Two Types of Reading Intervention: Shadow Reading vs. Collaborative Strategic Reading and EFL Learners’ Reading Comprehension Improvement

Maryam Babapour¹
Saeideh Ahangari²*
Turan Ahour³

Abstract
The purpose of this study was to investigate the effect of various reading interventions (SHR and CSR) on elementary adult EFL learners' reading comprehension. To this end, the researchers selected 3 intact elementary adult female classes including 90 learners based on their performance on Iran Language Institute Placement Test (ILI) and randomly assigned them as the control and experimental groups. Their homogeneity was assessed based on a pre-test taken from the reading section of Key English Test (KET) and 66 learners, that is, 22 in each class were selected as the participants of the study. Later, the experimental groups were exposed to one of the intended treatments, SHR or CSR, for ten sessions, while the control group received only regular classroom reading instruction. Finally, the learners were given the same KET test used in pre-test as the post-test to measure their reading skill. The findings of one-way ANOVA revealed that CSR group surpassed the other two groups and SHR group outperformed the control group. The implications are discussed in terms of the efficacy of CSR and SHR in enhancing EFL learners' reading comprehension.

Keywords: reading comprehension, shadow reading, collaborative strategic reading

¹, ² & ³- Department of English, Tabriz Branch, Islamic Azad University, Tabriz, Iran
* Corresponding Author: Ahangari@iaut.ac.ir
دو روش خواندن: تأثیر خواندن سایه‌ای و خواندن راهبردی مشارکتی بر عملکرد خواندن و درک مطلب زبان آموزان

مریم بابایی
سعیده انتگری
توران اهر

چکیده
هدف این تحقیق بررسی تأثیر خواندن سایه‌ای و خواندن راهبردی مشارکتی بر عملکرد خواندن و درک مطلب زبان آموزان ایرانی در سطح مقدماتی بود. محفلان ۳ کلاس در سطح مقدماتی در کانون زبان ایران كه شامل ۹۰ زبان آموز موظف بود را انتخاب کردند و آنها را به صورت تصادفی به دو گروه تحقیق و یک گروه شاهد تعیین کردند. همگنی آنها در مهارت درک مطلب از طریق پیش آزمون برگرفته از آزمون کن تایید شد و ۶۶ زبان آموز (۲۲ نفر در هر کلاس) برای شرکت در تحقیق انتخاب شدند.

سپس گروه‌های تحقیق به مدت ۱۰ جلسه در خواندن سایه‌ای یا خواندن راهبردی مشارکتی شرکت کردند. در حالی که گروه شاهد تمرین معمول خواندن را دریافت کردند، در پایان همان پیش آزمون درک مطلب کت به عناوین پس آزمون به زبان آموزان داده شد تحلیل آماری داده‌های پس آزمون نشانگر پیشرفت معنی‌دار گروه‌های تحقیق در مهارت درک مطلب بود. گروه خواندن راهبردی مشارکتی عملکرد پهتری نسبت به دو گروه دیگر داشت و گروه خواندن سایه‌ای عملکرد پهتری نسبت به گروه شاهد داشت. کاربردهای آموزشی خواندن سایه‌ای و خواندن راهبردی مشارکتی در پیشرفت مهارت درک مطلب زبان آموزان بان شده‌اند.
1. Introduction
Reading comprehension is a key skill that can influence the learning outcome and further language development. As Anderson (2012) pointed out, reading is a core skill needed for the development of other language skills and sub-skills such as listening, speaking, writing, vocabulary and grammar. Reading is a way to get information about science, new inventions, discoveries and ideas. Thus, readers may have various purposes such as reading for information, joy, work, personal development and academic reading.

Snow (2002) defined reading comprehension as “the process of simultaneously extracting and constructing meaning through interaction and involvement with written language” (p. 11). Based on this definition, Snow (2002) stated that reading comprehension entails three elements: the reader’s capacities and knowledge, the text and its qualities, and the reader’s activities such as the purposes, processes, and consequences associated with the act of reading. Then, meaning is constructed as the result of an interaction among these three elements, within a larger sociocultural context. According to Vygotskyan sociocultural theory (SCT), reading comprehension is the result of interaction between two or more readers trying to construct meaning jointly (Commander & de Guerrero, 2013).

McNamara (2007) claimed that reading comprehension strategies are necessary for three reasons. First, many readers do not know if they adequately comprehend a text or not. It is believed that acquisition of suitable reading strategies can help readers improve their comprehension calibration. Second, many readers have a misconception of comprehension. They are prone to settle for shallow levels of comprehension (Otero & Kintsch, 1992). Shallow readers believe if they recognize the words and understand most of the sentences, they have comprehended a text. Third, deep comprehension of technical texts is difficult for nearly all adults even skilled readers.

Reading comprehension strategies may be taught explicitly one-at-a-time. Reutzel, Smith, and Fawson (2005) stated that early research on comprehension strategies included teaching one comprehension strategy to one group of students and then comparing it with a control group (Brown, Pressley, Van Meter, & Schuder, 1996; Dole, Duffy, Roehler, & Pearson, 1991; Pressley, Johnson, Symons, McGoldrick, & Kurita, 1989). According to Keene and Zimmerman (1997), teaching comprehension strategies should include teaching them one by one with more time spent on each. However, Reutzel et al. (2005) stated that comprehension instruction has started from teaching one cognitive comprehension strategy to teaching a “family” of comprehension strategies within collaborative and interactive techniques such as Collaborative Strategic Reading (Klingner & Vaughn, 1996) and Shadow Reading.

Collaborative Strategic Reading (CSR), proposed by Klingner and Vaughn (1996), is a type of comprehension strategy instruction designed to improve learners’ strategic reading abilities through collaborative peer-led discussion. CSR has roots in cognitive psychology (Flavell, 1992; Palincsar & Brown, 1984) and
sociocultural theory (Perez, 1998; Vygotsky, 1978). CSR comprises four reading strategies: preview (activating prior knowledge and analyzing text structure before reading), click and clunk (self-monitoring during reading), get the gist (finding the main idea during reading), and wrap-up (generate questions and review after reading) (Klingner & Vaughn, 1999).

Shadow-reading (SHR) is an adaptation of conversational shadowing (Murphey, 2000, 2001a). For Murphey (2001a), conversational shadowing is a technique in which learners “shadow” their interlocutors, that is, they repeat what others say or involve in the interaction about what is being said. Murphey (2001a) pointed out that in shadow-reading, shadowing is utilized with summarizing and retelling to encourage meaningful imitation of L2 models, reading comprehension and retention of written English texts. In shadow-reading, the oral reading of one partner (reader) becomes the oral input for the other partner (shadower) to repeat and later summarize the repeated text (Commander & de Guerrero, 2013). Commander and de Guerrero (2013) claimed that shadow-reading facilitates adjustments in ZPD by providing opportunities for interaction between partners. One of the critical components of shadow-reading is interaction between learners because it helps them comment on the text, construct meaning and reproduce it. According to Murphey (2001a), there are several concepts from Vygotskian (1962, 1978) SCT that are relevant to shadowing: “1) the social, interactive nature of language acquisition and concept formation; 2) the idea of regulation or control as the learner passes from other- to self-regulation; 3) the zone of proximal development and scaffolding; and 4) private speech” (p. 147).

2. Review of the Related Literature
Recently, shadowing has been deemed predominant in the world of foreign language learning and its complicated and cognitively demanding nature has been emphasized by some researchers (Hamada, 2011b; Kadota, 2007; Murphey, 2000, 2001a). Different researchers have focused on the effectiveness of shadowing in EFL contexts.

Chung (2010) investigated the effects of shadowing on listening and speaking abilities of Korean middle school students. The study was conducted with 108 middle school students divided into three groups, listening only, shadowing only, and listening plus shadowing, and received six weeks of treatment. The results showed that listening plus shadowing had a positive effect on listening abilities compared to listening only techniques. The results also showed that there was no positive effect of shadowing on speaking abilities.

Similarly, Hamada (2011a) investigated whether shadowing with difficult high school materials could improve the learners’ listening comprehension skills. Forty-four Japanese first year high school students participated in the study. The results revealed that shadowing with difficult textbooks improved students’ listening comprehension skills.

In addition, Commander and de Guerrero (2013) investigated the impact of shadow-reading in L2 classrooms. The participants were of two groups. A total of
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26 students were selected for the shadow-reading group and 21 for the “no shadow-reading group”. The quantitative analysis of the data showed that the shadow-reading group performed significantly better in both immediate and delayed post-tests.

Azimi Amoli and Ghanbari (2013), also, investigated the effect of conversational shadowing on enhancing Iranian EFL learners’ oral performance. Two intact classes were selected as the participants in their study. One of them was randomly selected as the experimental group and the other was selected as control group. The participants in the experimental group received conversational shadowing practice during their interaction with the instructor and peers. The results of data analysis showed that conversational shadowing can play a significant role in increasing oral performance of learners in terms of using simple past tense during their conversation.

Zakeri (2014) examined the effect of shadowing on EFL learners’ oral performance in terms of fluency. To this end, forty EFL learners of Intermediate level were selected and divided into two groups, one experimental and one control. The experimental group shadowed the listening exercises and some parts of the reading exercises. After one month, all forty students were given a question to talk about. Their voices were recorded, transcribed, and stored for further data analysis. Shadowing was found to be an effective technique in fostering the fluency of the participants in the experimental group.

The ultimate goal of Hamada’s (2014) study was to find out the effectiveness of pre- and post-shadowing for the improvement of listening comprehension skills. Two groups of Japanese university freshmen participated in the experiments. The pre-shadowing group learned new vocabulary and content for the target passage, and then engaged in shadowing training. Post-shadowing group started with shadowing training, and then exclusively learned new vocabulary and content. The results showed that the post-shadowing group improved their listening comprehension skills.

Empirically, CSR has been applied in ESL and EFL educational contexts, and the results of studies have supported its positive effect on the improvement of students’ reading comprehension and content learning (Klingner, Vaughn, & Schumm 1998; Klingner & Vaughn, 2000; Standish, 2005; Wang, 2008). Ziyaeemehr (2012) for example, investigated the efficacy of CSR on the reading comprehension of Iranian ESP learners. Forty students majoring in electronics participated in the study. They were randomly divided into two groups of experimental and control. While the participants in the experimental group were taught the strategies involved in CSR, the control group received instruction through translation. The results were indicative of the positive role of CSR in fostering the reading comprehension skill of Iranian ESP learners.

In a similar study, Karabuga and Kaya (2013) examined the effect of CSR on adult EFL learners’ reading comprehension. Two intact classes, comprising forty university students, were selected and appointed as experimental and control groups. The learners in the experimental group were taught using CSR. The results...
revealed that there was a significant difference between reading comprehension level of the two groups. The learners in the experimental group outperformed those in the control group, supporting the positive effect of CSR on reading comprehension performance of adult EFL learners.

In a similar vein, Khonamri and Karimabadi (2015) set out a study to determine how collaborative strategic reading may increase critical reading of EFL students. Forty students majoring in English language literature at the University of Mazandaran participated in this study. The students in the experimental group were taught CSR; while the students in the control group were taught in the traditional way. After ten sessions, a post test was given to both groups. The results indicated that the students in the experimental group outperformed the students in the control group.

Even though each of these techniques of teaching reading, CSR and SHR, has been investigated separately and their effects on different language skills have been examine, to the best knowledge of the researchers, no study in Iran has attempted to compare these two techniques and find out their effect on the reading comprehension of EFL learners. Zoghi, Mustapha and Tg NorRizan (2010b) claimed that in some academic settings in Iran there is a need to focus attention on developing strategic reading behaviors in EFL learners. In fact, the dominance of traditional language teaching methods is suggested to be one of the reasons for EFL learners’ ill-preparedness in reading comprehension abilities (Zoghi, Mustapha & Tg NorRizan, 2010a). Accordingly, since reading is influenced by the interaction of the student, the teacher and the text, there is a need for interventions that can enhance learners’ participation and improve their reading comprehension skill by developing strategic reading.

Hence, the purpose of the present study was to investigate the effect of various reading interventions (SHR and CSR) on learners' reading comprehension. So with regard to the purpose of the study, the researchers raised the following research question.

1- Is there any significant difference between the effect of various reading interventions (SHR and CSR) on reading comprehension skill of Iranian elementary adult EFL learners?

3. Method
3.1. Participants
By means of Iran Language Institute Placement Test, three intact elementary adult female classes including 90 learners, 30 learners in each class, were selected and randomly assigned into three groups receiving SHR, CSR, and no treatment. Their homogeneity was assessed based on a pre-test taken from the reading section of Key English Test (KET) and 66 learners, that is, 22 in each class were selected as the participants of the study. The participants were within the age range of 14-20, having at least three years of learning English experience at secondary school and institute(s) with Turkish as their first language.
3.2. **Instruments**
The following instruments were utilized for data collection procedures.

### 3.2.1. Iran Language Institute Placement Test
It is a highly valid and reliable proficiency test institutionalized by Iran language institute and used in the beginning of each term as the placement test. It includes items on grammar (60), vocabulary (60) followed by an interview. It served the purpose of homogenizing the participants in terms of language proficiency at the outset of the study. The placement test consists of three sections. The participants answering the first section are at elementary levels. The reliability of this test was .90.

### 3.2.2. Key English Test (KET) as a Reading Comprehension Pre-test and Post-test
Having established homogeneity among the groups in terms of their language proficiency, the researchers gave a pre-test of reading comprehension, taken from KET, to the participants in both the experimental and control groups to check their initial performance in reading comprehension. The reading comprehension test included five reading comprehension texts, selected from different KET tests. Any of the reading comprehension texts was followed by seven questions all with three alternatives. Each correct answer received one point and the maximum possible score was equal to 35. After the treatment, all groups were given the same test used in the pre-test, as the post-test of reading comprehension, to measure their reading skill. The practice effect was controlled by administrating the post-test with 10-week interval at the end of the treatment during which students had read different reading passages. The reliability of the reading comprehension pre- and post-test was .87.

### 3.2.3. Teaching Materials
The reading passages in the students’ books, namely, Elementary Student's Book, were used as the teaching material in all classes. The book had ten units. Each unit included a dialogue, a reading passage, grammar notes and a listening comprehension exercise.

### 3.3. Procedure
Three intact elementary adult female classes including 90 learners were selected based on their performance on Iran Language Institute Placement Test and randomly assigned into three groups receiving SHR, CSR, and no treatment. Prior to any treatment, in order to cross out the probable outliers and to ensure the comparability of groups, the researchers administered the reading section of KET test as pre-test to the participants and selected 66 learners, that is, 22 in each class. Having established homogeneity among the groups in terms of their reading skill, the researchers started the treatment. The experimental groups were exposed to one of the intended treatments, SHR or CSR, for ten sessions.
3.3.1. Shadow Reading Intervention

The SHR group watched Murphey’s (2000) *Shadowing and Summarizing* video. The teacher explained different shadowing techniques mentioned by Murphey (2000). According to Murphey (2001a), shadowing can be actualized in many ways: complete, selective, and interactive. Murphey (2001a) pointed out that:

- **Complete** shadowing in conversation refers to listeners shadowing everything speakers say.
- **Selective** shadowing refers to listeners selecting only certain words and phrases to shadow.
- **Interactive** shadowing, which includes selective shadowing, adds questions and comments from the listener into the conversation making it more natural and showing more involvement on the part of the listener. (p.129)

Then, the students were paired up. The text was divided into two parts, Part I and Part II, so that both members were able to assume both roles: Reader and Shadower. In Part I, one of the members was Reader and the other one Shadower. In Part II the roles were reversed. In the shadow-reading task, adapted from Murphey’s (2001a) shadowing technique, both partners read Part I silently. Then, the Reader read the text aloud and the Shadower repeated, without looking at the text. Repetition was done in two ways: complete and selective. Complete repetition was performed in three modes: out-loud, low-voice, and silently. Then, selective repetition was done by only repeating key words or phrases. Students were informed that they could add interactive comments to expand, confirm, or clarify ideas, ask each other questions or engage in conversation during shadow-reading. The shadower was required to summarize each paragraph orally. When Part I was finished, partners reversed the roles of Reader and Shadower, and worked on Part II. The following steps, as described by Commander and de Guerrero (2012), were followed for each paragraph:

1- The Reader read each sentence, chunking as necessary.
2- The Shadower shadowed each sentence three times: out loud, in low voice, and silently.
3- The Reader read each sentence again.
4- The Shadower shadowed each sentence selectively (i.e., repeating only key words).
5- The reader read the entire paragraph again.
6- The Shadower summarized the paragraph.

The students spent forty minutes on SHR each session. Ten reading passages were covered based on this technique.

3.3.2. Collaborative Strategic Reading Intervention

In the second group (i.e., CSR), first the participants were taught four strategies, preview, click and clunk, get the gist, and wrap up, in a whole class setting and learned why, when, and how to apply them. Once the students became
proficient in applying the comprehension strategies, they were divided into several small cooperative groups of four with every member taking a particular role which rotated every session, so that everyone could have a chance to experience all of the roles. According to Vaughn, Klingner, Swanson, Boardman, Roberts, Mohammed, and Stillman-Spisak, (2011), at least four roles (leader, clunk expert, gist expert, and question expert) are necessary for CSR to function smoothly. Each member in a group had one of these roles. Cue sheets (see Appendix A) were used to increase the participants’ confidence and help them feel secure in performing their roles.

Prior to reading a given passage, the students were asked to “preview” the whole text. It helped them activate their background knowledge about the topic and predict what the passage might be about. It, also, motivated them and engaged them in active reading. After that, the students silently read the first paragraph of the text on their own. Then, the leader of each group read that paragraph aloud to the group members. Later, the group members discussed and reflected on the covered paragraph collaboratively. In fact, they engaged in the second and third strategies, “click and clunk” and “get the gist”, during reading each paragraph. The click and clunk strategy helped students find and discuss the complicated parts and misunderstandings using a fix up strategy. The students were taught to identify “clunks,” or breakdowns in understanding. After reading the section, they returned to the clunks and used contextual clues, key elements in words, guessing, and background knowledge to find the meaning of the word in its context. Then, they were asked to use “get the gist” strategy to talk about the main idea of the text and restate the most important points. The students applied the second and third strategies, “click and clunk” and “get the gist”, to all the paragraphs in the passage. After reading, the students engaged in the final strategy (i.e. wrap up). They were asked to summarize the text and generate questions about important parts of the passage, which would help them synthesize information from the passage. Students used their learning logs (see Appendix B) to record previews, gist, clunks, and summaries before and after reading. The teacher moved from group to group, guided students, provided feedback, and asked questions to check their understanding.

The control group received no specific instructions in strategic reading; the teacher explained and paraphrased the passages sentence by sentence and the students were not provided with any interactive activities or tasks. This procedure was followed for 10 weeks and in the eleventh session the students were given the same KET test used in the pre-test as the post-test to measure their reading skill. To reduce the practice effect, the researchers administered the post-test with 10-week interval at the end of the treatment during which students had read different reading passages.

3.4. Design
This study employed a quasi-experimental design to examine the effect of various interventions, that is, SHR and CSR, on reading comprehension skill of Iranian elementary adult EFL learners.
4. Results and Discussion

4.1. Results

The obtained data were analyzed using SPSS. Prior to any statistical test, the researchers used Kolmogorov-Smirnov methods to ensure that the assumptions for parametric tests were met and no violation was detected.

The results of normality test of the pre-test and post-test were $p = .96 > .05$ and $p = .19 > .05$, respectively, which meant that the data were normally distributed. Then the researchers calculated the homogeneity of the pre-test and the post-test data. The results revealed that the data in the pre-test and the post-test were homogeneous, $p = .421$ and $p = .220$. To answer the research question, the researchers ran one-way ANOVA.

4.1.1. Differences among the Three Groups (CSR, SHR, and Control) in the Pre-test

A one-way analysis of variance (ANOVA) was used to ascertain the homogeneity of the participants in the pre-test. Table 1 shows descriptive statistics obtained for the three groups (CSR, SHR, and Control).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>22</td>
<td>15.500</td>
<td>3.233</td>
<td>.689</td>
<td>14.066–16.933</td>
<td>11.00</td>
<td>24.00</td>
</tr>
<tr>
<td>SHR</td>
<td>22</td>
<td>18.045</td>
<td>3.884</td>
<td>.828</td>
<td>16.323–19.768</td>
<td>12.00</td>
<td>24.00</td>
</tr>
<tr>
<td>Control</td>
<td>22</td>
<td>16.909</td>
<td>3.998</td>
<td>.852</td>
<td>15.136–18.682</td>
<td>11.00</td>
<td>26.00</td>
</tr>
</tbody>
</table>

Although the means explained a little bit difference in pre-test, the differences were not significant as the output provided by one-way analysis of variance (ANOVA) indicated (see Table 2).
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**Table 2**

ANOVA Results of the Three (CSR, SHR, and Control) Groups: Homogeneity Measures of the Elementary Learners in the Pre-test

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>71.545</td>
<td>2</td>
<td>35.773</td>
<td>2.584</td>
<td>.083</td>
</tr>
<tr>
<td>Within Groups</td>
<td>872.273</td>
<td>63</td>
<td>13.846</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>943.818</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of ANOVA revealed that there was no significant difference \( (F = 2.584, p = .083 > .05) \) among the three reading groups (SHR, CSR, and control) in the pre-test.

**4.1.2. Differences among the Three Groups (CSR, SHR, and Control) in the Post-test**

The descriptive statistics in table 3 indicate the differences in terms of the effects of the treatments on the participants’ reading comprehension in the post-test stage.

**Table 3**

Descriptive Statistics of the Three Groups (CSR, SHR, and Control) in the Post-test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSR</td>
<td>22</td>
<td>29.318</td>
<td>3.4556</td>
<td>.736</td>
<td>27.786</td>
<td>30.850</td>
<td>23.00</td>
</tr>
<tr>
<td>SHR</td>
<td>22</td>
<td>25.727</td>
<td>3.6798</td>
<td>.784</td>
<td>24.095</td>
<td>27.358</td>
<td>19.00</td>
</tr>
<tr>
<td>Control</td>
<td>22</td>
<td>22.454</td>
<td>4.8474</td>
<td>1.033</td>
<td>20.305</td>
<td>24.603</td>
<td>15.00</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>25.833</td>
<td>4.8787</td>
<td>.600</td>
<td>24.634</td>
<td>27.032</td>
<td>15.00</td>
</tr>
</tbody>
</table>

The mean scores show that there was a significant difference among the three groups in post-test. To check whether these differences were significant, a one-way analyses of variance (ANOVA) was employed (see Table 4).

**Table 4**

ANOVA Results of the Three Groups (CSR, SHR, and Control) in the Post-test

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>518.576</td>
<td>2</td>
<td>259.288</td>
<td>15.881</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1028.591</td>
<td>63</td>
<td>16.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1547.167</td>
<td>65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further one-way analyses of variance ANOVA indicated that there was a statistically significant difference \( (F = 15.88, p = .00 < .05) \) among three groups in post-test. The group receiving CSR outperformed the other two groups. Moreover, SHR group outperformed the control group as well. The findings were also submitted to post hoc comparisons that explored the exact points of variations among the groups (see Table 5).
Multiple Comparisons: Differences among the Three Groups (CSR, SHR, and Control) in the Post-test

<table>
<thead>
<tr>
<th>(I) group</th>
<th>(J) group</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>SHR</td>
<td>3.59091(*)</td>
<td>1.21830</td>
<td>.012</td>
<td>.6666 - 6.5152</td>
</tr>
<tr>
<td>CSR</td>
<td>control</td>
<td>6.86364(*)</td>
<td>1.21830</td>
<td>.000</td>
<td>3.9393 - 9.7880</td>
</tr>
<tr>
<td>SHR</td>
<td>CSR</td>
<td>-3.59091(*)</td>
<td>1.21830</td>
<td>.012</td>
<td>-6.5152 - .6666</td>
</tr>
<tr>
<td>SHR</td>
<td>control</td>
<td>3.27273(*)</td>
<td>1.21830</td>
<td>.025</td>
<td>.3484 - 6.1970</td>
</tr>
<tr>
<td>control</td>
<td>CSR</td>
<td>-6.86364(*)</td>
<td>1.21830</td>
<td>.000</td>
<td>-9.7880 - -3.9393</td>
</tr>
<tr>
<td>control</td>
<td>SHR</td>
<td>-3.27273(*)</td>
<td>1.21830</td>
<td>.025</td>
<td>-6.1970 - .3484</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.

Multiple comparisons using the Tukey HSD test indicated that there was a difference among the three groups in the post-test. There was an increase in elementary adult learners’ reading comprehension from the pre-test to the post-test in CSR and SHR groups more than the control one. The difference between CSR and SHR as well as between CSR and the control group was significant, indicating the superiority of this group over the other two groups in the reading comprehension scores. In addition, the difference between the SHR group and control group has also reached the significant level, and it shows the effectiveness of the shadow reading technique too.

4.2. Discussion

The findings from the present study revealed that CSR group surpassed the other two groups and SHR group outperformed the control group. The findings of the study are in line with Khonamri and Karimabadi (2015) who investigated the effect of collaborative strategic reading on critical reading of EFL students. The results indicated that the students in the CSR outperformed the students in the control group. Moreover, the results accord with the findings of the study conducted by Karabuga and Kaya (2013) who examined the effect of CSR on adult EFL learners’ reading comprehension. The learners in the experimental group outperformed those in the control group, supporting the positive effect of CSR on reading comprehension performance of adult EFL learners. The findings are also compatible with the findings of Wang (2008) who explored the effect of CSR on learners’ reading comprehension and learning attitudes. The findings revealed that the modified CSR approach was effective in fostering the six-graders’ reading comprehension and understanding of the meaning of the stories.

Regarding the superiority of SHR over control group, the results were in line with Commander and de Guerrero (2013) who aimed at investigating the impact of shadow-reading in L2 classrooms. The quantitative analysis of the data showed that the shadow-reading group performed significantly better in both immediate and delayed post-tests. According to Wiltshier (2007), peer-shadowing is usually done in pairs; in each pair, one of the students would be the speaker and
the other would be the shadower. This peer-pressure is essential. Without it, many learners won’t pay attention to the input and “the input would simply go in one ear and out the other without ever being attended to and processed” (p.43). Moreover, the results are in accordance with some studies supporting the claim that shadowing has a positive effect on reading competence (Commander & de Guerrero, 2013; Kadota & Tamai, 2004) and boosts oral reading fluency (Kinoshita, 2005).

5. Conclusion
Based on the findings from the present study, it might be concluded that both CSR and SHR help students improve their reading comprehension skill. The Vygotskian notion of mediation has a profound impact on CSR. As Vaughn, Klingner, and Bryant (2001) mentioned, CSR is a peer-mediated instructional process, in which learners co-construct meaning and modify thoughts collaboratively. According to some researchers, this kind of socially mediated interaction is qualified as peer scaffolding, a learning context in which learners, with the help of others who are not necessarily more competent, achieve a level of cognitive development which cannot be accessed individually (Pressley, 2006). As Dillenbourg (1999) argued, when learners work together, learning mechanisms are activated through the processes involved in interaction such as disagreement, explanation, etc. Moreover, peers reduce each other’s cognitive load and enhance the internalization of the materials. According to Donato (1994), working with peers help learners move toward higher levels of cognition and language proficiency than when they are working alone. Moreover, according to Wertsch (1985), strong emphasis is placed on peer or small group activities since higher mental processes are the result of the interaction between peers.

Ellis (2000) argued that learning emerges not through interaction but in interaction. When learners engage in doing some tasks with someone else’s help, they may internalize the way to do the same task by themselves. Social interaction is believed to facilitate the learning process. The interactions that help the learners with their learning process are those in which the learners scaffold the new tasks.

The data revealed the superiority of the SHR group to control group, which can be attributed to the interactive nature of shadow-reading, which provided the students with supportive assistance and feedback to adjust to their ZPDs; the strategies that the students used, and repetition (Commander & de Guerrero, 2012).

This study has implications for learners, teachers and school officials. SHR and CSR train students in using reading strategies to become more competent readers; therefore, the students get the chance to improve their reading skill and increase the range of reading strategies they use. As Johnson and Johnson (1994) mentioned, collaborative learning fosters learners’ thinking skills. EFL learners learn the invaluable skills of equal participation and accountability in a shared classroom environment.

The findings might help the learners to try constructing meaning collaboratively with the help of more competent others. Moreover, the issue of
various reading interventions may be useful for policy makers, language planners, curriculum designers and textbook developers who are concerned with how English should be taught and learned, through which methods, focusing on what aspects, and with what resources. Moreover, teachers in all educational settings including language institutes, schools, and universities can profit from the results which provide insights on the usage, advantages, and disadvantages of various reading interventions, and their applicability in EFL settings.

This study had some limitations. A serious limitation of this study was the gender of the participants who were limited to female learners. As gender is an important variable in language learning, it may affect the findings of the study; hence, the results of the present study may be different with one that may deal with male learners. In addition, the results of this study may be unique to this particular population under investigation, and may not be universal in nature. In order to gain more reliable information and findings about the study variables, other studies should be carried out with more participants in different contexts. In order to make generalizations in a more confident manner, other studies with larger samples could be done to ensure the external validity of these findings. The used tool in this study was a reading test, and the other useful tools such as questionnaires, observations, diaries, and think-aloud protocols which can add to the reliability of the findings were not used.

References
Two Types of Reading Intervention: Shadow Reading vs. Collaborative


### Appendix A
CSR Leader’s Cue Card

<table>
<thead>
<tr>
<th>Before Reading</th>
<th>During Reading</th>
<th>After Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preview</strong></td>
<td><strong>Read</strong></td>
<td><strong>Wrap up</strong></td>
</tr>
<tr>
<td>Today’s topic is ___. Let’s brainstorm everything we already know about the topic and write it on your learning logs. Who would like to share their best ideas? Now let’s predict. Look at the title, pictures, and headings and think about what you think we will learn today. Write your ideas in your learning logs. Who would like to share their best ideas?</td>
<td>Who would like to read the next section? <strong>Click and Clunk</strong> Did everyone understand what we read? If you did not, write your clunks in your learning logs. [If someone has a clunk] Clunk Expert, please help us out. <strong>Get the Gist</strong> It’s time to Get the Gist. Gist Expert, please help us out. Go back and repeat all of the steps in this column over for each section that is read.</td>
<td>Now let’s generate some questions to check if we really understood what we read. Remember to start your questions with who, when, what, where, why, or how. Everyone, write your questions in your learning logs. Who would like to share their best question? In your learning logs, let’s write down as much as we can about what we learned today. Let’s go around the group and each share something we learned. <strong>Compliments and Suggestions</strong> The Encourager has been watching carefully and will now tell us two things we did really well as a group today. Is there anything that would help us do even better next time?</td>
</tr>
</tbody>
</table>
## Appendix B
### CSR Learning Logs

### CSR Learning Log

<table>
<thead>
<tr>
<th>Today’s Topic</th>
<th>Date</th>
</tr>
</thead>
</table>

### Before Reading

- **Preview**
  - What I already know about the topic
  - What I think I will learn.

### During Reading

- **Cliffs & Gaps**
  - 1st section of the passage
  - 2nd section of the passage
  - 3rd section of the passage

### After Reading

- **Wrap Up**
  - Questions about the important ideas in the passage
  - What I learned
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