 5 students were purposefully selected based on the criteria of availability, willingness to participate, and ability to communicate experience in opinions in an articulate, expressive and reflective manner (Palinkas et al., 2013). In an informal way, the participants were individually interviewed. A Matrix of reading practices and mobile features and applications were handed to the respondents during the interview to help eliciting the information. The interviews were conducted and recorded via Sound Recorder. Each interview lasted for 10 to 15 minutes. Soon after recording, the recordings were transcribed.

The interviews mainly target the participants' improvement in reading practices. A coding system for the interviews is used; where SSI-1 stands for semi-structured interview and the sequence number stands for the student number.

Content analysis can best fit to reveal the improvement in reading practices through analyzing the teachers' observation and interviews. The date were reduced into smaller groups of information for making answers and inferences on the study questions (Holsti, 1969; Weber, 1990). Accordingly, thematic analysis is used to reveal reading practices in this case study. Such themes can be traced in linguistic structures, word meanings and wording (Fairclough, 1992, p. 72).

4. Results

The triangulated data analysis of the self-reflection journals, WhatsApp group, and semi-structured interviews revealed that the participants used mobile features and applications for reading practices. The participants used WhatsApp, mobile camera, online and offline dictionaries, and online resources for code breaking practices, text participation practices, text using practices and text analyzing practices.

4.1 Code Breaking Practices

The participants used online and offline dictionaries for code breaking practices as it is evident in the following excerpts:

You can say I use online and offline dictionaries everyday to get the meaning of new vocabulary.. (SSI-1)

When I read and a difficult word I use[mobile] dictionaries to get its meaning to save more time.. to identifying words with the same or similar meaning.. I have a Google translate on my mobile.. (SSI-2)

I use online and offline dictionaries to translate … I use [mobile] dictionary to identify words with the same and similar meaning… also for punctuation…Like sometimes when you keep texting you[r] friends, you want to send correct messages... (SSI-3)

I use [mobile] dictionary for getting the meaning of difficult words.. It helps me understand the meaning of difficult words.. (SSI-4)

Sometimes when we read topics or we answer some questions we face some words that we don't know the meaning of them we try, if I can find the meaning of the word without using the mobile [dictionary], this is good. If I can't, I use the dictionary for this reason and for the pronunciation to pronounce the word as good as I can. (SSI-5)

These excerpts show that the participants used online and offline dictionaries and Google translation, for getting meaning of new words, pronunciation and punctuations. They also used these applications to translate difficult words. The interview analysis also reveals that participants also used mobile dictionaries for code breaking practices as it is evident in the following excerpts:

I translate the words that we don't know their meaning (SSI-1) .

I sometimes write in Arabic to get meaning of unclear paragraphs. (SSI-4)

The analysis of the semi-structured interview reveals that the participants used the mobile camera and online resources for code breaking practices as it is evident in the following excerpts:

I take picture for list of new words (SSI-1)

While reading I use the internet to get meaning of new words..it is very useful for punctuation (SSI-2).

The analysis of the self-reflection journal indicates that the participants used online and offline dictionaries for code breaking practices; to look up at the meaning of new words and pronunciation as it is evident in the following excerpts:

"Students showed a sort of encouragement and enthusiasm towards mobile use for reading." (SRJ-2).

Students used mobile to look up the meaning and pronunciation of some words using Google Translate, Alwafi and Oxford online dictionaries (SRJ-2)

It was observed that using dictionaries for meaning and pronunciation took a lot of time as most students type slowly … To save time, the teacher-research suggested using Google Translate which has the facility of translating multimodal texts via multiple means such as typing, loudly reading or scanning a reading word, statement or passage" (SRJ-2).

Do you remember what vocabulary we studied today (WTW-3)

The second task for you is to give the opposites (WTW-3)

The teacher requested participants to give the opposites of some words they learned in class as a good technique for remembering new learned words. Some students did with the help of mobile dictionaries as a student replied, *'Can we use our mobile dictionaries?'*

4.2 Text Participation Practices

The data analysis reveals that the participants used WhatsApp for text participation practices as it is evident in the following excerpts:

I can make chi-chat and conversation with my classroom. Sorry I mean with classmates….. I can know some experience from my classmates… I use WhatsApp to share reading texts with my friends... I use what I have learned in my reading class to improve my personal and social skills (SSI-1)

We use WhatsApp to discuss some lessons, some points that we don't understand it.. When I go home and try to answer the homework, I face some difficult points or I have confusion, I only send a message to the group, so we can as students share with each other… (SSI-2)

When I finish the class I use the WhatApp to get any difficult thing in the group with my classmates and teacher.. (SSI-4)

This technology teacher helps you to get the meaning of vocabulary directly…. (SSI-5)

The data analysis reveals that the participants used online resources and mobile camera for text participation practices as it is evident in the following excerpts:

I use Google to translate into Arabic…. when I have a word that I don't [know] its meaning I use Google translate... Google translate has the features that give the parts of speech, nouns, verbs... (SSI-1)

…I use Google to compare different reading texts…. (SSI-3)

….I use Google image to get meaning of difficult words… (SSI-4)

Sometimes I use the camera to take photos of the solutions that the teacher gives us..We take a photo and then try to write the solution in the book at home to save more time.. (SSI-3)

4.3 Text Using Practices

The analysis of the semi-structured interview reveals that the participants used mobile camera, online resources and text messages for text using practices as it is evident in the following excerpts:

I used WhatsApp to recognize reading structure and matching vocabulary (SSI-1)

I take some pictures of the answers from the book of my friend and finish the task at home. … camera is good to take pictures of done exercises.. (SSI-1)

I use the camera to take photos of the done exercises to copy them down later at home. (SSI-4)

I use note taking to write down main ideas..(SSI-4)

I use text messages to communicate with friends.. (SSI-3)

The data analysis also reveals that participants practiced language use via the WhatsApp as it is evident in the following excerpt:

Plz say which column is British English with attached file (WTW-4)

The left column is British and the right one is American (WSW-4)

I think there is difference in pronunciation in some words between American and British English like "wind" (WSW-4)

One of the participants attached a file on a list of American and British English and asked other participants, *'Can anyone tell us which column is American English?* 'They replied with a sort of enthusiasm and encouragement as they wanted this information long time ago, *'The left column is British and the right one is American'* (WSW-4)

It is also found that participants take photos of the reading parts as the following excerpts show:

Some students forgot to bring their textbooks, so they used their mobile cameras to take photos of the reading parts and exercises of the lesson (SRJ-2,3,5)

Two students took photos for the exercise on the whiteboard as they are slow hand writers and a way to keep

them focus to understand the exercise. (SRJ-2-6)

These excerpts show that the camera is utilized inside the classroom to take photos for the reading activities: whiteboard exercises or explanations like mind maps and outlines on the whiteboard, into the textbooks or into the notebooks of other students to be finished at home in order to save time and to keep focused.

4.4 Text Analysing Practices

The analysis of the semi-structured interview reveals that the participants used WhatsApp for text analyzing practices as it is evident in the following excerpts:

I use WhatsApp to improve how to write some sentences. (SSI-1)

WhatsApp helps me when I have reading homework and don't know how to do it. I text my classmates and teacher on the WhatsApp. And when I have grammar mistakes…(2) it's really helpful..(SSI-2)

we discuss the news in English.. Sometimes we have questions, we can ask the teacher from the group. (SSI-3)

I write a similar text applying my understanding of the text I read. (SSI-4)

I discuss with friends and share ideas about the writer's choice of words and ideas. (SSI-5)

The data analysis also reveals that participants developed a sense of collaborative writing through the strategies of sharing paraphrasing and summarization through the WhatsApp as it is evident in the following excerpts:

Students were given an assignment to do it and share it via the WhatsApp group. (SRJ-6)

Students paraphrase a reading paragraph using mobile features such as note making or even a piece of paper for them to take its photo and share it via the WhatsApp group. (SRJ-9)

Students draw mind maps of a reading paragraph and write summaries and share them in the WhatsApp group (SRJ-10)

These excerpts reveal that WhatsApp is used outside the classroom to send the done exercises to the teacher for revising, to improve punctuation, and to check homework with classmates, and to share the meaning of difficult words.

The analysis of the semi-structured interview reveals that the participants used mobile camera and online resources for text analyzing practices as it is evident in the following excerpts:

I use the camera to take pictures of the lessons written on the board like mind maps and others… (SSI-1)

I use the internet to link reading paragraph to similar paragraphs (SSI-2).

4.5 The Analysis of the T-test

The data analysis of the t-test is presented in the below table figures, where the means, standard deviations, correlation, and significance of the pre and posttests are clearly stated in Table 1, and the level of improvement in the four reading practices are represented in the mean differences and significance detailed values of Table 2.

Table 1. Means, std. deviation, correlation, and significance of the T-Test

Reading practices		N	Mean	Std. Deviation	Correlation	Sig.
Code breaking	pretest	30	.78	.387	.072	.707
	posttest	30	2.30	.249		
Text participating	pretest	30	.73	.341	-.126-	.508
	posttest	30	2.30	.282		
Text using	pretest	30	.63	.292	.206	.276
	posttest	30	1.32	.278		
Text analyzing	pretest	30	.80	.282	.130	.495
	posttest	30	1.38	.520		
4 reading practices	pretest total	30	.74	.172	.133	.485
	posttest total	30	1.83	.185		

Having a closer preview of the data analysis of the tests shown in Table 1, it is noticed that code breaking and

text participating scored a means of 2.30 in the posttest in comparison with the pretest means, .78 & .73, and a standard deviation of .249 and .387; .282 and .341 for the first two practices; respectively. While Text using in the posttest scored a means of 1.32 compared with .63 in the pretest with a standard deviation of .278 and .292 in order, text analysing had a means of 1.38 compared with .80, and a standard deviation of .520 and .282; respectively. The total reading practices scored a means of 1.83 compared with .74, and a standard deviation of .185 and .172 in a row. The paired samples showed very weak correlations and significances per each reading practice and at the level of the total of reading practices as shown in the last two columns.

In addition, Table 1 indicates the very low mean of the total reading practices in the pretest, .74. This result could be attributed to some factors. Participants are completely dependent on the textbook and what they learn directly from the teacher.

In comparison, the data analysis of the posttest shows that the participants' score was high, with a mean of 1.83. This progress reflects the positive impact of mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos on the participants' reading practices.

Table 2. Reading practices' paired differences of the T-Test

Reading practices		Paired Differences			t	df	\Sig. (2 tailed)
		Mean Difference	Std. Deviation	Std. Error Mean			
Code breaking	pretest - posttest	-1.517-	.445	.081	-18.669-	29	.000
Text using	pretest - posttest	-1.567-	.469	.086	-18.314-	29	.000
Text participating	pretest - posttest	-.683-	.359	.066	-10.420-	29	.000
Text analyzing	pretest - posttest	-.583-	.558	.102	-5.722-	29	.000
4 reading practices	pretest total – posttest total	-1.08750-	.23477	.04286	-25.371-	29	.000

Table 2 shows the differences in the means and the statistical levels of significance of the pre and posttests of the four reading practices. While code breaking and text using scored very high means, 1.52 and 1.57 with a standard deviation of .445 and .469 in order, text participating and text analysing scored slightly high scores, .683 and .583 with a standard deviation of .359 and .558 in a row. The table proves the existence of very high significances at the level of each reading practice and the total reading practices (.000).

Moving into the challenges of this treatment, it is found that the participants faced some problems with their mobiles such as low battery and internet disconnection as the following excerpt shows:

Two students could not use mobile as one mobile ran out of power and the other could not login the network. (SRJ-2)

there is the technical challenge like internet slow connection for sending some files (WSW-3)

text typing takes a lot of time.. (SSI-3)

but it[WhatsApp] is also time consumer... sometimes to translate you be online and you try to study and translate something, your friends send a message and you will leave the study and start chat with them. (SSI-5)

The analysis also shows that the overuse of online dictionary had negative impact on participants getting meaning of new words in context. Instead of challenging the text of getting meaning of new words from the context of the text, participants go directly to the online dictionary to get the meaning as it is evident in the following excerpt.

It is noticed that students did not rely much on context to identify the meanings of new vocabulary; instead they use their mobile dictionaries (SRJ-8)

The analysis also shows that students sometimes do not comply with the WhatsApp purpose by posting irrelevant questions or comments.

5. Findings and Discussion

This paper investigates the use of mobile WhatsApp, online and offline dictionaries, mobile camera, online resources, and memos in EFL learners' reading practices. In comparing results of the pre and posttests, it is found that participants improved their reading practices as it is evident in Table 3.

Table 3. Improvement of reading practices

Means	Code breaking	Text participating	Text using	Text analysing	Reading practices
Posttest	2.30	2.30	1.32	1.38	1.83
Pretest	0.78	0.73	0.63	0.80	0.74
Improvement	1.52	1.57	.69	.58	1.09

Firstly, breaking the code of reading texts is manifested through matching vocabulary with their definitions and items with their categories, crossing out the odd word from the list of words given, adding the opposites of the words provided, categorizing words based on their parts of speech and function, and identifying the key points, such as grammar, classes, punctuation, and contractions. The findings from the test analysis revealed that this part was evidently improved with a score of (1.52). This could be attributed to the effect of mobile online and offline dictionaries such as Google Translate, Alwafi, and Webster, camera, online resources, and memos inside and outside classroom on code breaking practices to look up at the meaning of new words and for pronunciation, word meaning, parts of speech, categories, opposites, listing words, and synonyms. It is also found that participants used the camera to take photos of the reading texts. The data analysis shows that the camera is utilized inside the classroom to take photos for the answers, done exercises, or explanations like mind maps and outlines on the whiteboard, into the textbooks or into the notebooks of other participants to be finished at home in order to save time and to keep focused.

Secondly, text participation of the reading text is manifested in the form of identifying the main idea and supporting details, explaining cause and effect, filling out a chart, bringing background knowledge to the text, making predictions, and answering presupposed questions. The findings from the test analysis revealed that this part was improved with a score of (1.57). The data analysis also reveals that participants developed a sense of collaborative writing through the strategies of sharing paraphrasing and summarization through WhatsApp and mobile note making.

Thirdly, using texts functionally can be seen through connections with the surrounding environment, making literal and inferential meanings, connecting one idea to another, and using diagrams, tables, and charts to construct the meaning, stating the topic, adding a suitable title, summarizing the main idea, identifying the audience of the text, incorporating the learned material to improve personal and social skills, identifying the text genre and the social purposes, and drawing maps to organize ideas in the text. The findings of the pre and posttests analysis revealed that this part scored (0.69), slightly improved. The data analysis showed that students used mobile Whatsapp, camera, and memos to relate their experiences and make connections outside the classroom for better learning outcomes.

Fourthly, Critical analysis of the texts is achieved through the means of having a discussion with participants, sharing ideas, linking with other reading texts, identifying the author's point of view, reading the text to other similar texts, relating the text to the reader's context, sharing ideas about the author choice of words, rewriting the text in other words, and explaining the form of the text in its expected reception. The t-test analysis showed that participants scored a slight improvement with a means of (0.58). The result indicates that participants have developed a sense of reading not for the test but for using and analyzing the text. They did not depend on the textbook only but they also extended that to reading external materials. Participants began to question the reading texts through thinking and connecting ideas. The data analysis reveals that WhatsApp is used outside the classroom to send the done exercises to the teacher for revising, to improve punctuation, and to check homework with participants, to share the meanings of difficult words along with examples from the surrounding community. It is also revealed that students started to surf the mobile online resources for more text comprehension and explanation.

These findings are in agreement with relevant findings in the Saudi context that call for gradual shift from traditional reading approach to the relatively stress-free extensive reading approach by (Al-Homoud and Schmitt 2009) who conclude that the relatively stress-free extensive approach is as good as or better than the more formal traditional reading approach, taking account of the variables studied. Similarly, Alshumaimeri and Almasri (2012)

suggest that WebQuest can improve and promote participants' reading comprehension. In addition, Al-Musallam (2009) and Khrisat and Mahmoud (2013) claim positive attitudes toward the use of authentic materials as well as using mobile phones in EFL classes in the Saudi context.

In a broader context, the findings of this study are in agreement with Azman, Bhooth and Ismail's (2013) study in terms of code breaking practices, text using practices and text analyzing practices. Text participation practices are improved much more in our technology based classroom compared with the traditional classroom. The test analysis of the present study reported the practices of code breaking as (1.52), the text using as (0.69) and the text analysis as (0.58). Similarly, Azman, Bhooth and Ismail's (2013) study reports that EFL Yemeni students were medium users of the code breaker and text user practices. While low text participation practices were reported, the present study reports high text participation; i.e. (1.57). The improvement in the text participation practices could be attributed to the positive role of mobile applications, however, the low use of text analyzing could be attributed to the negative role of using mobile applications. This negative role is reflected in the analysis which shows that the overuse of online dictionary had negative impact on participants getting meaning of new words in context.

Unexpectedly, it is found that participants sometimes do not comply with the WhatsApp purpose by posting irrelevant questions or comments. It is also important to report that some participants faced some challenges with their mobiles such as low battery and internet disconnection.

6. Conclusion

This study reflects on what mobile features and applications: camera, dictionaries, WhatsApp, note making, and websites can offer to improve reading practices. It focuses on the pedagogical uses of mobile phones and in making available for unordinary language learning settings. Students are no longer confined to the traditional classroom, rather they advantageously extended their learning outside classroom thanks to mobile features; mobile online and offline dictionaries were used inside and outside the classroom for pronunciation, word meaning, parts of speech, and synonyms, etc. WhatsApp was applied outside the classroom to develop a sense of collaborative reading through the strategies of sharing paraphrasing and summarization and to send the done exercises to the teacher for revising, to improve punctuation, and to check homework with classmates, to share the meaning of difficult words. The camera was utilized inside the classroom to take photos for the solutions, done exercises, or explanations like mind maps and outlines on the whiteboard, into the textbooks or into the notebooks of other participants to be finished at home in order to save time and to keep focused. Online resources were accessed for more text connection and familiarity as students have to answer on the regular exam passages from outside the textbook. Finally, memos were implemented by students to note down any important related information and new encountered words and phrases while reading out a newspaper, a magazine, a book, etc.

With the use of mobile features and applications, the participants extended their reading activities. The participants utilized mobile to reflect on the self-study parts with their classmates and teacher. In the classroom, the participants no longer ask about word meanings, parts of speech or pronunciation as well as teachers save more time and efforts during the traditional class as well as the atmosphere have become natural and healthy. In this study, the participants effectively engaged in an action research design. The mobile features and applications intervened to scrutinize reading practices.

The findings of this study are limited to the population of Najran University, where participants are of enough size and homogenous. In addition, the participants slightly used mobile for non-reading purposes. Moreover, it was a challenge to sustain the continuity of participants' determination and motivation to keep going learning outside the classroom.

The teachers-researchers are motivated by the research activities in this project. For a gradual shift to student-center paradigm at the university level, this study recommends that load of teaching should be rethought of by those in office to include not only office hours or classroom hours but also hours outside university campus. As writing is another face of reading, further research could be conducted on the effective use of mobile WhataApp on writing practices. Marks need to be allotted for reading external materials to let students' actively become long-life language readers. Further research could be conducted on the the role of the employed mobile features and applications on reading autonomy.

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