

The Relationship Between Reading Self-efficacy Beliefs, Reading Strategy Use and Reading Comprehension Level Of Iranian EFL Learners

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Abstract

This co-relational study explored the relationship between reading self-efficacy beliefs, reading strategies use and reading comprehension level of Iranian EFL learners. In this study, Michigan reading comprehension test, a self-reported Reading Strategy Use Questionnaire, and a Reading Self-efficacy Questionnaire were administered to eighty Junior and Senior EFL students. The results of Spearman Correlation coefficient, descriptive statistics, and Canonical correlation indicated that a) there were significant strong positive correlation between reading self-efficacy beliefs and reading comprehension and also between reading self-efficacy beliefs and reading strategies use, b) the most frequent use of reading strategy was found to be cognitive strategy, followed by testing strategy, meta-cognitive strategy, and finally compensatory strategy, c) regarding the gender, the relationship between Reading Self-efficacy and Reading Strategies used by Iranian EFL senior and junior students made no difference.

Keywords: Cognitive strategy, Meta-cognitive strategy, Compensation strategy, Testing strategy, Reading self-efficacy beliefs, EFL reading comprehension, Gender

1. Introduction

Reading is a complex cognitive activity essential for sufficient functioning and for obtaining information in modern society (Alfassi, 2004). Recently, detonation of researches in second language reading has focused on readers' strategies. Reading strategies are of interest for what they reveal about the way readers manage their interaction with written text, and how these strategies are related to text comprehension. Research in second language reading suggests that learners use a variety of strategies to assist them with the acquisition, storage, and retrieval of information (Rigney, 1978). Comprehension or reading strategies indicate how readers conceive of a task, how they make sense of what they read, and what they do when they do not understand. In short, such strategies are processes used by the learner to enhance reading comprehension and overcome comprehension failures.

The purposes for reading vary from reading for entertainment, to searching for a specific piece of information, or critically evaluating a writer's thesis. Most often, Iranian students read for information rather than for pleasure; consequently, reading both in and out of school depends on the ability to read expository texts including essays, speeches, lab procedures, journals, government documents, newspapers and magazine articles. Taking all these conditions in to account, it is time for EFL instructors to present effective reading comprehension strategies in their curricula to enhance students' English reading comprehension. It is certificated that the beliefs people hold about their

capability to succeed in their attempts are vital factors in their success or failures in these attempts (Bandura, 1986; Pajars, 2000). Self-efficacy provides the foundation for motivation in all areas of life and influence language learning and achievement. In spite of this fact, the available literature on affective variables indicates the deficiency of research on the effect of self-efficacy on EFL learners' reading comprehension and reading strategy use. This is the motivation behind this study to focus attention on examining the effect of reading self-efficacy beliefs on reading strategy use and reading comprehension of Iranian EFL learners.

According to Bandura (1986) self-efficacy is learners' beliefs in their capability to succeed and acquire new information or complete a task or activity to an appointed level of performance. This affective variable, affect our decision, behaviors and attempts when facing challenges. Later on, Pajars (2000) extended this definition by adding features to Banduras 'definition which connects to the way students' judges their academic competence. He believes that self –efficacy beliefs affects every aspect of people's lives ,whether they think productivity, self –debilitating, pessimistically or optimistically, how much effort they expend on an activity and how well they motivated themselves.

Bandura believed that there is difference between students with high self-efficacy and low self-efficacy in which high self efficacious learners feel confident about solving a problem because they have developed an approach to problem solving that has worked in the past. They assign their success to their own efforts and strategies, believe that their own abilities will improve as they learn more, and recognize that errors are a part of learning, but students with low self-efficacy believe that they have innate low ability, choose less demanding tasks on which they will make few errors, and don't try hard because they believe that any effort will reveal their own lack of ability (1992).

Having access to appropriate strategies should lead students to higher expectations of learning success, and also an important aspect in viewing oneself as a successful learner is self-control over strategy use.

Although much of the research on foreign or second language learning has focused on reading performance between skilled and unskilled readers, a limited amount of research has examined the effects of reading self-efficacy beliefs and the reading strategies when reading academic text. It is true that some studies have been conducted in other countries about reading self-efficacy beliefs, reading strategy use and their impact on reading comprehension, but the relationship between these beliefs, strategies and reading performance of Iranian English learners has not been fully examined. Furthermore, the role of Iranian English learners' gender on reading strategy use and reading self-efficacy beliefs have not been clearly defined.

Many studies (Chamot, 2005; Zhang, 2008) have attended to the importance of understanding the type of reading strategies used by good readers and the differences in reading strategy use between more and less effective readers. The description of good readers and successful language learners exist but it is unclear whether there is any direct relationship between Iranian EFL learners reading comprehension, reading self-efficacy and the use of those strategies employed by successful learners.

The present study is going to provide insights about the effectiveness of strategy use and self-efficacy beliefs on reading proficiency as a way of improving reading comprehension among Iranian English learners. These learners need strategies and self-efficacy to apply in all kinds of reading situations to help them get the most out of text. Many novice readers decode the words and move on; they are unaware of any connections they make between the text they are reading and other aspects of their lives. The lack of connections is what leads to lifelong comprehension problems.

Overall purpose of this study is to explore relationships between Iranian EFL learners reading self-efficacy, the most frequently use of reading strategies and reading comprehension. Moreover, since the EFL student's gender play an important role in using the strategies, reading self-efficacy and learning language, this study is going to investigate the relationship between Iranian students' gender , reading self-efficacy beliefs and their use of reading strategies.

2. Literature Review

In the field of teaching English as a second or foreign language (ESL/EFL), reading, listening, speaking and writing have been identified as the four basic skills in language learning. Reading is considered especially valuable under the foreign language context because it is one major source for students to obtain language input (Ediger, 2001), therefore it is crucial that students become proficient in the reading process. Alfassi (2004) stated that students should “understand the meaning of text, critically evaluate the message, remember the content, and apply the new-found knowledge flexibly” (p. 171).

2.1 Reading Strategy Use

Reading strategies are important for what they revealed about the way readers manage their interactions with written text and how these strategies are related to reading comprehension. Researchers offer a variety of theoretical definitions of reading strategies in the literature, during the decades. Duffy (1993), and Richards and Renandya (2002, p. 278) stated

that reading strategies means, plans for solving problems encountered in constructing meaning. According to Brantmeier (2002) reading strategies are “the comprehension processes that readers use in order to make sense of what they read” (p. 1). Garner (1987) believed that reading strategies are essentially deliberate, planned activities used by active learners, over and over to remedy apparent cognitive failure. In the same way, 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).

2.2 Self-efficacy

The construct of self-efficacy is a topic that first was introduced by Bandura (1977) with the publication of *Self-efficacy: Toward a Unifying Theory of Behavioral Change*. Then, Bandura (1986) located the construct within a social cognitive theory of human behavior that deviated from the common cognitivism of the day and embedded cognitive development within a socio-structural network of influences. This theory assumes that people are capable of reflecting on their own actions and regulate them and that they can shape their environments instead of just passively reacting to them. Social cognitive theory also assumes that most human behavior is purposive or goal-oriented and is guided by forethought. It also assumes a meta-cognitive activity, which implies that people are self-reflective and capable of analyzing their own behavior and experiences. They are also capable of self-regulation and thus exercise direct control over their behavior by selecting or controlling conditions in their environment.

Later on, Bandura (1997) in his book *Self-efficacy: The Exercise of Control*, further situated self-efficacy within a theory of personal and collective agency that operates in concert with other socio-cognitive factors in regulating human well-being and attainment.

Bandura stated self-efficacy beliefs are “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances.” (1986, p. 391). Furthermore, he viewed self-efficacy as people’s beliefs about their abilities to exercise control over events that are likely to affect their lives, and their beliefs in their capabilities to put together the motivation, cognitive resources, and other action needed to control task demands (Bandura, 1989). In addition, Bandura advanced the idea that “what people think, believe, and feel, affects how they behave” (p. 25). Therefore, self-efficacy is a relatively new construct in academic research (Schunk, 1994).

2.2.1 Effects of Self-efficacy Beliefs

As Pajares argue Self-efficacy beliefs, influence motivational and self-regulatory processes in several ways.

Choices: Self-efficacy beliefs influence the *choices* people make and the courses of action they follow. Most people take part in tasks in which they feel competent and confident and avoid those in which they do not.

Effort: they also help determine how much *effort* people will expend on an activity,

Persevere: how long they will persist when dealing with obstacles and failures

Resilient: and how *resilient* they will prove in the face of adverse situations--the higher the sense of efficacy, the greater the effort, persistence, and resilience.

Stress and anxiety: Efficacy beliefs also influence the amount of stress and anxiety individuals experience as they engage in a task and the level of accomplishment they realize (Pajares, 1996).

2.2.2 Sources for Self-efficacy

Bandura (1994) posits that four major sources of information are primary in the development of self-efficacy beliefs. First, mastery experiences or “enactive attainment” (Zimmerman, 2000), that is the most effective way of creating high level of efficacy, and refers to the way people evaluate their own personal attainment in a given domain. It covers prior task achievements and play a central role in establishing a sense of self-efficacy. Second, the vicarious (observational) experiences which is provided by social models, is another way for creating and strengthening self-beliefs of efficacy. Third, social persuasion is a third way of strengthening people’s beliefs that they have what it takes to succeed; and ultimately, reducing people’s stress reactions and altering their negative emotional proclivities and misinterpretations of their physical states is the last source of modifying self-beliefs.

2.3 Related Researches

Magogwe & Oliver (2007) stated that earlier SLA studies have found a strong relation between increased strategy use and success (e.g., Green and Oxford, 1995; Rubin, 1975), with success being measured using proficiency and/or grades. This proposes that there may be a connection between increased strategy use and higher self-efficacy beliefs. There are some researches, which has examined the relationship between self-efficacy beliefs, self-rating and strategy use. These researches suggest that self-efficacy beliefs correlate positively with increased strategy use. For example, Pajares and

Schunk (2001, cited in Adwan, 2011) found that students who believed they were capable of performing tasks used more cognitive and meta-cognitive strategies and persisted longer than those who did not. As said by Ching (2002), this result may be due to the fact that highly efficacious learners are more committed to learning L2 and working harder to avoid failure, and they usually link failure to insufficient efforts or skills. Although Wang (2004, as cited in Magogwe & Oliver, 2007) claims that self-efficacy beliefs have been rarely investigated in relation to SLA, the few studies that have been undertaken all suggest that a relationship does certainly exist between self-efficacy beliefs and strategy use (e.g. Rossiter, 2003).

Bandura believed that efficacy will be raised by successes and it will be lowered by failure, but when a strong sense of efficacy is developed, a failure may not have much impact (Bandura, 1986). Mills, Pajares & Herron (2006) argue that research of findings from several academic domains have demonstrated that students' judgments of their own academic capabilities, or self-efficacy beliefs, influence their academic behaviors and performances.

There are several researchers who examined the relationship between self-efficacy and language skills. To investigate the links between self-efficacy beliefs and language skills, Rahimi & Abedini, (2009) surveyed the role of EFL learner's self-efficacy regarding listening comprehension in their listening test performance. Sixty-one freshmen undergraduate learners of English participated in this study. Data on the learners' self-efficacy were collected through an author-designed questionnaire. The listening proficiency was quantified and extracted based on the students' answers to a listening test performance titled as 'Listening Diagnostic Pre-test. The results of statistical analyses indicated that listening comprehension self-efficacy was significantly related to listening proficiency.

Mills, Pajares & Herron (2006) studied the relationship between self-efficacy, anxiety, and French proficiency in reading and listening. Results showed that Students' reading self-efficacy in French was positively related to reading proficiency, whereas reading anxiety was not related. Listening self-efficacy was positively associated with listening proficiency only for the female participants, and listening anxiety was positively related to the listening proficiency of both males and females.

Ghonsooly & Elahi (2011) surveyed the relationship between EFL learners' self-efficacy in reading comprehension and their reading anxiety, also the relationship between EFL learners' self-efficacy and their reading achievement. The results showed that high self-efficacious participants achieved higher scores in reading comprehension course than low self-efficacious participants.

Chen (2007, as cited in Rahimi & Abedini, 2009) examined the relationship between EFL learners' self-efficacy beliefs and English listening achievement at two large universities in Taiwan. Results indicated that there was a significant and positive relationship between self-efficacy beliefs and listening achievement. The results also showed that students self-efficacy beliefs were much stronger predictors of students' achievement in the field of listening.

To investigate the interrelationships among language learning strategy use, self-efficacy, and language ability, Gahungu (2007) did a study on 37 college students registered in Intermediate French at Chicago State University. A forty-item questionnaire that was an adaptation of Oxford's (1990) Strategy Inventory for Language Learning (SILL) were used to measure the students' use of language learning strategies. Their self-efficacy was also measured through a forty-item questionnaire in which they expressed their levels of certainty that they could perform learning tasks at desired levels of proficiency. Their language ability in French was measured through a cloze test. Qualitative data were also collected through open-ended questions, interviews with the participants and their instructor, as well as class observations. The results revealed that there are positive and significant relationships among the three variables. It was also found that the majority of the participants did not have a clear rationale for studying French, but had undertaken its study to fulfill programmatic requirements, which affected their strategic behavior. The above-mentioned review and results make it clear that self-efficacy theory is of high importance for explaining many aspects of student achievements. Therefore, this study aimed at exploring the relationships between reading self-efficacy beliefs, reading strategies use and reading comprehension level of Iranian EFL learners. Three main research questions addresses for the present study were:

- 1) What is the most frequent use of reading strategies by Iranian EFL senior and junior university students?
- 2) Is there a significant relationship between Iranian EFL senior and junior university students' reading self-efficacy belief and their reading proficiency?
- 3) Is there any relationship between Iranian EFL senior and junior university students reading self-efficacy belief and reading strategy use?
- 4) Does the relationship between the reading self-efficacy belief and the use of reading strategies differ regarding the gender of the students?

3. Methodology

3.1 Participants

Participants in this study were drawn from the pool of college Senior & Junior English-major students participating in classes during the second semester of the 2011 academic year at Sistan & Baluchestan University for Literature and Translation. Eighty English students participated in this study and they were from both sex, 59 students were female and the rest were male. All participants were English students who spoke Persian as their first language; they were informed that participation in this study was voluntary. Participants were selected from four classes in which students study English Literature and translation.

3.2 Instruments

Michigan reading comprehension test, Reading Self-efficacy Beliefs Questionnaire and Reading Strategy Use Questionnaire were three main instruments used in this study.

3.2.1 Michigan Test

Michigan Test, as a test of English language proficiency, consists of one-hundred questions which are implemented to test students' knowledge in grammar, vocabulary and reading comprehension. In order to determine students' reading comprehension level, the reading comprehension part of Michigan Test which contains twenty reading comprehension multiple-choice tests was implemented in this study. This part of the test includes four reading comprehension passages each followed by five questions. The obtained information from this test that ranges from zero to 20 shows students' reading comprehension levels.

3.2.2 Reading Strategy Use Questionnaire

In this study students' reading strategy use was evaluated based on a Reading Strategy Use Questionnaire adopted from 1- Oxford's (1990) *Strategy Inventory for Language Learning* (SILL, ESL/EFL version 7.0), 2- Carrell's (1989) *Meta-cognitive Questionnaire*, 3- Pintrich et al.'s (1991) *The Motivated Strategies for Learning Questionnaire* (MSLQ), 4- Baker and Boonkit's (2004) *English Reading Strategies Questionnaire*, and the Shangs' (2011) teaching experiences were integrated and employed in this questionnaire. The questionnaire, containing altogether 43 items, consisted of four major categories of general use of reading strategies: cognitive, meta-cognitive, compensatory, and testing strategies each of which uses a 5-point Likert-type scale ranging from 1 (never or almost never true of me) to 5 (always or almost always true of me).

This questionnaire used by Shang (2011) to elicit subjects' reported frequency of using the selected reading strategies in Taiwan. Based on the interactive model of the reading process and the information offered by Weinstein and Mayer (1986), Pintrich (1999), and Oxford (1990), 10 sets of reading strategies were selected as essential for EFL students in Taiwan to enhance their English reading comprehension. These reading strategies were categorized into four groups (see Table 1): cognitive (items 1-13), meta-cognitive (items 14-25), compensation (items 26-35), and testing (items 36-43) strategies.

<Table 1 about here>

The questionnaire was distributed to all the Iranian EFL senior & junior students to complete it within 15 minutes of having taken the reading comprehension test in the class.

3.2.3 Reading Self-efficacy Beliefs Questionnaire

In order to assess the participants' self-efficacy in reading comprehension we used a new scale for assessing EFL learners reading self-efficacy based on these three related questionnaires:

1) The Persian Adaptation of General Self-efficacy Scale developed by Nezami, Schwarzer, and Jerusalem (1996); 2) Morgan-Links Student Efficacy Scale (MLSES) constructed by Jinks and Morgan (1999); 3) Beliefs about Language Learning (BALL) designed by Horwitz (1988).

This new questionnaire was developed by Ghonsooly & Elahi (2011); this scale includes 14-5-point Likert type items ranging from "strongly disagree" to "strongly agree" based on the items of the previous Questionnaire and some added by Ghonsooly & Elahi (2011). Three items were deleted based on their low factor loading and commonalities after factor analysis. A value of 1 is assigned to strongly disagree, and 5 to strongly agree. Cronbach's alpha was used to determine the reliability of the scale, and a principle component analysis was used to analyze its construct validity. The Cronbach alpha coefficient for the scale was 0.78. This scale was also translated into Persian, and the Cronbach Alpha Coefficient for it was 0.81.

3.3 Procedure

In a correlation study like this, data on different variables are collected within a fairly short time. Participants took part in this study during their regularly-scheduled class period. First, reading comprehension test was administered. Then, Reading Strategy Use Questionnaire was administered and based on the statements covered in this questionnaire, participants were asked to choose one of the five choices which they themselves prefer in completing reading tasks. Immediately after completing Reading Strategy Use Questionnaire, Reading Self-efficacy Questionnaire was delivered to them. Later, by using scoring rubric (Appendix A), the researcher arranged students' scores in different Reading Strategy Use subscale. Scores gathered through these four devices were calculated and they were arranged in four columns so that along showing students' gender in the first column there were three columns of scores for each students, one showing his/her score in Reading Strategy Use Questionnaire, the next his/her score in Michigan Reading Comprehension Test, and the last column showed students' scores in Reading Self- Efficacy Questionnaire.

3.4 Data Analysis

In this study, reading strategy use and reading self-efficacy were considered as the dependent variables while students' reading comprehension level, and their gender were two independent variables. By using descriptive and inferential statistics, the data were analyzed. Statistical Package for the Social Sciences (SPSS 17) was manipulated in analyzing and estimating correlations and the differences between variables.

To estimate the correlation coefficient between variables, based on the nature of students' scores, the Spearman correlation coefficient was conducted. For interpreting correlation coefficients between variables, they were converted into variance overlap or covariance.

In order to investigate more results from this study, along examining the four main research questions, the mean differences between the reading self-efficacy beliefs and reading comprehension level and the mean differences between reading self-efficacy beliefs and reading strategy use and finally mean difference between the reading self-efficacy beliefs and the use of reading strategies difference regarding the gender of the students were also computed. Since the sample size was small, for comparing the means of students' scores in different variables, t- test procedures were conducted. When three sets of scores were obtained from the same subjects, the Dependent-Sample t-test or Matched-sample t-test was used and where scores came from two independent groups, the Independent-Sample t-test was manipulated.

4. Results

The first research question explored the relationship between students' reading self-efficacy beliefs as dependent variable and the reading proficiency as independent variable.

When using a correlation design it is common to calculate a correlation coefficient, we converted raw scores into ranks and, for computing the correlation coefficient, we utilized Spearman correlation coefficient formula: The Spearman correlation coefficient is defined as the Pearson correlation coefficient between the ranked variables. The n raw scores X_i, Y_i are converted to ranks x_i, y_i , and ρ is computed from these:

$$\rho = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_i (x_i - \bar{x})^2 \sum_i (y_i - \bar{y})^2}}$$

The computation of correlation coefficient between Iranian EFL learners' reading self-efficacy and reading comprehension level was conducted by Statistical Package for the Social science (SPSS) and the results were presented in Table 2. In order to answer the question we used the Spearman correlation coefficient formula to analyze the collected data.

<Table 2 about here>

As Table 2 shows, the correlation between Iranian EFL learners' reading self-efficacy level and reading comprehension is .62($r = .62$). The next step is to test the significance of r ; and the null hypothesis. A direct method for testing the null hypothesis is to use a table of critical r 's which is available at the appendix of most statistical books. This table allows you to make a direct comparison between the size of the sample correlation and the critical value of r in the table. An alpha level is set and we use $\alpha = .01$. Since there are 80 subjects in the sample, the degree of freedom is 78($d f = n-2 = 80-2 = 78$). A much more useful way of interpreting a correlation coefficient is to convert it into variance overlap between the two measures. This helps us to see how much variance in one measure can be accounted for by the other. To obtain the common variance between two tests, we simply square the correlation coefficient. Since the shared variance is usually stated as a percentage, the squared correlation is multiplied by 100. Therefore, the shared variance is computed through: $r^2 * 100$. To the degree that the two tests correlate, they share variance. Since our correlation is .62 the shared variance is:

$r^2 * 100 = .62$, $r^2 * 100 = .38$ (38%) . This overlap tells us that the two measures are providing approximately similar information. The .38 is the amount of the variation of reading level variable which is accounted for by variation in the reading self-efficacy variable.

Table 2. illustrates that for the relationship between reading self-efficacy and reading comprehension, the correlation coefficient of the paired data is 0.627, and the level of significant is 0.000 [$r=0.627$, $p=0.000$]. As can be seen, r-value is positive, and it is significant (*note: correlation is significant if $p < 0.01$*). As it is shown self-efficacy is a good predictor of reading comprehension ability and reading comprehension levels ($\beta = .627$, $p = 0.000$).

The second research question explores the relationship between students' reading self-efficacy beliefs and the reading strategy use, which are considered as dependent variables.

A Spearman correlation coefficient was calculated to estimate the strength of the relationship between reading self-efficacy belief and reading strategy use; results are shown in Table 3.

<Tables 3 & 4 about here>

As can be seen, there is a significant strong positive correlation between reading self-efficacy beliefs and reading strategies use (cognitive, meta-cognitive, compensation, testing) although the degree of association varied. Correlation coefficient between reading self-efficacy and cognitive strategy is 0.68, reading self-efficacy and meta-cognitive strategy is (0.49), reading self-efficacy and compensation strategy is (0.42) and reading self-efficacy and testing strategy is (0.63). The level of significant is 0.000. It is clear that, r-value is positive, and it is significant. Once again, all correlations were found to be statistically significant and positive, while the strength of these relationships varied.

Third research question was related to relationship between the reading self-efficacy beliefs and the use of reading strategies regarding the gender of the students.

According to Canonical correlation, the results of Wilks' Lambda and Pillais' Test illustrated that relationship between Reading Self-efficacy and Reading Strategies used by Iranian EFL Senior and Junior students was not different regarding the Gender (significance level = 0.075).

The fourth research question was about the most frequent use of reading strategies by Iranian EFL senior and junior university students.

The descriptive statistics concerning the means and standard deviations of the four strategies (see Table 5) showed that the most frequent use of reading strategy was cognitive strategy ($M = 3.64$, $SD = 0.40$), followed by testing strategy ($M = 3.47$, $SD = .47$), followed by meta-cognitive strategy ($M = 3.20$, $SD = .48$), and then compensatory strategy ($M = 2.93$, $SD = .23$). These findings indicated that the overall frequency of reading strategy use was almost "usually"; that is, students generally have a clear awareness to use the combination of strategies frequently, particularly using cognitive strategy, in order to get a high reading score.

<Table 5 about here>

In addition, in order to find out which reading strategy components have the most effect on reading comprehension, multiple regressions were used between reading strategy categories and reading comprehension. The results of multiple regression analysis between meta-cognitive, cognitive, compensation and testing strategies with reading comprehension are shown in Table 6.

<Table 6 about here>

According to this table, multiple regression formula is:

$$\text{Reading} = 0.31 \times \text{testing} + 0.461 \times \text{meta-cognitive} + 0.42 \times \text{cognitive} + 0.24 \times \text{compensation}$$

This formula means that if testing's SD increased one unit, the reading comprehension increased 0.3 SD. Actually coefficients show the amount of effect of each variable on reading comprehension. Table (6) illustrates that the most effective variable of reading strategy on reading comprehension was found to be meta-cognitive strategy ($\beta=.46$), followed by cognitive strategy ($\beta=.41$), followed by testing strategy ($\beta=.30$), and then followed by compensation strategy ($\beta=.237$).

5. Discussion

The purpose of this study was to investigate the interrelationship among students' reading self-efficacy beliefs, their reading strategy use and reading comprehension ability. This section provides a detailed discussion of the findings in the light of the theoretical and empirical studies.

The first aim of the study was to investigate the strategies that are most frequently used by Iranian Senior & Junior EFL learners. As descriptive results indicated in terms of reading strategies use mean scores and SD, the most preferred

strategy is cognitive strategy. The next most preferred type of strategy testing, then meta-cognitive and finally compensation strategy. The meta-cognitive and compensation strategies proved to be the strategies which were not very common among the subjects. On the other hand, the cognitive and testing were used more. We found preferences for use of cognitive strategies among students. Other researchers did the same study and found different results. According to Shang (2011) the most frequent use of reading strategy was found to be testing strategy ($M = 3.98$, $SD = .62$), followed by compensatory strategy ($M = 3.61$, $SD = .55$), followed by meta-cognitive strategy ($M = 3.54$, $SD = .59$), and then cognitive strategy ($M = 3.51$, $SD = .52$). Shang (2010) also found that the most frequent use of reading strategy was meta-cognitive strategy, followed by compensation strategy, and then y cognitive strategy. In contrast, Shmais (2003), and Nam and Leavel (2006) showed that students generally prefer meta-cognitive strategies over other strategies. There are differences in the field of strategy use between good and poor readers' performance, it seems that good readers have distinguished themselves from poor readers in their reported frequency of having the strategic awareness (Shang, 2011). Therefore, the preferences in reading strategy use are various in different contexts.

The correlation between Iranian EFL learners' reading self-efficacy level and reading comprehension was .62 ($r = .62$). It means that, there is a significant relationship between student's reading self-efficacy beliefs and their reading comprehension. Based on this result, there are several researches that examined the relationship between self-efficacy and language skills. Their findings are consistent with this result in which there was positive relationship between them. For example, Rahimi and Abedini, (2009) surveyed the role of EFL learner's self-efficacy regarding listening comprehension in their listening test performance. They found that listening comprehension self-efficacy was significantly related to listening proficiency. Milles, Pajares and Herron (2006) studied the relationship between self-efficacy, anxiety, and French proficiency in reading and listening. In addition, Goonsooly & Ellahi (2011), and Chen (2007), indicated that EFL learners' self-efficacy is an important factor in the achievement of higher scores in English language skills such as listening or reading comprehension. These findings suggested that it is more effective for students to improve their reading comprehension if they have a higher self-efficacy in their reading process. When the teachers face the students of different self-efficacy or reading comprehension, in the process of teaching reading, they can help their students enhance their reading comprehension by the knowledge of the findings.

Other results of this study based on Spearman correlation coefficient showed that there was positive relationship between reading self-efficacy belief and reading strategy use (cognitive, meta-cognitive, compensation, testing). In general, this relationship was consistently observed in all four-strategy uses and perceived self-efficacy. Although the degree of association varied, (i.e., correlation coefficient between reading self-efficacy and cognitive is 0.68, reading self-efficacy and testing is (0.63), reading self-efficacy and meta-cognitive is (0.49), compensation is (0.42) and reading self-efficacy and compensation is (0.42)). Specifically, findings report that the more frequently students use strategies in their English reading, the more confidence and personal control they have over their reading skills. Such results support findings in the literature. Li and Wang (2010) in an empirical study investigated reading self-efficacy and the Use of Reading Strategies in the Chinese EFL Context. The results showed that reading self-efficacy was significantly positively related to the use of reading strategies in general and the use of three subcategories of reading strategies: meta-cognitive strategies; cognitive strategies; and social/affective strategies, in particular. Wang (2004), and Magogw and Oliver (2007) claims that self-efficacy beliefs have been rarely investigated in relation to SLA, the few studies that have been undertaken, all suggest that a relationship does certainly exist between self-efficacy beliefs and strategy use.

In addition, in a closely related investigation, Shang (2010) examined relationship between students' self-reported reading strategy uses and self-efficacy beliefs on their English reading performance. In addition, these results showed that there was a significant positive relationship between the use of reading strategies and perceptions of self-efficacy. Magogwe and Oliver (2007) stated that earlier SLA studies have found a strong relation between increased strategy use and success. These findings are consistent with the view that self-efficacy and strategy attribution have facilitating effects on strategy learning (Lau & Chan, 2003).

The importance of the self-efficacy beliefs on reading strategy use suggests that while self-efficacy is an effective and essential factor to enhance Iranian students' reading ability, our reading curriculum should also be reconstructed to help EFL learners in strategy use field.

Findings showed that learners differ from each other with respect to their reading comprehension ability, reading self-efficacy beliefs and the use of reading strategies use. Moreover, this study sought to investigate how gender have an effect on the relationship between the reading self-efficacy belief and the use of reading strategies. Based on Canonical correlation, the results of Wilks' Lambda and Pillais' Tests showed that relationship between students' reading self-efficacy beliefs and reading strategy use is not affected by gender. However, few studies provided insights about relationship between gender and students' reading strategy use and genders' relation with self-efficacy beliefs.

6. Conclusions

The aim of this study was to explore the relationship between reading self-efficacy beliefs and reading strategy use and also relationship between reading self-efficacy and reading comprehension level of Iranian EFL senior and junior learners. Besides, this study intended to examine the relationship and differences of four reading strategy uses (cognitive, meta-cognitive, compensatory, and testing strategies) between readers with different proficiency levels on their reading. Results of the present study demonstrated that students usually employ various reading strategies in English reading process. Such results support findings in the literature (Chamot, 2005; Grenfell & Harris, 1999; Wenden, 1998; Zhang, 2008), suggesting that it is more effective for students to reach their learning goals if they have a higher frequency of employing a variety of strategies in their reading process. The information obtained from the results showed that Iranian senior and junior EFL learners with high reading self-efficacy levels got better scores than those with low reading level and also correlation coefficient between reading self-efficacy and reading strategies according to these data (reading self-efficacy and cognitive = 0.68, reading self-efficacy and meta-cognitive = 0.49, reading self-efficacy and compensation = 0.42 and reading self-efficacy and testing = 0.63) showed that students with high self-efficacy most frequently used cognitive and least frequently used compensation. Furthermore, generally, they used cognitive strategies more frequently than testing, meta-cognitive, and compensation reading strategies. Students particularly use more cognitive strategies to reach a higher level of reading comprehension performance. However, regarding the effects of reading strategies on reading comprehension results showed that the most effective variable of reading strategy on reading comprehension was found to be meta-cognitive strategy ($\beta=0.46$), and the least effective was compensation strategy ($\beta=0.23$). Additionally the null effect of the gender of Iranian EFL learners on relationship between reading strategy use and reading self-efficacy was another result of this study.

Regarding the relationship between strategic learning and self-efficacy, results of the correlation provide empirical support for a significant relationship between these two constructs proposed in the literature (Chamot et al., 1993; Chan, 1994; Pintrich, 1999). In general, this relationship was consistently observed in all three strategies used and perceived self-efficacy. Specifically, students report that the more frequently they use strategies in their English reading, the more confidence and personal control they have over their reading skills. To help students become strategic readers, teachers should also raise students' strategic awareness, allowing them to become more aware of strategy use while reading (Ko, 2002).

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Table 1. Ten Sets of Reading Strategies

Strategy	Sets of Reading Strategies	Number of Items	Total
Cognitive	Rehersal	3 (items 1-3)	13
	Elaboration	5 (items 4-8)	
	Organizational	5 (items 9-13)	
Meta-cognitive	Planning	3 (items 14-16)	12
	Monitoring	4 (items 17-20)	
	Regulating	5 (items 21-25)	
Compensation	Linguistic	5 (items 26-30)	10
	Semantic	5 (items 31-35)	
Testing	Skimming	4 (items 36-39)	8
	Eliminating	4 (items 40-43)	

Table 2. Correlation Coefficient of Reading Self-efficacy Beliefs and Reading Comprehension Correlations

			Reading Self-efficacy Beliefs	Reading
Spearman's rho	Reading self-efficacy beliefs	Correlation Coefficient	1.000	.627**
		Sig. (2-tailed)	.	.000
		N	80	80
	Reading	Correlation Coefficient	.627**	1.000
		Sig. (2-tailed)	.000	.
		N	80	80

**Correlation is significant at the 0.01 level (2-tailed)

Table 3. Correlation between Reading Self-Efficacy and Reading Strategy Use

		Cognitive	Meta Cognitive	Compensation	Testing
Reading Self-efficacy	Correlation Coefficient	.687**	.499**	.426**	.643**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	80	80	80	80

**Correlation is significant at the 0.01 level (2-tailed).

Table 4. Canonical correlation between reading self-efficacy and Reading Self-efficacy regarding the Gender

Multivariate Testsb						
Effect		Value	F	Hypothesis df	Error df	Sig.
Gender	Pillai's Trace	.124	2.096a	5.000	74.000	.075
	Wilks' Lambda	.876	2.096a	5.000	74.000	.075
a. Exact statistic						
b. Design: Intercept + gender						

Table 5. Mean Scores of Reading Strategy Use

N	Cognitive	Meta-cognitive	Compensatory	Testing
80	M (SD)	M (SD)	M (SD)	M (SD)
	3.64(.40)	3.20(.48)	2.93(.23)	3.47(.47)
Rank	1	3	4	2

Table 6. Regression Output Coefficients

Model	Standardized Coefficients
	Beta
Testing	.306
Meta-cognitive	.464
Cognitive	.419
Compensation	.237