Impact of Reciprocal Teaching on EFL Learners' Reading Comprehension

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Abstract

This study investigated the effect of reciprocal teaching (RT) on EFL learners' reading comprehension. Fifty intermediate learners participated in the study and were sampled as the experimental ($n = 25$) and control groups ($n = 25$). Participants were male and ranged in age from 15 to 16. The Reading section of *Key English Test* (*KET*, 2010) was used as the pretest to assess the participants' entry-level reading ability. MANOVA results for comparing the 2 groups' mean scores in the pretest were not significant, indicating that they were at the same level of reading ability prior to the study. RT strategies (i.e., predicting, questioning, clarifying, summarizing) were taught to the experimental group in reading classes for 6 months. Meanwhile, the control group received conventional reading instruction (i.e, prereading, while-reading, and postreading procedure). The Reading section of *KET* was used as the posttest to explore the improvement of both groups after the experiment. MANOVA results revealed a significant difference between the general reading ability of the experimental and control groups, in favor of the experimental group at the end of the course [$F(5, 44)= 55.740$, $p = .000$; Wilks' Lambda = .136; partial eta squared = .864]. Moreover, examining Tests of Between-Subjects Effects revealed that the experimental group outperformed the control group in all 5 parts of the posttest.

Keywords: Reading Comprehension; Reciprocal Teaching (RT); Reading Strategies

1. Introduction

Reading comprehension is one of the essential skills for academic learning and professional success and a key component of lifelong learning (Dreyer & Nel, 2003). It is a complex cognitive activity that enables people to communicate and obtain information in the modern society via written media (Alfassi, 2004). Reading has a vital role in EFL settings, as it functions as the main source of comprehensible input and, thus, becomes a means to the end in the process of acquiring the language (Eskey, 2005). There are certain reasons why getting students to read English texts is important. Because learning is the natural byproduct of reading (Pearson, 2011), "extensive exposure to linguistically comprehensible written texts can enhance the

process of language acquisition" (Richards & Renandya, 2002, p. 273) and lead to a better learning outcome. Further, reading provides a good model and material for writing; it can act as a motivator for oral discussion about a certain topic and provides meaningful context for presenting new vocabulary items and grammatical structures (Cunningsworth, 1998).

The evolution of psycholinguistic theories in the last decades has led to the development of different views on how the written text is processed by readers. In part-centered, or bottom-up approaches, reading is viewed as a totally passive and receptive skill that only involves grapheme to phoneme decoding (Wallace, 2001). In this view, the primary importance is given to the linguistic features of the text and the whole meaningful text is created as a result of linkage of every smallest part (Anderson, 2003). By contrast, in meaning-emphasis, or top-down approaches, reading is viewed as a more active process during which the readers extract meaning from the text. These approaches "emphasize the overall construction of meaning from connected or whole texts and draw on the reader's schemata and personal experiences" (Ediger, 2001, p. 157).

In recent years, however, reading is regarded as an interactive rather than just an active skill through which the reader constantly attempts to construct meaning from the text by activating his or her individual knowledge of linguistic forms, (meta)cognitive skills, and knowledge of the world (Hadley, 2003). Research supports this postulation and shows that the dynamic interaction with the text and strategic processing during reading have a positive influence on reading comprehension and help students become more skillful readers (Grabe, 2009). It is known that learning strategies are teachable and learnable, and strategy instruction "can be effective in providing students with a repertoire of strategies that promote comprehension monitoring and foster comprehension" (Dreyer & Nel, 2003, p. 350). Since the mid-1970s, the effect of strategy instruction on learning has been investigated. Whereas some types of strategy instruction underscore teaching the strategies in isolation, some researchers have focused on how language learning strategies work together in combination (e.g., Brown et al., 1996; Guthrie et al., 2004; Palincsar & Brown, 1984; Spörer, Brunstein, & Kieschke, 2009).

One type of strategy instruction that involves teaching strategies explicitly and directly with metacognitive training is reciprocal teaching (RT; Palincsar & Brown, 1984). This is a form of multiple comprehension strategy usage that combines four strategies of predicting, clarifying, questioning, and summarizing. RT is in the form of an ongoing dialogue between the teacher and students during which they take turns to promote students' comprehension through constructing meaning. If students take the steps of RT systematically, they learn how to take control of

their reading process and ultimately become independent readers (Spörer et al., 2009).

RT is considered as one of the best strategic approaches to teaching reading (Grabe, 2009; Haffie, 2009) because "the combination of strategic responses to texts appears to be more effective in supporting comprehension development" (Grabe, 2009, p. 445). This method can even be more helpful in EFL settings because class time is the only time students are exposed to English. Different studies have been carried out to show the effectiveness of using reading strategies in language classes (Anjomshoaa & Golestan, 2012; Fung, Wiklinson, & Moore; 2003; Shokrpour & Fotovatian, 2007, 2009; Yousefvand & Lotfi, 2011; Yang, 2010), but few tried to examine the effectiveness of RT strategies on EFL learners' reading comprehension, especially high-school students. Furthermore, there is a dearth of research on comparing the effect of RT with the pre, while-, and postreading instruction. Pre, while-, and postreading instruction is a process approach of teaching reading whose main focus is helping readers understand the text through the process of activating their background knowledge before reading, using their cognitive/linguistic resources during reading (Wallace, 2001), and being engaged with a text after reading. RT, on the other hand, encompasses four types of strategies that have a dual function of comprehension-fostering and comprehension-monitoring (Palincsar & Brown, 1984). These strategies help readers enhance their comprehension while, at the same time, give them the opportunity to check if comprehension is really taking place (Palincsar & Brown, 1984). RT focuses not only on comprehending the text the students are reading, but also preparing them to apply all the strategies they are now acquiring in future reading tasks in a self-regulated manner (Doolittle, Hicks, Triplett, Nichols, & Young, 2006) and, thus, aims at developing their cognitive and metacognitive skills. As "language learning strategies are related to the features of control, goal-directedness, autonomy, and self-efficacy" (Oxford, 2001, p. 167), learners' understanding and awareness of these strategies can help them become more conscious of their learning processes, control these processes more efficiently, and ultimately become more successful readers. The current study was carried out based on this assumption and aimed at finding the effect of RT on Iranian EFL learners' reading comprehension in comparison to pre, while-, and postreading instruction. The study sought the answer to the following question:

- Does reciprocal teaching (RT) have any significant effect on the reading ability of Iranian EFL learners?

2. Literature Review

2.1 Components of Reading Comprehension

Reading is one of the most important skills to acquire when learning a language, as it is a major means of sharing information with other people and communities through understanding written texts (Alfassi, 2004). In L1 learning situations, reading acts as a major source for literacy training and contributes substantially to the development of L1 skills (Wallace, 1992). Reading is also valuable in EFL settings because it acts as the only source of comprehensible input (Krashen, 1981), and generally in such contexts, learners are not surrounded by the English language. Further, a great deal of academic discourse is in English, and it is through reading texts of different topics that students gain much of their knowledge (Harmer, 2007).

Reading is "the process of receiving and interpreting information encoded in language form via the medium of print" (Urquhart & Weir, 1998, p. 22) and a type of problem-solving activity (Grabe, 2006) during which "readers constantly form hypotheses, test predictions, and use their knowledge of the world and of the language to construct meaning" (Sheorey & Mokhtari, 2001, p. 432). Reading is not a unitary construct (Davis, 1968) but a "complex cognitive process" (Grabe, 2006, p. 279) that is made of a number of subprocesses and activities (Beck & McKeown, 2005) whose learning "requires considerable cognitive effort and a long learning process" (Grabe, 2006, p. 279).

An overview of several decades of scientific research on reading shows that reading consists of five critical components of phonemic awareness, phonics, fluency, vocabulary, and comprehension (*Report of the National Reading Panel: Teaching Children to Read*, 2000). Having the ability to decode each word, understanding what each word consists of and recognizing words in texts and passages is known as phonemic awareness. Phonics deals with the correspondence between the sound and spelling of words and helps readers make connection between what they see in the written form and what they hear as the spoken counterparts of those forms (Bowey, 2005). Fluency is the ability to recognize words smoothly and quickly. Vocabulary knowledge consists of understanding lexicostructural patterns, and comprehension is extracting meaning from a written text.

Reading for understanding, or comprehension, is the final goal of the reading process (Anderson, 2003) and is defined as an active and ongoing process to construct mental representation of textual information and its interpretation (Adams & Lowery, 2007; Pang et al, 2003; van den Broek & Kremer, 2000). Deep comprehension requires more than mere interpretation of single words, phrases, and

sentences and involves conscious attempts from the side of the readers to gather related information from the text and synthesize them into the global meaning of the whole text (Best, Rowe, Ozuro, & McNamara , 2005). Therefore, to become successful independent readers, L2 learners must develop a repertoire of reading strategies (Simpson & Nist, 2000). As a matter of fact, "for most second language learners who are already literate in a previous language reading comprehension is primarily a matter of developing appropriate, efficient comprehension strategies" (Brown, 2001, p. 306). Strategic readers consistently utilize two mental activities as they read, "they read and understand the content while at the same time remaining alert for instances when they are not achieving full comprehension, and taking appropriate steps to remedy the situation" (Carter, 2001, p. 23).

2.2 Reading Comprehension Strategy Instruction

Many studies in the field of reading comprehension and reading strategies have emphasized the important role reading strategies play in students' comprehension (e.g., Dreyer & Nel, 2003; Mokhtari & Reichard, 2002, 2004). Research has also compared proficient readers with novice ones to determine what types of strategies skillful readers use to comprehend the text better (e.g., Afflerbach, 2002; Garner, 1994). Reading strategy instruction has been found to be highly beneficial for students of all levels; however, it is reported to be especially helpful for low-achieving learners or less-skilled readers to comprehend the text more effectively (Stahl, 2004).

Reading instruction in which students are typically asked to activate their background knowledge about the topic of the text, review the vocabulary, read the text silently, and answer comprehension questions does not help students become strategic readers (Chamot & O'Malley, 1996). Many students cannot figure out how to read efficiently if someone does not teach them; thus, they may experience difficulties in understanding what they are reading (Jimenez, Garcia, & Pearson, 1996). Therefore, teachers should help their students become skillful and self-regulated readers. This can be achieved by giving them explanations about comprehension strategies, their usefulness, and the way students can use them in the process of reading comprehension (Palincsar & Brown, 1984). Students' needs, learning styles, and individual preferences should also be considered in strategy instruction to help them use the strategies more flexibly (Pressley, 2002). Explicit reading strategy instruction is beneficial for both learners and teachers because it promotes learners' autonomy and helps teachers motivate their students to actively participate in the process of learning and, thus, increases learning efficiency (Janzen & Stoller, 1998). Explicit strategy instruction focuses on giving guidance and practice on strategy use and includes three basic phases: explicit explanation of strategies, guided practice, and independent practice.

Effective comprehension instruction begins with direct and explicit explanation of strategies and when, why, and how they should be used while students are reading a text (Duffy, 2002). Then, the teacher models the explained strategy by thinking aloud and verbalizing what is happening in his or her mind when he or she is applying a specific strategy (Duke & Pearson, 2002). The next phase of explicit strategy instruction is guided practice during which students practice a strategy with the help of the teacher and/or peers (Pressley, 2002). In the final phase (i.e., independent practice), the teacher gives students the opportunity of practicing and applying a strategy without his or her help in the classroom or at home (Pressley, 2002).

Explicit strategy instruction has been reported to have a positive effect on students' reading comprehension and strategy use (e.g., Block & Pressley, 2002; Pressley, 2006; Trabasso & Bouchard, 2002). One type of strategy instruction is single strategy instruction through which a single strategy such as "using imagery (Pressley, 1976), self-questioning (Singer & Donlan, 1982), summarizing (Brown & Day, 1983), using text structure (Taylor & Beach, 1984), and using story maps (Idol, 1987)" (Dole, Nokes, & Drits, 2009. p. 16) is taught to students. In the second type of strategy instruction, however, multiple strategies are taught to improve reading comprehension. The most renowned instruction in this framework is RT (Palincsar & Brown, 1984) whose "overall goal is to promote, through scaffolding instruction and collaboration, the self-directed and flexible use of the learned strategies" (Spörer et al., 2009, p. 273).

2.3 Reciprocal Teaching (RT)

RT is a strategy package designed mainly as a treatment for struggling students in remedial reading courses (Cooper, Boschken, McWilliams, & Pistochini, 2000). RT first developed in the U.S. by Palincsar and Brown (1984) based on Meichenbaum's self-verbalization techniques (1985) that aimed to improve the cognitive processing of impulsive students (Bruer, 1993). Drawing on the findings of research on the effectiveness of these techniques on reading comprehension and theories of cognition and metacognition, Palincsar and Brown (1984) formulated RT to foster readers' self-verbalization and metacognition, to enable them to construct meaning from the written word (Carter, 2001), and to improve the reading skills of the students who had problems with understanding texts. In this framework, six essential functions for expert reading comprehension were identified as a proficient reader (Carter, 2001, p. 22):

- Understands that the goal in reading is to construct meaning;
- Activates relevant background knowledge;
- Allocates attention or cognitive resources to concentrate on major content ideas;

- Evaluates the constructed meaning (referred to as the gist) for internal consistency;
- Draws and tests inferences (including interpretations, predictions and conclusions); and
- Monitors the five previous functions to see if comprehension is occurring.

Palincsar and Brown (1984), then, proposed certain types of activities assumed to entail all the abovementioned six functions needed for comprehension under four types of strategies:

- Prediction: "involves formulating guesses or hypotheses about what the author of a text is likely to say next, and as such, promotes an overall reading strategy of hypothesis formation and testing" (Collins, Brown, & Newman, 1987, p. 6).

- Clarification: is clarifying word meanings and confusing parts of the text (Spörer et al., 2009) and "involves detailed self-diagnosis, in which students attempt to isolate and formulate their particular difficulties in understanding a text" (Collins et al., 1987, p. 7).

- Questioning: is generating questions when reading a text and is considered to be "an important strategic activity for understanding difficult texts and provides the basis for checking if the text makes sense (self-monitoring)" (Collins et al., 1987, p. 7)

- Summarizing: involves summarizing different parts of the text and functions as a global test of comprehension which is usually done at the paragraph level. By applying this strategy, "students learn that if they cannot form a good summary, then they do not understand the text and had better either reread the text or try to clarify their difficulties (Collins et al., p. 7).

RT has its basis in models and/or concepts of social constructivist theories (Mcmahon & Oliver, 2003) such as cognitive apprenticeship (Collins, Brown, & Newman, 1989), the zone of proximal development (ZPD; Vygotsky, 1978), proleptic teaching (Brown & Palincsar, 1989; Palincsar, 1991), and self-regulation model (Zimmerman, 1998).

It is suggested that "the model of cognitive apprenticeship provides a framework for all the activity that occurs during a reciprocal teaching session" (Seymour, & Osana, 2003, p. 328). Cognitive apprenticeship assumes that people learn from one another through (Collins et al., 1989, pp. 16-18):

- Modeling: experts demonstrating a task explicitly and students building a conceptual model of the task.

- Coaching: the process of supporting students in their learning; experts helping students overcome the failure in doing tasks.

- Articulation: verbalizing knowledge and thinking process in order to clarify them.

- Reflection: allowing students to compare their own ideas with those of the expert or other tutors.

- Exploration: giving chance and room to students to solve problems on their own.

Another underlying assumption of RT is related to the concept of ZPD, as reading is processed "by applying the strategies in a group process, especially less able students can learn from their more knowledgeable peers" (Spörer et al., 2009, p. 273). The underlying assumptions of RT can also be related to proleptic teaching. Proleptic teaching considers learners as apprentices (Mcmahon & Oliver, 2003) who become more experienced and capable of performing more complex tasks when the tasks are modeled repeatedly, and they are given greater responsibility until they become experts themselves (Brown & Palincsar, 1989). RT is also connected with Zimmerman's self-regulation model (1998) as "during reciprocal teaching, students are engaged in cognitive and metacognitive activities: They alternate between prompting the use of a strategy, applying the selected strategy, and monitoring its accurate implementation" (Spörer et al., p. 273). RT is suggested to be a useful comprehension strategy for understanding texts of different disciplines (e.g., van Garderen, 2004), developing students' higher-order thinking skills (Todd & Tracey, 2006), promoting cooperation among students (Marzano, Pickering, & Pollock, 2001), and increasing their learning achievement (Brand-Gruwel, Aarnoutse, & van den Bos, 1998). However, the effectiveness of RT for large classes in secondary education setting is still open to research.

3. Method

3.1 Participants

Fifty high-school students participated in this study. They were studying in two grade-one classes in Tafresh, a small city in Iran, in the academic year 2012-2013. The participants were all male and ranged in age from 15 to 16. Having used the quasiexperimental research design, we randomly assigned the classes into control ($n = 25$) and experimental ($n = 25$) groups.

3.2 Instruments

In order to gather the required data, the Reading section of *Key English Test* (*KET*; 2010) was used as the pretest and the posttest. *KET* is a part of *Cambridge Main Suite*, a group of examinations developed by Cambridge ESOL at Cambridge University. It is designed based on language in real life and assesses examinees' ability to deal with everyday written and spoken English. The Reading section of *KET* includes five different parts and 35 matching and multiple-choice items that assess participants' reading comprehension in terms of (*KET*, 2010, pp. 6-7):

1. Gist understanding of real-world notices and reading for main message (5 items)

2. Reading and identifying appropriate lexical items (5 items)

3. Understanding functional language and reading/identifying the appropriate response (10 items)

4. Reading paragraphs for detailed understanding and main idea(s) (7 items)

5. Reading and identifying appropriate structural words (auxiliary verbs, modal verbs, determiners, pronouns, prepositions, conjunctions, etc.) (8 items).

The reliability of *KET* was calculated by KR20 and turned out to be .80 and .92 for the pretest and posttest, respectively.

3.4 Procedure

After assigning the participants to the experimental and control groups and administering the pretest, the teacher implemented RT in the experimental group for teaching eight reading comprehension passages. The instructional material was *English Book One* of the Iranian EFL national curriculum (Birjandi, Soheili, Norouzi, & Mahmoudi, 2013).

Each RT lesson begins with a dialogue between a dialogue leader (a teacher or a student) and the remaining students of the learning group. The dialogue leader models the use of the strategy, gives instruction on when and why to use the strategy, and helps students apply a strategy while they are reading a passage. As students become familiar with the strategies and the way they have to apply them, the dialogue leader draws in other students to take turns as the discussion leader and his or her engagement in the dialogues fades out (Hacker & Tenent, 2002).

For the control group, the same teaching material was used as that of the experimental group. Reading was taught according to the conventional procedure of prereading, while-reading, and postreading. None of the strategies from the reciprocal strategy package was used for teaching reading in this group.

3.5 Data Analysis

In order to ascertain the homogeneity of the participants with respect to their reading proficiency prior to the study, both groups participated in the Reading section of *KET* (2010). The groups' mean difference on the pretest was compared using MANOVA. Before performing the MANOVA, preliminary assumption testing was conducted (Pallant, 2007). The assumption testing included multivariate normality, linearity, multicolinearity, and homogeneity of variances. The results of the assumption testing did not note any serious violation of the assumptions, and so the MANOVA was performed. In order to answer the research question of the study and to compare the means of both groups' posttest scores, another MANOVA was run at the end of the course.

4. Results

The result of the MANOVA on the pretest showed that the difference between the experimental and control groups' entry-level reading ability was not significant [Wilks' Lambda=.814; $F = 2.009$; $p = .096 > .001$; partial eta squared = .186]. This showed that both groups were homogeneous with respect to their reading ability prior to the study. After running the MANOVA on the posttest, the result of multivariate tests showed that Wilks' Lambda value was significant [$F(5, 44) = 55.740$, $p = .000$; Wilks' Lambda = .136; partial eta squared = .864] indicating that there was a statistically significant difference between the control and experimental groups' performance on the combined dependent variables.

To check the two groups' differences on the dependent variable measures (i.e., the five parts of *KET* Reading section), Tests of Between-Subjects Effects should be considered. However, before interpreting Tests of Between-Subjects Effects, Levene's Test of Equality of Errors Variances was examined to check the assumption of equality of variances for the variables. The result showed that none of the variables recorded significant values at the level of $\alpha = .05$; therefore, equal variances were assumed. Consequently, the Tests of Between-Subjects Effects were considered to examine the effect of treatment on the participants' reading ability in the five parts of *KET* Reading section at the end of the study (see Table 1). Using a Bonferroni adjusted alpha level of .01 (.05/5=.01; Tabachnick & Fidell, 2007), all the differences reached the statistical significance (see Table 1), indicating that the experimental group's reading comprehension improved significantly in all the five parts of the posttest:

Table 1. *Tests of Between-Subjects Effects for Posttest*

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Sq.
Corrected Model	Understanding real world notices	72.000	1	72.000	50.883	.000	.515
	Reading/identifying lexical items	56.180	1	56.180	47.276	.000	.496
	Understanding functional language	327.680	1	327.680	186.535	.000	.795
	Paragraph comprehension	72.000	1	72.000	30.769	.000	.391
	Reading/identifying structural words	100.820	1	100.820	33.946	.000	.414
Intercept	Understanding real world notices	208.080	1	208.080	147.053	.000	.754
	Reading/identifying lexical items	353.780	1	353.780	297.711	.000	.861
	Understanding functional language	1058.000	1	1058.000	602.277	.000	.926
	Paragraph comprehension	633.680	1	633.680	270.803	.000	.849
	Reading/identifying structural words	505.620	1	505.620	170.242	.000	.780
Group	Understanding real world notices	72.000	1	72.000	50.883	.000	.515
	Reading/identifying lexical items	56.180	1	56.180	47.276	.000	.496
	Understanding functional language	327.680	1	327.680	186.535	.000	.795
	Paragraph comprehension	72.000	1	72.000	30.769	.000	.391
	Reading/identifying structural words	100.820	1	100.820	33.946	.000	.414
Error	Understanding real world notices	67.920	48	1.415			
	Reading/identifying lexical items	57.040	48	1.188			
	Understanding functional language	84.320	48	1.757			
	Paragraph comprehension	112.320	48	2.340			
	Reading/identifying structural words	142.560	48	2.970			
Total	Understanding real world notices	348.000	50				
	Reading/identifying lexical items	467.000	50				
	Understanding functional language	1470.000	50				
	Paragraph comprehension	818.000	50				
	Reading/identifying structural words	749.000	50				
Corrected Total	Understanding real world notices	139.920	49				
	Reading/identifying lexical items	113.220	49				
	Understanding functional language	412.000	49				
	Paragraph comprehension	184.320	49				
	Reading/identifying structural words	243.380	49				

Further, as Table 1 shows, the effect sizes of the five parts of *KET* in order of power of partial eta squared are understanding functional language ($F = 186.535$, partial eta squared = .795). understanding real-world notices ($F = 50.883$, partial eta squared = .515), reading/identifying lexical items ($F = 47.276$, partial eta squared = .496), reading/identifying structural words ($F = 33.946$, partial eta squared = .414), and paragraph comprehension ($F = 30.769$, partial eta squared = .391). Based on Cohen's guideline (1988), the partial eta squared larger than .14 suggests a large effect size; therefore, a large effect size for the treatment (i.e., RT) was observed in these analyses.

As Table 2 shows, the mean scores of the experimental group are higher than those of the control group on the posttest (*KET* Reading section) and its five parts:

Table 2. *Group Statistics of Posttest and Its Parts*

Dependent Variables	Group	Mean	SD
KET	Control	10.240	4.054
	Experimental	29.920	4.965
Understanding real world notices	Control	.840	.943
	Experimental	3.240	1.39
Reading/identifying lexical items	Control	1.600	1.19
	Experimental	3.720	.979
Understanding functional language	Control	2.040	1.09
	Experimental	7.160	1.51
Paragraph comprehension	Control	2.360	1.11
	Experimental	4.760	1.85
Reading/identifying structural words	Control	1.760	1.30
	Experimental	4.600	2.06

5. Discussion

The purpose of this study was to investigate the effectiveness of RT on the reading comprehension of Iranian EFL learners. The results revealed that using RT for teaching reading enhanced the participants' reading ability. The results corroborate the findings of previous research on the effectiveness of RT (e.g., Alfassi, 2004; Chen, 2005; Freihat & Al-Makhzoomi, 2012), and indicate that combined strategy instruction is an effective and useful way for improving EFL learners' reading ability. What the study adds to the literature is the effectiveness of RT in comparison to pre, while-, and postreading instruction in large classes in secondary education settings.

A reasonable justification for such a finding can be the fact that in RT learning takes place during a dialogue that is initiated by the teacher's guidance and provides further opportunity for other learners to become actively engaged in strategic reading. It is suggested that using techniques that help students understand oral language better "can lead to greater facility with written language" (Mottley & Telfer, 1995, p. 127) because "there is a strong relationship between reading comprehension and listening comprehension" (Aarnoutse, van den Bos & Brand-Gruwel, 1998, p. 116). Oracy is considered to be the foundation of literacy (Lems, Miller, & Soro, 2010) because listening provides the comprehensible input that facilitates language learning and "triggers the further development of second-

language proficiency" (Richards, 2008, p. 3). It is also suggested that a balanced reading course should include activities of other language skills because "learning to read is also helped by learning to write and learning through listening" (Nation, 2009, p. 5).

Further, by improving learners' listening comprehension (Amin, Aly, & Amin, 2011), lexical knowledge (Rasekh & Ranjbary, 2003), motivation and strategy use (Harris & Gasper, 2001), and thinking skills (Todd & Tracey, 2006), RT leads to more successful reading and, thus, is a more advantageous reading instruction in comparison to reading instructions that focus on mere text comprehension.

The results also revealed that RT can be an effective teaching instruction in large classes of public schools in spite of the fact that RT is time- and energy-consuming for both teachers and students. RT engages all learners actively in the class procedure and, thus, reading the text and applying strategies become a joint responsibility shared by all class members (Palincsar, Ransom, & Derber, 1988). The method encourages a teacher-student collaboration, and each student has the chance of becoming a dialogue leader. This engages all students in class work and reduces the chances of disruptive behavior that basically happens in large language classes. Moreover, RT is planned and implemented in a way that students' problems in understanding the meaning—or as it is called—meaning construction are addressed immediately and directly. Whereas the teacher follows the procedure of teaching RT in the classroom according to his or her lesson plan, he or she slows down whenever students face any comprehension failure. The reader is also asked to slow down and spend more time on the problem. This may take time and effort (Palincsar & Brown, 1984), but will ultimately lead to better understanding and more self-directed reading.

Moreover, whereas strong effect sizes for all the parts of *KET* indicated substantial improvement of the experimental group's reading ability in all the five parts of the posttest at the end of the course, the strongest improvement was observed in understanding functional language and verbal exchange patterns (partial eta squared = .795). This finding can be related to the way RT is implemented in the classroom, as RT procedure is based on repeated interaction with the model (both teachers and students) to help students perform the activities appropriately (Palincsar & Brown, 1984) and promote negotiation and construction of meaning among all class members. Moreover, RT affects the development of strategic competence and helps students incorporate communication and learning strategies more effectively in reading texts. Learners' strategic competence "is a key part of one's overall communicative competence" (Ediger, 2006, p. 303), and it has a pivotal role in

enabling L2 learners to achieve their communication goals both when they interact orally and when they produce or comprehend written texts (Ediger, 2006).

However, the participants showed the least degree of improvement in understanding long texts after the RT intervention (partial eta squared = .391). This is due to the fact that KET texts are culture-bound and lack of cultural orientations may have affected reading comprehension of Iranian EFL learners. Throughout the intervention of RT, the cognitive processes of reading comprehension were focused on; however, as this finding shows, improving the cognitive control over reading comprehension cannot alone account for the success of L2 readers (Fitzgerald, 1994), and culture plays a crucial role in this regard, as well (Brown, 2001). This shows that the English textbooks of the Iranian EFL curriculum do not develop the students' sociocultural repertoire at a satisfactory level (Rahimi & Nabilou, 2009). This finding can also be related to time factor and the number of reading texts worked on during the intervention. Because time and practice are two determining factors affecting successful application of strategies (Rahimi & Katal, 2013), more appropriate instructional materials that focus on both reading strategies and cultural points should be used throughout EFL programs if students are going to fully benefit from strategy-based instructions like RT.

However, this result is promising, showing that even if EFL teaching materials are not well designed (Rahimi & Nabilou, 2009), teachers' adoption of appropriate teaching techniques can compensate for the weaknesses of those instructional materials. This underscores the role of teachers' instructional behavior and teaching style in creating positive emotional climates that result in higher motivation and learning achievement (Grasha, 2002) because teachers provide "vital human connection between the content and the environment and the learners" (Heimlich & Norland, 1994, p. 109).

This also supports the results of other studies that have found that the role of teacher is of paramount importance in strategy instruction (Rahimi & Soryani, 2013). As most strategies are hard to understand, especially if they are new to L2 learners, teacher-modeling is essentially needed in strategy instruction (Amin, Aly, & Amin, 2011). It is evident that "strategy training . . . requires committed and informed teachers who spend an extended period of time working with learners" (Bastanfar & Hashemi, 2010, p. 161). The way teachers manage strategy instruction is a key to the success of strategy instruction (Chamot, 2004), considering the fact that they have the role of a diagnostician who identifies students' current learning strategy repertoire (Cohen, 1998), a trainer/coach who models the strategies (Chamot, 2005), and an evaluator of students' success in deploying strategies accurately and appropriately (Grenfell & Harris, 1999).

6. Conclusion

RT is a research-based strategy instruction characterized as an ongoing dialogue about a text between the teacher and class members in order to train readers to utilize a set of reading strategies (predicting, questioning, clarifying, summarizing) and interact with the text dynamically. RT has been primarily used in L1 classes to teach literacy; however, L2 researchers have recently shown interest to use RT to educate more proficient and competent readers.

This study was an attemp to scrutinize the effectiveness of RT on improving EFL learners' reading comprehension in the context of secondary education. The findings mainly provide support for incorporating RT as an explicit reading strategy instruction in EFL settings to resolve the problem of ineffective reading process among language learners. The study also offers proof for the effectiveness of RT as a preferred reading instruction to train strategic and self-regulated readers in comparison to the process approach of pre, while-, and postreading.

What can be concluded from the findings of this study is that RT is a suitable teaching method for teaching reading to large classes, as it can help teachers manage their classes more effectively by creating the condition of collaborative learning and engaging students in several types of (meta)cognitive activities. As groups of students are critically engaged in the process of reading comprehension to both construct meaning from the text and monitor the way they are doing that, their task concentration is increased, thus managing the whole process of teaching and learning becomes easier for teachers in such classes.

RT was found to have a very strong effect on the EFL learners' ability in understanding verbal exchanges, suggesting that it has the potential to be used in teaching listening and speaking skills. It can be inferred from this finding that the way RT draws students in the dialogues about the reading passage and the type of strategies they use in this process can contribute to the development of oral skills and communicative competence.

Based on the findings, it was further deduced that the type of written texts can have a significant role in the success of RT. Examining how the type of reading passages can impose certain limitations on RT in the process of teaching reading is worth further corroboration.

The study also yielded promising results for EFL teachers who have to teach unsuitable teaching materials, suggesting that their tactful choice of instructional techniques can enhance their efficiency and create an active learning environment in such situations.

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