Reflective Reading Strategy Training through Google Classroom: A Way for Enhancing EFL Student Teachers' Analytic Writing and Reading Self-Regulation

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Abstract
This study was conducted to determine the effect of reflective reading strategy training through Google classroom, on EFL student teachers' analytic writing and reading self-regulation. 40 EFL student teachers at the Faculty of Education, Fayoum University, participated in the study. They were randomly assigned into two groups, one treatment group (20 students) and one control group (20 students). The treatment group was exposed to the reflective reading strategy training introduced through Google classroom, while the control group was taught the regular reading course using traditional methods. The training program lasted for eight weeks, during this period the treatment group studied a group of reflective reading strategies and tasks introduced through Google classroom tools. Data were collected through an analytic writing test and a reading self-regulation scale. Scores obtained from the pre and post administration of the study tools were statistically analyzed using SPSS program (version 21). The statistical difference between the treatment and non-treatment groups was calculated using the independent samples t-test. The results of the study showed that the treatment group outperformed the control group in the post administration of the analytic writing test and the reading self-regulation scale. This proved the effectiveness of the reflective reading strategy training through Google classroom in developing the study sample's performance in the targeted skills. In light of the study results, some recommendations and suggestions for further research were given.

Keywords: reflective reading strategies - Google Classroom - analytic writing - reading self-regulation
التدريب على استراتيجيات القراءة التأملية لتحسن مهارات الكتابة التحليلية والتنظيم الذاتي القرائي لدى الطلاب المعلمين شعبة اللغة الإنجليزية

إعداد

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المستخلص:

هدفت هذه الدراسة إلى التعرف على أثر التدريب على استراتيجية القراءة التأملية من خلال فصل جوجل، على مهارات الكتابة التحليلية والتنظيم الذاتي القرائي لدى الطلاب المعلمين شعبة اللغة الإنجليزية. وقد شارك في البحث (40 طالب) من الطلاب المعلمين شعبة اللغة الإنجليزية بكلية التربية جامعة الفيوم، وقد تم تقسيمهم إلى مجموعتين احدهما تجريبياً (20 طالب)، والآخر ضابطياً (20 طالب)، وقد درست المجموعة التجريبية البرنامج التدريبي القائم على استراتيجيات القراءة التأملية باستخدام فصل جوجل، أما المجموعة الضابطة فقد درست بالطريقة المعتادة. وقد استغرقت التجربة ثمانية أسابيع درس فيها طلاب المجموعة التجريبية مجموعة من استراتيجيات القراءة التأملية والمهام المقدمة من خلال أدوات "فصل جوجل"، أما عن أهداف جمع البيانات فقد تمت في اختيار الكتابة التحليلية، مقياس تصحيح الكتابة التحليلية، ومقياس التنظيم الذاتي القرائي، وقد تمت المعالجة للبيانات التي تم الحصول عليها من التطبيق القلبي والبعدي باستخدام برنامج SPSS (نسخة 21)، وتم حساب الفرق الإحصائي بين المجموعة التجريبية والضابطة باستخدام اختبار T للعينات المستقلة. وقد أشارت نتائج الدراسة إلى وجود فروق دالة إحصائياً بين درجات المجموعة التجريبية والضابطة لصالح المجموعة التجريبية، في التطبيق البعدي لكل من اختبار الكتابة التحليلية ومقياس التنظيم الذاتي القرائي، وذلك ما يثبت فاعلية التدريب على استراتيجيات القراءة التأملية باستخدام فصل جوجل، في تتبديل مهارات الكتابة التحليلية ومهارات التنظيم الذاتي القرائي لدى طلاب الدراسة. وفي ضوء تلك النتائج تم تقديم بعض التوصيات والبحث المقترحة.

الكلمات المفتاحية: استراتيجيات القراءة التأملية-فصل جوجل-الكتابة التحليلية-التنظيم الذاتي القرائي
Introduction

Reading comprehension is an integral part of language, and is included in all language achievement and proficiency tests. It is considered the most commonly used skill for enhancing students' vocabulary and syntactical knowledge. In addition, reading is the primary tool for content knowledge, and a great source for enlarging one's experiences and world knowledge. Without the ability to read and understand texts, EFL learners are not able to make progress in other areas of school curriculum. So, as stated by Davoudi and Yousefi (2015), adequate reading skill is a pre-requisite for success in postsecondary education. Students who struggle with reading often lack the prerequisites to take academically challenging coursework that could lead to more wide reading and thus exposure to advanced vocabulary and content ideas. Al-Jarrah and Ismail (2018) emphasized that one of the most significant problems faced by instructors when teaching to Arab EFL university students is reading deficiency in English texts, which reflects students’ poor academic performance. It is assumed that learners who are unable to read and comprehend, face many challenges during their studies and after graduation.

Reading is not just the ability to read and understand words; it is an active process that involves meaning construction as a result of reader-text interplay. According to Blau (2003), the definition of literacy has been changed across different historical and educational contexts. In recent years, there has been a shift from memorization to comprehension and analysis; so, schools have been directed to producing students who are "analytic readers". The latest form of literacy has been known as "critical literacy" or "disciplined literacy". It requires students to become more active, responsible, and responsive readers than ever before. Readers who are invited to produce their own interpretations of texts, and who are frequently expected to recognize, and criticize, are always successful readers.

So, reading comprehension is a complex process that requires readers to engage in many processes and use different effective strategies for carrying out these processes. In contrast, according to
Randi, Grigorenko, et.al (2005), there appears to be little teaching of reading comprehension. More emphasis is given to the testing of reading comprehension than instruction in strategies that guide students in processing texts. Teachers assess reading comprehension by asking comprehension questions, but assessment is not a substitute for instruction, especially if the questions are intended to assess literal comprehension. Moreover, students' ability to answer such questions does not necessarily mean that they understand what they have read.

**Statement of the problem**

The above discussion makes it clear that reading is not only the ability to read and even understand words. Producing the "analytic reader" has become the aim of successful teaching of reading, especially at the college level. Thus, providing students with strategies that help them to be responsive readers and to produce their own interpretation and analysis of a text is a requirement for their literacy development. This requires deeper interaction and critical analysis of reading texts, which in turn requires in-depth thinking and discussion among students. This may be difficult in the traditional class with the huge number of students attending reading courses. On the other hand, the current generation of students spend most of their time on the internet discussing different issues and topics, and they exchange ideas and files easily. But, unfortunately, most of their discussions are not always serving their academic progress and, in most cases, they do it in their mother tongue. Hence, the current study aimed to make use of e-learning, namely; learning platforms for training EFL student teachers to be reflective readers and to develop their analytic writing skills as well as their reading self-regulation. Therefore, the current study tried to answer the following questions:

- What is the effect of reflective reading strategy training through Google classroom on EFL student teachers' analytic writing?
- What is the effect of reflective reading strategy training through Google classroom on EFL student teachers' reading self-regulation?
Significance of the study

This study was designed to help EFL student teachers enhance their reflective reading strategy use. So, it is expected to develop their skills as critical and analytic readers, to promote their deep understanding of reading texts and to turn them into active and responsive readers. At the same time, it is expected that this study contributes in developing student's analytic writing, as trainees were prompted to give written responses to the texts they read throughout the reflective strategy training. Also, it may help students monitor their comprehension, because reflective strategies enhance readers' ability to read, reread, ask questions, infer, predict and check their predictions and inferences. This can help them self-regulate their reading actions and processes, and as a result, their reading comprehension level and reading motivation could be enhanced. The study also attempted to aid students with beneficial electronic tools that could reinforce their independent learning habits, as they were trained in studying the materials by themselves with the aid of peers and the teacher, so this could pave the way for them to develop themselves as independent and analytic readers and writers.

Hypotheses of the study

The study aimed to test the validity of the following hypotheses:

1. There is a statistically significant difference between means of scores of the experimental group (studying the reflective reading strategy training though Google classroom, in addition to the traditional reading course) and the control group (studying reading in the regular class), in the post administration of the analytic writing test, in favor of the experimental group.

2. There is a statistically significant difference between means of scores of the experimental group and the control group, in the post administration of the self-regulated reading scale, in favor of the experimental group.

3. There is a statistically significant difference between means of scores of the experimental group in the pre and post administration of the analytic writing test, in favor of the post administration.
4. There is a statistically significant difference between means of scores of the experimental group in the pre and post administration of the self-regulated reading scale, in favor of the post administration.

**Delimitations of the study**

1. The study was delimited to a group of (40) third year English language section students at the Faculty of Education, Fayoum University, in the academic year (2020-2021, first semester).
2. Five reflective reading strategies: thinking aloud of previewing and predicting, making connections to prior knowledge, making inferences, RST comprehension monitoring strategy, and reflective logs.
3. Google classroom as a learning platform as it is easy to use, and is suitable for teaching reading as it has a discussion board for students and the teacher to exchange materials and discussions easily. Google tools provided in the platform (e.g., Google DOC, Google Forms, and Google Drive) are beneficial for practicing reading and writing skills.

**Definition of terms**

**A. Reflective Reading**

In reflection, students summarize the important concepts of the reading and describe what is interesting, surprising, or confusing to them. As stated by (Larking, 2017, p. 58), reflection helps students have more thoughtful engagement with texts after a deeper consideration of the issues that have been presented and their own reactions to those issues that have been expressed. According to (Wu, 2015) reflective reading strategies are fundamental to higher levels of academic literacy. These reading strategies encourage students to connect the beliefs and experiences they have to the texts they read. The researcher adopted Larking's (2017) and Wu's (2015) definitions.

**B. Analytic Writing**

Analytic Writing, as stated by Che Lah and Hashim (2014), integrates the students’ ability to do overall evaluation towards certain information or idea which is read, make a conclusion about the precision or suitability of the given information or idea, apply the
information, and emphasize the production of a new idea. Analytic writing needs divergent thinking, which is a skill higher than the literal and inferential level of comprehension, and it depends on the knowledge and personal experience of the reader. Abu Nemer (2017) described the analytic level of reading as the reader's engagement with the information presented as he uses it to shape or process ideas of his own. The questions of this level might consist of open-ended ones which require the reader to include his own knowledge, view and value. Martutik (2020) added that analytic writing is strongly associated with imagination, innovation, originality, and excellence.

So, the researcher defined analytic writing as the reader's engagement with and response to the ideas presented in a reading text, through analyzing, evaluating, and interpreting the author's ideas, intentions, and feelings, to produce creative ideas of his own in a written format.

C. Reading Self-regulation

It is the self-directive process by which learners transform their mental abilities into academic skills. Self-regulation refers to self-generated thoughts, feelings, and behaviors that are oriented to attaining goals. Self-regulated learners are proactive in their efforts to learn because they are aware of their strengths and limitations and because they are guided by personally-set goals and task-related strategies. Self-regulated learners monitor their behavior in terms of their goals and self-reflect on their increasing effectiveness, which enhance their self-satisfaction and motivation to continue to improve their methods of learning (Zimmerman, 2002). The researcher adapted Zimmerman's definition.

Review of literature

Reading comprehension

Reading comprehension is a meaning making process that arises from the interaction between the reader and the text. This generative activity results in unique interpretations of the same text by different readers. According to this view, readers’ prior knowledge and experiences serve more central roles in interpretations of the text in a non-traditional way that differs from one reader to another (Randi, et.al, 2005).
Samuels, et.al (2005, p. 55) stated that reading is a comprehension monitoring process that involves four potential aspects: first, readers must monitor what is already known in terms of how what they are reading fits with what they already know from their own experiences, second, they perform inference integration, that is, they figure out how this new bit of information fits together by itself and with previous inferences, third, they monitor what is already understood in terms of how what they have just read fits with what was previously read in a text and lastly, they use selection, that is, they decide what information stays, what information goes, what information gets held onto just in case it is needed later, and what information needs to be inhibited. So, reading comprehension is a connection making process in which the reader relates his prior knowledge and experiences to the ideas and experiences they find in the reading text.

Reading comprehension, especially at the college level, requires higher order thinking skills important for carrying out higher order tasks and answering higher order questions. So, according to Nourdad (2015), memorization of facts and knowledge will not be effective for working with reading tasks. Instead, readers need to put the gained information in a new perspective by manipulating the text, developing an active link between the pieces, and creating new combinations. Consequently, as stated by Nourdad and Asghari (2017), instruction in thinking can positively affect reading ability of learners. As an active decoding process, reading requires a close relationship between reader and text. Comprehension involves extraction of information from text and integrating its various components in the best possible way while connecting them to existing schemata of prior knowledge. This requires high levels of thinking and creativity on the part of reader. In other words, effective readers need to reflect on the text in order to maintain comprehension.

Many researches have been conducted to explore the reading comprehension strategies expert readers use. According to Wirth and Aziz (2009), skilled readers use a wide range of strategies during all phases of reading (e.g., setting goals for learning, monitoring
comprehension during reading, checking comprehension, and self-reflection). Majid, et.al (2010) found out that proficient readers make use of metacognitive strategies more than less proficient readers. This means that they control, monitor and evaluate their reading processes in a better way. Also, Okasha (2020) conducted a study to find out whether strategic reading techniques are effective for enhancing reading comprehension. The results of his study showed that using strategic reading techniques including “clarifying, prediction, questioning, and summarizing”, helps learners improve their reading skills. Block and Israel (2004, p. 154) emphasized that highly skilled readers use similar thought processes before, during, and after reading. They: (a) adjust a reading goal according to their level of prior knowledge, (b) think strategically, (c) follow their intentions to the end of a passage, (d) monitor their comprehension, and (e) reflect on an author’s purpose within the constraints of a particular genre and their own reading objective.

On the other hand, poor readers usually cannot distinguish effective and in-effective strategies and their effects on reading comprehension. They are not also well at monitoring activities during reading (Zarei, 2018). So, instruction in effective reading strategies is effective, especially for poor readers. This is because, according to Anastasion and Griva (2009), reading strategy instruction helps learners to enhance reading ability and it shows readers how to interact with the text and how to use strategies to comprehend the text effectively. Successful reading comprehension is not simply a matter of knowing what strategy to use, but the reader must also know how to use it successfully. 

**Reflective Reading**

Reading reflections, as described by Wirth and Aziz (2009), are designed to address some of the challenges students face with college-level reading assignments. In reflection, students summarize the important concepts of the reading and describe what is interesting, surprising, or confusing to them. Reading reflections not only encourage students to read regularly before class, they also promote content mastery and foster student development of monitoring, self-
evaluation, and reflection skills. For the instructor, reading reflections facilitate 'just-in-time' teaching and provide invaluable insights into student thinking and learning. As stated by (Larking, 2017, p. 58), reflection helps students have more thoughtful engagement with texts after a deeper consideration and reaction to the issues presented. So, according to (Wu, 2015) reflective reading strategies are fundamental to higher levels of academic literacy. These reading strategies encourage students to connect the beliefs and experiences they have to the texts they read.

Skilled readers use reflection before, during, and after reading. They reflect on the text to prepare for reading (set goals for reading and activate prior knowledge), to construct meaning while reading (identify the main ideas, predict, make inference, interpret, evaluate, and integrate ideas into a coherent representation of the text, and monitor understanding) and to review and reflect on reading through asking questions and invoking strategies for understanding and reviewing the text (Griffith & Ruan, 2005). So, reflection on the reading text is a continuous and necessary process that successful readers have to engage with starting from the setting of goals and activating prior knowledge, passing through the process of predicting, interpreting, evaluating ideas and monitoring understanding, and ending with using self-questioning and other reflective strategies to review and further understand the text.

Many researchers recommended the use of reflective reading strategies emphasizing their effect on reading comprehension and higher order thinking and reflection skills. For example, Nourdad and Asghari (2017) investigated the effect of reflective reading on reading comprehension of Iranian EFL learners. Results of the study showed that reflective reading has positive effect on reading comprehension. Wu (2015) conducted a case study with the purpose of exploring some effective literacy strategies that prompt higher-level thinking abilities to help one Chinese English as Foreign Language (EFL) student who struggles with academic reading in college classes at a small, liberal arts college. Reflective reading was one of the interventions given. Results revealed that high-level thinking abilities developed as a result of the implementation of the interventions given including reflective reading.
Reflective reading strategies

1- Think-aloud

According to Block and Israel (2004) and Ness (2014), a think-aloud is a reflective reading technique or strategy in which a teacher verbalizes thoughts aloud while reading a selection orally. It enables readers to stop periodically, reflect on the thinking they do to understand a text, and relate these literacy processes orally. Think-aloud enables teachers to demonstrate for their students how to select an appropriate comprehension process at a specific point in a particular text. Effective think-aloud explains what expert readers do before, during, and after they read a large section of text. Many studies have proved the effectiveness of think aloud in enhancing EFL learners’ reading comprehension (I., e., Jahandar, Khodabandehlou, and Abadi, 2012; Bahri, Nasir and Rohiman, 2018; Ness, 2014).

2- Making Connections

Good readers draw on prior knowledge and experience to help them understand what they read and accordingly they become able to use that knowledge to make connections. Struggling readers, on the contrary, often move directly through a text without stopping to consider whether the text makes sense based on their own background knowledge, or whether their knowledge can be used to help them understand confusing or challenging materials. By teaching students how to connect to a text, they are able to better understand what they are reading (Zygouris and Glass, 2004).

So, making connections is a technique learners can use to be reflective readers; they reflect on the text they read by relating it to their own experiences, other texts they read and to the real world. Correia and Bleicher (2008) stated that when readers engage with an unfamiliar text, they rely on their prior knowledge (e.g., personal experiences, conceptual understanding, other texts) to make sense or meaning of the text. Readers make three types of connections before, during, or after reading: (a) text-to-self connections; (b) text-to-text connections; and (c) text-to-world connections.
3- Reflective reading journal/Log

A reflective reading log constitutes a while-reading activity that involves the organization of the reader’s thoughts and feelings about the text, a process that is seen as both reflective and creative. The final document, the log, evidences each reader’s response to the aesthetic event and his or her interactions with the perspectives in the literary work while being involved in the process of creating meaning. Meaning in this context is always critical and self-constructed, and, that can be produced for a text in a literature class.

Reading self-regulation

Self-regulated learning (SRL) in education has received increasing attention over the last three decades. This growing interest can be explained from two different perspectives. In an era of rapid development of science and technology, there is a growing emphasis on the acquisition of SRL to facilitate lifelong learning (Clark, 2012). On the other hand, SRL is viewed as a means to foster and develop “critical thinkers.” In this line of thinking, researchers from diverse theoretical backgrounds have investigated students’ self-initiated efforts to learn and self-instruction as instances of SRL since the mid-1980s (Zimmerman and Kitsantas, 2014). SRL refers to a self-directive learning process where learners actively employ metacognitive, motivational, and behavioral strategies (Zimmerman, 1986). These strategies are invoked during different phases of the learning process, for example, to activate self-motivational belief in forethought phase. Roberts, et al. (2019) found out that incorporating self-regulation strategies into reading interventions could lead to improvements in reading, and an increase appropriate behaviors that students need to display during reading instruction. According to them, self-regulation strategies include teaching students how to appropriately set, monitor, and reflect on goals.

Self-regulation for learning is a motivational variable that is directly related to academic performance self-regulation for learning is defined as, "a process in which the learner manages and controls his or her capacities of affect (feelings), behavior, and cognition (thinking)". These ABCs help to engage in learning, and improve
achievement and performance. So, it can be noticed that for students to be fully self-regulated, they have to develop an effective way to reflect not only on what they have learned (the cognitive dimension), but also on the feelings and motivations associated with learning (the affective dimension). Giving students time and opportunities to interpret and analyze information helps them self-regulate what they have learned, ultimately leading to success (Rockwell, 2017). So, it is clear that self-regulation is closely related to learners' ability to reflect on what they learn, on their learning goals as well as their feelings and motivations. Robbins, et.al (2020), conducted a study to find out the potential benefit of self-reflection in the context of a flipped classroom for enhancing self-regulated learning. Results showed that students in flipped classrooms have increased self-regulation over the course of the semester. Chisholm et.al (2018) recommended enhancing self-regulated learning in teacher education programs through the practice of reflective strategies.

**Google Classroom as a learning platform**

The latest technological advances in online education have provided innovative tools to design appealing and dynamic materials, which catch students' attention and interests, and provide teachers with opportunities to develop their own class materials. Nowadays, e-reading is particularly a self-selected option for EFL learners and it has a wonderful impact on the English language readers. Students are visually oriented and they prefer e-reading and e-learning. Additionally, the current status-quo of education, in the presence of Corona Virus, requires educational institutions to transform their educational materials and contents to virtual platforms such as Moodle, Edmodo, Google Class…etc.

Virtual learning environments transfer learning materials to students by means of the web. These environments constitute student tracking, communication tools, assessment and collaboration. Additionally, through web-based platforms, students can access not only content itself (i.e. documents, videos, audio tracks), but also
work on a range of activities that include games, quizzes, questionnaires, discussion forums, and chat.

One of the virtual learning applications that support the learning process is Google Classroom. Google Classroom is a virtual classroom provided by Google. It is a tool for academic institutions to create online classes to simplify, create, distribute, and grade assignments in a paperless way. So, teachers can be engaged with the students online delivering materials, discussing any topic and submitting assignments. By using Google Classroom, the teacher can encourage students to learn materials more creatively. Additionally, they can easily download the application on their own smartphones, which helps them to get access to learning materials and assignments wherever and whenever they want (Sulistyawati, Zahrowi, and Dewi, 2020).

Other advantages of using Google Classroom as a free web-based learning management platform are, according to Heggart and Yoo (2018), that it supports all people who have Google account to create and manage online classes, it assists teachers to create and organize assignments quickly, to provide feedback efficiently, and to communicate with their classes easily. Google Classroom also helps teachers to manage the creation and collection of students’ assignments by making use of Google Docs, Google Drive, and other tools. Google Classroom allows students to interact dynamically with classroom content, and they are also more focused on the learning experiences.

Method
A. Participants
A group of (40) third-year English section student teachers at the Faculty of Education, Fayoum University (in the academic year 2020-2021) participated in the study. These students were divided into two groups; one is a treatment group (20 students), and the other is a control one (20 student). The pre administration of the measurement tools of the study proved that the two groups had equivalent linguistic levels; as they are exposed to the same educational environment and are given the same courses using the same teaching methods.
Reflective Reading Strategy Training through Google Classroom:
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Instruments

Analytic Writing test

The analytic writing test was designed to be administered to the control and experimental groups as a pre and post-test. The test was designed to assess EFL student teachers' ability to analyze a reading text in a critical, creative, and evaluative way. So, the purposes students were required to achieve through reading and responding to the texts and test items are:

- Producing a written piece interpreting implicit information and ideas in the text.
- Responding, in a written format, to what he reads by attaining personal engagement with the text (i.e., how the text relates to the reader's personal experiences, and how these experiences affect the way he understands the text).
- Elaborating on the writer's feelings, reactions, and experiences throughout a deep understanding of the text.
- Judging the writer's ability to use language to achieve effects and influences on the reader, and to support his views.
- Reacting to the text by clarifying the author's message/moral, and adding his own point of view.
- Evaluating a text critically and supporting his evaluation with appropriate textual reference. (University College London, 2020; Che Lah and Hashim, 2014; the Assessment and Qualifications Alliance, 2021).

The three passages of the test were taken from Annunziata (2004), and College Board (2016). The first and second passages were narrative and the third one was argumentative. The questions included in the test were 9 open-ended questions (3 questions for each passage), intended to measure students' analytic writing skills. These questions were generated by the researcher. The original form of the test was shown to a jury of EFL specialists to verify its validity regarding clarity of instructions, consistence of the test's language and the study participants' level, the overall goals of the test and how they are consistent with test items. Some modifications were made in response to their suggestions.
Reliability of the test

The test was piloted on a group of (30) EFL student teachers similar to the study sample regarding their linguistic level. The SPSS program (version 21) was used for this purpose. Reliability of the test was found to be (0.78), which is an acceptable level of reliability.

Scoring of the test

An analytic writing scoring rubric was designed by the researcher to score students' responses to the reading test questions. The rubric included six criteria for assessing students' written production in response to reading texts. These criteria include:

1. Idea development and analysis.
2. Supporting ideas with textual evidence.
3. Language and idea expression.
4. Organization and progression of ideas.
5. Personal engagement with the text.

The first version of the scoring rubric was judged by a group of EFL specialists to test it for validity regarding relatedness of its sub-skills to analytic writing, clarity, and ability of its indicators to discriminate between different levels of students' performance. The rubric included five levels of students' performance, so the total score of the rubric is 30 marks:

5 which means excellent performance
4 which indicates very good performance
3 which refers to good performance
2 which means average performance
1 which shows below average performance

The reliability of the rubric was tested by calculating the inter-rater reliability (the correlation between the scores given by two raters using the rubric). It was found to be (0.83), which is an acceptable level of reliability.
The reading self-regulation scale

The reading self-regulation scale was designed with the intention of measuring the study participants' level of self-regulated actions used before, while and after reading, prior to and after the experiment. It was used as a pre and post scale. The scale included four dimensions of reading self-regulation selected by the researcher based on different models of self-regulation such as that of Zimmerman (2001; cited in Panadero, 2017), these are; a) goal setting, b) self-monitoring, c) self-reflection, and self-efficacy. It was a five-point Likert scale starting from 5 "always true of me" to 1 "never true of me".

Internal validity of the scale

The scale in its original format consisted of 45 items. It was given to a group of EFL experts to judge it regarding the relatedness of its items to the overall purpose of the scale, and to its sub-domains, clarity and suitability of its language to the study sample's linguistic level. The scale was also tested for internal validity, for this purpose the scale was administered to a group of (98) EFL student teachers. The total score obtained from the pilot administration, was correlated with the scores obtained from each of the scale's domains. SPSS (version 21) was used for this purpose. The table below shows the matrix of the correlation between the scale's total score and the score obtained from each of the four domains of reading self-regulation.

<table>
<thead>
<tr>
<th>Domains</th>
<th>Correlation with the total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal setting</td>
<td>0.712**</td>
</tr>
<tr>
<td>Self-reflection</td>
<td>0.846**</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td>0.869**</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.845**</td>
</tr>
</tbody>
</table>

All the above values are significant at 0.01 level, which shows that the reading self-regulation scale has an acceptable level of internal validity.
Reliability of the scale

The reliability of the scale was tested using Cronbach Alpha formula. The reliability co-efficient of the scale and its domains was found to be significant at 0.01 level. Reliability of the scale as a whole was \(0.743\), which is an acceptable level of reliability. (The table below shows the reliability co-efficient of the reading self-regulation scale).

<table>
<thead>
<tr>
<th>N</th>
<th>Domains</th>
<th>Reliability coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Goal setting</td>
<td>0.700</td>
</tr>
<tr>
<td>2</td>
<td>Self-reflection</td>
<td>0.770</td>
</tr>
<tr>
<td>3</td>
<td>Self-monitoring</td>
<td>0.773</td>
</tr>
<tr>
<td>4</td>
<td>Self-efficacy</td>
<td>0.730</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>0.743</td>
</tr>
</tbody>
</table>

The training program

The intent of the current study was to enrich EFL student teachers' ability to reflect on, analyze and respond to ideas while reading, and to write analytically based on what they read. So, the strategies used in the program were all selected on the basis of enhancing students' reflection. These strategies included thinking aloud of reading comprehension strategies including (previewing and predicting, making connections to prior knowledge, making inferences, RST comprehension monitoring strategy) and writing in a reflective reading log including ( questions, memories and connections, predictions and guesses, reflections, thoughts, and feelings, comments, and a summary). These strategies were selected based on review of related literature (Delarriva and Basabe, 2015; Ekstam, 2018; Apsari, 2018; Draper, 2010; Abu Raihan, 2011; Ness, 2014, Bahri, Nasir, and Rohiman, 2018; Nourdad and Asghari, 2017).

The training program was introduced through the learning platform (Google Class). This is because, as stated by Gaikwad (2018), reflection becomes easier in online learning as it has the potential to increase teacher-student interaction and to sustain communication throughout the course. Valuable student interests and
ideas can be shared in a non-threatening fashion. What is most important in online learning that supports reflection, is the value of “wait-time” for interactions, as the delayed response allows more reflective thinking, compared to instant answers. Most of the e-reflections employed through the training program were asynchronous, so students had more time to reflect on the reading texts assigned. This gave students the opportunity to think deeply before responding, which allows a comfortable, two-way exchange of ideas between students and the teacher.

The program was judged by a group of EFL experts regarding its appropriateness to the study participants, suitability of its objectives, content, strategies, and activities to the overall aim of the program. Some modifications were done based on their suggestions.

B. Training procedures

The training program of the current study was delivered over the internet through Google classroom learning platform. The program included a teacher's guide that showed the teacher how to teach the program's strategies and activities through the learning platform, and how to react to students' responses to the tasks assigned. Also, a student's book was designed for learners explaining how to study the learning materials, and do the tasks on the learning platform. Many Google Tools were used during the program such as Google documents, Google forms, and Google drive. The training started with giving students a detailed explanation of how to download and use Google class; for this purpose, the instructor prepared a video recording using (Camtasia Staudio 8), explaining the detailed steps of how to deal with the platform. The video was sent to the study participants through (Whatsapp). After students got acquainted with the platform, the training program started. Most of the tasks were done in an asynchronous way. The training lasted for eight weeks; in the first week, students were given an introduction about reflective reading and thinking aloud (meaning, steps and strategies) through a video and a pdf file sent to students through the learning platform. This is followed by discussion questions on the discussion board where students write their answers and the instructor can respond,
give clarifications and feedback. In the subsequent weeks, students were given training in reflective reading strategies. In each week, students had two sessions, in the first session (presentation and modeling), they are sent a presentation video explaining the targeted strategy, and a video modeling the strategy, to study in two days by themselves, and some discussion questions to answer on the third day on the discussion board. Then, they get immediate feedback from the teacher. In the second session, students are given practice (guided and free) in using the strategy, starting with guided practice in which students have to apply the strategy on a reading text guided with questions; the text used for guided practice is always designed using (Google Documents), which allows the user to add a comment after a reading segment (chunk). The comment is always a guiding question that guides students to respond to the text using the target strategy. So, when students receive and open the text in the (Google Docs) format, they are allowed to respond to the questions, and send their responses to the teacher. In free practice, students are given a text and they depend on themselves to read and respond to the text using the strategy taught. In the same session, students are given a reflective log (in Google forms format) to reflect on the texts they read in the guided and free practice tasks. Students have another two days to do these tasks independently, and then meet the teacher on the learning platform, discuss their assignments with the teacher, exchange ideas with other students, and get feedback.

C. Pre-testing

The data obtained from the pre testing of the study instruments on the control and experimental groups were analyzed to ensure the equivalence of the treatment and control groups. Results of the analysis showed no statistical significant differences between the two groups in analytic writing and reading self-regulation. The independent samples t-test procedure was used for this purpose. The results of t-test for the pre-testing of the experimental and control groups are showed in table (1) below:
Reflective Reading Strategy Training through Google Classroom: A Way for Enhancing EFL Student Teachers’ Analytic Writing and Reading Self-Regulation

DR/Karima Mohammad Abdul Aziz

Table (1) results of the pre-testing procedure

<table>
<thead>
<tr>
<th>Test</th>
<th>Group</th>
<th>N.</th>
<th>Mean</th>
<th>S.D.</th>
<th>T-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytic Writing skills</td>
<td>Treatment</td>
<td>20</td>
<td>65.10</td>
<td>8.85</td>
<td>0.25</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>20</td>
<td>65.90</td>
<td>11.33</td>
<td></td>
</tr>
<tr>
<td>Reading self-regulation</td>
<td>Treatment</td>
<td>20</td>
<td>104.60</td>
<td>4.68</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>20</td>
<td>104.35</td>
<td>6.62</td>
<td></td>
</tr>
</tbody>
</table>

T-value is not significant at (0.05).

D. Data collection procedures

The data necessary for the present study was obtained using a pre-post analytic writing test and a pre-post self-regulation scale. The duration of the research was 8 weeks. During the experiment, the treatment group was exposed to the reflective reading strategy-training program introduced through Google Classroom. The control group was exposed to the regular reading course scheduled in their college timetable, without being exposed to the reflective reading program. After 8 weeks of training, all the participants were post tested using the analytic writing and reading self-regulation scale to find out whether there was any improvement in their performance. After the post-tests, the scores obtained from the two groups were compared by means of an independent samples t-test analysis to determine the differences.

Results and Discussion

A. Testing Hypothesis 1

For testing this hypothesis, the results of the treatment and control groups in the post application of the analytic writing test were compared using independent samples t-test. Results showed that the mean score of the treatment group was (132.15) with standard deviation of (7.31), and that of the control group was (67.35) with standard deviation of (11.51). The calculated t-value was (21.26), which is bigger than the tabulated value at (0.05) and (0.01) level. The effect size is (6.90), which means that the treatment group outperformed the control group in the post administration of the analytic writing test. This emphasizes the effectiveness of the reflective reading program introduced through Google classroom in
enhancing the treatment group's analytic writing skills. So, the first study hypothesis is affirmed. The table below shows the t-test results for finding out the difference between the treatment and control groups in the post administration of the analytic writing test.

Table (2): results of the independent-samples T-test in analytic writing post test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>St. dv.</th>
<th>df</th>
<th>Tabulated T-Value 0.05</th>
<th>T-Value</th>
<th>Sig.</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>20</td>
<td>132.15</td>
<td>7.31</td>
<td>48</td>
<td>1.99</td>
<td>2.64</td>
<td>21.26</td>
<td>6.90</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>67.35</td>
<td>11.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Testing the second hypothesis of the study

For testing this hypothesis, the independent samples t-test was used to compare the results of the treatment and control groups in the post administration of the reading self-regulation scale. Results showed that the mean score of the treatment group was (187.40) with standard deviation of (20.01), and that of the control group was (119.90) with standard deviation of (6.09). The calculated t-value was (14.44), which is bigger than the tabulated value at (0.05) and (0.01) level. The effect size is (4.68), which shows the excellence of the treatment group over the control group in the post administration of the reading self-regulation scale. This indicates the effectiveness of the reflective reading program through Google classroom in developing the treatment group's reading self-regulation. So, the second study hypothesis is affirmed. The table below shows the t-test results for finding out the difference between the treatment and control groups in the post administration of the reading self-regulation scale.

Table (2): Results of the independent-samples T-test in the reading self-regulation post test

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>St. dv.</th>
<th>df</th>
<th>T-Value tabulated 0.05</th>
<th>T-Value</th>
<th>Sig.</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>20</td>
<td>187.40</td>
<td>20.01</td>
<td>48</td>
<td>1.99</td>
<td>2.64</td>
<td>14.44</td>
<td>4.68</td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>119.90</td>
<td>6.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
C. Testing the third hypothesis of the study

For testing this hypothesis, the independent samples t-test was used to compare the results of the treatment group in the pre and post administration of the analytic writing test. Results indicated that the mean score of the treatment group in the pre testing was (65.10) with standard deviation of (8.85), and that of the post administration was (132.15) with standard deviation of (7.31). The calculated t-value was (23.87), which is bigger than the tabulated value at (0.05) and (0.01) level. The effect size is (10.95), which shows the excellence of the reflective reading program through Google classroom in enhancing the treatment group's analytic writing. So, the third study hypothesis is affirmed. The table below shows the t-test results for finding out the difference between the treatment group's pre and post scores in the administration of the analytic writing test.

Table (4): Results of the independent-samples T-test in the treatment group's pre and post application of the analytic writing test

<table>
<thead>
<tr>
<th>Att.</th>
<th>N</th>
<th>Mean</th>
<th>St. dv.</th>
<th>Df</th>
<th>Tabulated T-Value</th>
<th>T-Value</th>
<th>Sig.</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>20</td>
<td>65.10</td>
<td>8.85</td>
<td>19</td>
<td>2.02</td>
<td>2.70</td>
<td>0.01</td>
<td>10.95</td>
</tr>
<tr>
<td>Post</td>
<td>20</td>
<td>132.15</td>
<td>7.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. Testing the fourth hypothesis of the study

For testing this hypothesis, the independent samples t-test was used to compare the results of the treatment group in the pre and post administration of the reading self-regulation scale. Results indicated that the mean score of the treatment group in the pre testing was (104.60) with standard deviation of (4.68), and that of the post administration was (187.40) with standard deviation of (20.01). The calculated t-value was (19.36), which is bigger than the tabulated value at (0.05) and (0.01) level. The effect size is (8.88), which shows the effectiveness of the reflective reading program through Google classroom in enhancing the treatment group's reading self-regulation. So, the fourth study hypothesis is affirmed. The table below shows the t-test results for finding out the difference between the treatment group's pre and post scores in the administration of the reading self-regulation scale.
Table (5): Results of the independent-samples T-test in the pre and post application of the reading self-regulation scale

<table>
<thead>
<tr>
<th>Att.</th>
<th>N</th>
<th>Mean</th>
<th>St. dv.</th>
<th>Df</th>
<th>T-Value in Table</th>
<th>T-Value</th>
<th>Sig.</th>
<th>Effect size (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>20</td>
<td>104.60</td>
<td>4.68</td>
<td>19</td>
<td>2.02</td>
<td>2.70</td>
<td>19.36</td>
<td>0.01</td>
</tr>
<tr>
<td>Post</td>
<td>20</td>
<td>187.40</td>
<td>20.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.88</td>
</tr>
</tbody>
</table>

Discussion

The results displayed above show that exposing the treatment group to reflective reading strategy training through Google classroom enhanced their analytic writing and reading self-regulation. Training students in self-reflection, and comprehension monitoring strategies had a positive effect on their ability to think analytically of the ideas presented, and engage personally with the text. The results shown above reveal that students' personal engagement with text was the most enhanced sub-skill of analytic writing, with effect size of (10.46). This is consistent with the results given by Majid, et. al (2010), who conducted a study to examine the reading strategies used by more proficient and less proficient in-service TESL students. Results of their study showed that monitoring comprehension during reading, checking comprehension, and self-reflection are all strategies used by successful EFL readers. So, training in these strategies in the current study helped students with a deeper and more creative level of comprehension of the presented texts, which is reflected in their ability to write analytically in response to the text.

Other analytic writing skills enhanced throughout the introduction of reflective reading strategy training via Google classroom are "supporting ideas with textual evidence", and "idea development and analysis". Handling the texts closely and responding to the ideas and events using the reflective reading strategies (e.g., making connections to prior knowledge, previewing and predicting, making inferences, and RST), and thinking aloud everything that comes to the reader's mind improved students' ability to develop and analyze ideas, and support them with textual evidence. These results are in accordance with those reached by Bahri, Nasir and Rohiman (2018), who proved that the use of inferencing and prior knowledge by the learners and teachers help students recognize their own reading habits.
and their expectations, and that, by using a think-aloud strategy, students can practice several techniques that help them think while they read and build comprehension.

Furthermore, the learning environment provided in Google classroom was a supportive one; students were encouraged by the immediate feedback and quick responses given by the instructor. Having an audience to write for makes a difference for students and makes them motivated to respond. Also, the group discussion provided in the Google class was beneficial as well; students were able to read and comment on each other's responses. This is consistent with what Fonsceca and Peralta (2019) proved in their study about using Google classroom to teach writing skills. Findings of the study revealed that the use of this platform brings about benefits that facilitated the teaching and learning of writing. Students expressed that they practiced writing in an engaging attractive space; and they pointed out that the experience using GC was more satisfactory than other platforms. The same results were reached by Teladan (2020) who found out that using Google Classroom in the teaching and learning process is one of the most effective learning methods for English lessons or other lessons because it can increase student interest in learning. The same results were reached by other researchers who affirmed the effectiveness of using Google classroom for enhancing EFL learners' reading comprehension (e.g., Sulistyawati, Zahrowi, and Dewi, 2020; Sulistyanto and Imada, 2020). These studies proved that Google classroom was a successful environment for improving learners' reading comprehension level.

Reading self-regulation was enhanced due to training in reflective reading strategies through Google class as well. Students' ability to set goals for their reading tasks, their reading self-efficacy, their self-reflection, and their self-monitoring, has been developed. The greatest effect size of the training program was found in students' "reading self-efficacy" (7.89), followed by "self-monitoring" (7.78), "self-reflection" (7.14) and "goal setting" (6.93). Studying the reflective reading strategies through Google classroom had a positive effect on students' ability to regulate their reading acts, feel self-confident, and have an enhanced perception of themselves as efficient readers and their ability to overcome problems, and monitor their
comprehension as they read. They also had a better ability to think deeply of and reflect on the ideas and events they come through while reading and be personally engaged with the text. These results are consistent with those given by Maharsi (2018) who found out that Classroom is likeable for students and serves as flexible, manageable, and ubiquitous tool for students' learning reflection. Further, when adeptly designed, it can help develop students' positive attitudes in learning and promote students' self-regulated learning. Students were able to control their own learning, being pro-active to communicate with teachers, and fully understand some consequences of late submission of tasks.

Furthermore, one important aspect of the current training program is the continuous encouragement and support given by the instructor and peers. Students were given the opportunity to comment on each other's writings and ideas. This enriched their minds and gave them the chance to build on each other's thinking. Also, the immediate feedback provided trying to correct students' mistakes indirectly was encouraging for students because they were sure that they are writing for an audience. The same idea was highlighted in previous research; for example, Ezzahouani (2019) and Latifah, Suwarno, and Diani (2017) who emphasized the positive effect of indirect corrective feedback on students' writing.

Twelvth: Recommendations
Based on the results of the study, the following recommendations were given:

1. Instruction in reading comprehension strategies should be given more emphasis, especially reflective reading strategies.
2. Teachers have to model reading comprehension strategies as it is an important step in helping EFL learners, at different levels, master the strategies.
3. Reading materials should be selected carefully so that they can be motivating and interesting for students.
4. Students should be encouraged to read extensively for pleasure outside class.
5. Teachers should train EFL learners in how to engage personally with the text and how to think reflectively and critically of the ideas provided.
6. More emphasis should be given to electronic reading and using learning platforms for teaching reading comprehension and other language skills.

7. Teacher-student interaction during instruction and immediate feedback from the teacher should be highlighted, especially when teaching reading comprehension and writing skills.

Thirteenth: Suggestions for further research

According to the results of the study, the following suggestions were given:

1. A study can be conducted for investigating the effect of using learning platforms for improving other areas such as EFL student teachers' teaching performance.

2. The effect of using online reading courses on important variables like reading motivation, autonomy, self-efficacy or self-esteem, can be investigated.

3. A research can be done for investigating reading comprehension strategies that can enhance higher order skills like critical and creative reading and writing.

4. The effect of extensive reading on reader's motivation can be investigated.

5. The effect of using learning platforms on other language skills such as speaking and listening can be tackled.

Fourteenth: Conclusion

Reflective reading is essential for EFL college students, as they have to be interactive and responsive readers. Also, higher order thinking skills such as critical, analytic and evaluative reading, have been important aims for successful reading instruction. Thus, the current study aimed to enhance EFL college level students' use of reflective reading strategies, and to find out the effect of these strategies on students' analytic writing and reading self-regulation. Results of the study proved the effectiveness of using electronic reflective reading strategy training through Google classroom on the targeted skills. Students showed motivation and interest to study the given strategies through the learning platform, and they appreciated the asynchronous environment where materials were available at anytime and anyplace.
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