

THE IMPACT OF AN ONLINE SELF-REGULATION BASED VOCABULARY LEARNING PROGRAM ON ENHANCING SECONDARY STAGE EFL STUDENTS READING SPEED

Wafaa` Alam Eldeen Abd Elsalam

Abstract

The purpose of the present study was to investigate using an online self-regulation based vocabulary learning program to improve secondary stage EFL students reading speed. To fulfill the purpose of the study, three instruments were constructed; a Pre-post Online Reading Speed Test, an Online Vocabulary Strategies Inventory, and an Online Self regulation Strategies Scale. The validity and reliability of the study instruments were established before their use in the study. The study adopted the quasi-experimental design. The sample of the study consisted of 60 EFL first grade secondary stage students. They were randomly selected from Bahbeet Alhegara Secondary School at Samanoud Educational Zone in Gharbia where 30 student represented the experimental group and 30 represented the control group. The online self regulation based vocabulary learning program was administered to the experimental group for 8 weeks whereas the control group received the conventional teaching. Results of the study revealed that online self regulation based vocabulary learning program led to significant improvement in first grade secondary stage student EFL online reading speed. A number of recommendations concerning the use self regulation strategy training, vocabulary strategy training, and online reading speed were presented.

Key words: Online Program, Reading speed, Self regulation Strategy, Vocabulary Strategy.

المخلص:

هدفت الدراسة إلى تعرف أثر برنامج مقترح قائم على تنظيم الذات لتعلم المفردات اللغوية عن طريق شبكة الإنترنت على تنمية سرعة القراءة باللغة الانجليزية لدى طلاب المرحلة الثانوية. تم استخدام ثلاث أدوات لجمع البيانات، اختبار قبلي بعدي لسرعة القراءة عبر الإنترنت، ومقياس استراتيجيات تعلم المفردات عبر الإنترنت، ومقياس استراتيجيات تنظيم الذات عبر الإنترنت. تم اختبار صدق وثبات الأدوات قبل البدء في تطبيق الدراسة. اتبعت الدراسة المنهج التجريبي والتصميم شبه التجريبي ذا المجموعتين الضابطة والتجريبية، وتمثلت عينة البحث في ستين طالبا من المرحلة الثانوية بمدرسة بهبيت الحجارة الثانوية بمحافظة الغربية تم اختيارهم عشوائيا، وقسموا إلى مجموعة تجريبية ومجموعة ضابطة. تم تدريس المجموعة التجريبية باستخدام البرنامج المقترح القائم على تنظيم الذات لتعلم المفردات اللغوية عن طريق شبكة الإنترنت، وتم تدريس المجموعة الضابطة من خلال الطريقة التقليدية، واستمر تطبيق البرنامج لمدة ثمانية أسابيع. أسفرت النتائج عن وجود فرق ذي دلالة إحصائية بين المجموعتين التجريبية والضابطة في سرعة القراءة لصالح المجموعة التجريبية، مما يدل على أن برنامج تنظيم الذات لتعلم المفردات اللغوية عن طريق شبكة الإنترنت المقترح كان فعالا ومؤثرا بإيجابية على تحسن سرعة القراءة لدى الطلاب. وتوصي الدراسة بتضمين استخدام استراتيجيات تنظيم الذات واستراتيجيات تعلم المفردات في مقررات اللغة الانجليزية كأسلوب تدريسي فعال في تدريس اللغة الإنجليزية. وأيضا توصي الدراسة بتفعيل التعلم عبر الإنترنت والاهتمام بسرعة القراءة.

الكلمات المفتاحية: برامج الإنترنت، سرعة القراءة، استراتيجيات التنظيم الذاتي، استراتيجيات تعلم المفردات.

Introduction

Fluent reading is essential for successful comprehension, and it is also the most important sign of language proficiency both for native and foreign language speakers. Both speed and accuracy are components of fluency, thus few researches have been conducted on

reading speed (Macalister, 2010; Jodai, 2011).

It was agreed that EFL reader reads much more slowly than in their native languages because they read so laboriously word by word and check unfamiliar words as they encounter them implying that they

lack automaticity of word recognition. Simply, by reading slowly the students exposure to languages will be limited and comprehension will be poor. Therefore, successful EFL is not only asked to master language and knowledge, but also he should apply this knowledge in an appropriate fluent manner. Fluency is usually measured by reading speed rate and calculated by word per minute (wpm) (Chang, 2010).

The majority of the studies agree that the average EFL reading speed from print is 250 words per minute for the skillful reader. The definite value of reading average is ranged from 181 to 240 wpm (Custureri, 2010). For normal persons or those who have no problems in their eye sight, mental functioning,..... etc. researchers set the normal average for silent reading speed as 250-300 words per minute (Nation, 2009).

Using CALL in vocabulary instruction is characterized by repetition. The systematic recycling of vocabulary in CALL environment is based on repetition. This repetition presents a grantee for both learners and teachers that words will not be forgotten. So, this can overcome the limited time of covering the daily lesson skills in a typical EFL classroom. And with the launching of many effective vocabulary programs, teacher can manage his students appropriate practices for new vocabulary online, and this may allow students to have more free time in the classroom to do

harder activities to do with their own (Miles & Kwon, 2008).

Readers employ a set of appropriate strategies that helps them to comprehend the written text. Here comes the evolution of self-regulation strategies. Rose (2012) analyzed the reasons of the evolution of self regulation strategies and the decline of learning strategies. He admitted that learning strategies don not guarantee effective learning. Researches didn't guarantee that students' quality or quantity use of learning strategies are signs of effective learning. Also, lack of precision in applying the strategies properly and computing the mean scores of SILL have encountered many criticism. Finally, the complexity of various contexts in which the language has been learned is neglected, while much attention has been paid to applying SILL as a uni-instrument and generating learners characteristic all over the studies. Therefore, Many contradicting results have been emerged. The solution of this problem lies in (Oxford, 2011; cited in Carven, 2013) opinion because she considered learning strategies as an integral part of self regulated learning.

Khezrlou & Sedegni (2012) admitted that learners self regulated behavior could be employed in many directions amongst them is teaching vocabularies for academic or non academic purposes. Self regulation strategies are attracting more attention with vocabulary leaning especially in CALL environment because it helps the learner to

be positive, more autonomous, and raises the important role of context.

Review of literature

Reading Speed

With the emerging of technology in our life, computer and internet proper use needs both effective and efficient reader. There is a crucial need to have skillful and strategic reader. Reading from a screen is definitely different from reading from a paper.

Dillon (1992) analyzed the literature related to this period about screens and papers baring in mind that computer technology was not developed as in these days. He admitted that most research results indicated that reading from a screen is definitely slower than reading from a paper. Figures vary according to means of calculation and experimental design but the evidence suggests a performance deficit of between 20% and 30% when reading from screen.

Dundar & Akcayir (2012) carried out their study to compare students' electronic text reading performance, reading speed and reading comprehension with tablet PCs and printed books. Participants were 20 5th-class primary school students in Turkey. Students were randomly divided into a control group and a treatment group. Results showed that there was no significant difference between the groups in reading speed or the level of reading comprehension.

Kim (2013) examined differences in reading performance when an electronic test format with a scrolling text mode on a LCD monitor and a traditional paper test format were used. Participants were 108 high school students in the United State who each read two different reading passages, one from paper and the other from an LCD monitor. The results showed that teenagers' reading performance is affected by a presentation medium. Teenagers scored significantly higher on the paper reading comprehension tests than on the electronic ones. In addition, teenagers took much longer time to read passages and answer questions on the electronic tests than the paper tests.

Solak (2014) examined the preference of prospective English teachers in performing computer and paper-based reading tasks and to what extent computer and paper - based reading influence their reading speed, accuracy and comprehension. The participants were 96 prospective English teachers at a State run University in Turkey. The results of the research suggested that prospective English teachers preferred paper - based reading to computer version and their performance was higher in paper - based reading than computer . The study also revealed that reading speed on paper was nearly 12% faster than a computer screen.

Hojjati & Muniandy (2014) research purposes were to distinguish which typeface such as serif and san serif has more efficiency for reading of on screen

text to improve reading performances, as well as examine how line pacing can effect on readability in order to determine reading speed and comprehension, and easiness of reading on screen text. Two font types were selected, Times New Roman (serif) and Verdana (san serif) for the respondents. Readability test on a computer screen was conducted on 30 postgraduate students at a Malaysian University. Results showed that there was a significant difference between the readability of serif and san serif font type of on-screen display. The research findings suggest Verdana font type as a better choice in displaying long text for on - screen display.

Mpofu (2016) aimed at investigating mobile device and computer use at a higher learning institution. Thirty male and female students in University of South Africa participated in this study. Students indicated their use of computers and mobile devices for educational purposes in closed questions. Results showed that most students preferred reading from printed materials than from notes downloaded on computers or mobile devices. Students currently use computers more than mobile devices for reading downloaded notes. Participants who read on paper had the fastest reading speed than those who read on mobile device or computer screen.

Controlling screen reading rate deserves to attract teachers, researchers, and curriculum programmers attention. Because presentation medium affects

speed, how information is displayed is another notion that attracted researchers attention.

Self- Regulation

In the 1980's, the term self-regulated learning originated from the increased focus on self-regulation in academic settings. Self-regulation is a self-directive process and set of behaviors whereby learners transform their mental abilities into skills and habits through a developmental process that emerges from guided practice and feedback (Shuy, 2010).

Gowdy (2006) conducted a comparative study of assisted practice and self-regulation efficacy of two interventions to improve reading fluency and reading comprehension for forty struggling readers ages 8-10 in the lower mainland of British Columbia in Canada. A "Strategies Group" was instructed in the use of reading fluency, phonemic awareness training, repeated times reading, and strategies instruction and goals setting. The students were encouraged to self-reflect on errors to find ways to correct them and also to self reflect upon reading fluency strategies that they use. A "Repeated Reading Group" emphasized repeated/timed reading. Both groups received additional instruction in phoneme awareness. Results showed individual gains on curriculum based measures of reading fluency for participants in both groups. Gains on more distal measures of reading fluency and reading

comprehension were not statistically detectable.

The purpose of Lavasani et al. (2011) study was to investigate the effects of self-regulation learning strategies training on the academic motivation and self-efficacy of students. Female fifth grade elementary students Tehran were selected as the sample. An experimental group were taught the self-regulation learning strategies for 10 sixty-minute sessions and the control group didn't receive anything. The results of the study indicated that the teaching of self-regulation learning strategies has had a significant effect on the academic motivation and self efficacy of the students.

Bannert & Reimann (2012) main aim was to develop and evaluate tools and supports for self-regulated learning with hypertext information structures, such as web pages. Two kinds of support for self-regulated learning were developed and tested experimentally: Prompting and prompting with training. The analyses of learning processes and learning outcomes resulted in a partly existence of the positive effects of both measures of self regulated learning prompts. The more extended measures (with training) had superior effects on student's learning transfer performance and acceptance.

James (2012) used a four stage model to implement goal setting as catalyst for instruction in self regulated reading comprehension strategies to a group of

second grade readers who were struggling with reading comprehension. The researcher chose a selected sample of 12 students from Rural K-2 Elementary School in Northern, California. The results of the study indicated that there could be a positive correlation between students' use of self regulated reading strategies and an increase in reading performance. Participants showed significant gains in average reading comprehension scores, book level, comprehension quiz pass rate and / or average words read per week; however not all students' improvement was able to be directly linked to use of these self regulated strategies.

Ranalli (2013) study designed web-based and second language (L2) instructional resource called VVT (Virtual Vocabulary Trainer) to teach integrated vocabulary depth of knowledge and dictionary referencing skills to tertiary-level learners of English as a Second Language (ESL). It also evaluated the potential of online resources to address long-standing challenges in the field of L2 strategy instruction. Participants were 64 Mandarin Chinese university students at Iowa State University. The findings provided evidence of the feasibility of automated, online strategy instruction for complementing teacher led forms, while also shedding light on the challenges many L2 learners face in self-directed learning of vocabulary depth of knowledge. Finally, it demonstrated the potential of an integrative, multicomponential model of

self-regulation for researching and theorizing about L2 learning.

The aims of (Helle et al., 2013) study were to evaluate changes in the mean level of perceived self-regulation throughout high school and to evaluate the nature of the developmental relations between achievement, perceived self-regulation, and personal interest. Participants were 245 high school students from a mid-sized Finnish city. The main result was that perceived self-regulation at the beginning of high school predicted not only scholastic achievement at the end of high school over and above prior achievement, but also subsequent personal interest. Additionally, the level of perceived self-regulation decreased from the first to third year of study. The study concluded that that perceived self-regulation and personal interest are only partially explained by achievement.

Liu, Lan & Ho (2014) study employed a Web-based tool, Google Docs, to determine the effects of Web-based collaboration on vocabulary improvements among learners of English as a foreign language (EFL). Participants in this study were 210 first- and second-year private university students in northern Taiwan. The findings of the study suggested that collaboration using a Web-based tool affects vocabulary knowledge development than passive collaboration. It was concluded that teachers need to understand students' types of employment of vocabulary strategies learning new

vocabulary words in or outside the classroom. This can enable teachers to support their students with how to employ new strategies to regulate their strategic processing. Finally, web-based learning participates in raising students motivation and interest towards the target language which increase students autonomy while learning.

Rare studies examined reading speed in relation to self regulation. Speed in the previous studies was tackled under the umbrella of fluency. More research is needed in this area. It was agreed that vocabulary knowledge is a very important predictor of reading level.

Vocabulary

Recently, online vocabulary learning systems became dynamic, collaborative, and also competitive. This can involve students in higher levels of psychological and physical engagement in or outside classrooms. The more students are involved in the online vocabulary learning, the more students are involved cognitively, emotionally, and behaviorally while learning. A higher level of students vocabulary acquisition and better vocabulary retention are accompanied with online vocabulary learning environment. To sum up, better learning outcome are presented in the online vocabulary learning systems than traditional methods (Stroud 2014).

Tozcu & Coady (2004) study investigated the effect of direct vocabulary

learning using Computer Assisted Language Learning (CALL) on vocabulary knowledge, reading comprehension, and speed of word recognition. The experimental group received CALL direct vocabulary instruction while students in the control group was regularly taught. It was found that the CALL treatment has a significant positive impact upon students in the experimental group concerning learning highly frequent vocabulary, decreasing their reaction time for frequent word recognition, improving their reading comprehension. Although the experimental group showed significantly greater gains than the control students, both groups showed increases in reading comprehension, vocabulary gain, and a decrease in reaction time for frequent word recognition.

Alessi & Dwyer (2008) examined the intermediate learners of Spanish reading to Spanish newspaper article with vocabulary assistance either before reading, while reading, both, or without any such assistance. The participants were 76 undergraduate students at a public university in the United States. Reading performance was significantly better for students receiving vocabulary assistance during reading (hypertext glossing), but not for those receiving it before reading (the practice activity). Reading time of the newspaper article was less for students receiving prereading vocabulary assistance, but total lesson time (the prereading time plus reading time) was

more for those students. Given the particular activities of this study, a vocabulary activity before reading appears to speed up reading without affecting comprehension, while vocabulary assistance during reading appears to improve comprehension without affecting speed.

The effect of top-down and bottom up training on reading fluency and comprehension was examined in (Oliver & Young, 2016). The sample consisted of 20 ESL tertiary-bound students. Their age ranged from 18 to 44. The study resulted in an improvement in the students fluency with top down training (teaching vocabulary within context), while no improvement has occurred in the students reading comprehension level. In addition, bottom up training (teaching vocabulary in isolation) had a negative impact upon both fluency and comprehension.

The purpose of Johnston, Mercer, & Geres-Smith (2018) was to investigate two vocabulary instructional procedures in reading fluency for English Language Learners (ELLs) and investigate their effect on improving reading comprehension. Participants were four ELL students in Grades 3 and 5. Results have proven that the intervention had no significant impact upon reading comprehension. Also, incorporating vocabulary activities did not slow down the students speed or reading fluency.

In the light of the above discussion that made clear the importance of reading speed and the viable role of online self-regulation strategy instruction and vocabulary strategy instruction online, the present study aimed at investigating the impact of online self-regulation based vocabulary learning program to improve secondary stage EFL students reading speed.

Pilot Study:

In order to investigate the students present level in reading speed the researcher developed a reading speed test. The test aimed at measuring students reading speed (words per minute/ wpm).

The test was administered to a random sample of 25 female students. This sample was drawn from Ashraf Gawesh Secondary School in Nabarouh. The results are shown in table (1).

Table(1)Participants and reading speed average of students in the pilot study .

Participants	Reading speed average (wpm)
25	33

Reading rate of the sample is 33 words per minute which is very low because the average rate of reading from a paper is 250-300 words per minute. This shows that the students' level in reading speed is rather low.

▪ **Statement of the problem**

Based on the review of literature and related studies and on a pilot study, the problem of the present study can be stated

as follows: " Secondary stage students' level in reading speed is weak ". Therefore, the present study investigated how to improve students' level of reading speed through an online self-regulation based vocabulary learning program.

Research questions:

The study attempts to answer the following questions:

1. What are the appropriate online vocabulary strategies that EFL 1st grade secondary school students can be trained in?
2. What are the appropriate online self regulation strategies that EFL 1st grade secondary school students can be trained in?
3. What are the components of an online self regulation based vocabulary learning program to improve the students' reading speed?
4. What is the impact of a proposed online self regulation based vocabulary learning program on improving reading speed of EFL 1st grade secondary school students?

Hypotheses of the study:

The hypotheses of the study stated as follows:

1. There is a statistically significant difference at the 0.01 between the mean score of the control group and the experimental group on the post administration of the Online Reading Speed Test in favor of the experimental group due to

implementing of the Proposed Online Self regulation Based Vocabulary Learning Program.

2. There is a statistically significant difference at the 0.01 between the mean score of the experimental group in the pre- post- administration of the Online Reading Speed Test in favor of post-administration due to the implementation of the Proposed Online Self regulation Based Vocabulary Learning Program.
3. There is no statistically significant difference at the 0.01 between the mean score of the control group students in the pre and post-administration of the Online Reading Speed Test.

The Purpose of the Study

The present study aims at:

1. Designing an online self regulation based vocabulary learning program to develop 1st grade secondary school students' reading speed.
2. Developing 1st grade secondary school students' use of self-regulation strategies.
3. Identifying necessary online vocabulary strategies that EFL 1st grade secondary school students can use.

The Significance of the Study:

The present study contributed to:

1. Providing the ministry of education, teachers and researchers with an on

line vocabulary learning program that may be useful in improving students' reading speed.

2. Improving EFL 1st grade secondary school students reading speed online.
3. Enriching curriculum with lists of some self-regulating strategies that may be useful in developing students reading speed.
4. Raising the awareness of curriculum designers of using online vocabulary strategies.

Delimitations of the Study:

The present study was limited to:

1. A random sample of 1st grade secondary school students.
2. The average reading rate of reading online that is around 200 wpm.
3. Some self-regulation strategies appropriate to a sample of 1st grade secondary school students.
4. Some online vocabulary strategies appropriate to a sample of 1st grade secondary school students.

Methodology:

A) Participants :

The participants of the study were a random sample of 1st grade secondary school students which consisted of 60 students from Bahbeet Alhegara Secondary school in Samnoud Educational Zone. They were divided into an experimental group which consisted of 30 students and a control group which consisted of 30 students.

B) Design:

The study adopted both descriptive analytical and quasi experimental designs. First, the descriptive approach was used to identify online vocabulary strategies and online self regulating strategies suitable for students level and the aim of this research. Second, the quasi experimental approach was used to administer the proposed online self regulation based vocabulary learning program to the experimental group students.

C) Instruments:

The following instrument were designed by the researcher:

1. An online reading speed test as a pre- and post-test in order to measure the participants' reading speed skills level pre- and post- administering the program.
2. An online self-regulation strategies scale order to identify some suitable online self regulation strategies to the first grade secondary grade students to construct the suggested online self regulation based vocabulary learning program .
3. An online vocabulary learning strategies inventory in order to identify the appropriate online vocabulary learning strategies to the first grade secondary grade students to construct the suggested online self regulation based vocabulary learning program .

Definition of terms:**Vocabulary:**

For the purpose of the current study and in the light of (Pikulski & Templeton, 2004; Williamson, 2014) vocabulary will be defined as: a list of words, figures of speech, or technical terms that is considered new or unfamiliar to 1st grade secondary school students, these vocabulary items are studied through on line self regulation strategies in order to improve students reading comprehension skills.

Reading speed

For the purpose of the current study and in the light of (Mehndiratta, 2002:772) reading speed will be defined as: "The number of the comprehended words in a written text per minute".

Self Regulation

For the purpose of the current study and in the light of (Zimmerman, 2002; Zimmerman, 2000 cited in Bembenutty, 2011) self regulation will be defined as: "learner's belief and use of cognitive, metacognitive, behavioral strategies and motivational elements in academic situation for achieving proposed goals in order to generate the use of such strategies and elements in another situations in or outside the classroom.

Online Learning

For the purpose of the current study and in the light of (Michigan Merit Curriculum Guidelines, 2006; Watson, Winograd & Kalmon, 2004- cited in

Cavanaugh, Barbour & Clark, 2009; Brewer, DeJonge & Stout, 2001) online learning will be defined as: asynchronous interaction between the learner and the computer through liner steps such as glossing and inferring new vocabularies in a hypertext in order to develop the students' reading comprehension skills.

Results and Discussion

The results of the study are statistically analyzed in terms of its hypotheses and they are discussed in the light of the theoretical background and related studies. Results of the study were reported as follows.

Hypothesis #1: "There is a statistically significant difference at the 0.01 level between the mean score experimental group and that of the control group in the post administration of Online Reading Speed Test in favor of the experimental group.

To validate this hypothesis, the researcher used the t-test for independent measures. See table (2) below.

Table (2) Comparing the mean score of the experimental group and that of the control group on the post-administration of the online reading speed test.

Variable	Control Group		Experimental Group		t-value	Sig.
	Mean	S.D	Mean	S.D		
Reading Speed	33.70	12.67	55.71	16.41	5.81	0.01

Table (2) shows that the t-value for the difference between the two groups was

in favor of the experimental group (55.71) where the t-value was (5.81) and it was significant at the (0.01).

In addition, after administering the proposed online self regulation based vocabulary learning program students' reading speed rate was improved which was 33.7 words per minute for the control group and 55.7 words per minutes for the experimental group. Results thus, reported that the training program had sizable positive impact on students' of the experimental group reading speed average while control group had no gains in their reading speed average. Therefore, the first hypothesis of the study is verified and accepted.

Hypothesis #2: "There is a statistically significant difference at the 0.01 level between the mean score of the experimental group in the pre- post-administration of the Online Reading Speed Test in favor of post-administration due to the implementation of the proposed online self regulation based vocabulary learning program."

T-test for dependent samples was used to compare the difference between the mean score of the experimental group students in the online reading speed test before and after administering the proposed online self regulation based vocabulary learning program. See table (3) below.

Table (3) Difference between the mean score of the experimental group students on the pre - post administration of the online reading speed test

Variable	Experimental Group Pre Administration		Experimental Group Post Administration		t-value	Sig.	Eta
	Mean	S.D	Mean	S.D			
Reading Speed	35.26	8.97	55.71	16.41	8.42	0.01	0.71

Results in table (3) reveal that the mean score in the post- administration of the online reading speed test was greater than that of the pre-administration and the experimental group students reading speed average has been increased significantly.

The above table reports that:

1. T-test value was significant at (0.01) for the reading speed average (8.42). The difference was in favor of the post-administration of the Online Reading Speed Test.
2. The Effect Size was calculated as (0.7) which means that (71%) of the variance in the total dependent variable could be ascribed to the effectiveness of the proposed online self regulation based vocabulary learning program (among other variables not included in the current study such as private tutoring, school environment, etc) .

It is, thus, evident that the training program made a great difference in online reading speed average for the experimental group. Students online reading speed have been increased from 35 wpm to 56 wpm so their reading speed average increased 21 wpm which made the percentage of 60% increase. . Therefore, the second

hypothesis of the study is verified and accepted.

Hypothesis #3: " There is no statistically significant difference at the 0.01 level between the mean score of the control group students on the pre- post-administration of the online reading speed test."

To test this hypothesis, the researcher used the t-test for repeated measures. Table (4) below displays mean and standard deviation in the pre- and post-administration of the online reading speed test on the control group.

Table (4) Difference between the mean score of the control group students on the pre- post-administration of the online reading speed test.

Variable	Control Group Pre Administration		Control Group Post Administration		t-value	Sig.
	Mean	S.D	Mean	S.D		
Reading Speed	31.72	9.11	33.70	12.67	1.90	No. Sig

Results in table (4) illustrate that, the t-test value was (1.90) and it was not significant. There was no difference between pre and post-administration of the online reading speed test. Therefore, the third hypothesis of the study is verified and accepted.

Conclusion

Based on the statistical analysis of the study results and the discussion mentioned above, it can be concluded that using online self regulation based vocabulary learning program improves EFL secondary stage students reading speed average.

Recommendations of the Study:

1. Ministry of Education should train EFL students on the use new technology; computer skills and online program are included, in order to help their student to interact in an authentic environment and learn English language skills more independently and effectively.
2. Ministry of Education should assign a part in all grades` syllabus to train the EFL students in improving their reading speed.
3. Apart of assessing reading speed should be included in both formative and summative assessment while designing EFL curriculums.
4. Apart of teaching the four language skills should be conducted online because it is a demand for this age to practise theses skills online while preparing students to go in their daily life .
5. New techniques of integrating various strategies of teaching vocabulary should be integrated while designing EFL curriculum as well as the four language skills.

Suggestions for Further Research:

The following points are recommended to be considered for further research:

1. This study can be replicated with different models of self regulation.
2. This study can be replicated at a different school levels (primary or preparatory) or even university level.

3. Exploring the use of online self regulation based vocabulary learning program in developing other language skills.
4. Investigating and analyzing the relation between self regulation and the four language skills.

References

- Alessi, S. & Dwyer, A. (2008). Vocabulary Assistance Before and During Reading. *Reading in a Foreign Language*, 20 (2), 1539-0578.
- Bannert, M. & Reimann, P. (2012). Supporting Self – Regulated Learning Hypermedia Learning through Prompts. *ERIC Reproduction Services*, EJ 949562.
- Bembennuty, H. (2011). Introduction: Self-Regulated of Learning of Learning in Postsecondary Education. *New Directions for Teaching and Learning*, 2011 (126), 1–124.
- Brewer, E., DeJonge, J. & Stout, V. (2001). *Moving to Online. Making the Transition from Traditional Instruction and Communication Strategies*. Thousand Oaks, CA: Corwin Press, Inc.
- Carven, L. (2013). Vocabulary Learning Strategies. Available at: <http://ci.nii.ac.jp/naid/120005648824>. Retrieved August,1, 2016 at: 7:50 PM.
- Cavanaugh, C. Barbour, M. & Clark,T.(2009). Research and Practice in K-12 Online Learning: Review of Open Access Literature.

- International Review of Research in Open and Distance Learning* :10(1), 1492-3831.
- Chang, A. (2010). The Effect of a Timed Reading Activity on EFL learner: Speed, Comprehension, and perceptions. *Reading in a foreign Language*, 22 (2), 254-303.
- Dillon (1992) Dillon, A. (1992). Reading from Paper Versus Screens: a Critical Review of the Empirical Literature. *Ergonomics*, 35 (10), 1297-1326.
- Dundar , H. & Akcayir, M. (2012) . Tablet Vs. Paper: The Effect on Learners' Reading Performance. Available at: <http://www.iejee.com/index/makale/75/tablet-vs-paper-the-effect-on-learners-reading-performance>. Retrieved September, 4, 2016 at 10.03PM.
- Gowdy, R. (2006). A comparative Study of Assisted Practice and Self-Regulation: Interventions to Improve Fluency and Comprehension for Struggling Readers. Unpublished MA. Thesis. Simon Fraser University.
- Helle, L. et al. (2013). The Developmental Trajectory of Perceived Self-Regulation, Personal Interest, and General Achievement throughout High School: A Longitudinal Study. *Eric Reproduction Services*, EJ1010730.
- Hojjati, N. & Muniandy, B. (2014). The Effects of Font Type and Spacing of Text for Online Readability and Performance. *Contemporary Educational Technology*, 5 (2), 161-174.
- James, P. (2012). Developing Self Regulated Reader. Available at: csuchio-despace.calstate.edu/handle/10211.4/466. Retrieved January, 11th, 2014 at 05.55 PM.
- Jodai, H. (2011). Reading Rate and Comprehension. *Eric Reproduction Services*, ED523331.
- Johnston, L. Mercer, S., & Geres-Smith, R. (2018). Incorporating Vocabulary Instruction in Individual Reading Fluency Interventions with English Language Learners. *Eric Reproduction Services*, EJ1168293.
- Khezrlou, S., & Sadeghi, K. (2012). Self-regulated Vocabulary Strategy Use: Implications for CALL and Individual Variables. *MEXTESOL Journal*, 36,(1).
- Kim, H. & Kim. J. (2013). Reading from an LCD Monitor Versus Paper: Teenagers' Reading Performance. Available at: <http://www.consortiacademia.org/index.php/ijrset/article/view/170>. Retrieved September, 4th, 2016 at 10.07PM.
- Lavasani, M. et al. (2011). The Effect of Self-regulation Learning Strategies Training on the Academic Motivation and Self-efficacy. *Procedia - Social and Behavioral Sciences*, 29, 627–632.

- Liu, S., Lan, Y., & Ho, C. (2014). Exploring the Relationship between Self - Regulated Vocabulary Learning and Web - Based Collaboration. *Educational Technology & Society*, 17(4), 404 – 419.
- Macalister, J.(2010). Speed reading courses and their effect on reading authentic texts: A preliminary investigation. *Reading in a Foreign Language*, 22(1) , 104–116.
- Mehndiratta, M. (2002). *Dictionary of Education*. 3rd ed. New Delhi: KSP Apebacks.
- Michigan Merit Curriculum Guidelines, Online Experience, Michigan. Department of Education (2006). Available at: http://www.michigan.gov/documents/mde/Online_10.06_final_175750_7.pdf. Retrieved December, 15, 2013 at 11.36 PM.
- Miles, S. & Kwon, C. (2008). Benefits of Using CALL Vocabulary Programs to Provide Systematic Word Recycling. *English Teaching*, 63(1).
- Mpofu, B. (2016). University Students Use of Computers and Mobile Devices for Learning and their Reading Speed on Different Platforms. *Universal Journal of Educational Research*, 4(4), 926-932.
- Nation, P. (2009). Reading Faster. *International Journal of English Studies*. 9(2), 131-144.
- Oliver, R. & Young, S. (2016). Improving Reading Fluency and Comprehension in Adult ESL Learners Using Bottom-Up and Top-Down Vocabulary Training. *Studies in Second Language Learning and Teaching*, 6 (1), 111-133.
- Pikulski, J. & Templeton, S. (2004). Teaching and Developing Vocabulary: Key to Long-term Reading Success. Available at: https://www.eduplace.com/marketing/nc/pdf/author_pages.pdf. Retrieved October, 22nd, 2014 at 08:46 PM.
- Ranalli, J. (2013). Online Strategy Instruction for Integrating Dictionary Skills and Language Awareness. *Language Learning and Technology*, 17 (2), 75-99.
- Rose, H. (2012). Language learning strategy research: Where Do We Go From Here? *Studies in Self-Access Learning Journal*, 3(2), 137-148.
- Shuy, T. and TEAL staff (2010). Self-Regulated Learning. Available at: http://cdn.harmonyapp.com/assets/4fad7adabe9d0390003ad1/teal_just_write_guide.pdf#page=35. Retrieved November, 11, 2014, 6.00P.M.
- Solak, M, (2014). Computer Versus Paper – Based Reading : A Case Study in English Teaching context. *Mevlana International Journal of Education*, 4 (1), 202-211.
- Stroud, R. (2014). Student engagement in learning vocabulary with CALL. In javier, S., Broader, L. , E. Media, E.

- & Thouësny, S. (Eds), *CALL Design: Principles and Practice; Proceedings of the 2014 EUROCALL Conference, Groningen, The Netherlands* (340-344). Dublin: Research-publishing.net. doi:10.14705/rpnet.2014.000242.
- Tozcu, A. & Coady, J. (2004). Successful Learning of Frequent Vocabulary through CALL Also Benefits Reading Comprehension and Speed. *Eric Reproduction Services*, EJ694879.
- Williamson, G. (2014). Vocabulary. Available at: <http://www.slinfo.com/vocabulary/>. Retrieved December, 15, 2013 at 11.36 PM.
- Zimmerman, B. (2002). Attaining Self regulation. In Boekaerts, M., Pintrich, P., & Zeidner, M. A. *The Hand book of Self Regulation*. USA: Library of Congress (13-41).