

A Survey on Iranian EFL Learners' Beliefs on the Role of Rote Memorization in Learning Vocabulary and Its Effect on Vocabulary Achievement

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The purpose of this study was to investigate the Iranian EFL learners' beliefs on the role of RL in vocabulary learning, and how it could affect their achievement. One-hundred and three students majoring in English (Literature, Translation, and Teaching) at the Departments of Foreign Languages and Linguistics at Roudehen and the Western Branch of Islamic Azad University participated in this study. Two questionnaires (Students and Teachers' questionnaires) with a vocabulary test and a proficiency test (ECCE) were used in this study. Various statistical tests including Descriptive Analysis and Factor Analysis as well as correlation analysis along side with Chi-Square analysis were run to analyze the data. The findings of this study revealed that the learners believe RL is an effective way of learning EFL vocabulary, but not the best way. They see that reviewing well and having structured review is more effective for them to learn more vocabularies. This study also revealed that the relationship between beliefs and strategy use was positive and significant, but the relationship between beliefs and proficiency of the learners, and also the relationship between strategy use and proficiency of the learners were insignificant but there was a slight correlation between the items. The findings also showed that there was no significant association between the variables beliefs and vocabulary test scores.

Key Words: beliefs, rote memorization, vocabulary, achievement, learning.

1 Introduction

Many researchers claim that vocabulary is an essential part of language learning, and the importance of vocabulary in the EFL learning process has been widely recognized and well-established, and a number of specific strategies for learning vocabulary have been identified by many researchers (Ahmed, 1998; Nakamura, 2000; Oxford, 1990; Schmitt, 1997). But different

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learners adopt different strategies that work for them. For example, some learners focus their attention on learning words in lists or completing various vocabulary exercises. Some other learners try to memorize the words. So, in looking at different vocabulary learning strategies (VLSs), it is natural for language learners to focus on memory strategies (MSs). Thompson (1987, p.43) points out that, "It is difficult to think of any educational goal for which the ability to retain information is unimportant. Human memory is crucial to the concept of learning". According to Schemitt (1997, p.211), "Most memory strategies (traditionally known as mnemonics) involve relating the word to be retained with some previously learned knowledge, using some form of imagery, or grouping".

Due to the the essential nature of the MSs' role in vocabulary learning, and their contribution to the storage and retrieval of vocabulary, especially the rote learning (RL) as one of the most important subcategories of MSs, the importance of MSs should not be ignored.

But what 'Rote Learning' means? "Rote means memory or habit, rather than understanding. To learn something by rote, or rote learning means learning something in order to be able to repeat it from memory rather than learning it in order to understand it" (Cambridge International Dictionary of English, 1995, p.1235). Rote learning (RL) is a method involving repetition and memorization (Moore, 2000). From the above definitions or descriptions, a RL system does not involve any processes which enable the learner to understand or interpret the information that is learnt. The only subject is to memorize or to store the incoming information for later use. It is basically a simple but a passive process. Furthermore, to understand the role of RL, this study is intended to focus on the learners' beliefs about the role of RL and its effect on their achievement in vocabulary learning. In this study, the importance of studying language learners' beliefs serves as a starting point.

1.1 Reviewing major findings concerning language learners' beliefs and strategies

The previous studies investigating learners' beliefs about language learning strategies have made it clear that belief is an important factor affecting the choice of strategy use. A study by Wenden (1987) set out to investigate language learners' assumptions or beliefs underlying their choice of strategies. Her subjects, 25 adult ESL learners, were required to report on the social contexts in which they heard or used English. They were also asked to talk about language learning activities in which they engaged, in the classroom and outside. In her interviews, Wenden found that, in many instances, students could not only distinctly describe their beliefs about language learning but also adopted consistent learning strategies with their beliefs. Wenden's work indicated that these learners' explicit beliefs about how best to learn a language seemed to provide the logic for their choice of

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learning strategies.

Ellis & Tanaka (2003) in their article reports an empirical study of a 15-week study-abroad program for Japanese university students, examining changes in the students' beliefs about language learning including vocabulary learning (measured by means of a questionnaire) and in their English proficiency (measured by means of the TOEFL). The results showed statistically significant changes in the students' beliefs relating to analytic language learning, experiential language learning and self-efficacy/confidence during the study-abroad period. Statistically significant gains in proficiency are also reported. However, Pearson product moment correlations between the students' responses to the Belief Questionnaire and their TOEFL scores both before and after the study-abroad period were weak and generally statistically non-significant. The results are discussed in relation to study-abroad programs and also to the role of learner beliefs in second language learning.

A study accomplished by Gu and Johnson (1996) is directly related to Chinese EFL learners' strategies in vocabulary learning and it seems to suggest negative beliefs about the use of RL which is taken for mere rote memorization, although it does not focus on RL strategies. Gu & Johnson (1996) used a vocabulary learning questionnaire (VLQ) to elicit 850 Chinese students' beliefs about vocabulary learning and their self-reported vocabulary learning strategies. Gu & Johnson's study profiled the beliefs and strategies of adult Chinese learners for learning EFL vocabulary. Contrary to popular beliefs about Asian learners, the participants believed that they generally did not dwell on memorization, and reported using more meaning-oriented strategies than rote strategies in learning vocabulary. They predominantly believed that vocabulary should be carefully studied and put to use and they also tended to agree that words can be acquired in context.

Despite this, some research findings (Atkinson 1975; Raugh & Atkinson as cited in Shen, 2003) show the positive effect of mnemonic strategies for enhancing vocabulary acquisition. The main claimed benefits of using mnemonics were found in psycholinguistic research studies based on the ways human beings learn and remember words. The keyword method, which has its central element, the imaginative use of student-generative mnemonics, has been regarded as one useful tool to help learners of different target languages memorize vocabulary. Beside, Tinkham (1989) in his study found that Japanese learners tended to have well developed rote learning skills, and he suggested that these should be put to good use rather than being neglected in favor of more communicative learning

Sakui & Gaies (1999) developed and validated an instrument and procedures for investigating almost 1300 Japanese learners' beliefs about English language learning. The authors identify 3 primary aims for the study, 1) to validate a questionnaire, developed for the Japanese context and written in Japanese, on a variety of beliefs (e.g. person, task, strategy, achievement) about language learning; 2) to investigate the value of interview data to

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complement and explain questionnaire data; and 3) to describe the beliefs about language learning of Japanese learners of English and to determine, through factor analysis, how those beliefs are organized. Sakui & Gaies' analysis yielded four factors relating to Japanese students' beliefs about EFL learning: beliefs about a contemporary (communicative) orientation to learning English; beliefs about a traditional orientation to learning English; beliefs about the quality and sufficiency of classroom instruction for learning English; and beliefs about foreign-language aptitude and difficulty. The value of this study for the present research lies in the collection and analysis data specifically related to beliefs; in the exploration of these beliefs using questionnaire and in the use of factor, descriptive and correlation analysis to organize and interpret. Although this study was Japanese EFL learner-based, the analysis of EFL learners' beliefs, with particular reference to beliefs about a traditional orientation to learning English, can be applied to the study of Iranian EFL learners.

Yang (1999) in his study emphasized and developed the point made by Horwitz (1988) that knowledge of the relationship between learners' beliefs about language learning and their choice of strategy use should provide teachers with better understandings of their students' "expectation of, commitment to, succession, and satisfaction with their language classes". Yet how, specifically, are ESL/EFL learners' beliefs about language learning related to their use of learning strategies? This is the question which Yang's study addresses. Yang in his study, which was conducted with university EFL students in Taiwan, used a questionnaire composed of Horwitz's (1987) BALLI, and Oxford's (1990) (SILL). The results of factor analyses on the BALLI and SILL items in this study, as well as the results of Pearson correlations and canonical analysis of belief and strategy factors identified a strong relationship between beliefs and strategy use. It was the same result of the study done by Xiuping Li (2004). In particular, self-efficacy beliefs (which are beliefs related to personal judgments of performance capabilities in a given domain of activities) about learning English were associated with the use of various kinds of learning strategies, especially functional practice strategies (which involve actively seeking or creating opportunities to use or practice English functionally); and beliefs about the nature and value of spoken English were associated with the use of formal oral-practice strategies. Yang suggests that this relationship between beliefs and strategy use should be viewed as cyclical rather than unidirectional. That is, it is possible both that learners' beliefs lead to their use of specific learning strategies, and that learners' use of specific learning strategies shapes their beliefs about language learning. It is also possible that other factors may cause learners' beliefs and affect their use of learning strategies. This study exposes a strong relationship between beliefs and strategy use, which can serve as a theoretical support to the present research on beliefs about RL strategy use among Iranian EFL learners. The emphasis on the possibilities

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that other factors may cause learners' beliefs and affect their use of learning strategies has prompted this researcher to investigate whether there are any other factors affecting subjects' beliefs about the use of RL strategy.

These research studies have contributed a great deal to the field of language learners' beliefs about ESL/EFL language learning strategies. However, specific beliefs held by learners with particular cultural backgrounds need to be described in more detail and analyzed in further depth. Beliefs about RL in Iran have received little attention in the field of applied linguistics. So far, little information is available in the literature on the relationship between learners' beliefs and RL strategies in vocabulary learning. In what follows, beliefs identified in the previous studies relating to the role of RL in VLSs will be taken into account in order to provide a basis for analysis of Iranian EFL learners' beliefs about RL in VLSs.

1.2 Objectives of the study

To the present time there has been very limited research about the Iranian EFL learners' beliefs on the role of RL strategy choice and use in their vocabulary learning. Some researchers such as Horwitz (1987), Wenden (1987) and Oxford (1994), found that beliefs do influence language learners' strategy choice. So, as discussed in the previous sections, the purpose of this study is to investigate the Iranian EFL learners' beliefs on the role of RL in vocabulary learning, and how it could affect their achievement. More specifically, the aim of this study is to fill the gap, by exploring whether Iranian EFL learners hold positive or negative beliefs on the role of RL in vocabulary learning and explore the reasons why it is so, and to see if the learner's achievement will be affected when they use rote memorization.

The objectives of the study are to find answers to the following questions:

1. Do Iranian EFL learners prefer RL and believe that they use more RL strategies than other memory strategies?
2. Do Iranian EFL learners believe that RL strategies work better or worse than other strategies?
3. Is there any relationship between beliefs about RL, learners' achievement in the English vocabulary test and their proficiency level?
4. Do Iranian EFL learners believe that RL strategies are helpful in all stages of EFL vocabulary learning?
5. What do EFL teachers believe about the effects of rote memorization on vocabulary learning?
6. What do Iranian EFL learners believe is the relationship between RL and other memory strategies?

2 Method

2.1 Participants

The participants in this study were undergraduate students majoring in English (Literature, Translation, and Teaching) at the Departments of Foreign Languages and Linguistics at Roudehen and the Western Branch of Islamic Azad University, Tehran. The population of this study was a randomly four classes selected or i.e., a totally 103 undergraduate students, 61 of whom were from Roudehen Branch of Islamic Azad University, and the rest i.e., 42 students were from the Western one. With respect to the educational level, the sample consisted of 78 sophomores and 25 seniors in 4 classes. Seventy eight (75.73%) of the participants were female and 25 (24.27%) of the participants were male. All the sophomores were females, and all the seniors were males.

2.2 Instruments

Two questionnaires (one for students and one for teachers), a vocabulary test and a proficiency test (ECCE) were used in this study. The students' questionnaire was used to elicit learners' beliefs about the role of RL and of wider memory strategies (MSs) in order to make taxonomy of the four different groups / categories of MSs for the purpose of analysis. In this study the overall Cronbach's alpha calculated for the students' questionnaire was .83 which shows that this questionnaire was reliable. In order to determine the validity of this questionnaire; the researcher in the present study asked three of English teachers and specialists of English to see if the questionnaire was suitable for the study or not. In the light of considerations presented above, they were agreed that the questionnaire used in the present study was suitable for this kind of research. Besides the questionnaire designed for the EFL students, another questionnaire was designed for EFL teachers. The main reason for using the EFL teacher questionnaire in this study was to confirm the findings that were gained from the student subjects. Due to the limit number of the questions (5 items), there was no need to calculate the validity and the reliability of the questionnaire.

The next instrument was a vocabulary test. A vocabulary test was selected from the framework by Watcyn-Jones (1990) and Thomas (1991). Then, a set of words was selected from TOEFL and IELTS vocabulary list (Xiuping Li, 2004), and was then divided into five sections following the framework by Watcyn-Jones (1990) and Thomas (1991). The main purpose of using a vocabulary test in this study was to enable the researcher to divide the participants into two groups based on their test scores: (1) those achieving high scores; and (2) those who achieved low (fail) scores, in order to see the achievement of the learners in favor of their beliefs toward the strategy use. The Cronbach alpha reliability index obtained in the present study ($r=0.92$) which is quite high indicating that the test enjoys high reliability in this context.

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The validity of the test was established by correlating the results of the vocabulary test with the results of the reading and vocabulary sections of the proficiency test (ECCE). The reason why reading and vocabulary were selected to see the validity of the test was because there are many words used in these two sections in order to make the analogy with the vocabulary test i.e., they are covering each other. The Pearson correlation index was reported to be 0.84 which was significant at .01. This coefficient shows that this test was valid.

Finally, the *ECCE Test* (Examination for the Certificate of Competency in English) was used to determine the EFL learners' academic performance. This standard test measured their proficiency terms of the vocabulary, reading and grammar. The proficiency test was used in order to see the whole proficiency level of the learners. According to the reliable and well known organization (Michigan University) in producing such tests, consequently, the test is valid and reliable as well.

2.3 Procedure

Due to the large amount of the materials, the researcher decided to administer the research in two stages. In the first class session, the standard proficiency test was administered determine the subjects' proficiency level. Then, in the second session, the vocabulary test and the questionnaire were administered to get the vocabulary level of the students in favor of their beliefs toward the strategy use, and to mark their choices on a five-point scale. The students were briefed on the purpose and the nature of the research in each session. Also the participants were allowed to ask questions about the questionnaires regarding how to answer the items. The data collection was done during the summer and the beginning of fall semester of the year 2009.

2.4 Analysis of data

After collecting the data, a data matrix was prepared. For analyzing the data Descriptive Analysis was used. Descriptive analysis was used in this study to organize and summarize all the responses in the questionnaire under each category for mean and SD to see if learners believed they were using more RL than other memory strategies. Descriptive analysis was also used for the vocabulary test to summarize the scores for two groups, high achievers and low achievers.

The next step was Factor Analysis. Factor analysis was used in order to validate and verify factors which are believed to underlie the data and to summarize the beliefs of Iranian EFL learners. In other words, the researcher's aim in carrying out factor analysis was to see whether subsets of questionnaire items were correlated with each other to constitute an underlying component or a factor and, if so, how many different components or factors could be identified to allow the researcher to explain them in a meaningful way and understand what feature they represented as Iranian EFL learners.

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After that correlation analysis was used to measure the degree of relationship between the strategy use, beliefs and proficiency of the learners. Simple Pearson Product-Moment correlation Coefficient was run. The last procedure was the Chi-Square Analysis. Chi-square analysis was used to test if there was a significant association between the subjects' beliefs and the test results.

3 Results and Discussion

3.1 Summary and discussion of findings from students' questionnaire

This section looks at the responses from the students' questionnaire. The vocabulary learning strategies questionnaire (VLSQ) contained closed questions in Parts 1 and 2, and open questions in Part 3. The responses to both closed questions in Parts 1 and 2 and open questions in Part 3 of the questionnaire, therefore, indicate that the respondents favored Reviewing strategies and believed that they made greater use of it than the other 3 categories of MSs. The descriptive analysis demonstrates that Reviewing well has the top rank ($M=3.51$) followed by Applying images & sounds ($M=3.55$), then the third Rote Learning one ($M=3.51$) and finally Creating mental linkages ($M=3.36$). The responses to the open-ended questions indicated the learners' beliefs about their using other MSs at the same time when they used RL strategies.

The Findings of the study indicated that the learners believe RL is an effective way of learning EFL vocabulary, but not the best way. They see that reviewing well and having structured review is more effective for them to learn more vocabularies. These findings are in line with some of the findings of the studies mentioned in the literature review: Atkinson (1975), Raugh and Atkinson (1975), Thompson (1987), and Xiuping Li (2004). More precisely, in Atkinson (1975), and Raugh & Atkinsons' (1975) study, it shows a positive effect of mnemonic strategies for enhancing vocabulary acquisition that is near to the present study result. Or in Tinkham's (1989) study, he found that Japanese learners tended to have well developed rote learning skills, and he suggested that these should be put to good use rather than being neglected in favor of more communicative learning. This study is also bringing the same result of the present study but in different nation.

At the end of the VLSQ, there was an open-ended section with three questions to prompt the subjects to elaborate on their beliefs about MSs. The data from the open-ended questions in the questionnaire were also coded based on the subjects' responses and categorized as frequencies to make the data amenable to analysis.

Open question 1: What are the most effective strategies that you believe produce better results when you learn vocabulary?

The responses focused on two large categorizes, rote learning and reviewing

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with almost 100 % agreement. Repetition as a main feature of RL both in spoken and written form was highly believed to be the most effective strategy for their learning and memorizing vocabulary. Of course there were other strategies mentioned by the students such as using flash cards, reading and using new vocabularies in a text and also making a wordlist is one of the most popular strategies asserted by the learners.

Open question 2: What do you think of rote learning for Iranian learners in vocabulary learning strategies (VLSs)?

The responses were coded as a good way, sometimes good and not the only way, and a bad way. Almost 40% of the subjects responded “a good way”, 20% of them revealed partial support to RL and almost 40% responded “a bad ways for learning”. This statement indicated that the learners not only used RL but also other MSs.

Open question 3: Do you have any other strategies for either learning or memorizing vocabulary? (Please specify).

This question left blank by the most of the students; but the minority believed in using flash cards, reading, guessing and using new vocabularies in a text, and also making a wordlist.

3.2 Results of factor analysis

Before embarking on the presentation of the results, it should be stated that of the 40 items in the closed part of the questionnaire, the first 12 focused on the learners' beliefs about the value of MSs, while the remaining 28 items focused on learners' beliefs about their actual use of specific strategies. For this reason, the results from questions 1-12 and questions 13-40 will be reported separately.

Figure 1. Factor analysis of responses to the beliefs about the value of MSs

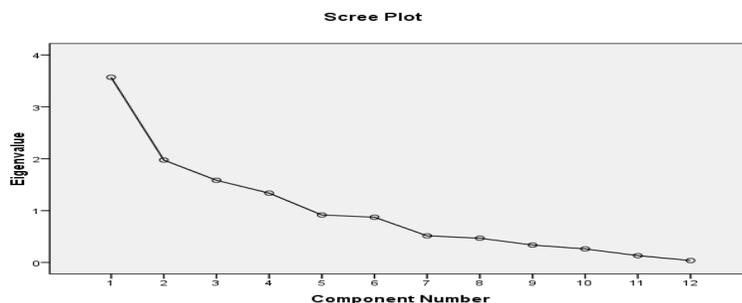


Figure 1 shows the scree plot, which provides the factors extracted. The results of the factor analysis identified 4 factors with eigenvalue greater than 1 which explained 70.55% of the total variance.

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The four factors in Table 1 represented a slightly different variance, and the grouping indicated that they were all theoretically and practically meaningful to the present research. Overall, the four factors indicated beliefs about using different strategies excluding RL, exam-oriented memory strategies, repetition with perseverance strategies, and translation-based strategies. The four factors are presented in Table 1.

Table 1. Factor Analysis of the Learners' Beliefs about MSs

| Factor | Description | Eigenvalues | %of variance | Cumulative % |
|--------|---|-------------|--------------|--------------|
| 1 | Beliefs about using different strategies excluding RL | 3.571 | 29.757 | 29.757 |
| 2 | Beliefs about exam-oriented memory strategies | 1.975 | 16.454 | 46.211 |
| 3 | Beliefs about repetition with perseverance strategies | 1.584 | 13.204 | 59.415 |
| 4 | Beliefs about translation-based strategies | 1.336 | 11.137 | 70.553 |

Rotation of the factors was attempted using the varimax criterion (see Kinneer & Gray 1999, pp. 370-371; Yamini & Rahimi 2007, pp.140-148). The result showed a slightly difference between the rotated and the unrotated one. Therefore, the researcher had to leave it unrotated. The purpose of rotation is not to change the number of factors extracted, but to try to arrive at a new position for the axes (factors) which is easier to interpret in psychological terms (Kinneer & Gray 1999). "Factor rotation is often regarded as controversial since it apparently allows the investigator to impose on the data whatever type of solution is required" (Everitt & Dunn 2001, p. 280). However, as rotation is simply a procedure which allows new axes to be chosen so that the positions of the points can be described as simply as possible, and in this study, the unrotated factors appear to have clear interpretations. Each of the factors will now be discussed in turn.

Factor 1: Beliefs about using different strategies excluding RL

Factor 1 reflected all the strategies for learning and memorizing vocabulary except RL strategies. Of the 5 items on Factor 1, 2 items (Items 6, 7) belonged to *Creating Mental linkages*. Of the other 3 items referring to, 2 items (Items 9, 10) belonged to *Applying Images & Sound*, and 1 item belonged to *Reviewing Well* (Items 11). This factor reflected Iranian learners not only using clear, and systematic ways of dealing with vocabulary, such as acquiring words in context by guessing them, using keyword method or to use semantic mapping in order to remember more words, but could also associate that reviewing and organizing materials in order to store and retrieve from long-term memory are good ways to enhance memorization and understanding.

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Factor 2: Beliefs about exam-oriented memory strategies

Three items (2, 3, and 12) related to the heavy pressure of exams for the learners. In order to succeed in the examination-driven educational system, the learners showed a preference to rote learning as an effective way to memorize i.e. fixed meaning words. The emphasis is retrieving and using the right words to answer questions, to ensure higher marks in the exams. Sheorey (1999) describes these as examination-oriented MSs. In this factor, structured reviewing is a useful way for learners before exam. This factor relates to responding to both exam pressure and exam requirements.

Factor 3: Beliefs about repetition with perseverance strategies

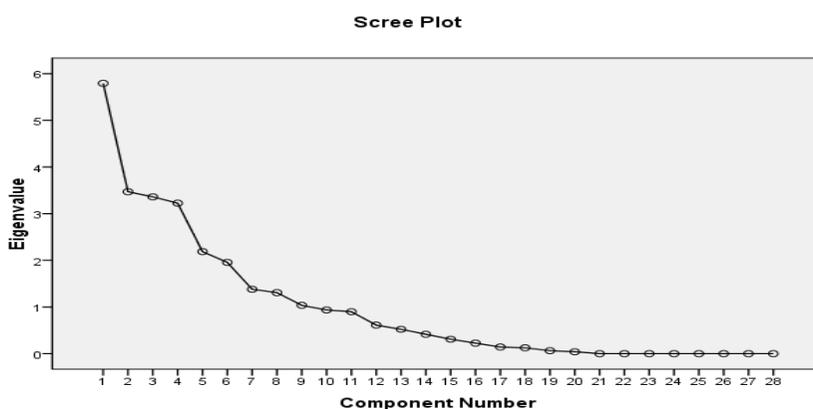
This is the third factor with 3 items based on the data. This factor (Items 1, 4, 8) indicated beliefs about repetition with perseverance with the implication of sustained effort (Ridley, 1997). It is believed that EFL words could be obtained and memorized in ways such as keeping lists; taking cards everywhere or mentally picturing the situation. (E.g. the word *seagull*, a seagull flying in the sky)

Factor 4: Beliefs about translation-based strategies

This is the last factor with 1 item. This factor (item 5) indicated the importance of the translation equivalents between the target and the source languages. It is believed by some learners as it is indicated in the questionnaire that the translation equivalents of Persian and English are helpful when a new word appears.

3.3 Results of factor analysis of responses related to memory strategy usage

Figure 2. Factor analysis of responses related to memory strategy usage



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Five factors with eigenvalues greater than 1 were extracted from the responses to questions 13-40 of the questionnaire by performing a principal component factor analysis on correlations of the 28 items. Initially, nine factors with eigenvalues greater than 1 were extracted. Figure 2 gives a visual inspection of the scree plot, the nine factors accounted for approximately 84.68% of the total variance. However, four of these factors were excluded as the loading were too small or too close to each other and it was hard to determine which factor they should belong to.

The five factors remain represented a slightly different variance except the first big one, and yet the grouping indicated that they were all theoretically and practically meaningful to the present research. Overall, the five factors indicated beliefs about using different strategies, beliefs about students' common memory strategy usage, beliefs about memorization through practice strategies, beliefs about inter-personal strategies, and beliefs about word-recalling strategies. The five factors are presented in Table 2.

Table 2. Results of Factor Analysis of the Learners' Memory Strategy Usage

| Factor | Description | Eigenvalues | % of Varian | Cumulative % |
|--------|--|-------------|-------------|--------------|
| 1 | Beliefs about using different strategies | 5.793 | 20.688 | 20.688 |
| 2 | Beliefs about students' common memory strategy usage | 3.470 | 12.392 | 33.081 |
| 3 | Beliefs about memorization through practice strategies | 3.361 | 12.002 | 45.083 |
| 4 | Beliefs about inter-personal strategies | 3.226 | 11.520 | 56.603 |
| 5 | Beliefs about word-recalling strategies | 2.187 | 7.809 | 64.412 |

Again, rotation of the factors was attempted using the varimax criterion. However, the procedure failed to converge in 25 iterations (convergence= .001). Therefore, the researcher had to leave it unrotated. Each of the factors will now be discussed in turn.

Factor 1: Beliefs about using different strategies

In contrast with the previous first factor of learner's beliefs about MSs, this factor reflected all the strategies for learning and memorizing vocabulary including RL strategies. Of the 11 items on Factor 1, 5 items (Items 15, 16, 17, 22, 39) belonged to *Rote learning*. Of the other 6 items referring to, 3 items (Items 26, 32, 33) belonged to *Creating Mental linkages*, and 3 items belonged to *Applying Images & Sound, and Reviewing Well* (Items 30, 36 and Item 18). This factor reflected Iranian learners not only using a clear, systematic ways of dealing with vocabulary, such as using and keeping

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vocabulary list several times or making flash cards, or even having a regular and structured reviews, but could also help them to use other good ways in learning vocabulary such as grouping the words by their grammatical classes (by parts of speech), breaking the words into components (roots, prefixes), visualizing the spelling of words in their minds and doing other useful exercises in order to enhance memorization and understanding.

Factor 2: Beliefs about students' common memory strategy usage

This factor (Items 19, 21, 31, and 40) dealing with Iranian EFL learners in using common memory strategies such as repeating words aloud to themselves when they try to memorize them, doing oral spelling exercises with their classmates, or associating new words with words that sound similar in their language. It should be noticed that using common rote learning strategies is more emphasized in this factor.

Factor 3: Beliefs about memorization through practice strategies

Four items (14, 20, 23, and 34) loaded on Factor 3. They indicated that the learners could develop methods of association to memorize words such as by categorizing words into some specialized aspects such as animals, utensils, vegetables, etc., writing the words and exercising them repeatedly.

They did not memorize words without understanding or thinking, but by understanding, thinking and organizing and practicing the words learnt, such as by going over the cards with the explanation, and using the words to make sentences for a better understanding and memorization rather than mindless memorization as perceived in the west (Biggs 1997, 1998).

Factor 4: Beliefs about inter-personal strategies

Factor 4 reflected Iranian EFL learners' personality and their inter-personal characteristics. Confidence and self esteem of the learners are two important features could be mentioned in factor 4. Items 24, 27, 28, 35 and 38 belonged to this factor. Having certainty in understanding and how to use the words correctly and efficiently after memorizing them and also how to compose sentences with the words acquired are the main hints could affect the Iranian EFL learners' vocabulary learning.

Factor 5: Beliefs about word-recalling strategies

Two items (25, and 37) loaded on Factor 5. They indicated that the learners could recall and remember some words by using dictionary or using some techniques such as pair checking with someone else.

3.4 Results of the correlation between strategy use, beliefs, and proficiency of the learners

In order to test the correlation between beliefs and strategy use, beliefs and

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proficiency of the learners, and also correlation between strategy use and proficiency of the learners, Simple Pearson Product-Moment correlation Coefficient was run. The results of this analysis are presented in Table 3.

Table 3. Correlation Analysis between Strategy Use, Beliefs, and Proficiency of the Learners

| | | Beliefs | Str.Use | Proficiency |
|-------------|---------------------|---------|---------|-------------|
| Beliefs | Pearson Correlation | 1 | .388** | .082 |
| | Sig. (2-tailed) | | .000 | .409 |
| | N | 103 | 103 | 103 |
| Str.Use | Pearson Correlation | .388** | 1 | -.063 |
| | Sig. (2-tailed) | .000 | | .529 |
| | N | 103 | 103 | 103 |
| Proficiency | Pearson Correlation | .082 | -.063 | 1 |
| | Sig. (2-tailed) | .409 | .529 | |
| | N | 103 | 103 | 103 |

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

As it can be seen in Table 3 the correlation between beliefs and strategy use was found to be .388. This correlation coefficient was significant at the level of .000. It showed that beliefs and strategy use were positively correlated. That is to say, the higher the belief on MSs in vocabulary learning is associated with the higher use of memory strategies. These findings are in line with the findings of most of the studies mentioned earlier including: Wenden (1987), Gu & Johnson (1996), Yang (1999), and Xiuping Li (2004). More precisely, wenden (1987) in his study used a small proportion of participants in order to investigate language learners' assumptions or beliefs underlying their choice of strategies. He found that it was a direct association between learners' beliefs and their strategy use in a way that students could not only distinctly describe their beliefs about language learning but also adopted consistent learning strategies with their beliefs. Or Yang (1999) in his study emphasized that knowledge of the relationship between learners' beliefs about language learning and their choice of strategy use should provide teachers with better understandings of their students' "expectation of, commitment to, succession, and satisfaction with their language classes". The results of factor analyses on the BALLI and SILL items in his study, as well as the results of Pearson correlations and canonical analysis of belief and strategy factors identified a strong relationship between beliefs and strategy use. It was the same result of the study done by Xiuping Li (2004). The result of the present study was the same of the results obtained from the above explained studies.

The correlation between beliefs and proficiency of the learners was found to be .082. This correlation coefficient was not significant at the level of .409. It

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showed that beliefs and proficiency of the learners were slightly correlated but not significant. That is to say, the higher or the lower the belief on MSs in vocabulary learning is almost not associated with the higher or the lower proficiency of the learners. This finding is directly in line with Rod Ellis and Koichi Tanaka (2003) results. More precisely, in Ellis & Tanakas' (2003) study the Pearson product moment correlations between the students' responses to the Belief Questionnaire and their TOEFL scores both before and after the study-abroad period were weak and generally statistically non-significant. This result was the same result obtained from the present study in which the correlation coefficient of beliefs and proficiency of the learners was not significant.

And finally, the correlation between strategy use and proficiency of the learners was found to be $-.063$. This correlation coefficient was not significant at the level of $.529$. It showed that strategy use and proficiency of the learners were negatively slightly correlated. That is to say, the higher or the lower use of memory strategies is almost not associated with the negative higher or the lower proficiency of the learners. This finding was in contrast with Gu & Johnson (1996) findings.

3.5 Results of the test

The vocabulary test was actually designed, not to see the subjects' language proficiency, but to divide the subjects into two groups by their scores, "high achievers", and "low achievers" and then use chi-square analysis to see if there was a significant association between the variables: *beliefs* and *scores*.

The full score was 100 from the 100 questions. According to traditional Iranian university scoring criteria, the subjects who had scored less than 50% (or 10 out of 20) in the test were considered to have "failed" or "low achievers", while those who scored 50% or more have "passed" or "high achievers". However, as the researcher recognized that a pass mark of 50% might be considered arbitrary.

The mean score was 40.75% (SD 16.32), which indicates that the test was a bit difficult for the participants (although, as will be seen from Table 4 below, the sophomore participants got poorer results in comparison with the senior ones). According to the statistics gained from the test result, of the total 103 subjects, 27.18% met the required standard and 72.82% failed to meet the required standard. The scores of 23.3% of the participants were between 40 to 49. So, the score of 50.48 % of the participants were above 40. Table 4 illustrates the scores of the test by stage: Of the 78 sophomore subjects, only 18 (or 23.07 %) gained a mark of 50% or above, and 60 (or 76.93 %) of them failed to gain a mark above 50. Of the 25 senior subjects, 10 (or 40 %) gained a mark of 50% or above, and the rest (15 subjects, 60 %) failed to gain a passing mark. Thus, it shows that the students in higher stage got better scores than the ones in lower stage; this is to be expected.

Table 4. Results of the Test

| Educational Level | Number of the participants | Number of passed or high achievers | Number of failed or low achievers |
|-------------------|----------------------------|------------------------------------|-----------------------------------|
| Sophomore | 78 | 18 (23.07%) | 60 (76.93%) |
| Senior | 25 | 10 (40%) | 15 (60%) |

3.6 Results of Chi-square analysis

Based on the EFL vocabulary test results from those who were classified into “high achievers,” and “low achievers” groups as discussed in the previous section, and based on the subjects’ responses to questionnaire items, these respondents were then divided into two groups, which were coded as full RL-supporters, who were those subjects who gave high support to using RL strategies in vocabulary learning, and partial RL-supporters, who were those subjects who did not give high support to RL. The data did not offer a third group for non-RL supporters, as there were no subjects who stated that they were not at all in support of RL strategies and there were no subjects who stated that they did not use RL strategies at all. Therefore, the Chi-square analysis only focuses on the relationship between full RL support and test results and partial RL-support and test results.

The researcher aimed to discover whether there was any significant association between subjects’ beliefs about RL and their learning achievements. The Chi-square analysis was conducted to determine whether there was any significant difference between the subjects who fully believed in using RL strategies and who partially believed in using RL vis-à-vis their test results.

From inspection Table 5, it is clear that there is no association between the Belief Group and Test Result variables: a higher proportion of the Full-RL-supporters did, in fact, gain lower scores in the test; whereas the majority of the Partial RL-supporters get better scores in comparison with Full-RL-supporters.

Table 5. A Contingency Table of Beliefs and Test Scores in the High and Low Achieving Groups

| | | High Achievers | Low Achievers | Total |
|------------|-----------------------|----------------|---------------|-------|
| supporters | RL Supporters | 13 | 47 | 60 |
| | Partial RL Supporters | 15 | 28 | 43 |
| Total | | 28 | 75 | 103 |

It can be concluded that there was no significant association between the variables *beliefs* and *vocabulary test scores*, as shown by the $p\text{-value}=.137$ (much bigger than 0.05) for Chi-square. See the results in Table 6:

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Table 6. Chi-Square Tests between the Variable Beliefs and Vocabulary Test Scores

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|--------------------|----|--------------------------|-------------------------|-------------------------|
| Pearson Chi-Square | 2.211 ^a | 1 | .137 | | |
| Continuity Correction ^b | 1.593 | 1 | .207 | | |
| Likelihood Ratio | 2.190 | 1 | .139 | | |
| Fisher's Exact Test | | | | .179 | .104 |
| Linear-by-Linear Association | 2.189 | 1 | .139 | | |
| N of Valid Cases ^b | 103 | | | | |

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.69.

b. Computed only for a 2x2 table

To be sure of the statistics, the researcher decided to get the correlation between the variables beliefs and vocabulary test scores. The results show that the correlation between beliefs and vocabulary test scores of the learners was found to be .065. This correlation coefficient was not significant at the level of .517. It showed that beliefs and vocabulary test scores of the learners were slightly correlated but not significant. See the results in Table 7:

Table 7 Correlation Analysis between Beliefs and Vocabulary Test Scores

| | | Beliefs | Voc.Test |
|----------|---------------------|---------|----------|
| Beliefs | Pearson Correlation | 1 | .065 |
| | Sig. (2-tailed) | | .517 |
| | N | 103 | 103 |
| Voc.Test | Pearson Correlation | .065 | 1 |
| | Sig. (2-tailed) | .517 | |
| | N | 103 | 103 |

3.7 Results of teacher questionnaire

In the present study, once the initial conclusions had been identified in the data, the researcher wanted to ascertain the generalizability between the teachers' responses with the students' beliefs. For this purpose, a questionnaire with five questions based on the research results was used to elicit Iranian EFL teachers' views on students' preferred MSs. As noted in Chapter Three, confirming findings through a questionnaire to Iranian EFL teachers was as an additional exploratory step in this study.

The results from each question were calculated based on the replies from 12 teachers for analysis. The responses were coded as Agree, Disagree and Others to all the 5 questions. Question 5 did not seem to invite an "agree" or "disagree" response. However, the teachers' statements focused on their

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beliefs whether RL suits Iranian EFL learners which were consistent with the students' statements, leading to a form of "agree" or "disagree" response. These are presented in Table 8.

Table 8. Results of the Responses from EFL Teachers

| Questions | Agree | Disagree | Others |
|-----------|-------|----------|--------|
| 1 | 7 | - | 5 |
| 2 | 4 | 4 | 4 |
| 3 | 6 | 6 | - |
| 4 | 12 | - | - |
| 5 | 9 | - | 3 |

From the data in Table 8, generally, the results of all the questions appeared more positive than negative.

To be added, to get the reliability of the rating of the above responses, the questions were given to three English teachers who aware of the study. The inter-rater reliability of the study shows that the rating of those English teachers has a close intimacy toward the rating given by the researcher, and shows that the rating of the questionnaire is reliable.

4 Conclusion and Implications

As discussed in the previous chapters, this study focuses on Iranian EFL learners' beliefs about their preference for RL strategies in their vocabulary learning. This research was designed to address five research questions (see Introduction).

The results of this study indicated that there is a degree of support but not high for each of the sub-hypotheses, as demonstrated in Table 9 below:

Table 9. Summary of the Results of the Responses to the Research Questions

| Prepositions in the research questions | Result |
|--|---------------------|
| 1. Iranian EFL learners state that they prefer RL strategies to other memory strategies and use more RL strategies than other memory strategies. | Partially Supported |
| 2. Iranian EFL learners believe that RL works better for memorizing vocabulary than other strategies. | Mostly Supported |
| 3. Those who believe in the effectiveness of RL perform better in vocabulary tests than those who do not. | Not Supported |
| 4. Iranian EFL learners believe that RL is effective both in the initial stages and the higher stages of language learning. | Mostly Supported |
| 5. Iranian teachers believe that RL is an effective way in learning vocabulary and it suits Iranian EFL learners. | Mostly Supported |
| 6. Iranian EFL learners believe that RL conveys the basic knowledge to develop other memory strategies. | Partially Supported |

The extent to which the findings of this study support each of these questions will be discussed in detail in this chapter.

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1. Do Iranian EFL learners prefer RL and believe that they use more RL strategies than other memory strategies?

The responses gained from the questionnaire supported a positive answer to this question. A descriptive analysis of the responses to the 12 statements as first part of questionnaire to elicit the respondents' beliefs about MSs in EFL vocabulary learning suggests that Iranian EFL learners believe that of all the MSs for vocabulary learning, Reviewing strategies were preferable. The mean of the Reviewing strategy is the highest of the 4 MSs categories ($M=4.00$), followed by applying images and sounds ($M=3.88$); creating mental linkages ($M=3.62$); and Rote Learning ($M=3.54$). Responses to the 28 statements as second part of questionnaire to elicit the respondents' beliefs about their preferred MSs they actually used in vocabulary learning also demonstrated that the mean of the Reviewing strategy is the highest of the 4 MSs categories ($M=3.52$). This was followed by Rote Learning ($M=3.50$); creating mental linkages ($M=3.30$); and applying images and sounds ($M=3.22$). And the third part of the questionnaire that is responses to open questions shows that the responses mostly focused on two large categories, rote learning and reviewing. The findings discussed above showed that of the 4 MSs, Reviewing was placed as the highest with Rote Learning the second, creating mental linkages the third and applying images and sounds the last when Iranian EFL learners' learning vocabulary. (see Summary and Discussion of findings from students' questionnaire)

2. Do Iranian EFL learners believe that RL strategies work better or worse than other strategies?

The answer to this question was also positive. The responses to the first open question in the student questionnaire focused on two strategies, RL and Reviewing with almost 100 % agreement (see Summary and Discussion of findings from students' questionnaire). Repetition as a main feature of RL both was highly believed to be the most effective strategy for learning and memorizing vocabulary. Furthermore, the EFL teachers hold more positive than negative views about this belief (see Results of teacher questionnaire). These reasons tend the researcher to vote as mostly supported for this question.

3. Is there any relationship between beliefs about RL, learners' achievement in the English vocabulary test and their proficiency level?

The answer to this question was also negative. The Chi-square analysis was conducted (see Results of Chi-square analysis) to determine whether there was any significant difference between the subjects who fully believed in using RL strategies and who partially believed in using RL vis-à-vis their test results. The reason why the two groups were labeled as full RL-supporters and partial RL-supporters was already explained in Results of Chi-square analysis. Of the 103 participants, 15 Partial-RL-supporters got higher scores in the test in comparison with 28 who got lower scores; whereas the majority of the 47 Full-RL-supporters got lower scores in comparison with 13 who got higher scores. Chi-square

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analysis determined that there was no significant association between the variables beliefs and scores, as shown by the $p\text{-value}=.137$ ($p<0.05$).

4. Do Iranian EFL learners believe that RL strategies are helpful in all stages of EFL vocabulary learning?

A positive answer is mostly supported with slightly different beliefs that RL is not very important for the learners at higher levels. As discussed in the previous question, the learners who got higher scores have a partial or even no support to RL. In contrast, the responses to Statement 4 in teachers' questionnaire ("Rote learning is effective in vocabulary learning and it is helpful for all the learners at all stages--from beginners to the advanced learners. Please comment on it.") showed the results of 100% agreement (see Table 7). It indicates that RL is very useful for learners in all stages.

5. What do EFL teachers believe about the effects of rote memorization on vocabulary learning?

The data showed a high tendency toward using RL among Iranian learners. It is supposed from the responses given in the teachers' questionnaire that RL is an effective way in learning vocabulary and it is one of the types of learning which can leave its impacts on the process of learning. Rote learning is a usual way of memorizing for a short period of time especially for exams and it could be concluded that it suits Iranian EFL learners.

6. What do Iranian EFL learners believe is the relationship between RL and other memory strategies?

The data showed a positive answer to this question. It is supposed from the responses given in the questionnaire that RL is a good strategy for learners in learning vocabulary (see Summary and Discussion of findings from students' questionnaire). But it should be noted that all of the strategies must be come together to get a high result. All of the strategies are complements to each other, and one of those strategies is RL.

With respect to the results of this study, a number of pedagogical implications are provided below which might be useful to educationalists and language teachers:

1. Based on the results of this study reviewing well was found to be one of the best strategies among other strategies. Therefore, reviewing well can be a critical strategy in determining students' success in learning vocabulary. As a result, enhancing the structured review by the teachers to their students should be a part of any language teaching program.

2. The findings of this study from Factor Analysis and the teachers' questionnaire identify the impact of Iran's examination-driven educational system on the subjects' RL approaches to EFL learning. As Wang (2000) has

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pointed out, students learn by heart just for accuracy in exams, but this sort of accuracy does not necessarily lead to fluency in spoken English. In this way, Iranian learners are usually characterized as hard-working and diligent, and examination system produces learners with high scores but low problem-solving skills. This indicates that this problem may be solved firstly from schools and universities in Iran when the emphasis on communicative competence is more overt, not just on accuracy for scores.

3. Iranian EFL learners believe that RL is an effective way to learn vocabulary but may not be the best way. They believe that there is no single “best” strategy for them to learn EFL vocabulary, and that a particular memory strategy may not suit the needs of all learners. However, although they would like to use all means available to them as they work to learn EFL vocabulary; they feel constrained by the limits of time and the demands of the exam-oriented Iranian educational system, which rewards accurate memorization above other aspects of EFL use. So, it is the teachers' duty to try to enhance, help, and guide the students to use different strategies in acquiring vocabulary to get better improvement and accurate result in this field.

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