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A Comparison of Reading Strategies Used by English Major Students in Group Learning vs. Individual Learning: Implications & Applications

Behnaz Behdani ^{1*}, Masoud Raei Sharif ², Fatemeh Hemmati ³

1- Instructor of English Language, Department of Foreign Languages, Farhangian university of Birjand

2-Assistant Professor of English Language, Department of Linguistics and Foreign Languages, Payame noor university of Tehran

3-Assistant Professor of English Language, Department of Linguistics and Foreign Languages, Payame noor university of Tehran

Abstract

This study aimed at comparing the reading strategies of Iranian English major university students in the individual vs. group learning mode. Sixty male and female undergraduate students, all majoring in English at Birjand University participated in the study. The Survey of Reading Strategies (Mokhtari and Sheorey, 2002) was adapted for this work. This survey classifies reading strategies into three categories: global, problem-solving, and support strategies. The results of the adapted questionnaire showed that the students in the two groups used the three categories at a moderate to high frequency level. In fact, the overall use of reading strategies for both groups was moderate. Furthermore, the results revealed that while the two groups showed no significant difference in using global strategies, students in the collaborative group outperformed the other group in using problem-solving strategies; however, the students in the latter group had a higher mean score in using support reading strategies than those in the collaborative group. The implications and applications of the present study are discussed in the light of the language teaching discipline.

Key words: Reading Strategy, Reading comprehension, Individual learning, Group learning, English Major Students

1. Introduction

Reading is a radical and essential skill for anyone learning English as a foreign language and the use of reading strategies is regarded as an important factor for successful reading comprehension. Nowadays, how learners process the new information and what kind of strategies they employ, to understand, learn or remember the language input have become the focus of research (Richards, 2001). Consequently, understanding the nature of the strategies the learners employ has become important due to the fact that successful learners are the ones who have developed a range of efficient strategies to select, adapt and use flexibility in specific situations and to monitor their success (Williams and Burden, 1997).

However, one of the most serious problems in higher education, which usually does not receive due attention neither by students nor by the teachers, is the problem of reading (Dreyer and Nel, 2003) and many students enter higher education unprepared for the reading demands that are placed upon them. This is also true of Iranian EFL students because apparently they seem not to be very successful readers in English, which can be due to several factors including interest, background, knowledge, gender, field of study, language proficiency and the like. On the other hand, although new trends are emerging in reading theories, for years reading programs in Iran have acquired students to translate and focus on decoding skills. In general, when our students are required to read, they often select ineffective and inefficient strategies, which result in little or no output, i.e. comprehension.

In spite of the importance of reading comprehension and strategies of readers for educational and professional success, ELT's ultimate expectations have not been achieved up to now (Mirhassani, 1995). The fact is that our conventional individualistic learning ignores a critical component in the learning process, that is, "interaction" among students, which greatly affects the process and consequently the outcome of learning. As Lansley (1994) maintains "interaction has potentiality of involving students in the process of learning" (p. 50). On the other hand, different studies (Sittilert, 1994; Almanza, 1997 cited in Wichadee, 2006) indicated the positive effect of cooperative learning on reading comprehension.



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Nevertheless, in the case of Iranian English major students' awareness (freshmen students) of reading strategies, not much work has been done so far. Regarding emphasis on cooperative learning, it is important to get to know the main reading strategies that group learners apply in comparison with individual learners. Accordingly, the present study would be an attempt to explore this notion among English major students.

2. Literature Review

Over the last two decades, most research on L1, L2 and foreign language (FL) reading has focused on the strategies that readers employ in processing written input. According to Carrell (1998), "reading strategies will include any of a wide array of tactics that readers use to engage in and comprehend the text" (p. 9). The range of these strategies varies from easy fix-up strategies such as re-reading difficult segments and guessing the meaning of unknown words to more comprehensive strategies such as summarizing and relating what is being read to the reader's background knowledge (Farrell, 2001). In fact, these strategies are personal cognitive tools that can be used selectively and flexibly.

In effect, successful people are good strategy users; they know how to use a variety of goal-specific tactics, execute a planned sequence, and monitor their use (Weinstein and Mayer, 1985; Weinstein and Underwood, 1985; Gettinger and Seibert, 2002; Adams and Hamm, 1994). Different studies have shown relationships between various reading strategies and successful or unsuccessful second language reading (Knight et al., 1985; Dhieb-Henia, 2003). There are many reading strategies employed by successful language learners such as being able to organize information, using linguistic knowledge of their first language when they are learning their second language, using contextual cues, and learning how to chunk language (Karbalaee, 2010).

Successful language learners know how to use such reading strategies efficiently. The purpose of reading strategies is to have general knowledge, get a specific detail, find the main idea or theme, learn, remember, delight, summarize, and do research (Hyland, 1990). Regarding the importance of reading strategies, Pressley and Afflerbach (1995) identified several key strategies that were evident in the verbal protocols they reviewed, including: (a) overviewing before reading; (b) looking for important information and paying attention to it; (c) relating important points to one another; (d) activating and using prior knowledge; (e) changing strategies when understanding is not good; and (f) monitoring understanding and taking action to correct inaccuracies in comprehension.

The current understanding of reading strategies has been shaped significantly by research on what expert readers do (Bazerman, 1985; Pressley and Afflerbach, 1995). These studies demonstrate that successful comprehension does not occur automatically. Rather, successful comprehension depends on directed cognitive effort, referred to as metacognitive processing. During reading, metacognitive processing is expressed through strategies, which are "procedural, purposeful, effortful, willful, essential, and facilitative in nature" and "the reader must purposefully or intentionally or willfully invoke strategies" (Alexander and Jetton, 2000, p. 295), and does so to regulate and enhance learning from text. Through metacognitive strategies, a reader allocates significant attention to controlling, monitoring, and evaluating the reading process (Pressley, 2000; Pressley et al., 1995). Additionally, Sheorey and Mokhtari (2001) stated that it is the combination of conscious awareness of the strategic reading processes and the actual use of reading strategies that distinguishes the skilled from unskilled readers. Studies show that unsuccessful students lack this strategic awareness and monitoring of the comprehension process (Garcia et al., 1998).

During the past decade, small group work seemed to attract a lot of attention and to gain popularity. Haythorn (1968) stated that "group activity, allows for individuals with complementary skills to assist each other in attaining goals that could not be similarly attained on an individual basis" (p. 105). According to (Johnson et al., 1991) various names can be given to this form of learning/teaching: collaborative learning, cooperative learning, collective learning, learning communities, peer teaching, peer learning, reciprocal learning, team learning, study circles, study groups, and work groups. Nevertheless, collaborative learning "is an umbrella term for a variety of educational approaches involving joint intellectual effort by students and teachers together. In collaborative learning, students are working in groups of two or more, mutually searching for understanding, solution, meaning, or creating a product" (Leigh & MacGregor, 1992, p.1). On the other hand, in individual learning, there is no interaction among students when they learn a subject. In



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fact, individualistic learning means "working by oneself to ensure that one's own learning meets a present criterion independently from the efforts of the other students" (Johnson and Johnson, 1999, p.7).

In the case of reading class, as Jacobs (1998) argued, increased communication would be beneficial in two ways. First, students learn more about how to gain comprehension strategies. Second, they would be persuaded to discuss and negotiate the meaning in their groups more often.

Despite the rapidly expanding research on different aspects of second and foreign language reading, only a small number of studies have focused on reporting the types of metacognitive reading strategies English major students use when they read. No research currently exists regarding the comparison of reading strategies of English major students in the individual and group learning mode. This research attempts to investigate the following three questions:

1. What type and frequency of reading strategies do students in individual and group learning apply while reading a text?
2. What kind of strategies are they using most?
3. Is there a significant difference between the reading strategies used by the two groups?

3. The Study

3.1 Participants

As a requirement of this study, initially 113 Iranian English major university students at BA level from Birjand University and Payame Noor University participated in this study. Payame Noor University students participated in the pilot, which was carried out six weeks before the treatment; and those from Birjand University took part in the main study.

Of the seventy seven English students at Birjand University studying in two separate classes, one group of thirty homogeneous students were selected from each class based on their performance on the TOEFL Reading Comprehension Test. Therefore, the ultimate sample included 60 first year English students classified into two groups (viz. individual & collaborative) with 30 students in each. The age of the participants ranged between 19 to 22 years.

3.2 Instruments

Reading Comprehension Test: In order to homogenize participants based on their reading comprehension ability, a reading comprehension test was administered to 77 students in the first session. Therefore, three TOEFL reading comprehension passages (Year 2004, PBT, with readability indices around 12), each containing 330-360 words followed by some multiple-choice reading comprehension questions were selected.

Reading Strategies Questionnaire: The data for this study were collected on a questionnaire (see Appendix) adapted from Metacognitive Awareness of Reading Strategies Inventory (MARS) of Mokhtari and Sheorey (2002) developed for native speakers of English and then refined for ESL/EFL students. It comprises 30 items measuring three broad categories: global reading strategies (13 items), problem solving strategies (8 items), and support strategies (9 items). The internal consistency reliability coefficient for the above three subscales ranged from 0.89 to 0.93 and the reliability for the total sample was 0.93. Mokhtari and Sheorey (2002) state that the questionnaire is scored on a 5-point Likert scale in which scores of 2.4 or below demonstrate low strategy use, 2.5 to 3.4 show moderate strategy use, and 3.5 or above signify high strategy use.

However, to better tailor it to the participants in this study, for whom English was the main course, and to make more precise comparisons between the reading strategies applied by individual readers as opposed to those in the collaborative group, this study made several adaptation to MARS to increase feasibility of the present study. Therefore, it was piloted and validated by the researcher again.



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In the first step of piloting this instrument, it was decided that only 12 items of Mokhtari and Sheorey's questionnaire (items 1, 3, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15 of this research questionnaire) to be selected in order to make exact comparisons between reading strategies applied by individual and collaborative learners. However, three more items (items 2, 5, 6) that seemed to reflect important strategies for reading English texts were also added by the researcher.

In the second step, the questionnaire was pre-tested by 24 English major university students. They completed the questionnaire after working on four passages individually and in group. Attached to the questionnaire was a guide asking students to mark the items that were unclear or confusing. The students were also asked to provide written feedback, if any, about any aspect of the instrument, including the clarity of instructions, wording of items, time devoted to completing the inventory, response format, and content.

Among these students, some voluntary participants were also interviewed, each for five minutes, and their comments were written to find any difficulty in understanding the questionnaire items. Alderson (1992), who questioned the reliability of the statistical methods in most of the surveys, has emphasized holding interviews with the respondents to ensure the construct validity of such questionnaires. These students were interviewed in line with this suggestion in order to determine whether the items were valid in terms of the construct they were supposed to measure.

The information obtained from the papers attached to the questionnaire and the written feedback indicated that the participants had no difficulty in understanding the items. However, the information obtained through voluntary interviews led to a change in the wording of item 10. The students believed that the words "scan" and "skim" might have similar meanings in some texts; however, they have different meanings to English students: "skim" means read something quickly and noting only the main points, but "scan" is to read something carefully for getting the details. This issue caused ambiguity in understanding the item. Therefore, in this item, the word "scan" was changed to "skim".

The final version of the instrument was administered to 24 participants in another pilot study. They answered the questionnaires in two weeks intervals to provide test-retest reliability. The Pearson Product-Moment Correlation Coefficient suggested by Brown (1996) was calculated for the 24 completed questionnaires. The reliability for the whole instrument was measured as 0.83, which can be interpreted as the systematic, consistent, or reliable variance in the participants' responses to the items of questionnaire. The reported reliabilities for each subscale are GLOB strategies, 0.78; PROB strategies, 0.69; and SUP strategies, 0.65. Therefore, the final version of the instrument consisted of 15 items, with 5 items falling into the global category, 4 into the problem-solving, and 6 belonging to the support category (Table 1).

Table 1. Categorization and description of EFL reading strategies

Category	Description	Example	Item
Global reading strategies (GLOB)	The intentional, carefully planned techniques by which learners monitor or manage their reading	Confirming prediction, activating prior knowledge,	2,8,10,11,14
Problem-solving Strategies (PROB)	The localized, focused techniques used when problems develop in understanding textual information	Guessing the meaning of unknown words, re-reading for better understanding	1,4,5,6
Support strategies (SUP)	The basic support mechanisms intended to aid the reader in comprehending the text	Using dictionaries, taking notes	3,7,9,12,13,15

Note. Adapted from Mokhtari and Sheorey (2002)

3.3 Procedure

In order to fulfill the requirements of the present study, certain steps were taken to elicit the required data. Firstly, the participants completed a background questionnaire and expressed their consent for taking part in the study after being insured their personal information would remain confidential. Secondly, in order to homogenize the participants, a reading comprehension test was administered to two classes. Later, the



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answers were checked and scored by the researcher. Thirdly, based on the information obtained, 60 students who clustered near the midpoint were chosen as key informants in each class. This is to say those with too high or too low scores (outliers) on the test were deleted. They were then randomly assigned to two homogeneous groups (individual & collaborative) with 30 in each.

For the collaborative group to set up mixed heterogeneous teams, the researcher ranked learners' names on three reading comprehension achievement cluster from high to low according to their pre-test marks. Afterwards, to make the best use of Van Lier's (1996) multiple zones of proximal development theory, which illustrates the importance of involving multiple "who's" in social interaction; they were selected randomly from each band-3 members per team. Consequently, the teams (10 teams with 3 students in each) involved learners with a range of reading comprehension abilities, i.e., one high who was considered the captain, one medium, and one low reading level student were selected to form a heterogeneous team. After selecting mixed heterogeneous teams, the importance and basic elements of team learning (Johnson et al., 1991) such as positive interdependence, face to face interaction, individual accountability, collaborative skills and team processing were explained and highlighted to the collaborative group.

The members of team used a cooperative answering technique called "Number Heads Together". The procedures of "Number Heads Together" of Olsen and Kagan (1992) was as follow:

1. Each student in a team of three got a number by the captain: 1, 2, or 3.
2. The teacher asked a series of different "content bound" questions.
3. All members in each team came up with an answer. They had to be ready to support their answer based on the text.
4. The teacher called a number from one to three, the person with that number answered for the team.

Fourth, in order to meet the objectives of this study, the participants were asked to read eight reading passages during eight sessions for about 30 minutes. All passages were selected from TOEFL Reading Comprehension Tests including five multiple choice questions. During these sessions, the participants in individual group read the passages and answered the questions individually, whereas the participants in the collaborative group worked in teams, and discussed about the answers. At the end of each session, there were follow-up interviews with participants of each team of collaborative group to understand about their experiences.

Finally the final revised version of reading comprehension questionnaire was administered to the 60 participants of both groups. The questionnaire was administered along with instructions for the participants. The time needed to answer the items, as controlled in the pilot step was determined to be 10 minutes.

A procedure quite similar to the one used by Mokhtari and Sheorey (2002) was adopted to score our reading comprehension questionnaire. Each item on the questionnaire had five response options ranging from 1 (never do) to 5 (always do). These options were given values from 1 to 5, where value 5 indicated a high degree of applying the strategy and 1 indicated the least by the subject(s).

The individual scores for each item were recorded, and the scores for each of the statements of the subscales were added up and divided by the number of statements for each subscale to get the average for the subscales. The average for the whole inventory was calculated by adding up subscale scores divided by 15 as the instrument had 15 items.

Therefore, the possible score range was from 15 to 75, and the lowest possible mean for each of the subscales was 1; whereas the highest mean was 5. The average of subscales in the two groups of individual and collaborative was compared to determine the type and frequency of reading strategies applied by each group.

4. Results

In order to analyze the data, the researcher used the statistical package for social sciences (SPSS v. 17). The statistical procedure of *t*-test measurement was used to determine the mean differences between the two groups on the reading comprehension test. Moreover, a frequency analysis and analysis of mean were run on each item of the questionnaire as well as on three subscales, i.e., problem-solving, global, and support reading strategies. It should be mentioned that all the statistics were carried out at $p < 0.05$ level of significance, two tailed.

Table 2 presents the descriptive statistics of participants on the reading comprehension test, including mean, standard deviation, and variance. Although, based on these findings the students in the collaborative



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group had a higher mean than the individual one, the results of the *t*-test analysis showed that this difference was not statistically significant (Table 3). The value of the observed *t* was (-.714), which is less than the value of the critical *t* (2.00) at the 0.05 level of significance. In effect, both groups belonged to the same population and were homogeneous.

Table 2. Descriptive Statistics of the Reading Comprehension test of the participants

Group	N	Mean	Std. Deviation	Variance	Minimum	Maximum
Individual	30	14.10	2.75	7.61	11.00	23.00
Collaborative	30	14.63	3.02	9.13	10.00	22.00

Table 3: t-test Analysis of Mean Scores of the Individual and Collaborative Groups on Reading Comprehension Test

Group	N	df	t	Sig. (2-tailed)	t crit.	Mean Difference	Std. Error Difference
Individual	30	58	-.714	.478	2.00	-.533	.747
Collaborative	30						

The results obtained from the reading strategy survey are presented in the tables below.

Table 4: Reported use of Reading Strategies of Students in the Individual & Collaborative Groups

Name	Strategy	Mean	
		Ind	Col
GLOB 1	I pay attention to the grammar of sentences for understanding the text.	3.2	3.33
GLOB 2	When reading, I decide what to read closely and what to ignore.	3.66	3.56
GLOB 3	I skim the text to see what it is about before reading it.	3.43	3.53
GLOB 4	I think about what I know to help me understand what I read.	3.9	3.86
GLOB 5	I try to guess what the content of the text is about when I read.	3.4	3.7
PROB 1	When I read I guess the meaning of unknown words or phrases.	2.96	4.03
PROB 2	When text becomes difficult, I reread it to increase my understanding.	3.73	4.26
PROB 3	I find the key words of a text.	3.63	3.93
PROB 4	I can point out the main ideas of a text.	3	4
SUP 1	I use reference materials (e.g. a dictionary) to help me understand what I read.	3.2	2.3
SUP 2	I paraphrase (restate ideas in my own words) to better understand what I read.	3.56	3.33
SUP 3	I underline or circle information in the text to help me remember it.	3.8	3.16
SUP 4	When reading, I translate from English into my native language.	3.36	2.76
SUP 5	I go back and forth in the text to find relationships among ideas in it.	3.9	3.5
SUP 6	I take notes while reading to help me understand what I read.	2.8	1.83
GRS	Global Reading Strategies	3.52	3.60
PRS	Problem-solving Strategies	3.33	4.05
SRS	Support Reading Strategies	3.43	2.81
ORS	Overall Reading Strategies	3.43	3.49



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Table 4 shows that the students' overall use of reading strategies in individual group is moderate ($M=3.43$) with reference to the three types of strategies, global strategies are of high frequency ($M=3.52$) whereas problem-solving ($M=3.33$) and support strategies ($M=3.43$) are of moderate frequency.

Regarding the subscales, item means for global strategies range from the high 3.9 (GLOB 4) to the medium 3.2 (GLOB 1) mean (in bold). The range for problem-solving strategies is between the high 3.73 (PROB 2) to the medium 2.96 (PROB 1) mean, while for support strategies this is between high 3.9 (SUP 5) to the medium 2.8 (SUP 6) mean (in bold).

On the other hand, seven strategies (47 %) are of high frequency. These seven strategies include: 2 global, 2 problem-solving, and 3 support strategies. The other eight strategies (53 %) are of medium frequency. They include; 3 global, 2 problem-solving, and 3 support strategies.

Table 4 also shows that the students' overall use of reading strategies in collaborative Group is moderate ($M=3.49$) with reference to the three types of strategies, support strategies are of moderate frequency ($M=2.81$) whereas global ($M=3.60$) and problem-solving strategies ($M=4.05$) are of high frequency.

Furthermore, item means for global strategies range from the high 3.86 (GLOB 4) to the medium 3.33 (GLOB 1) mean (in bold). The range for problem-solving strategies is between the high 4.26 (PROB 2) to the high 3.93 (PROB 3) mean, while for support strategies this is between high 3.5 (SUP 5) to the low 1.83 (SUP 6) mean (in bold).

On the other hand, 9 strategies (60 %) are of high frequency. These nine strategies include: 4 global, 4 problem-solving, and 1 support strategies. Four strategies (27 %) were of moderate frequency. They include: 1 global, and 3 support strategies. The other two strategies (13 %) including support strategies were of low frequency.

Table 5 shows the six most often and six least often used strategies as demonstrated by the respondents in the individual and collaborative groups. Based on the comparison of the responses to the questionnaire in the two groups, while the six most often strategies in the individual group were a mixture of 2 global, 2 problem-solving and 2 support strategies, they were 2 global and 4 problem-solving strategies in the collaborative group. Moreover, the six least often strategies that were favored by the students in the collaborative group were 1 global, and 5 support strategies, while they were a mixture of 1 global, 2 problem-solving and 3 support strategies in the individual group.

Table 5. Reading Strategies used most and least often by the Individual & Collaborative Groups

	<i>Strategies most often used</i>	<i>Mean</i>	<i>Strategies least often used</i>	<i>Mean</i>
<i>Individual</i>	GLOB 4	3.9	SUP 4	3.36
	SUP 5	3.9	GLOB 1	3.2
	SUP 3	3.8	SUP 1	3.2
	PROB 2	3.73	PROB 4	3
	GLOB 2	3.66	PROB 1	2.96
	PROB 3	3.63	SUP 6	2.8
	<i>Strategies most often used</i>	<i>Mean</i>	<i>Strategies least often used</i>	<i>Mean</i>
<i>Collaborative</i>	PROB 2	4.26	GLOB 1	3.33
	PROB 1	4.03	SUP 2	3.33
	PROB 4	4	SUP 3	3.16
	PROB 3	3.93	SUP 4	2.76
	GLOB 4	3.86	SUP 1	2.30
	GLOB 5	3.7	SUP 6	1.83

Table 6. Differences in Reading Strategies between Individual & collaborative groups

Name	Individual	Collaborative	T	P
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	N	Mean	SD	N	Mean	SD		
Global Reading Strategies	30	3.52	.631	30	3.60	.511	-.539	.592
Problem-solving Strategies	30	3.33	.446	30	4.05	.392	-6.67	.000
Support Reading Strategies	30	3.43	.569	30	2.81	.520	4.416	.000
Overall Reading Strategies	30	3.43	.413	30	3.49	.320	.019	.865

Table 6 shows that there were statistically significant differences between the means of individual and collaborative groups on problem-solving and support strategies. There were no statistically significant differences between the means on global and the overall use of strategies.

5. Discussion

The statistical analysis discussed above concerning the comparison of reading strategies of students in the individual and collaborative learning proved that both groups used almost half of the strategies (47% and 60% respectively) with high frequency. In fact, the overall use of reading strategies for both groups was moderate. The results of the *t*-test analysis on three subscales of this questionnaire (global, problem-solving, and support reading strategies) also revealed that while students in the collaborative group outperformed the individual ones in using problem-solving strategies, the students in the individual group had a higher mean score in using support reading strategies than those in the collaborative group. However, the two groups showed no significant difference in using global and overall use of strategies.

Based on the results of the study, both groups exhibited high (mean of 3.5 or higher) or moderate (mean of 2.5 to 3.4) usage concerning the subscales of the questionnaire rather than low (mean of 2.4 or lower) strategy use. As the participants of the individual group had high use of reading strategies in the global (mean=3.52), and a moderate use in the problem-solving (mean= 3.33) and the support strategies (mean=3.43), while the participants in the collaborative group had high use of reading strategies in the problem-solving (mean=4.05) and the global (man=3.60), and a moderate use on the support strategies (mean=2.81).

This points to a high degree of awareness of the participants in applying the mechanisms that boost reading comprehension. In effect, the students on the whole demonstrated characteristics of active strategic readers. They were conscious of their cognitive process while reading, and were able to utilize a wide array of EFL reading strategies to achieve comprehension. These findings support many other studies (Block., 1986, 1992; Hadwin et al., 2001; Sheorey & Mokhtari, 2001; Zhang, 2001; Zhang et al., 2008, cited in Zhang, 2010), which assert that effective or successful L2 and FL readers, like their native counterparts, were aware of a multitude of reading strategies available to use. On the other hand, the participants of this study were not simply EFL learners, but English majors, who are normally more aware of the features of language, language learning and the means, i.e. strategies that make language learning easier.

Regarding the differences between both groups, all the problem-solving strategies were among the most often used strategies of the collaborative group. This shows that collaborative group is more interested in using these strategies for better comprehension (Table 5).

In addition, there was a statistically significant difference between the two groups in the use of problem-solving strategies in favor of collaborative learning, i.e. collaborative group used more problem-solving strategies than the individual group.

As stated earlier, problem-solving strategies are localized and focused, and are used when problems develop in understanding textual information. According to Johnson & Johnson (1990), individuals tend to give up when they face problems, whereas a group of students is more likely to find a way to keep going. In fact, in collaborative learning students engage in creative social interaction where they combine all their skills and knowledge in order to solve complex problems which cannot be solved independently (Nivala et al., 2008). Therefore, this can support the better performance of collaborative group in using these strategies.

Moreover, among the least often used strategies, support strategies were reported to be used less by the collaborative than individual group. In effect, decreased use of support strategies in the collaborative group



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in comparison with the individual group suggests that these strategies are more related to the individual group (Table 5).

The results of statistical analysis also revealed that students in the individual group outperformed the collaborative ones in using support reading strategies (Table 6). Keeping in mind that this subscale mainly includes strategies which focus on the use of outside reference material and support system, it is expected that students in the individual learning group give more priority to this subscale than those of the collaborative one. In effect, the students in the collaborative learning use support strategies less, since according to Johnson et al. (1990) students in cooperative learning work together to maximize their own and each other's learning. On the other hand, Zimmerman and Bandura's (1994) in their finding with less competent learners reported that this group showed less self-efficacy, which can differentiate them from their more competent counterparts.

In the case of global reading strategies, although students in the collaborative group showed higher frequency than those of the individual group, there was no statistical difference in their use of these strategies (Table 6). In other words, the participants in both groups nearly made use of global strategies to the same extent. These findings are consistent with those of the previous studies, which indicate a relationship between global strategy use and language proficiency (Anderson, 1991; Block, 1992; Zhang 2002, cited in Zhang, 2010). In fact, effective use of global strategies correlates with high proficiency students. Therefore, this is no surprise that the students of the two groups majoring in English, being more aware of the features of language and strategies, make use of global strategies to the same extent.

6. Conclusions and Recommendations

This study aimed to explore the type and frequency of reading strategies applied by English major students in group (collaborative) and individual learning environments, the type of reading strategies they are using most, and whether there was any significant difference between the reading strategies used by the two groups.

By examining the students' responses to the questionnaire, the study revealed that both groups exhibited the characteristics of active reading strategy users. In effect, they showed high or moderate usage concerning the subscales of the questionnaire, with preference among the collaborative group for problem solving strategies followed by global and support strategies. However, the pattern of priority for the subscales of the questionnaire in the individual group was first for global strategies, then support and finally problem-solving strategies.

Regarding the disparities between the two groups, there was a statistically significant difference between them in the use of problem-solving strategies in favor of collaborative group, i.e. collaborative group used more problem-solving strategies than the individual group. The findings also revealed that students in the individual group outperformed the collaborative ones in using support reading strategies. However, the participants in both groups nearly made use of global strategies to the same extent.

Exploring what reading strategies the students use can be beneficial for language teachers. According to this study, individual readers, quite contrary to the collaborative ones, gave more priority to support reading strategies than problem -solving strategies. This can serve as helpful information for teachers to detect the students' deficiencies in order to promote their reading skills. For instance, a student who reports overusing support strategies such as "using the dictionary" to look up every word in text may have a restricted view of reading. On the other hand, under-using problem-solving strategies such as "re-reading to increase understanding" may indicate lack of awareness of repair mechanisms required for successful reading. This in turn will help teachers in developing effective and appropriate strategy instruction.

Moreover, the information gathered from the questionnaire of this study showed that one of the problems that students in individual learning faced in reading was their weakness in applying problem-solving strategies. Therefore, critical reading strategies should be focused on reading instructions, which might strengthen students to solve problems by utilizing the strategies appropriately. However, the present study suggested that students in the collaborative learning were more successful in applying these strategies than the individual learners.

In view of the effective role of group (collaborative) learning in applying problem-solving strategies, material developers can incorporate more motivating and challenging exercises, activities, and materials



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concerning different reading strategies in accordance with collaborative learning objectives which encourage students to interact with their classmates more effectively in order to learn more, use them in real-world settings, and become self-reliant learners. The teachers can also design an appropriate context which could potentially bring about the opportunities of interaction in highly motivating and relaxed environment, and consequently the opportunity of transferring skills and strategies.

As stated earlier, no research currently exists regarding the comparison of reading strategies among English major students in the individual and group learning mode. Hence, more research is needed to go deeply into this case. Perhaps future research could examine the difference between individual and group learning in applying reading strategies more deeply.

As for the suggestions of the present work, the scope of this study was limited to undergraduate Iranian English University students. It is suggested that other studies be conducted with participants of higher or lower levels of education. Also, other studies could be conducted with larger samples and with emphasis on other variables such as sex or other majors. On the other hand, enriching the research with more comprehensive measurements such as interview, and following the process of triangulation should produce more reliable results and reveal new important perspectives on this issue.

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Appendix

In the Name of God

English Reading Strategies Questionnaire

The purpose of this questionnaire including 15 items is to collect information about different reading strategies that English major Students (freshmen) apply for reading English texts in individual & group learning. Make sure that all the information will be kept strictly confidential.

Name _____ Age _____ Gender (circle one) M F

Years of studying English other than school _____

Directions: Mark the number that corresponds to your degree of applying reading strategies listed on the left.

	Items	1	2	3	4	5
1	When I read I guess the meaning of unknown words or phrases.					
2	I pay attention to the grammar of sentences for understanding the text.					
3	I use reference materials (e.g. a dictionary) to help me understand what I read.					
4	When text becomes difficult, I reread it to increase my understanding.					
5	I find the key words of a text.					
6	I can point out the main ideas of a text.					
7	I paraphrase (restate ideas in my own words) to better understand what I read.					
8	When reading, I decide what to read closely and what to ignore.					
9	I underline or circle information in the text to help me remember it.					
10	I skim the text to see what it is about before reading it.					
11	I think about what I know to help me understand what I read.					
12	When reading, I translate from English into my native language.					
13	I go back and forth in the text to find relationships among ideas in it.					
14	I try to guess what the content of the text is about when I read.					
15	I take notes while reading to help me understand what I read.					

(1=never; 2= occasionally; 3=sometimes; 4= usually; 5= always)