Chapter 6: Results of Strategy Instruction

6.1. Results of Strategy Instruction on Learners' Perceived Use of Reading Strategies

As shown in Table 6.1, Statistics indicate that the experimental group performed better than the control group on both cognitive and metacognitive strategies. However, within the experimental group, metacognitive strategies (M = 4.16) were used more than cognitive strategies (4.02). The most significant differences are related to these strategies, "I decide in advance to look at the text to see its layout, illustrations" (experimental group M = 4.60 vs. control group M = 3.00; t = -6.60, p< .05), "I decide in advance what my reading purpose is, and then I read with that goal in my mind" (experimental group M = 4.42 vs. control group M = 2.82; t = -7.92, p<.05), "I examine how well the text is understood" (experimental group M = 4.37 vs. control group M = 2.77; t = -6.50, p< .05), "While I read, I periodically check whether the material is making sense to me" (experimental group M = 4.35 vs. control group M = 3.20; t = -5.99, p< .05), "I pay attention to meaning rather than form" (experimental group M = 4.32 vs. control group M = 2.25; t = -8.92, p< .05), "I guess at unfamiliar vocabulary items through contextual clues" (experimental group M = 4.30 vs. control group M = 3.22; t = -5.25, p< .05) and "I imagine scenes or draw pictures of what I am reading" (experimental group M = 4.30 vs. control group M = 2.92; t = -7.44, p< .05).

Table 6.1 Perceived reading strategy use by the two groups before and after strategy instruction (N = 80)

Reading Strategies	Pre-test				T	t-Sig.(2-tailed)	Post-test				T	t-Sig.(2-tailed_
	Control	Experimental					Control		Experimental			
	N= 40	N = 40					N =40					
	Mean	SD	Mean	SD			Mean	SD	Mean	SD		
1-I decide in advance what my reading purpose is, and then I read with that goal in mind.	3.2250	.91952	3.6750	1.22762	-1.85	.068	2.8250	1.17424	4.4250	.50064	-7.92	.000
2-I decide in advance specific aspects of information to look for, and I focus on that information when I read.	3.2750	1.35850	3.2000	1.24447	.257	.798	2.7250	1.17642	4.2750	.81610	-6.84	.000
3-Before I read, I think of what I already know about the topic.	3.0250	1.27073	3.2500	1.10361	.845	.400	2.9250	1.18511	4.1500	.76962	-5.48	.000
4-I anticipate possible content of the text.	2.9250	1.04728	3.0500	1.35779	-.461	.646	2.9250	1.28876	4.1750	.84391	-5.13	.000
5-I decide in advance to look at the text to see its layout, illustrations, etc.	2.9500	1.37654	3.1500	1.40603	-.643	.522	3.0000	1.30089	4.6000	.81019	-6.60	.000

Table 6.1 continued

6-I try to find out the organizational aspects of the text.	2.8500	1.18862	2.9500	.93233	-.419	.677	2.8750	1.22344	4.1500	.89299	-5.32	.000
7-While I read, I periodically check whether the material is making sense to me.	3.7500	1.33493	3.7000	1.34355	.167	.868	3.2000	.99228	4.3500	.69982	-5.99	.000
8-While reading, I decide whether the information makes sense based on what I already know about the topic.	3.5250	1.15442	3.5750	1.17424	-.192	.848	2.9250	.88831	4.3000	.75786	-7.44	.000
9-I imagine scenes or draw pictures of what I am reading. (cognitive)	2.9000	1.39229	2.8500	1.44204	.158	.875	2.7250	1.01242	4.1750	.98417	-6.49	.000
10-I ask questions about the text.	2.8500	1.25167	3.0250	1.32988	-.606	.546	2.7000	1.20256	3.6750	1.02250	-3.90	.000
11-I self check comprehension.	2.9500	1.06096	3.0750	1.09515	-.518	.606	2.4500	1.13114	4.1750	1.00989	-7.19	.000
12-I pay attention to meaning rather than form.	2.9750	1.20868	3.0500	.93233	-.311	.757	2.2500	1.17124	4.3250	.88831	-8.92	.000

Table 6.1 continued

13-I connect what is read with what is already known.	2.7750	1.25038	2.8250	1.10680	-.189	.850	2.8250	1.08338	3.8000	.99228	-4.19	.000
14-I summarize main ideas either orally or in written form.	2.5750	1.33757	2.8750	1.18078	-1.06	.291	2.6750	1.07148	4.0500	.78283	-5.74	.000
15-I look for logical relationships between paragraphs.	2.6250	1.23387	2.8250	1.19588	-.736	.464	2.8000	1.22370	4.1000	.74421	-5.74	.000
16-I guess at unfamiliar vocabulary items through contextual clues.	2.9750	1.45862	2.8750	1.30458	.323	.747	3.2250	.91952	4.3000	.91147	-5.25	.000
17-I look for relationships between main ideas (topic sentences) and details.	2.5000	1.28103	2.9500	1.10824	-1.68	.097	2.6500	1.27199	4.0750	.99711	-5.57	.000
18-I examine how well the text is understood.	2.4000	.95542	2.7000	.91147	-1.43	.155	2.7750	1.32988	4.3750	.80662	-6.50	.000
19-I make critical/personal comments on the text.	2.5000	1.50214	2.6000	1.08131	-.342	.734	2.6000	1.31656	3.6000	1.05733	-3.74	.000
20-I read the text again to summarize its meanings.	2.4250	.90263	2.5750	1.00989	-.70	.486	2.9000	1.17233	4.0500	1.03651	-4.64	.000

Table 6.1 continued

21-I reflect on how effectively a strategy was used.	2.8000	1.11401	2.7250	1.30064	.277	.783	1.9500	.90441	3.9750	1.04973	-9.24	.000
22-I check to see if my predictions were correct.	2.8000	1.34355	2.9750	1.38652	-.573	.568	2.4000	1.12774	4.1250	.99195	-7.26	.000
23-I check whether I accomplished my goal for reading.	2.7000	1.18105	2.7500	1.10361	-.196	.845	2.5750	1.10680	4.1750	.93060	-6.99	.000

As Table 6.2 further shows, there was an improvement in the experimental group's use of all reading strategies. The most significant differences are related to these strategies, "I decide in advance to look at the text to see its layout, illustrations, etc." (Pre-test M = 3.15 vs. post-test M = 4.60; t = -5.73, p<.05) M =, vs. M =; p< .05), and "I decide in advance what my reading purpose is, and then I read with that goal in mind", (pre-test M = 3.67 vs. post-test M = 4.42; t = -3.77, p<.05) which are concerned with metacognitive reading strategies. It is concluded that within the experimental group, metacognitive strategies were used more than cognitive strategies. In relation to other strategies, the experimental group improved in comparison with them before strategy instruction was conducted.

Table 6.2 Instructional effects on the experimental group's reading strategy use (N = 40)

Reading Strategies	**Treatment conditions**				**t**	**t-Sig.(2-tailed)**
	Pre-test		**Post-test**			
	Mean	**SD**	**Mean**	**SD**		
1-I decide in advance what my reading purpose is, and then I read with that goal in mind.	3.6750	1.22762	4.4250	.50064	-3.77	.001
2-I decide in advance specific aspects of information to look for, and I focus on that information when I read.	3.2000	1.24447	4.2750	.81610	-4.50	.000

Table 6.2 continued

3-Before I read, I think of what I already know about the topic.	3.2500	1.10361	4.1500	.76962	-4.52	.000
4-I anticipate possible content of the text.	3.0500	1.35779	4.1750	.84391	-4.62	.000
5-I decide in advance to look at the text to see its layout, illustrations, etc.	3.1500	1.40603	4.6000	.81019	-5.73	.000
6-I try to find out the organizational aspects of the text.	2.9500	.93233	4.1500	.89299	-5.64	.000
7-While I read, I periodically check whether the material is making sense to me.	3.7000	1.34355	4.3500	.69982	-3.08	.004
8-While reading. I decide whether the information makes sense based on what I already know about the topic.	3.5750	1.17424	4.3000	.75786	-3.16	.003
9-I imagine scenes or draw pictures of what I am reading. (cognitive)	2.8500	1.44204	4.1750	.98417	-4.61	.000
10-I ask questions about the text.	3.0250	1.32988	3.6250	1.10215	-2.08	.044
11-I self check comprehension.	3.0750	1.09515	4.1750	1.00989	-4.15	.000
12-I pay attention to meaning rather than form.	3.0500	.14741	4.3250	.14045	-5.85	.000
13-I connect what is read with what is already known.	2.8250	1.10680	3.8000	.99228	-4.44	.000
14-I summarize main ideas either orally or in written form.	2.8750	1.18078	4.0500	.78283	-5.19	.000
15-I look for logical relationships between paragraphs.	2.8250	1.19588	4.1000	.74421	-6.10	.000
16-I guess at unfamiliar vocabulary items through contextual clues.	2.8750	1.30458	4.3000	.91147	-5.94	.000
17-I look for relationships between main ideas (topic sentences) and details.	2.9500	1.10824	4.0750	.99711	-4.72	.000
18-I examine how well the text is understood.	2.7000	.91147	4.3750	.80662	-10.11	.000
19-I make critical/personal comments on the text.	2.6000	1.08131	3.6000	1.05733	-4.47	.000
20-I read the text again to summarize text meanings.	2.5750	1.00989	4.0500	1.03651	-7.17	.000
21-I reflect on how effectively a strategy was used.	2.7250	1.30064	3.9750	1.04973	-4.40	.000
22-I check to see if my predictions were correct.	2.9750	1.38652	4.1250	.99195	-3.96	.000
23-I check whether I accomplished my goal for reading.	2.7500	1.10361	4.1750	.93060	-6.22	.000

6.2. Results of Strategy Instruction on Self-efficacy

A series of independent t-tests was used to compare the mean scores of self-efficacy scores of both groups before the treatment in the pre-test phase and after the treatment in the post-test phase. The statistical comparison in Table 6.3 indicates that the experimental and control groups were not significantly different before strategy instruction. However, after strategy instruction, the statistical comparison in Table 6.3 showed that the experimental and control groups were significantly different.

The required level of significance for this study was $p<.05$. The p value for self-efficacy levels in the control and experimental groups in the pre-test was above the required level ($p>.05$). Therefore, there was no significant difference in self-efficacy levels. However, the p value for self-efficacy levels in both groups in the post-test was below the required level ($p<.05$). Therefore, a significant difference in self-efficacy levels existed as well as an improvement in self-efficacy levels in the experimental group.

Table 6.3 Level of self-efficacy in the two groups before and after strategy instruction (N = 80)

Self-efficacy	**Pretest**				**T**	**t-Sig.(2-tailed)**	**Posttest**				**T**	**t-Sig.(2-tailed)**
	Control		**Experimental**				**Control**		**Experimental**			
	N= 40		**N = 40**				**N =40**					
	Mean	**SD**	**Mean**	**SD**			**Mean**	**SD**	**Mean**	**SD**		
I can figure out the main topic or gist.	2.5250	1.53569	2.6500	1.23101	-.40	.689	2.7000	.96609	3.6500	1.07537	-4.15	.000
I can answer questions about the text.	2.9500	1.29990	2.5250	1.48475	1.36	.177	3.2000	.88289	3.6250	.92508	-2.10	.039
I can figure out the meanings of words or phrases in a text which I don't understand.	2.5500	1.17561	2.9000	1.21529	-1.30	.194	2.7000	1.18105	3.5000	1.01274	-3.25	.002
I can retell in English what you read.	2.5750	1.35661	2.8250	1.44803	-.797	.428	2.4500	1.08486	3.7750	1.14326	-5.31	.000
I can use an English text to accomplish a task in real life (e.g. find an apartment in English by reading the classifieds).	2.8500	1.21000	2.6250	1.31437	.797	.428	2.8750	1.11373	3.7000	1.04268	-3.42	.001
I can read new texts in English every day.	2.5250	1.28078	2.3750	1.33373	.513	.609	2.4000	1.03280	3.5250	.90547	-5,18	.000

Table 6.3 continued

I can predict possible content of the text through pictures and a general look.	2.8250	.98417	2.3750	1.31437	1.73	.087	2.6750	1.20655	3.90	.92819	-5.08	.000
I can clarify the main purpose of a text through its title, pictures, and a general look.	2.6500	1.36907	2.4250	1.23802	.771	.443	2.8750	1.24422	3.7500	1.08012	-3.35	.001
I can understand the general meaning of a text even though I don't know some of the words through guessing from its context.	2.4250	1.35661	2.2500	1.25576	.599	.551	2.4000	1.19400	3.8250	1.03497	-5.70	.000
I can imagine scenes or draw pictures or flowcharts of what I am reading.	2.5750	1.03497	2.2750	1.13199	1.23	.220	2.4250	1.10680	3.5000	1.15470	-4.25	.000
I enjoy reading an English text.	3.6750	1.28876	3.2500	1.56484	1.32	.189	3.8250	1.37538	4.4000	1.08131	-2.07	.041

As presented in Table 6.4, a dependent t-test was run to compare the mean scores of the experimental group in pre-test and post-test phases. Students in the experimental group have a mean of 2.58 on the self-efficacy scale for the pre-test, and a mean of 3.74 on the same scale for the post-test. The two-tailed significant test indicates different t-values with 78 degrees of freedom, resulting in a two-tailed p value of .021, .000, .002 (p = .021, .000, .002). These p values are statistically significant because they are less than alpha = .05. Our overall conclusion, then, is that there is a significant difference between students in the experimental group from the pre-test to post-test phases. Consequently, there was an improvement in self-efficacy levels in the experimental group from the pre-test to the post-test. This demonstrated an effect by the intervention of strategy instruction on the self-efficacy of the experimental group.

Table 6.4 Level of self-efficacy by the experimental group in pre-test-post-test (40)

Reading Strategies	**Treatment conditions**				**t**	**t-Sig.(2-tailed)**
	Pretest		**Posttest**			
	Mean	**SD**	**Mean**	**SD**		
I can figure out the main topic or gist.	2.6500	1.23101	3.6500	1.07537	-3.13	.002
I can answer questions about the text.	2.5250	1.48475	3.6250	.92508	-4.00	.000
I can figure out the meanings of words or phrases in a text which I don't understand.	2.9000	1.21529	3.5000	1.01274	-2.39	.021
I can retell in English what you read. .	2.8250	1.44803	3.7750	1.14326	-4.00	.002
I can use an English text to accomplish a task in real life (e.g. find an apartment in English by reading the classifieds).	2.6250	1.31437	3.7000	1.04268	-3.86	.000
I can read new texts in English every day.	2.3750	1.33373	3.5250	.90547	-4.43	.000

Table 6.4 continued

I can predict possible content of the text through pictures and a general look.	2.3750	1.31437	3.9000	.92819	-5.74	.000
I can clarify the main purpose of a text through its title, pictures, and a general look.	2.4250	1.23802	3.7500	1.08012	-4.92	.000
I can understand the general meaning of a text even though I don't know some of the words through guessing from context.	2.2500	1.25576	3.8250	1.03497	-5.63	.000
I can imagine scenes or draw pictures or flowcharts of what I am reading.	2.2750	1.13199	3.5000	1.15470	-5.12	.000
I enjoy reading an English text.	3.2500	1.56484	4.4000	1.08131	-3.93	.000

6.3. Results of Strategy Instruction on Reading Performance

As shown in Table 6.5, an independent t-test was computed. It indicated that the control group had a mean of 44.56 in the pre-test reading scale while the experimental group had a mean of 43.52. The two-tailed significance test indicates a t = .929 with 78 degrees of freedom, resulting in a two-tailed p value of .356 (p = .356). This p value is statistically insignificant because it is more than alpha = .05. Thus, we can say that there is no difference between the control and experimental groups on the pretest reading scale.

As shown in Table 6.5, an independent t-test was also computed. It indicated that the experimental group had a mean of 43.52 on the pre-test reading scale and a mean of 56.25 on the post-test reading scale. The two-tailed significance test indicates a t = -4.417 with 78 degrees of freedom, resulting in a two-tailed p value of .000 (p = .000). This p value is statistically significant as it is less than alpha = .05. Here, we can conclude that there is a

difference in the experimental group between the pre-test to post-test reading scale. It is concluded that strategy training affected the positively the experimental group.

Table 6.5 EFL reading performance before and after strategy instruction for control and experimental groups (N = 80)

Treatment Conditions	**Pre-test**						**Post-test**					
Groups compared	**Control**		**Experimental**		**t**	**t-Sig.(2-tailed)**	**Control**		**Experimental**		**T**	**t-Sig.(2-tailed)**
	N= 40		**N = 40**				**N =40**					
	Mean	**SD**	**Mean**	**SD**			**Mean**	**SD**	**Mean**	**SD**		
EFL reading scores	44.5688	5.92	43.525	3.92877	.929	.356 Not statistically significant	48.3250	10.36114	56.2500	4.62851	-4.417	.000

The result of the effect size shows that strategy instruction can account for about 80.80% of variance, indicating a strong association between strategy training and reading performance improvement for the experimental group.

6.4. Transferability of Cognitive and Metacognitive Strategies

As presented in Table 6.6, At least 75.8% of respondents indicated that they either strongly agreed or agreed with the statements about transferability of the strategies which they learned during the strategy instruction. This finding shows that strategy-based instruction enables the students to read the texts outside the classroom context by using reading strategies.

As shown in Table 6.7, At least 87.5% and 85.9% of respondents indicated that they either used ‘usually’ or ‘always’ with the statements about transferability of the strategies learned during the strategy instruction to other foreign languages or even to their L1.

Table 6.6 Transfer to other new texts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	10	.9	.9	.9
	Disagree	56	4.8	4.8	5.7
	Neither agree nor disagree	214	18.4	18.4	24.1
	Agree	455	39.2	39.2	63.4
	Strongly agree	425	36.6	36.6	100.0
	Total	1160	100.0	100.0	

Figure 6.1 Frequency of transfer of strategies to other new texts

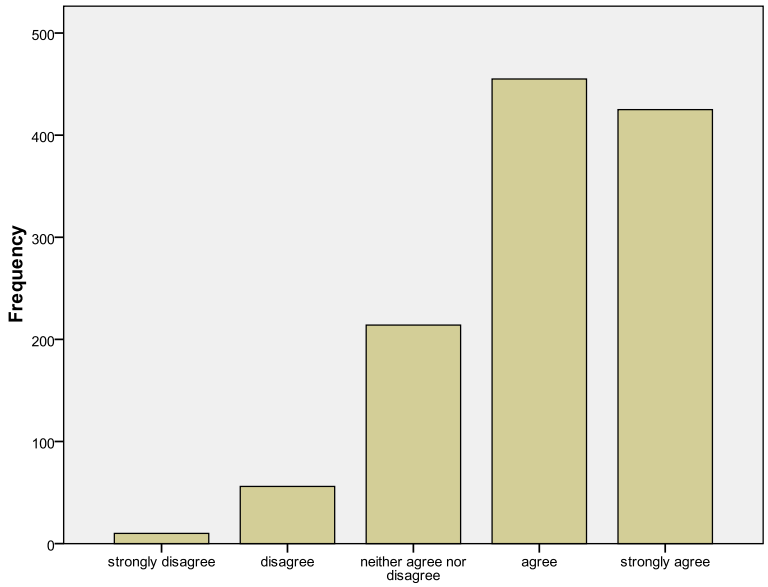


Table 6.7 Transfer to other foreign languages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	13	1.1	1.1	1.1
	Sometimes	37	3.2	3.2	4.3
	Often	114	9.8	9.8	14.1
	Usually	501	43.2	43.2	57.3
	Always	495	42.7	42.7	100.0
	Total	1160	100.0	100.0	

Figure 6.2 Frequency of transfer of strategies to other foreign languages

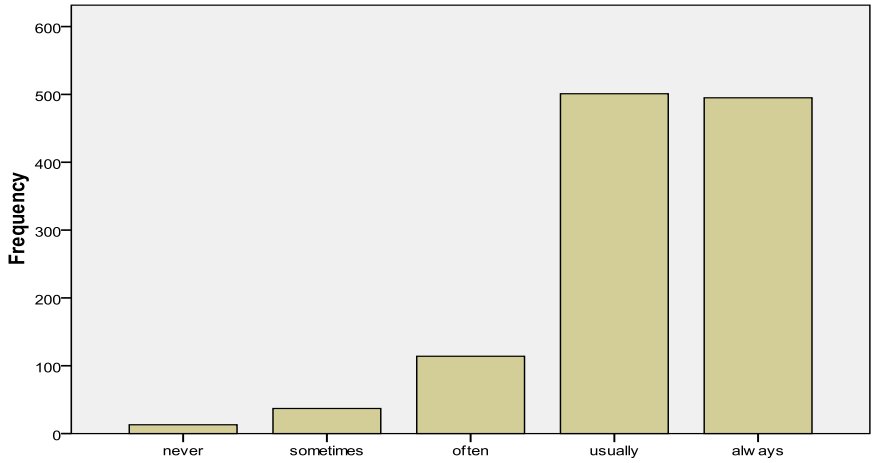
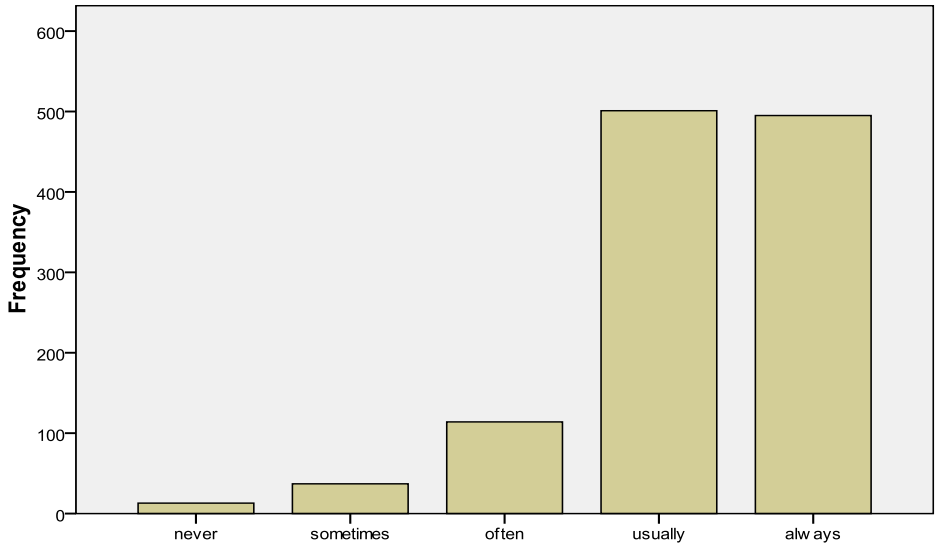


Table 6.7 Transfer to L1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	13	1.1	1.1	1.1
	Sometimes	37	3.2	3.2	4.3
	Often	114	9.8	9.8	14.1
	Usually	501	43.2	43.2	57.3
	Always	495	42.7	42.7	100.0
	Total	1160	100.0	100.0	

Figure 6.3 Frequency of transfer of strategies to L1



6.5. Attitude toward Strategy-based Instruction

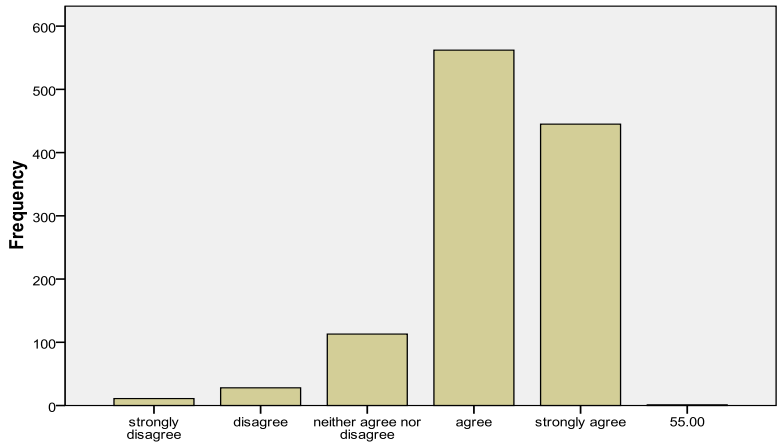
At the end of the treatment, students in the experimental group were asked to complete a questionnaire on reflections about the intervention. As shown in table 6.8, 86.8% participants

indicated that they ‘agreed’ or ‘strongly agreed’ with the other statements. It suggests that students may respond very positively to the strategy-based instruction in this study.

Table 6.8 Attitude toward strategy training

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	11	.9	.9	.9
	Disagree	28	2.4	2.4	3.4
	Neither agree nor disagree	113	9.7	9.7	13.1
	Agree	562	48.4	48.4	61.6
	Strongly agree	445	38.4	38.4	99.9
	55.00	1	.1	.1	100.0
	Total	1160	100.0	100.0	

Figure 6.4 Students’ attitude toward strategy training



One self-reflective question (“What is your reaction to strategy training?”) was added to the cognitive and metacognitive reading strategy questionnaire in the post-test phase. The data produced a few comments on strategy training which are presented below.

6.5.1. Experimental Group’s Comments after Strategy Training

The following comments indicate the experimental group’s consciousness of the significance of using different strategies to understand the text. With regard to the following comments, it seems that strategy training which focused on a learner-centred approach played an important role in the improvement of students' strategies and therefore in enhancing their responsibility in learning. Comments from students in the experimental group following strategy training are presented below:

- "It [LLSs training] helped me to think in different ways for trying to understand a text."
- "Before familiarizing with strategies, I just knew one way of reading a text, but by using these strategies, I know that there are other ways to read a text."
- "I thought that without knowing every word, it was impossible to read a text and understand it. But now by using strategies, I know that without knowing some of the words in a text, it is possible to read a text and understand it."
- "I merely tried to read the reading comprehension questions to find their answers in a text, but by these strategies, I read the reading comprehension questions to have background knowledge about a text."

- "It has expanded my learning options."
- "I found strategies very useful."
- "One certain skill may not be good at all the time."
- "Various options are for learning, if the first strategy does not work."
- "I can understand the text even without understanding the meaning of some words thanks to strategies-based instruction; I had learned how to read."
- "After reading the first paragraph, I continued reading the second paragraph without thinking on the relationship between them. But now by getting familiar with these strategies, after reading the first paragraph, when I want to read the second paragraph I think on the relationship between them and so I think on the relationship between the other paragraphs. It helps me to understand the deep meaning of a text."
- "I didn't know that I can understand or guess the words that I don't know by reading a sentence. I knew that I could understand the meaning of a sentence when I knew every word in it. By getting familiar with the strategies, I have now changed my way of reading."

6.5.2. Control Group's Comments after Strategy Training

The following comments show the control group's views about reading strategies. With regard to comments that they mostly tried to use the translation strategy as well as other

strategies. They said that by translating the texts, they knew that their comprehension was correct. Comments from students in the control group are presented below**:**

- "I try to look up the meaning of the difficult words in a dictionary; I don't guess the meaning of the words. My guess may not be true."
- "It is difficult for me to *predict the content of the text* before reading the whole text."
- "It is time consuming to predict the content of the text and the paragraphs before reading."
- "Using these strategies is difficult and time-consuming, and I like to *translate* all of what I want to read in English as a means of getting the meaning very easily without using the other strategies."
- "The *strategy of selective attention* causes me to lose track of understanding the text. In addition, I don't want to focus on some aspects of meaning in the text; I want to focus on every word. If I use selective attention, I cannot understand the whole meaning of the text."
- "I am afraid of predicting the content of the text because I don't know whether my prediction would be correct or not."
- "I neither agree with the text nor disagree with it because the author is more knowledgeable than me. I read the text to understand something; I don't read it to criticize the text. I just want to answer the text's questions."

6.6. Summary of Results for Strategy Training

The control group did not to improve as the experimental group improves due to strategy training. Both groups were at the same level in terms of their strategy use, reading proficiency and self-efficacy at the beginning of the term. The mean scores of both groups' use of reading strategies, self-efficacy and reading proficiency did not show any statistically significant difference on the pre-test. However, after three months of strategy instruction the experimental group performed better than the control group in all three areas. Students in the experimental group were able to transfer strategies and had a positive attitude toward strategy training.

Chapter 7: Discussion of Findings, Conclusions and Implications of the Study

7.1. Introduction

This final chapter discusses the quantitative and qualitative parts related to the research questions based on the previous chapters 4, 5, and 6. The thematic dissertation of the finding, conclusions, and pedagogical implications are also discuses in this chapter.

7.2. Synthesis of the Cognitive and Metacognitive Reading Strategy Questionnaire and Think-aloud Protocols in Relation to Question 1

The findings from both the qualitative and quantitative phases in this study show that Iranian EFL learners employ cognitive reading strategies more frequently than metacognitive reading strategies. These findings are consistent with Oxford's (1990) discussion that learners reported the use of cognitive strategies more frequently tan metacognnitive strategies. This might be a reflection of Iranian certain context of learning that encourages learners to focus on the outcome of their learning rather than the process of learning which is based on how to learn. Moreover, it may not motivate learners to control and manage their learning process which is related to metacognition. The reason for this issue is explained by Goh's (1998) discussion that the use of cognitive strategies limits the use of metacognitive strategies. It is concluded that Iranian EFL learners are not taught to employ metacognitive strategies in reading L1. Therefore, theses strategies are not transferred to L2 reading. Anderson (2002a) explained that metacognition triggers cognitive process. Anderson (2002b) suggests that improving metacognitive strategies increase cognitive process. Therefore, it is concluded that metacognitive strategies need to be taught in the classroom by teachers to enhance learners'

cognitive development which leads to higher performance. Additionally, in curriculum design, there is a need to utilize metacognitive strategies in reading comprehension courses and materials. Again, this might be a reflection of the country's results-based educational system.

7.3. Synthesis Discussions of Quantitative and Qualitative Findings on Proficiency Levels and Gender

The findings show that there was a significant relationship between strategy use and language proficiency, on the other hand, there was not a significant relationship between strategy use and gender.

7.3.1. Synthesis of Quantitative and Qualitative Findings on Proficiency Levels

The findings from both think-aloud protocols and reading strategy questionnaire indicate that high-proficient learners utilized reading strategies more frequently than less-proficient learners. Thus, this study shows that a positive relationship between language proficiency and reading strategy use. A number of studies have already shown that there is a positive relationship between language proficiency and strategy use (Bruen, 2001; Chamot & El-Dinary, 1999; O'Malley & Chamot, 1990; Wharton, 2000). However, the results of think-aloud protocols in this study suggest that the differences between high-proficient learners and low-proficient learners ins not only related to their general strategy differences, but also it is related to the way they use strategies and how they use the , for example,

1. High-proficient learners are more pliable with use of strategies. Whereas, Low-proficient learners repeat using strategies.

2. High-proficient learners count on using different strategies. Low-proficient learners depend on using single strategies.

3. High-proficient learners cope with the overall meaning of the activities. Low-proficient learners cope with specific points.

4. High-proficient learners used L1 for managing and controlling their reading comprehension in L2 texts. Low-proficient learners used L1 translating the texts directly from L2 to L1.

5. In translating: high-proficient learners used organizational and contextual aspects of the text to translate meaningfully. Low-proficient students focused on merely words for translation to translate mechanically.

6. Low-proficient learners merely focused on using exam-based reading strategies and fulfilling teachers' expectations, high-proficient students not only tried to use exam-base strategies and fulfill teachers' expectations, but they also tried to use them effectively to increase their proficiency.

In relation to these findings, one reason for the differences between high-proficient learners and low-proficient learners is the use metacognitive strategies. As the finding show that high-proficient learners used metacognitive strategies more than cognitive strategies. This finding is supported by Zhang's study (2001) that high-proficient learners employed more metacognitive strategies in L2, therefore, used strategies more effectively in L2 reading

comprehension. However, in his study high-proficient used not only L2 but also L1 for managing L2 text copmprehension.

7.3.2. Synthesis of Quantitative and Qualitative Findings on Gender

In this study, the findings show that there was not significant relationship between cognitive and metacognitive reading strategies and gender. A number of studies supported the findings of this study (e.g., Griffiths, 2003; Lee and Oxford, 2008; Young and Oxford, 1997). However, the analysis of think-aloud protocols in this study show that males and females did not have an impact on general strategy use but they had dissimilarities in the way they use strategies and how they use them effectively. For example, males were involved in specific points, whereas, females were engaged in general aspects of the activities. Although females tied to decode words, they counted more on background knowledge. Therefore it is concluded that there was not general difference between males and females in strategy use, however, females were good at utilizing strategies more effectively than males.

7.4. The role of Iranian EFL context of learning in strategy use

The findings of this study show that the Iranian particular context of learning affected the learners' strategy use. Assessment formats and teachers' instructional goals might determine the use of strategies in an Iranian EFL context of learning. Learners used exam-based strategies which prevent them from utilizing other strategies since the context of learning in

based on exam-oriented approach. Therefore, there is a need to conduct further research to see how different learning contexts determine strategies.

7.5. Discussion for Question 3

7.5.1. The Impact of Strategy Training on Reading Improvement and Reading Strategies

The present study confirms studies on the positive effects of strategy instruction on language proficiency. in this study, strategy instruction enhanced both learners' language performance and frequency of strategies, thus, the findings of his study suggest that strategy training researchers need not only to investigate the effects of language they need to investigate the effects of strategy instruction on the reported frequency of strategy use, that is, the process of language leaning. In other words, it needs to conduct research to examine whether strategy training improves both language performance and strategy use.

In the present study, strategy instruction improved strategy deployment in the experimental's repertoire of strategies. This may cause them to be aware of their strategies and therefore, it may cause them to become independent learners. One reason for his interpretation is explained by Byrd et al. (2001) that students can manage their learning when they are conscious of their strategies or it is explained by Byrd's (1999) discussions that the main purpose of education is to help the learners to be become independent in learning.

The findings of this study are consistent with the studies of Zhang (2008), Oxford (1990) and O'Malley and Chamot (1990, 1994) that have supported strategy training and provided the reasons for their support. However, the findings of this study dismiss Kellerman's (1991)

discussion which argues that learners have already improved their strategies in L1 and they are able to transfer them to L2. It also dismisses White's (2006) study which showed that strategy training have had no impact on Japanese reading comprehension. it is concluded that teachers, teacher educators, text book writers need to emphasis on cognitive and metacognitive reading strategies in order to enhance the learners' reading performance , that their product of learning and their strategy use, that is, their process of learning. Moreover, it argues that the CALLA model which was used to teach strategies in this study might be a helpful for teaching strategies.

The teacher/researcher discussed using and defining the strategies with students through interactive dialogues. By elapsing time, the teacher reduced his help in order to ensure that the learners can utilize strategies without the help of the teacher, so autonomy of using strategies independently or the process of language might be considered an important purpose of for strategy-training. In relation to this point, it supports Vygotsky's (1986) view that the dialogues between the more capable person like the teacher and the learners within the process of teaching strategies can change "Zone of Proximal Development".

7.5.2. The Impact of Strategy Training on Self-efficacy

The findings of this study indicate that the experimental group's self-efficacy levels increased due to strategy training, whereas, it had no impact on control group's self-efficacy levels. These results are supported by some studies (e.g., Chamot, Barnhardt, El-Dinary, Carbonaro, & Robbins, 1993; Chamot, Robbins, & El-Dinary, 1993) that there are positive relationships between strategy use an self-efficacy, in this study participants in the experimental group

used metacognitive strategies more than cognitive strategies. It might be concluded that their self-efficacy levels were improved due to increase in using metacognitive strategies.

7.5.3. The Impact of Strategy Training on Transfer of Strategies

Little research was done on the effect of strategy instruction on transfer of strategies. The finding of this study shows that strategy instruction improved learner's strategy transfer. this findings confirms Chamot's (2001) study which shows that Strategy instruction promotes learners' strategy transfer, however, it is contradicted by Kellerman's (1991) discussion which reported that strategy are not transferred due to strategy training since learners have already improved their strategies in L1 and are able to transfer them to L2.

7.5.4. Students' Reaction to Strategy Instruction

Participants in the experimental group transferred strategies, used more metacognitive strategies, it is concluded that they transferred strategy due to metacognitive strategies; one justification for this interpretation is explained by Wenden's (1999) study which reported that metacognitive strategies pave the way for strategy transfer. Or it may be concluded strategies are transferred due to explicit strategy training which is based on CALLA model in this study.

A number of studies did not assess learners' attitudes after strategy training (e.g., Dreyer and Nel, 2003; Eilers and Pinkely, 2006; Salataci & Akyel, 2002; Tapinta, 2006;

Zhang, 2008). However, the present study considered investigating participants' attitude towards strategy training after it is conducted. Comments from m the participants in the experimental group show that strategies were important to them since they increased their responsibility in learning. Comments from the participants in the control group show that they tried to use translation strategy and decoding strategies in order not to get them into trouble. This can be explained by Kern's (1994) discussion that they try to translate the texts to reduce pressure on their cognitive system.

The findings of this study show that effects of certain learning context on strategy use need to be addressed. Students used exam-based strategies. Such findings indicate the effect of the grammar-translation method in the Iranian context regarding strategy use. English teachers should avoid using teacher-based methods in teaching reading skills and focus on learning strategies as a learner-oriented approach. The other implication of this study is for teacher-training programmes that they should familiarize teachers with the positive effects of strategies on language learning in order to inspire them to use them in their classroom. Similarly, Curriculum designers also can use strategies explicitly in the materials.