

STUDYING THE EFFECT OF SELF-EFFICACY ENHANCEMENT THROUGH STRATEGY INSTRUCTION ON IRANIAN PRE- INTERMEDIATE LEARNERS' SUCCESS IN READING COMPREHENSION

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Abstract— Self-efficacy, as one of the most influential perceptions the learners hold, has recently been at the center of investigation due to its fundamental role in every domain particularly in language learning. Yet, more research on self-efficacy and its underlying processes is reckoned to be necessary in order to explore how the learners can be assisted in their academic achievement by activating their self-efficacy judgmental system; and likewise fostering their mental capacities. On the other hand, reading comprehension deemed to be one of the most essential requirements to master in an EFL setting is also considered to be a laborious task. Hence, this experimental study aims to investigate the effect of self-efficacy enhancement via strategy instruction on the achievement of Iranian EFL learners in reading comprehension. 90 EFL learners in pre-intermediate level of a private institute in Tehran were selected as the research sample using quasi-experimental research design and assigned to one control and two experimental groups randomly. To answer the research questions, a self-efficacy questionnaire taken from Becker and Gable (2009) and one of PET Reading Proficiency Tests were administered to the learners in three groups both at pretest and posttest. Cognitive and metacognitive strategies selected from Oxford's Strategy Classification were instructed to two experimental groups; in the meantime, the control group was taught the readings with no instruction based on strategies. The results revealed that self-efficacy enhancement can significantly affect the learners' achievement in reading comprehension ($p < .05$).

Index Terms — Self-efficacy enhancement, strategy instruction, reading comprehension, academic achievement, cognitive strategies, metacognitive strategies.

I. INTRODUCTION

Affective factors as specific psychological characteristics were once classified and included as one of the essential parts of learner factors. As suggested by a group of scholars

in 'the framework for examination of second language learning' (Stern, 1991, p.338), the language learner and his characteristics are at the top of the diagram, in a sense, affective factors along with cognitive factors are shown to play the most important roles in language learning. In other words, the learner and his affective factors should be at the center of attention in any language learning and teaching model. These factors have a close contact with psychology and psycholinguistics, a part, which is not easy to grasp (Stern, 1991).

Beliefs, as one part of learner factors, nevertheless, are considered to enjoy some features. Beliefs are treated to be neither an ability nor a trait-like tendency, rather they are deemed to be dynamic and situational. As research studies suggest, they can influence both process and product of learning. Based on Wenden's metacognitive approach (1999), beliefs are "theories in action" (cited in Ellis, 2008, p. 699). Further, Barcelos (2003) viewed beliefs from an experienced-based nature and classified beliefs into three groups:

1. The beliefs about language use.
2. The beliefs about learning a language.
3. The beliefs which show the significance of personal factors which refer to the feelings that make language learning easier or function as impediment to language learning.

"Self-efficacy" is a person's belief in his own capabilities to attain specific goals. A learner's sense of efficacy affects his motivation to learn, the goals he sets, the effort he devotes to attain these goals and his willingness to persist in the face of difficulty. Self-efficacy has been found to influence learner's achievement in language learning. (Richards and Schmidt, 2010, p.517).

To investigate the causes underlying low academic results, educational psychologists have emphasized the importance of referring to the learner and discussing his needs and beliefs as the learner who is playing a central and major role

in the teaching-learning process. In this regard, one of the most important directions that researchers are exploring today in the area of academic motivation and achievement is linked to the effect that self beliefs exert on the quality of the learner's academic performance. Accordingly, it has been found out that the kind of perceptions that learner foster in themselves in the relevant academic field result in a strong effect on their ultimate achievement. Hence, the learners who develop a positive feeling and conception about their capabilities; in other words, are reported to possess the required means and also the power for achieving success (Bandura, 2001).

On the other hand, as Edigar (2001) argues, reading is one of the essential sources of input in an EFL setting; and by the same token, it is one of the most important skills and also requirements which the learners are expected to become proficient in, since the academic materials are also written in English. Consequently, reading skills are of utmost importance in such environments. Moreover, according to Brumfit (1980), reading is believed to be an exceedingly difficult and complicated activity which involves a combination of perceptual, linguistic, and cognitive abilities. Accordingly, the learners are supposed to understand what they read regardless of the fact that they may encounter comprehension problems in gaining the actual meaning from the reading. Besides, the learners don't show any interest in reading tasks and they are reluctant to take part in reading activities. The reason is, reading seems to be a kind of laborious activity or even a chore to them due to the particular view they hold toward the reading task which is memorizing numerous vocabularies and learning complex structures as well. Nonetheless, reading is an intellectual activity which is required to make the learners aware of their own and others' thoughts (Saiepour, 2009). Finally, based on Dron and Soffos (2005), since comprehension is a cognitive and mental process, teachers should move beyond teaching isolated skills to constructing problem-solving settings to stimulate the learners to process information at deeper levels. As it was hypothesized that most of the learners' breakdowns are due to lower efficacy beliefs, the researchers determined to utilize strategy use and training as one way of enhancing the learners' efficacy beliefs in order to fill the gap and solve the learners' problems in reading comprehension.

A. LITERATURE REVIEW

Based on Bandura, one of the salient beliefs the learners hold in the learning context is the sense of efficacy which is the belief in one's capabilities to perform a series of actions needed to achieve success (1978, 1986). As Bandura asserts "self-efficacy perceptions refer to people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances." (1986, p. 391). In this vein, Bandura further maintains that people's beliefs about their abilities influence their performances and

finally their whole lives; consequently, people need to bring together their motivation, cognitive resources, and other required actions in order to control the task (Bandura, 1989). In other words, Bandura believes that "what people think, believe, and feel, affects how they behave" (1989, p. 25). As a result, self-efficacy is assumed to be a valuable construct to be discussed in an academic research study (Schunk, 1994). Consequently, as Pajares and Schunk argue, "the higher the sense of efficacy, the greater the effort, persistence, and resilience" (2001, p.241).

Sources of Self-Efficacy

The learners develop their sense of efficacy beliefs from four fundamental sources as follows:

- *Mastery Experience*: According to Zimmerman (2000), mastery experience or 'enactive attainment' is related to how the learners judge their previous academic work as successful or unsuccessful. If it is successful, the learners often intend to grow a sense of confidence which will help them be successful later. Therefore, when a person succeeds, a stronger sense of efficacy is going to be built.
- *Vicarious Experience*: According to Bandura (1995), learners often try to search for skillful and successful models. Watching other learners who are successful may motivate them to work harder in order to succeed. On the other hand, seeing other people fail in spite of their performance affects the observer in a negative manner.
- *Verbal Persuasion*: If the learners are convinced verbally that they possess the competences and abilities to get the better of what they wish in their tasks, they may exert a great deal of effort in order to become successful. Whereas, the learners who are persuaded in a way that they lack the necessary skills have the tendency to shun challenging tasks (Bandura, 1995).
- *Physiological States*: Learners also depend partially on their physiological and emotional states in assessing their abilities and skills. Learners often tend to view their stress as a sign of weakness ending in poor performance. Hence, the last way of changing efficacy beliefs is to improve one's physical states and reduce tensions and stress (Bandura, 1995).

Effects of Self-Efficacy

According to Bandura (1993 as cited in Haddoune), self-efficacy perceptions influence the learners' academic achievements in terms of the effects it may produce via four 'psychological processes which often work together rather than one at the time:

- *Cognitive Level*: Thought is what efficacy beliefs influence at the beginning. Learners with

efficacy beliefs try to think about their success or perhaps 'visualize success'. The individuals also need to have a very strong sense of efficacy in order to remain 'task oriented' in their hard times (Bandura, 1995)

- **Motivational Level:** Based on Bandura (1995), efficacy beliefs hold a central role in the 'self-regulation of motivation'. Further, he asserts that "most human motivation is cognitively generated. Also, three different forms of cognitive motivators are claimed to be causal attributions, outcome expectancies, and cognized goals". The learners who view themselves as 'highly efficacious' may connect their failures to inadequate effort not to low ability. Moreover, motivation is controlled by the expectation that a task may produce. Finally, a great deal of evidence will support the fact that 'challenging goals' raise and sustain motivation (Locke and Latham, 1990 as cited in Bandura, 1995).
- **Affective Level:** As Bandura (1995) claims, learners' perceptions also influence the amount of stress, tension, and motivation they experience in hard times. Learners who think that they cannot manage some possible threats find many phases of their environment as full of danger. In order to lower one's stress, both 'coping self-efficacy' and 'thought-control efficacy' are suggested to be at work (Ozar and Bandura, 1990 as cited in Bandura, 1995).
- **Selection Level:** Learners are highly affected by their environment. In this regard, the learners' efficacy perceptions are capable of forming the courses their lives take by affecting the kinds of tasks they select to enter. Destinies, activities and environments, and choices are all affected by the learners' selection processes which in turn controlled by the learners' efficacy beliefs. In other words, learners with a low sense of efficacy avoid doing difficult activities (Bandura, 1995).

Self-Efficacy Enhancement and the Teachers' Role

Self-efficacy is a construct that possesses a unique feature which can be changed and developed during the passage of time in different situations with different experiences (Bandura, 1978). The fact that the learners' self-efficacy beliefs can be enhanced, highlights the teachers' role in creating positive self-efficacy perceptions through goal setting, strategy use and instruction, feedback, and modeling (Schunk, 1995).

- **Goal Setting:** Based on Bandura (1995) "Beliefs of personal capabilities affect the goals the people select and their commitment to them. The more

capable that people judge themselves to be, the more challenging goals they set for themselves" (p. 7). Moreover, as Zimmerman (2000) claims, the learners' academic self-efficacy perceptions affect and also raise the goals the learners set for their academic accomplishment. Further, as he asserts, the motivational effects linked and found in goal setting and outcome expectations. Also, Goal setting and self-efficacy are asserted to be powerful influences on academic accomplishment (Zimmerman et al., 1992 as cited in Schunk and Pajares, 2001). Hence, the teachers need to encourage the learners to be conscious of the goals they set for achieving success in their courses. According to Haddoune, the teachers may motivate the learners by allowing them to set 'proximal goals' in order to let them not postpone doing things to other times.

- **Strategy Use and Instruction:** Based on Zimmerman (2000), the cognitive processes and effects are related to success and failure beliefs the learners create and also learning and utilizing strategies in order to handle their environmental demands. One of the processes which emphasized in helping the learners raise their self-efficacy beliefs is 'strategy instruction and verbalization'. According to Corno (1986 cited in Haddoune), 'volitional strategies' are likely to assist the learners handle their academic work more efficiently. The strategies include *motivation control*, *emotion control*, and *environment control* strategies. Thus, the teachers ought to incorporate strategy instruction in order to develop their learners' performance in the tasks.
- **Feedback:** According to Zimmerman (2000), although strategy use and instruction is included in cognitive processes which seem to be essential in developing the learners' self-efficacy perceptions, the learners also need to receive feedback with which they are likely to experience higher self-efficacy. The aforementioned fact is supported by Schunk and Swartz (1991 cited in Bandura, 1995) who revealed that strategy training together with feedback could enhance the learners' perceived writing efficacy and writing achievement. Hence, the teachers are recommended to give feedback to the learners regularly. In this respect, as Schunk (1995) argues, the teachers can employ different kinds of feedback such as *effort*, *ability*, and *performance* feedback.
- **Modeling:** Based on Schunk (1989), 'instructional influences' which could change the learners' perceptions of cognitive efficacy are suggested

to be modeling of cognitive strategies, self-verbalization of cognitive operations and strategies, goal setting, self-monitoring, social comparison, and attributional feedback. The instructional programs and supplementary social experiences could also enhance the learners's self-appraisal of their intellectual capabilities(as cited in Bandura, 1995, p. 209). According to Zimmerman (2000 cited in Haddoune), teachers may need to attend the learners' learning and motivational deficiencies through modeling *cognitive strategies and self-regulatory techniques*. Further, he declares that "When learners' perceived academic efficacy is raised by guided mastery experiences, instructional modeling, and supportive feedback, the altered efficacy beliefs rather than the pretest beliefs are the relevant predictors of subsequent academic attainments." (Bandura, 1995, p. 210).

Learning Strategies and Reading Comprehension

Learning strategies have been focused and utilized since the 1970s (Cohen, 1990; Hosenfeld, 1979; Macaro, 2001; O'Malley and Chamot, 1990; Rubin, 1975; Stern, 1975; Wenden, 1991). Learning strategies are the ways and tactics the learners employ in order to understand, remember, and use information (Chamot, 2004). It is also viewed in a way that learning strategies are in intentional and under conscious control of the learners (Bialystok, 1990; Oxford, 1990, 1996; Pressley and McCormick, 1995).

According to Richards and Schmidt (2010), reading is the processes and courses of actions taken by the reader in order to obtain meaning from a written text. It is called 'silent reading' if the process is performed silently. The knowledge brought about is called 'reading comprehension'.Based on Chastain, "reading involves comprehension. When readers are not comprehending, they are not reading" (1988, p. 217). Like other three language skills, as Chastain further asserts, reading is considered to be a 'process' which is comprised of activating the related knowledge and skills to grasp an understanding of the information transferred from one individual to another (1988). Moreover, reading is not a passive skill as it was believed before because like a writer or speaker, the reader does not produce messages. In this vein, Chastain asserts that reading is a receptive skill in that the reader is receiving a message from a writer (Chastain, 1988). Goodman (1967 as cited in Hassanzadeh, 2013) argued that reading is a 'psycholinguistic process' which starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader builds. Hence, there is an interaction between language and thought in reading.

Reading Strategies and Strategy Instruction

Many studies (Chamot, 2005; Zhang, 2008) have emphasized the significance of understanding the type of

reading strategies used by good readers and the differences in reading strategy use between more and less effective readers. Reading strategies are thought to be important due to the way the readers handle their interactions with written text and how these strategies are related to reading comprehension (Naseri, 2012). According to Brantmeier (2002) reading strategies are "the comprehension processes that readers use in order to make sense of what they read" (p. 1). Besides, as Garner (1987) claimed, reading strategies are essentially deliberate, planned activities used by active learners, over and over to remedy apparent cognitive failure. In the same line, reading strategies are defined by Afferbach, Pearson, and Paris (2008) as: "deliberate, goal directed attempts to control and modify the reader's efforts to decode text, understand word, and construct meanings out of text" (p. 15). Finally, based on Yeditepe and Dicle (2006), "reading strategies" are divided into two major categories: metacognitive and cognitive reading strategies. The strategies that function to monitor or regulate cognitive strategies are called metacognitive strategies which involves thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation of learning after the language activity is completed (cited in Skehan, 1993, p.87). The instruction of reading strategies and assisting the learners to understand and handle the use of strategies is thought to be a main feature of the teaching of second or foreign language reading skills (Richards and Schmidt 2010). Further, as it is indicated, "strategy instruction" should be explicit, intensive, and extensive. The ultimate goal is to have students using the trained strategies autonomously, skillfully, appropriately, and creatively. Finally, strategies should be taught to students directly over an extended period of time as part of the existing curriculum (Pressley and Woloshyn, 1995 cited in Grabe, 2009, p.208).

Research Questions:

Therefore this study aims to find the answers to the following research questions:

1. Does strategy instruction enhance the learners' self-efficacy perceptions?
2. Does strategy instruction affect the learners' reading comprehension positively?
3. Does self-efficacy enhancement affect the learners' reading comprehension positively?

Null Hypotheses:

In line with the above research questions, the following null hypotheses were posed:

1. Strategy instruction does not enhance the learners' self-efficacy perceptions.
2. Strategy instruction does not affect the learners' reading comprehension positively.
3. Self-efficacy enhancement does not affect the learners' reading comprehension positively.

II. METHOD

Participants

For the sake of the current study, 90 participants were chosen from among 100 female EFL learners. They were learning English at pre-intermediate level in a private institute in Tehran. Their age range was 16-19 years. Having used the quasi-experimental group research design, the researcher assigned three pre-intermediate II classes to the control (n = 30) and the experimental groups each one (n = 30), randomly.

Instruments

The instruments utilized in this study are as follows:

- *Homogeneity Test:* A Nelson 150A English proficiency test was administered to ensure the homogeneity of the subjects. It consisted of 50 multiple choice items of knowledge of English structures. The time allotted to take the test was 25 minutes and the scoring was estimated out of 50. A pilot study was conducted with 50 EFL learners in order to check the reliability of the test. Cronbach's Alpha reflecting reliability turned out to be 0.85.

- *Self-Efficacy Questionnaire:* Another data collection instrument which was used in this study was self-efficacy questionnaire provided by Jerusalem and Schwarzer (1992). The questionnaire was borrowed from an article by Becker and Gable (2009). It consists of 20 items with a 4-point likert scale for responses ranging from not at all true to exactly true. The instruction for this part was: "For each of the twenty items, which number from the choices listed below best describes your response?" The participants were required to choose one of the following alternatives:

1= Not at all, 2= Hardly true, 3= Moderately true, 4= Exactly true

Therefore, the scores ranged from 20 to 80. The participants' scores were calculated by adding up the numbers of the scores. A pilot study was also carried out in order to establish the internal consistency of the questionnaire items. The questionnaire was piloted with 60 female students. Cronbach's Alpha reflecting reliability turned out to be 0.83.

- *Reading Comprehension Test:* A test of reading from PET was selected from the Preliminary English Test and administered as the pre-test and post-test. The reliability and validity of the test were supported and determined by University of Cambridge ESOL. To further check the reliability of the mentioned test, it was piloted among 50 EFL learners. The resulting reliability which was calculated using

Cronbach's Alpha, yielded a higher reliability that was 0.82. It should also be claimed that the readability of these reading tests and the readings used in the study were both checked to ensure that the reading tests selected for this test were at the level of examinees.

- *Reading Materials:* The reading materials selected to be taught in this research study were chosen from the learners' textbook. The most important reasons for teaching those readings in the students' books in pre-intermediate level was because they were interesting themselves. Time limit was another factor which forced the researcher to use the same material for teaching. One necessary factor which has been taken into account and mentioned already was that the readability of the reading materials and reading tests was close to each other

Procedure

The steps taken in order to test the research hypotheses of this study are as follows:

In order to check the homogeneity of the participants in this study, the standard Nelson 150A Test was administered at the outset of the study to 100 students. The time allotted to take the test was 25 minutes. After discarding the outliers, 90 students were assigned into three experimental and control groups randomly. The number of the participants in each group was 30. Then self-efficacy questionnaire was given to the subjects before the treatment. The pretest including 35 questions was given to the participants. The time allotted was 35 minutes (one minute for each question). It is worth saying that the same reading tests were given both in pretest and posttest. Meanwhile, the experimental groups were taught three cognitive and metacognitive strategies each from the Oxford's Strategy Classification explicitly. The participants had 8 sessions of treatment in experimental groups between the pretest and posttest. At the end of the experiment, the self-efficacy questionnaire and the reading tests were given to three groups again to find out if there are any significant differences caused by the treatments.

Design

The design of this study was conducted through a quasi-experimental pretest posttest control group design. In this study, both control and experimental groups were selected randomly from TEFL learners.

Data Analysis

In order to test the hypotheses formulated in this study, two one way Ancovas and one t-test were used. They were used to examine the effect of self-efficacy enhancement on the learners' success in reading comprehension.

TABLE IV. TESTS OF BETWEEN-SUBJECTS EFFECTS

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2918.897 ^a	3	972.966	106.426	.000	.788
Intercept	1902.054	1	1902.054	208.053	.000	.708
self1	248.942	1	248.942	27.230	.000	.240
Groups	2077.430	2	1038.715	113.618	.000	.725
Error	786.225	86	9.142			
Total	442887.000	90				
Corrected Total	3705.122	89				

a. R Squared = .788 (Adjusted R Squared = .780)

The main ANCOVA results are displayed in the Test of Between-Subjects Effects Table which reveals the fact that the groups are significantly different in terms of their scores on the dependent variable that is self 2 ($p < .05$). Based on the results, it can be claimed that, strategy instruction enhances the learners' self-efficacy perceptions. Therefore, the first null hypothesis is **rejected**. The effect size is also .725. If it is converted to a percentage by multiplying by 100, we are able to explain 72.5 percent of the variance.

Also, another piece of information that seems to be important is the influence of the covariate that is self 1. In this study, as it is evident, the covariate is significant ($p < .05$). It is suggested that there is a significant relationship between the covariate that is self1 and the dependent variable which is self2 while controlling for the independent variable (group).

The final Table in the ANCOVA output (Estimated marginal means) displays 'adjusted means' on the dependent variable for each of our groups.

TABLE V. ESTIMATED MARGINAL MEANS

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	62.811 ^a	.566	61.687	63.936
Cognitive	73.253 ^a	.552	72.155	74.350
Metacognitive	73.503 ^a	.564	72.382	74.624

a. Covariates appearing in the model are evaluated at the following values: self1 = 65.07.

III. RESULTS AND DISCUSSIONS

The current study is aimed at exploring the effect of self-efficacy enhancement on the learners' achievement in reading comprehension. Hence the results and the discussions for the three research questions are as follows:

Research Question 1: Does strategy instruction enhance the learners' self-efficacy perceptions?

Based on Pallant (2010), in interpreting the output from ANCOVA, some facts and details should be carefully taken into consideration.

As Table 1 and the Descriptive Statistics Table that is Table 2 shows, the details are correct.

TABLE I. BETWEEN-SUBJECTS FACTOR

Groups	Value Label	N
1	Control	30
2	Cognitive	30
3	Metacognitive	30

TABLE II. DESCRIPTIVE STATISTICS

Groups	Mean	Std. Deviation	N
Control	62.17	5.004	30
Cognitive	73.30	2.366	30
metacognitive	74.10	2.249	30
Total	69.86	6.452	90

Dependent Variable: self2

TABLE III. LEVENE'S TEST OF EQUALITY OF ERROR VARIANCES^a

F	df1	df2	Sig.
2.140	2	87	.124

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + self1 + groups

Then, the Levene's Test of Equality of Error Variances Table shows the Sig. value of .1 which is greater than .05. Hence, the variances are equal.

Discussion

On the basis of the results of the first research question, it can be declared that instructing strategies improve the learners' self-efficacy. Self-efficacy is a person's belief in his own capacities to attain one's goals (Bandura, 1986). On the other hand, as review of literature demonstrated, self-efficacy unlike other psychological constructs that have a trait-like stability, is a construct which enjoys the capability of enhancement through providing the students with

motivational assistance and guidance (Bandura, 1986). As studies further revealed, one of the significant roles of the teachers, is instilling positive self-efficacy perceptions in their students through training them to make use of a variety of learning strategies such as goal setting, strategy training, modeling, and feedback (Schunk, 1995). The results are in line with the findings of Li and Wang who demonstrated that there was a significant relationship between reading self-efficacy and the use of reading strategies (2010 cited in Naseri, 2012). Yang also yielded

F	df1	df2	Sig.
.012	2	87	.988

a. Design: Intercept + reading pretest + group

Then, the Levene's Test of Equality of Error Variances Table shows the Sig. value of .9 which is greater than .05. Hence, the variances are equal.

that "the stronger the learners' belief in their ability to learn English and the more positive their attributions of learning English, the greater their reported use of strategies" (1999 cited in Ellis, 2008, p.703). Finally, other studies propose that a relationship does certainly exist between self-efficacy beliefs and strategy use (Magogw and Oliver, 2007; Shang, 2010; Wang, 2004 cited in Naseri, 2012).

Research Question 2: Does strategy instruction affect the learners' reading comprehension positively?

As it is mentioned before, in interpreting the output from ANCOVA, some facts and details should be carefully taken into account.

As Table 6 and the Descriptive Statistics Table that is Table 7 show, the details are correct.

TABLE VI.BETWEEN-SUBJECTS FACTOR

		Value Label	N
Groups	1	Control	30
	2	Cognitive	30
	3	Metacognitive	30

TABLE VII.DESRIPTIVE STATISTICS

Groups	Mean	Std. Deviation	N
Control	18.6000	1.86806	30
Cognitive	20.7000	2.85452	30
Metacognitive	20.4333	2.34423	30
Total	19.9111	2.54242	90

TABLE VIII. LEVENES TEST OF EQUALITY OF ERROR VARIANCES^a

Table TABLE IX.TESTS OF BETWEEN-SUBJECTS EFFECTS

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Square
Corrected Model	454.725 ^a	3	151.575	108.120	.000	.790
Intercept	35.451	1	35.451	25.288	.000	.227
Reading pretest	376.302	1	376.302	268.421	.000	.757
Groups	85.627	2	42.813	30.539	.000	.415
Error	120.564	86	1.402			
Total	36256.000	90				
Corrected Total	575.289	89				

Dependent Variable: reading posttest

The main ANCOVA results displayed in the Test of Between- Subjects Effects Table reveals a significant difference between the groups in terms of their scores on the dependent variable that is reading posttest ($p < .05$). Based on the results, it can be claimed that, strategy instruction affects the learners' reading comprehension positively. Hence, the second null hypothesis is **rejected**. The effect size is also .415. If it is converted to a percentage by multiplying by 100, we are able to explain 41.5 percent of the variance.

Further, another piece of information that seems to be important is the influence of the covariate that is reading pretest. In this study, as it is evident, the covariate is significant ($p < .05$). It is also suggested that there is a significant relationship between the covariate that is reading pretest and the dependent variable which is reading posttest while controlling for the independent variable (groups).

TABLE X. ESTIMATED MARGINAL MEANS

Groups	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Control	18.538 ^a	.216	18.109	18.968
Cognitive	20.718 ^a	.216	20.288	21.147
Metacognitive	20.477 ^a	.216	20.048	20.907

a. Covariates appearing in the model are evaluated at the following values: reading pretest = 19.1889.

Discussion

Based on the results of the second research question, it can

TABLE XI Descriptive Statistics of Reading Score Changes in Two Groups with High and Low Self-Efficacy Scores

Group	gain score of self	N	Mean	Std. Deviation	Std. Error Mean
Reading	.00	26	.3846	3.21343	.63021
gain score	1.00	64	2.1875	2.85009	.35626

For exploring the effect of the learners' self-efficacy on their achievement in reading comprehension, reading gain scores and self-efficacy gain scores were calculated first. Then, the experimental groups were divided into two groups with regards to the fact that their self-efficacy rose or dropped. Then, the changes of reading scores were compared using an independent t-test. The results displayed in Table 11 show that most of the learners whose self-efficacy were higher, the reading scores became better respectively ($M=2.18$, $SD=2.85$) and vice versa; that is to say, the lower the learners' self-efficacy, the lower their reading score ($M=.384$, $SD=3.21$).

TABLE XII. Independent Samples Test (t-test)

	Level		Test t-test for Equality of Means		Sig.		Std.	
					(2-tailed)		Mean Difference	
	F	T	Df	Sig.				
Read Equal variances assumed	.09675	-7.2621	88	.000	-		.68789	
gain score Equal variances not assumed	-	-41.8000	3	.000	-		.72394	

be claimed that strategy instruction affects the learners' reading comprehension positively. The research study on learning strategies has emphasized the significance of strategy instruction and its role in leading the learners in academically successful and efficient ones (O'Malley and Chamot, 1990; Oxford, 1990, 2003; Rubin, 1975; Stern, 1975). All these facts underline the role of the EFL teacher who can help the learners choose the best possible and suitable strategies (Oxford, 2003). This is in line with the research study done by Samadi and Davaii (2012), who found that cognitive, metacognitive, and motivational strategies had a significant correlation with achievement. Nevertheless, strategies function as the strongest predictors since cognitive and metacognitive strategies increase motivational strategies and empower the students to gain more success and also enable them to handle their own learning.

Research Question 3: Does self-efficacy enhancement affect the learners' reading comprehension positively?

Before analyzing the data for finding the effect of the self-efficacy enhancement on reading comprehension, the correlation between the learners' efficacy perceptions and their reading comprehension was calculated. The results corresponding the correlation indicated that there is a significant relationship between the learners' self-efficacy beliefs and their reading comprehension ($p < .05$).

Discussion

As the results of the third research question propose, self-efficacy enhancement affects the learners' reading comprehension positively. Based on Bandura, 'self-efficacy' is a type of belief or perception which empowers the learners to exert their real capacities effectively in order to become successful (Bandura, 1978, 1986, 1995). Further, Bandura argues that the learners with stronger and higher self-efficacy never quit performing a challenging action; rather, they are struggling in order to find effective ways for accomplishing the goal (1978, 1986, 1995). The findings are in line with Yoğurtçu (2013). The researcher found that the learners' self-efficacy is a significant factor which influences their reading comprehension. Consequently, as he declares, self-efficacy is set and established on a high level of proficiency between reading comprehension and knowing a new language. Also, he claims that the learners with high self-efficacy perceptions, employ various reading strategies or tactics in order to function effectively in the reading comprehension. In other words, self-efficacy is implied to play an important role and contribute to language learning. The results of this study are also parallel to the research done by some other research studies which support the findings of this study (Ghoonsooly and Ellahi, 2011; Mills et al., 2006).

IV. CONCLUSION

On the basis of the findings of the current study, strategy instruction can have a positive effect on the learners' self-efficacy. Moreover, strategy instruction affects the learners' reading comprehension significantly. It means that the learners who received strategy instruction performed better on reading comprehension. Finally, as it is apparent from the findings of the current study, it can be claimed that enhancing the learners' self-efficacy perceptions through strategy instruction can effectively influence their achievements in reading comprehension. In this vein, the study also suggests some pedagogical implications for EFL teachers and learners. First, the teachers are recommended to attend the learners' affective factors namely their self-efficacy beliefs by incorporating some useful ways of developing their learners' self-efficacy beliefs discussed in this study to their teaching program. Second, the EFL learners are suggested to be aware of their beliefs and their strength by finding helpful ways in order to develop their self-efficacy beliefs which are in turn deemed to be crucial in the learners' success in language learning and proficiency. Finally, this study encountered a few limitations. The research study is limited to exploiting one way of enhancing the learners' self-efficacy beliefs that is strategy instruction mostly. It is also limited to utilizing and teaching two kinds of strategies.

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