CHAPTER FIVE
The Field Study

5.1. Introduction

The literature on reading efficiency shows that researchers are in agreement that learners who consciously employ reading comprehension strategies become more efficient readers and perform better on reading comprehension activities. As explicated in the earlier chapters, this research study is based on the hypothesis that the explicit teaching of comprehension strategies improves Iranian EFL students’ reading comprehension and motivation to reading in English. The intervention programme designed and administered to explore this hypothesis included research instruments for eliciting linguistic and metacognitive data from the research subjects. The purpose of this chapter is to present and discuss the results and findings of the study as guided by the research questions and research hypotheses.

5.2. The null hypotheses

For analysis, the data collected in the field study was subjected to quantitative scoring through the SPSS software package. For the analysis, four null hypotheses were formulated:

1. There is no difference in mean score and performance of experimental group after receiving intervention for Sk/Sc in pre and post-test.
2. There is no difference in mean score and performance of experimental group after receiving intervention for GIS strategies in pre and post-test.
3. There is no difference in mean score and performance of experimental group and control group after receiving intervention for Sk/Sc strategies in post-test.
4. There is no difference in mean score and performance of experimental group and control group after receiving intervention for GIS strategies in post-test.
5.3. Research design

This study employed an experimental, pre and post comparison group design. The participants were 38 female and 22 male intermediate EFL students from two institutes of English language learning in Talesh in the Gilan Province of Iran, that were assigned to experimental group and control groups after being given a general English proficiency test (Section 5.4 below). The learners who qualified as intermediate learners by the flip of a coin were assigned as control and experimental group (30 subjects in each group). Then the pre-intervention questionnaire was given to the experimental group and their teachers. As a complementary move, all the participants in the two groups were given the reading comprehension pre-test, and after analyzing the results, the intervention of the experimental group over a 12-session training programme was started. The experimental group of thirty participants received explicit instruction of reading comprehension strategies: skimming, scanning, guessing meaning from the context, inference and summarization. The control group of thirty participants were instructed through traditional methods of teaching reading (which included the translation of the texts from English to Persian by sentence or word by word, the explanation of the grammar rules and sentence structure, memorization of new words, and completing comprehension exercises in after-reading activities). The experimental group was instructed by using the interactive reading processing approach (bottom-up and top-down), which emphasized recalling of background knowledge, guessing meaning from the context, prediction, inference, skimming and scanning, self-monitoring and summarization.

The study thus involved an analysis of data gathered through the following methods:

a) A pre- and a post- intervention grammar and vocabulary test to gauge the subjects’ English proficiency.

b) An instructional experiment (intervention) in which the experimental groups were given explicit instruction of five reading comprehension strategies

c) An evaluation of the pre-test and the post-test scores of both experimental and control groups

d) Two sets of questionnaires: pre-intervention and post–intervention, to the experimental group
e) Two sets of questionnaires to the teachers of the experimental group during pre-intervention and post-intervention stages.

5.4. Research instruments

5.4.1. Proficiency test materials

The following instruments were used in this study. In order to ensure that all participants were of the same level regarding general English proficiency, a grammar and vocabulary test consisting of 60 multiple-choice questions and a PET\(^4\) (Preliminary English Test) test consisting of 35 multiple-choice items of reading comprehension was administered to the both control and experimental groups before the intervention.

5.4.2 Pre- and post test materials

The texts for pre-test and post-test were taken from the book New English File Intermediate. The lessons on pages 19 and 22 were used for the pre-test exam, while the lessons on pages 35 and 67 were used for the post-test exam (Copies of the texts are in the Appendix).

5.4.3. Pre-and post-tests

The pre-test and post-test included two exams, one for skimming and scanning strategies and the other for GIS (guessing meaning from the context, inference and summarization) strategies. The pre-test included two exams, pre-test for skimming and scanning strategies, and pre-test for GIS strategies. Due to the nature of the skimming and scanning strategies (reading particular parts of the text with high speed to locate specific information) the researcher tested these two strategies through a time bound activity, and separate from other strategies. For this, a comprehension test which used passages with 10 comprehension questions was designed to test indices of skimming and scanning ability of the learners. In order to test the GIS strategies, the same passages with 10 different questions were used in the study.

The post-test followed the same protocol as the pre-test, testing of skimming and scanning and three other strategies separately from each other. The materials that were used

\(^4\) PET, or Preliminary English Test is an English language examination provided by Cambridge English Language Assessment (previously known as University of Cambridge ESOL examinations).
during the instructional practice procedure (intervention) were taken and modified from different sources (the Internet and books) in the form of handouts along with the pre-test and post-test passages and comprehension questions. The handouts also included systematic instructional guidelines to help the learners to use the strategies on their own.

5.4.4 Pre- and post intervention questionnaires

There were two kinds of intervention questionnaires: pre and post intervention. Both the teachers and the learners of the experimental groups were administered pre-intervention and post-intervention questionnaires. The teachers of the experimental group were given the same set of the questions (ten questions) as pre and post-intervention to draw information about the learners’ performance regarding application of reading comprehension strategies and other aspects of learners’ reading behaviour. The learners were given two sets of different questionnaires in pre and post intervention stages. The pre-intervention questionnaire consisted of twelve questions and was intended to draw information about the learners’ reading style and strategy use. The post-intervention questionnaire consisted of twelve questions, which were designed to draw data on the efficacy of intervention on the learners, and any possible changes happened in their reading style.

5.5. The intervention in the field

The intervention (explicit teaching of five strategies of skimming, scanning, guessing meaning from the context, inference and summarization to the experimental group) was conducted through twelve teaching sessions for four hours per week. Through a short talk with the teachers and the administrators, the researcher explained that the students would be divided into two groups: control and experimental, and the intervention would be done only on the experimental group.

Implementation of the intervention was spread out over twelve full sessions. The learners of the experimental groups received the developed intervention, the 12-session training programme (two sessions on skimming, two on scanning, a two session on summarization, three sessions on guessing meaning from the context, and three sessions for
inference strategy). The subjects in the experimental group received exercises after explicit presentation of the strategies so that the teachers could track the students’ ability to use the strategies to the best possible extent. The control group received no strategy instruction, but participated in pre-and post-test tests. The teachers of the control group were asked to continue their ‘traditional’ teaching methodology while teaching the lessons in their English textbook.

The researcher first presented the skimming strategy to the experimental group first and then gave them a test. The second strategy taught was scanning, the third summarization, the fourth guessing meaning from the context and the last one inference. During the period of instruction, the students' strategy use was reviewed at regular intervals through review exercises using their own textbooks, and through exercises provided by the researcher from other sources. Then the experimental and control groups were given the post-test through a set of different texts parallel in difficulty level to the pre-test. After the post-test the learners in the experimental group were administered the post-test questionnaire. In the last stage, the post-intervention questionnaire was administered to the class teachers (teachers of the experimental group) to collect feedback on the changes that happened in the reading comprehension skills of the students.

5.6. Data analysis

The data obtained from the tests and the questionnaires were analyzed quantitatively. Statistical analysis was done by using Statistical Package for the Social Sciences (SPSS). A paired samples $t$-test was performed between pre-test and post-test of the experimental group. For the comparison of experimental and control groups, the independent-samples $t$-test was used.

In order to test the efficacy of the intervention, experimental groups students’ pre- and post-test scores of reading comprehension tests were analyzed to see if there was a statistically significant difference between the two groups. To compare the means, a paired samples $t$-test was conducted to see if the intervention has caused any changes in the reading behaviour of experimental group. To find if the scores of experimental group were
significant their scores were compared with scores of control group through an independent sample $t$-test.

5.6.1. Comparison of Sk/Sc strategies, experimental group in pre & post-test

As mentioned above, a paired sample $t$-test was run to compare mean scores of the experimental group for sk/sc strategies in pre-test and post-test. The result shows that mean scores were significantly different in the pre-test and post-test for Sk/Sc test for the experimental group. The descriptive statistics regarding the mean scores of pre-test and post-test for Sk/Sc for the paired-samples $t$-test are shown in Table 1.

Table 5.1: Descriptive statistics of the paired sample T-Test for Sk/Sc Strategies in pre-test and post-test of the experimental group

<table>
<thead>
<tr>
<th>Pre-test SK/SC Mean</th>
<th>Post-test SK/SC Mean</th>
<th>SD</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0667</td>
<td>6.0333</td>
<td>Pre:1.20153</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post:1.73172</td>
<td></td>
</tr>
</tbody>
</table>

$(P \leq 0.05)$

The observed $(\text{Sig}=000)$ which is less than 0.05 indicates that it is statistically significant and the group has benefited from the treatment. The first null hypothesis, “There is no difference in mean score and performance of experimental group after receiving intervention for Sk/Sc in pre and post-test” can thus be rejected because there is a significant difference statistically in the post-test performance of experimental group.

5.6.2. Comparison of GIS strategies, experimental group in pre & post-test

In order to test the second null hypothesis “There is no difference in mean score and performance of experimental group after receiving intervention for GIS strategies in pre and post-test” a paired sample $t$-test was run to compare mean scores of experimental group for GIS strategies in pre-test and post-test. The descriptive statistics for the mean scores of pre-test and post-test for GIS are shown in Table 2. As the results in Table 2 show, the observed $(\text{Sig}=000)$ which is less than 0.05 indicates that it is statistically significant. This suggests that the group has benefited from the treatment. Since there is a significant difference between two tests, the second null hypothesis will be rejected.
Table 5.2: Paired sample t-test for GIS strategies in pre-test and post-test of the experimental group

<table>
<thead>
<tr>
<th>Pre-test GIS Mean</th>
<th>Post-test GIS Mean</th>
<th>SD</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3367</td>
<td>6.1000</td>
<td>Pre:1.65015</td>
<td>Post: 1.80707</td>
</tr>
</tbody>
</table>

5.6.3. Comparison of Sk/Sc strategies of experimental & control group in post-test

In order to find out whether the experimental group’s reading proficiency had increased significantly, the post-test mean scores of experimental and control groups for Sk/Sc were compared by using an independent samples t-test. The t-test was run to test the third null hypothesis “There is no difference in mean score and performance of experimental group and control group after receiving intervention for Sk/Sc strategies in post-test.” The descriptive statistics for the mean scores of post-test for Sk/Sc are shown in Table 3. The results of the independent samples t-test shows that the (Sig= 0.033) is less than 0.05. This change in the mean score of the experimental group as compared to the mean score of the control group is statistically significant. So the third null hypothesis can be rejected, and it can be claimed that the intervention has led to a change in the performance of the experimental group.

Table 5.3: Independent paired T-Test of experimental and control group for Sk/Sc strategies

<table>
<thead>
<tr>
<th>Mean score for SK/SC posttest</th>
<th>Degree of freedom</th>
<th>SD</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: 5.0667</td>
<td></td>
<td>1.70057</td>
<td></td>
</tr>
<tr>
<td>Experimental: 6.0333</td>
<td>58</td>
<td>1.73172</td>
<td>0.033</td>
</tr>
</tbody>
</table>

5.6.4. Comparison of GIS strategies, experimental and control group in post-test

In order to find out whether the experimental group’s reading proficiency had increased significantly, the post-test mean scores of experimental and control group for GIS strategies were compared by using an independent samples t-test. The t-test was run to test the fourth null hypothesis “There is no difference in mean score and performance of
experimental group and control group after receiving intervention for GIS strategies in post-test”.

The descriptive statistics for the mean scores of post-test for GIS strategies are shown in Table 4. The results of the independent t-test shows that the (Sig=0.008) is less than 0.05, so the fourth null hypothesis will be rejected. This change in the mean score of the experimental group as compared to the mean score of the control group is statistically significant. It can thus be claimed that the intervention has brought about a change in the performance of the experimental group.

Table 5.4: Independent paired t-test of experimental and control group for GIS strategies

<table>
<thead>
<tr>
<th>Mean score for SK/SC posttest</th>
<th>Degree of freedom</th>
<th>SD</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group: 4.73333</td>
<td>58</td>
<td>2.04995</td>
<td>0.008</td>
</tr>
<tr>
<td>Experimental: 6.1000</td>
<td></td>
<td>1.80707</td>
<td></td>
</tr>
</tbody>
</table>

5.6.5 Analysis of pre-intervention questionnaire to the experimental group

In order to collect data about the effect of intervention and motivation of the participants in the experimental group the following instruments were used:

1. Two sets of questionnaires: pre-intervention and post-intervention questionnaire to the experimental group
2. Two sets of questionnaires to the teacher of experimental group pre- intervention and post-intervention

The pre-intervention questionnaire was administered to the experimental group comprising intermediate EFL learners in Tehran Oxford Institute, and Farhang Institute in Talesh, in the Gilan province of Iran. The analysis of the reading comprehension pre-intervention questionnaire was done to obtain information about the subjects’ reading style and habits before the intervention, which would include explicit teaching of five reading comprehension strategies: skimming, scanning, summarization, guessing meaning from the context and inference, to the experimental group comprising 30 intermediate EFL learners.

The questions of the pre- intervention questionnaire were designed to draw up two sets of information. The first set of questions (Q.1, 3, 6, 8, 10, 11) was used to find out
about the problems that the learners face while reading, the reading style they employ, and the way that they generally read a text. The second set of questions (Q. 2, 4, 5, 7, 9, 12) tried to find out if they used any kind of strategies at all.

Below is the table of consolidated scores of the pre-intervention questionnaire.

Table 5.5: Descriptive statistics of pre-intervention questionnaire for students

<table>
<thead>
<tr>
<th>Statement</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  When I read a text, I can find the difference between the main idea and the supporting ideas</td>
<td>16.66%</td>
<td>41.66%</td>
<td>37.5%</td>
<td>44.16%</td>
</tr>
<tr>
<td>2  After I have read the text, I can summarize the information (i.e. say in short what it contains)</td>
<td>12.5%</td>
<td>50%</td>
<td>29.16%</td>
<td>8.3%</td>
</tr>
<tr>
<td>3  After I have read the text, I can easily find the answers to the questions given at the end of the text</td>
<td>12.5%</td>
<td>41.66%</td>
<td>37.5%</td>
<td>8.3%</td>
</tr>
<tr>
<td>4  I know how to use strategies such as skimming (reading for overall idea) and scanning (looking for specific information) while reading a text</td>
<td>8.3%</td>
<td>41.66%</td>
<td>20.83%</td>
<td>29.16%</td>
</tr>
<tr>
<td>5  I can guess the meaning of new words from the context, i.e. the words and sentences surrounding the new word</td>
<td>4.16%</td>
<td>54.16%</td>
<td>37.5%</td>
<td>4.16%</td>
</tr>
<tr>
<td>6  As I read a text, I can explain what I have understood, and I can support my point with examples from the text</td>
<td>33.33%</td>
<td>16.66%</td>
<td>41.66%</td>
<td>8.3%</td>
</tr>
<tr>
<td>7  If there are any illustrations and charts in the text, I can use them to find out what the text is about</td>
<td>20.83%</td>
<td>54.16%</td>
<td>20.83%</td>
<td>4.16%</td>
</tr>
<tr>
<td>8  When I see a new word in a text, I look at the dictionary to understand its meaning</td>
<td>33.33%</td>
<td>29.16%</td>
<td>16.66%</td>
<td>20.83%</td>
</tr>
<tr>
<td>9  As I read a text, I make my own questions about it, so that I can understand the text better</td>
<td>12.5%</td>
<td>25%</td>
<td>33.33%</td>
<td>29.16%</td>
</tr>
<tr>
<td>10 While reading, I can guess what will happen next in the text</td>
<td>4.16%</td>
<td>45.83%</td>
<td>45.83%</td>
<td>4.16%</td>
</tr>
<tr>
<td>11 I translate some or all words / phrases into Farsi while reading the text</td>
<td>41.66%</td>
<td>20.83%</td>
<td>29.16%</td>
<td>8.3%</td>
</tr>
<tr>
<td>12 Before I start to read, I have a plan in my head for how I am going to read the text</td>
<td>16.66%</td>
<td>50%</td>
<td>29.16%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>
The questions in the pre-intervention questionnaire given to the experimental group focused on two aspects of their reading experience: reading habits and strategy use. The two groups of questions are reproduced below.

5.6.5.1 Questions focusing on reading habits
1. When I read a text, I can find the difference between the main idea and the supporting ideas
3. After I have read the text, I can easily find the answers to the questions given at the end of the text
6. As I read a text, I can explain what I have understood, and I can support my point with examples from the text
8. When I see a new word in a text, I look at the dictionary to understand its meaning
10. While reading, I can guess what will happen next in the text
11. I translate some or all words / phrases into Farsi while reading the text

5.6.5.2 Questions focusing on strategy use
2. After I have read the text, I can summarize the information
4. I know how to use strategies such as skimming and scanning a text
5. I can guess the meaning of new words from the context
7. If there are any illustrations and charts in the text, I can use them to find out what the text is about
9). As I read a text, I make my own questions about it, so that I can understand the text better
12. Before I start to read, I have a plan in my head for how I am going to read the text

5.6.6. Analysis of the pre-intervention questionnaire
Statement 1: When I read a text, I can find the difference between the main idea and the supporting ideas.

Analysis of the first statement reveals that more than half the subjects are familiar with the concepts of main and supporting ideas. The subjects have reported that they
sometimes can locate them in the texts (37.5%), but the ratio of “Often”, which in the continuum is very close to “Always” (consolidation of a positive behaviour for this statement), is 41%. For the rest of 44.16% of the subjects, they do not use the strategy, and will need to be trained to make use of the strategy.

Statement 3: After I have read the text, I can easily find the answers to the questions given at the end of the text.

The most significant response for this statement is “Often” (41.66%). This suggests that almost half of the subjects can often find the answers to the questions, around (8.3%) have problems with finding the answers, and only a small portion (12.5%) of the subjects can always find answers to the questions. This finding reveals that more than half of the subjects have problems with finding the answers to questions. The researcher believes that the responses for “Always” (12.5%) and “Often” (41.66%) are very encouraging. However, (8.3%) of the subjects admitted that they cannot find the answers to the questions easily. 37.5% of the subjects have reported “Sometimes”, which suggests that explicit teaching of strategies (skimming, scanning) can help them to improve their reading skills and reach closer to the positive end of the continuum.

Statement 6: As I read a text, I can explain what I have understood, and I can support my point with examples from the text

The tendency of responses for this statement circles mostly around “Often” (16.66%) and “Sometimes” (41.66%), which indicates that for a total of 57% of the subjects there is a high possibility of their understanding what they read, analysing the text, and supporting their understanding with examples. Also, it seems that only for 33.33% (“Always”) of the subjects the technique has been consolidated and has become a permanent behaviour. The rest of the subjects need training to improve their ability, and learn to express themselves.

Statement 8: When I see a new word in a text, I look at the dictionary to understand its meaning

The ratio shows that almost around 80% of the subjects look up new words at the dictionary which is in concordance with the result of Statement 5. This suggests that there
is little tendency among the subjects to try to guess the meaning of unknown words from the context.

**Statement 10: While reading, I can guess what will happen next in the text**

The response “Never” (4.16%) shows that a small ratio of the participants cannot activate their schema as they read a text. Also, the response “Sometimes” (45.83 %,) shows that a considerable number of the participants still have problems in activating their schema, in visualizing text, and in their ability to infer. In order to activate prior knowledge, the reader needs to use the skimming strategy and read the important parts of the text to connect them to one another and understand the general message of the text. Lack of schema activation can be attributed to lack of global understanding of the text. Moreover, the inability to guess what will happen next in the text shows that the learners are stuck at word and sentence level; they rely on discrete elements of the text, and are unable to move to a macro level understanding of the text.

**Statement 11: I translate some or all words / phrases into Farsi while reading the text**

From the responses (“Always” 41.66%, “Often” 20.83%, “Sometimes” 29.16%) it can be seen that all the subjects tend to translate the sentences to Persian. It is generally agreed that this ‘mental translation’ results in decrease of reading speed and focus, and may make the reading process time consuming and uninteresting.

The following questions were used before the intervention to draw information about the possibility of learners using the strategies.

**Statement 2: After I have read the text, I can summarize the information**

Around 62.5%, [“Always” (12.5%) and “Often” (50%)] can summarize a text after they have read it. The responses show that around 40% of the respondents have not learned how to use it. This may be because the respondents have not received instructions or practice activities to learn to summarize.

**Statement 4: I know how to use strategies such as skimming and scanning a text**

As we can see, the highest ratio is “Often” 41.66%. The ratio of “Never” (29.16%) shows that these subjects are not familiar with the use of Sk/Sc strategies. From this it can
be concluded that around half of the subjects ("Sometimes" 20.83% and "Never" 29.16%) need to be trained to use the strategies and given practice activities to help them make the strategies a permanent reading behaviour and style.

**Statement 5: I can guess the meaning of new words from the context**

The responses to this statement reveal that a very small ratio of the learners "Never" (4.16%) do not use the strategy of guessing meaning of new words from the context. The most popular response to this statement was found in the "Often" option, with 54% respondents citing this as their strategy. This indicates that they are using the strategy, and with more practice the behaviour can be consolidated as a reading behaviour.

**Statement 7: If there are any illustrations and charts in the text, I can use them to find out what the text is about**

This statement was given to the subjects to draw information about their use of the inference strategy. The responses for this statement "Always" (20.83%), "Often" (54.16%), and "Sometimes" (20.83%) reveals that the subjects are already using charts and illustrations as a source to learn more about texts and only a very small percentage of learners - "Never" (4.16%) do not use the strategy.

**Statement 9: As I read a text, I make my own questions about it, so that I can understand the text better**

The highest ratio is 33.33% for "Sometimes" and 29.16% for "Never". This indicates that more than a quarter of the subjects have problems with making their own questions after reading a text. Only 12.5% of the subjects have learned how to use and apply the technique, and the rest of the responses (25%, i.e. "Often") and (33.33%, i.e. "Sometimes") show that the respondents have not learned to make a plan or an orientation for reading.

**Statement 12: Before I start to read, I have a plan in my head for how I am going to read the text**

The responses of "Always" (16.66%) and "Often" (50%) shows that around 65% of the subjects plan and organize their reading. This indicates that they use their metacognitive skills to monitor and regulate their reading. The ratio of "Sometimes" (29.16%) shows that these subjects have started planning their reading but the behaviour has not been
consolidated. Hopefully, explicit teaching of the strategies during the intervention will help these learners to acquire the permanent habit of planning their reading. The ratio of “Never” (8 %) reveals that these subjects do not have any plan for their reading. In other words, they have not learned to set goals, and become prepared to reflect on their reading process. Meta-cognitive strategies would help the learners to regulate their reading and control the reading process.

5.6.7 Analysis of pre-intervention questionnaire in the field study

The analysis of the data collected through pre-intervention questionnaire reveals that a considerable number of the subjects have reported with the “Never” option, (E.g. in statements 1 → 44.16%, 4 → 29.16%, 9 → 29.16%). These scores indicate that the subjects have not learnt how to use the strategies and techniques while reading.

For statement Number 8, 33.33% of the subjects have reported that they “Always” use a dictionary while reading. In terms of using reading strategies in context, this response suggests that more than one fourth of the population does not guess the meaning of a new word from its context.

5.6.8 Conclusions drawn from the analysis

When the learners cannot easily find the answers to the questions given at the end of the text, this could be due to lack of proficiency, lack of confidence, or lack of practice. Learning and applying reading comprehension strategies is expected to help the learners to organize and discipline their thoughts into a structured style of reading, and use less time for reading a text. Moreover, by applying strategies such as skimming and scanning, they are expected to understand what information is important to look for in the text. Learning the scanning strategy will help them to read the question first, underline the key words from the question, and understand it. At the next step, they will be able to read the text for the corresponding keywords from the question. As they go further, they will learn not to invest too much time on parts of the content that are less important for meaning, and instead, practise the habit of highlighting important words and scanning the text to locate specific information.
Learning these strategies will also enable students to find the information in a text by surveying other sources: looking at titles, subtitles, illustrations, charts, and clue words (e.g., if they are looking for ‘scores’ the clue is ‘number’). By trying to anticipate in what shape the answer will appear and what clues will help them to find it, they can quickly read the paragraph and look for that information.

In analysis and comparison of the pre and post-intervention questionnaires of the students a descriptive table of comparison of data for each statement (4, 5, and 10) was provided that would help find the common grounds and traits regarding reading comprehension behaviour of the participants in pre and post-intervention stage through the questionnaires. For the rest of the statements no table has been included since the provision of comparing statements has not been provided; these questions were designed to draw information about different aspects of the participants’ reading skill practice.

Table 5.6: Consolidated scores of the post-intervention questionnaire to the students

<table>
<thead>
<tr>
<th>Sl.</th>
<th>Statement</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I can apply to different texts the reading strategies that I have newly learned, without the teacher’s help</td>
<td>0%</td>
<td>41.66%</td>
<td>54.16%</td>
<td>4.16%</td>
</tr>
<tr>
<td>2</td>
<td>When I find a text difficult to understand, I do not give up, I use strategies to help me to understand it</td>
<td>25%</td>
<td>45.83%</td>
<td>25%</td>
<td>4.16%</td>
</tr>
<tr>
<td>3</td>
<td>When the text becomes difficult, I reread it</td>
<td>66.66%</td>
<td>29.16%</td>
<td>0%</td>
<td>4.16%</td>
</tr>
<tr>
<td>4</td>
<td>I read the captions, charts, and graphs in the text carefully to infer information from them and make questions about the text</td>
<td>29.16%</td>
<td>41.16%</td>
<td>29.16%</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>After reading each paragraph of the text, I summarize it in my own words</td>
<td>20.83%</td>
<td>50%</td>
<td>29.16%</td>
<td>0%</td>
</tr>
<tr>
<td>6</td>
<td>I make questions about the text, before, during, and after reading</td>
<td>8.3%</td>
<td>16.66%</td>
<td>45.83%</td>
<td>29.16%</td>
</tr>
<tr>
<td>7</td>
<td>Thinking aloud about difficult sections in the text helps me to understand the text better</td>
<td>0%</td>
<td>50%</td>
<td>29.16%</td>
<td>20.83%</td>
</tr>
<tr>
<td>8</td>
<td>I try not to look at a dictionary to find the meaning of new words. I try to guess the meaning of new words in their context.</td>
<td>12.5%</td>
<td>33.33%</td>
<td>50%</td>
<td>4.16%</td>
</tr>
<tr>
<td></td>
<td>I note down important points of the text. It helps me to read systematically</td>
<td>25%</td>
<td>29.16%</td>
<td>33.33%</td>
<td>12.5%</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>--------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>10</td>
<td>Before I start to read, I have a plan in my head for how I am going to read the text</td>
<td>20.83%</td>
<td>33.33%</td>
<td>37.5%</td>
<td>8.33%</td>
</tr>
<tr>
<td>11</td>
<td>I preview the text to see what it’s about before reading it</td>
<td>45.83%</td>
<td>16.66%</td>
<td>37.5%</td>
<td>0%</td>
</tr>
<tr>
<td>12</td>
<td>I consciously think about the strategies that I am going to apply to understand what I read</td>
<td>16.66%</td>
<td>50%</td>
<td>29.16%</td>
<td>4.16%</td>
</tr>
</tbody>
</table>

5.6.9 Post-intervention questionnaire analysis

The post intervention questionnaire was administered to the experimental group after the intervention to draw information about their reaction to the explicit teaching of five reading comprehension strategies. As in the pre intervention questionnaire, the statements were designed to collect information about the changes in their reading comprehension style, strategy application, and motivation to read.

**Statement 1: I can apply to different texts the reading strategies that I have newly learned, without the teacher’s help**

The ratio for “Never” option (4.16%) shows that a small number of the subjects still need assistance of the teacher to complete the activities by applying strategies on their own. The ratio obtained from other options “Often” (41.66%) and “Sometimes” (54.16%), shows that around 95% have learned to apply the strategies on their own without their teachers’ help.

**Statement 2: When I find a text difficult to understand, I do not give up; I use strategies to help me to understand it**

As we can see, except a small ratio of the students (“Never” 4.16%), the rest of the students’ responses to this statement “Always” (25%), “Often” (45.83%), “Sometimes” (25%) reveal that around 95% of the subjects are trying to improve their reading accordingly by making use of the strategies. Similarly, the responses to this statement indicate that their orientation and motivation towards reading had changed after the intervention.
Statement 3: When the text becomes difficult, I reread it

The experimental group has very positively reacted to the use of this strategy. As we can see, around 95% of the subjects (“Always” 66.66%, “Often” 29.16%) most of the time reread the difficult part of the text. The results suggest that this while-reading strategy has helped the subjects to give more focus and attention to the text as they read.

Statement 4: I read the captions, charts, and graphs in the text carefully to infer information from them and make questions about the text

If we compare the results of pre and post questionnaire regarding this statement, we see that the ratio of “Always” option (20.83%) in pre test has increased to 29.16% in post-test, which is indicative of 10% improvement due to intervention. An interesting revelation is that in the post-test questionnaire, none of the subjects marked the “Never” option (0%).

Table 5.7: Comparison of pre-test and post-test questionnaire for the learners in statement four

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>29.16%</td>
<td>41.16%</td>
<td>29.16%</td>
<td>0%</td>
</tr>
<tr>
<td>Pre-test</td>
<td>20.83%</td>
<td>54.16%</td>
<td>20.83%</td>
<td>4.16%</td>
</tr>
</tbody>
</table>

Statement 5: After reading each paragraph of the text, I summarize it in my own words

Comparison of feedback of pre and post questionnaire shows that the subjects have learned from the intervention (the score for “Always” option in the pre test was 12.5%, but 20.83% in the post-test). In addition, there is an overall improvement of 8.3% for the strategy use in post-test after receiving intervention.

Table 5.8: Comparison of pre-test and post-test questionnaire for the learners of statement five

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>20.83%</td>
<td>50%</td>
<td>29.16%</td>
<td>0%</td>
</tr>
<tr>
<td>Pre-test</td>
<td>12.5%</td>
<td>50%</td>
<td>29.16%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>
Statement 6: I make questions about the text: before, during, and after reading

This is an important strategy to use before, during and after reading. Interestingly, 29.16% of the subjects stated that they never use the strategy. Around 71% (“Always” 8.3%, “Often” 16.66%, “Sometimes” 45.83%) said they had started making questions. Creating questions is an indicator of involvement with the text, willingness to analyze the text, and this requires activation of other strategies such as inference, and skimming as well. Moreover, formulating questions make the learners more aware of why they are reading the text. This also trains readers to read selectively and review the important points in the text, which in turn will help them to clarify meaning.

Statement 7: Thinking aloud about difficult sections in the text helps me to understand the text better

Thinking aloud is a self-regulatory fix up strategy that helps readers to read the text better by regulating the pace of reading, and monitoring reading. The results of the questionnaire reveals that for almost 80% of the subjects (“Often” 50%, “Sometimes” 29.16%) the change in the behaviour happened, and more practice of using this strategy will help the subjects consolidate it. This strategy is to a large extent an individualized technique that could be personalized by the subjects.

Statement 8: I try not to look at a dictionary to find the meaning of new words. I try to guess the meaning of new words in their context.

Comparison of pre and post-test results indicates that the subjects developed the strategy of guessing meaning from the context to a considerable extent. Around 96% of the learners reported that they tried to guess meaning from the context and accordingly, will require less amount of reference to a dictionary. The researcher believes that if the subjects cannot guess the meaning from the context all the time, it is a normal consequence of being a learner.

Statement 9: I note down important points of the text. It helps me to read systematically

Except for a small percentage of subjects who opted for “Never” (12.5%) the rest of the subjects have reported (“Always” 25%, “Often” 29.16%, “Sometimes” 33.33%) that they have learned the strategy and are using it. As we can see, the ratio for “Sometimes” is
the highest. This suggests that the more learners use the strategy, the more it can help them as a complementary strategy to act more efficiently in summarization and scanning.

**Statement 10: Before I start to read, I have a plan in my head for how I am going to read the text**

Comparison of pre and post reveals that around 92% of the learners have used this meta-cognitive strategy. Interestingly, the same record of “Never” option (8.33%) has been repeated for pre-test and post-test. In addition, both options of “Always” and “Sometimes” show around 4% and 8% improvement respectively in ratio.

**Table 5.9: Comparison of pre-test and post-test questionnaire for the learners in statement ten**

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>20.83%</td>
<td>33.33%</td>
<td>37.5%</td>
<td>8.33%</td>
</tr>
<tr>
<td>Pre-test</td>
<td>16.66%</td>
<td>50%</td>
<td>29.16%</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

**Statement 11: I preview the text to see what it is about before reading it**

Previewing is helpful in getting the gist of the text as fast as possible, and becoming familiar with the theme and content of the text. There is a considerable gap between the ratios of the responses by the learners (“Always” 45.83%, “Often” 16.66%, “Sometimes” 37.5%). This shows that all the learners have learned the strategy, and it is expected that they will have less problems with inferring, and keeping track of how the text is progressing.

**Statement 12: I consciously think about the strategies that I am going to apply to understand what I read**

The results reveal that around 96% of the subjects have acquired the skills of monitoring, regulating, and planning the pace and process of their own reading by activating cognitive and meta-cognitive strategies.
5.6.10 Analysis of the pre and post-intervention questionnaire to the experimental group

The results of the post-intervention questionnaire indicate that some subjects take longer to acquire the skills and strategies of reading comprehension. This may be because the time taken for a change of behaviour and the subsequent consolidation of a new pattern differs from one individual to another. The researcher believes that this may be the reason for inconsistency across the ratios of options in the report. A comparison of the report of pre and post intervention regarding guessing meaning from the context, inferring, and summarization reveals that the intervention positively changed their motivation, orientation and behaviour towards strategy use. In addition, the results points to the fact that learners' awareness of strategies and their ability to use them while reading has increased.

The results of this intervention point to the need to teach reading in Iran by making pedagogical changes to the traditional method of teaching reading through translation, dictionary reference and vocabulary practice. Making learners explicitly use reading comprehension strategies will give learners a more active role to play in their own reading behaviour, and help change their attitude towards reading. In view of this, it may be suggested that teachers need to be trained in strategy instruction.

5.6.11 Analysis of pre-intervention and post-intervention questionnaire of the teachers

In the section below, the tabulated responses to the questionnaires to the teachers are presented, followed by the results.

**Table 5.10: Consolidated scores of the pre-intervention questionnaire to the teachers**

<table>
<thead>
<tr>
<th>Sl No.</th>
<th>Statement</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>When they read a text, your students can distinguish main ideas from the supporting ideas</td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>As they read a text, most of them can explain what they have understood, and support their point with examples from the text</td>
<td></td>
<td>50%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>They can make predictions about what will happen next in the text they are reading</td>
<td></td>
<td>100%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Statement</td>
<td>Usually</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>Never</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
<td>-----------</td>
<td>--------</td>
<td>-------</td>
</tr>
<tr>
<td>4</td>
<td>They can make generalizations and draw inferences based on what they have read</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>They can describe the style or structure of the text that they are reading</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>They can use their imagination as they read the text</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>They can summarize the information in the text that they have read</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>They can relate the information in the text to the earlier (background) information</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>They can guess the meaning of new words from the context, i.e. the words and sentences surrounding the new word</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>My students can apply to different texts the reading strategies that they have newly learned without my help</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.11 Consolidated scores of the post-intervention questionnaire to the teachers
<table>
<thead>
<tr>
<th></th>
<th>They can guess the meaning of new words from the context, i.e. the words and sentences surrounding the new word</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>My students can apply to different texts the reading strategies that they have newly learned without my help</td>
<td>100%</td>
</tr>
</tbody>
</table>

Comparison of the pre-intervention questionnaire and post-intervention questionnaire to the teachers of the experimental group reveals that there is a sort of positive change in the behaviour of group after intervention for the following reading behaviours:

- Guessing meaning from the context
- Making use of schema
- Summarization
- Inference
- Distinguishing between the main idea from the supporting ideas
- Making predictions about what will happen in the text next

Also, the responses suggest that the teachers believe that after intervention the learners have been able to use their schema better than before. They used the dictionary less, and their ability to highlight important issues in the text considerably improved.

5.7. Conclusion

The purpose of this intervention study was to examine the effect of explicit instruction of reading strategies on reading comprehension. The study employed a quantitative method to gain information about intermediate Iranian EFL learners. The participants in both control and experimental groups were from similar proficiency levels of reading comprehension. The analysis of the data obtained from this study reveals that explicit teaching of reading comprehension strategies to Iranian EFL intermediate students can change and improve the reading behaviour of the students.

During the intervention programme the experimental group received explicit instruction for five strategies and the comparison of mean scores of pre-intervention and post-intervention for Sk/Sc and GIS strategies showed that the intervention had more positive impact on the learners reading ability in terms of Sk/Sc strategies than the GIS
ones. This difference could be due to the fact that strategies such as skimming and scanning are less complicated than other strategies such as inferring, guessing meaning from the context and summarization. Anticipating that GIS strategies take longer to master, the research study during intervention programme allocated more time on teaching and practising GIS strategies to the learners than the Sk/Sc strategies.

According to the feedback obtained from the questionnaires, most of the participants in the experimental group have learned to use these strategies. This indicates that explicit strategy instruction has been effective in building EFL students’ knowledge and encouraging their use of reading strategies. In other words, **through explicit strategy instruction, students can be taught not only what strategies are, but also how, why and when to use them.** The findings show that EFL students in Talesh need to improve their knowledge and use of reading strategies, and explicit strategy instruction can prove an effective way to help them achieve these goals. The analysis of questionnaires to the students and the teacher confirms the hypothesis that with explicit teaching of strategies, the motivation of the readers can change positively. The study has shown that strategy teaching has enhanced students’ ability to make inferences, guess meanings of unfamiliar words from context and summarization. The study has also reported on the fact that the learners can apply learned strategies to the new texts. It can therefore be concluded that explicit teaching of reading comprehension strategies to intermediate Iranian EFL students can improve their reading comprehension. To make this possible, teachers need to familiarize themselves with these strategies, and engage their students in reading comprehension activities that will give them more control of their own reading process, and allow them to monitor and develop their reading skills.

Most teachers of English in Iran do not take teaching of reading comprehension strategies seriously; neither is there a national policy for improving Iranian EFL teachers’ ability to teach reading strategies. The experience of conducting this research study has convinced the researcher that there is a need to present a framework to Iranian EFL teachers to work on and use as a practical measure and source to teach reading comprehension strategies. Teachers, school administrators and curriculum developers should select reading materials which include pictures or illustrations to assist the readers to
retrieve more background knowledge from illustrations, captions, subtitles and pictures. Texts that reflect the daily life and culture of the learners would motivate students to read. This could play as an effective incentive to motivate the learners to activate their existing background knowledge and connect it to the content of the new text.

A typical reading comprehension class in terms of making use of the strategies could be something like the following:

The teacher should divide the reading comprehension exercises to three stages: before, during and after reading. In the before-reading stage / activities, the teacher introduces a new text to the learners. They can do it by eliciting students’ guesses on the topic through the title, giving examples of similar topics or trying to connect the topic of the text to learners’ background knowledge about them. If the learners have some information about the topic, the teachers have to extract and activate the appropriate schemata regarding the new text from the learners’ schemata store and connect it to the new text. In order to activate the learners’ schemata, the teachers can discuss the type of the text, help the learners to brainstorm issues and subjects related to the topic, have the learners review the content by skimming to get an idea of the gist of the text, or ask them to scan the text for specific information, which will help them to familiarize themselves with the content.

During-reading activities should give the learners an opportunity to engage more actively with the content of the text. The teachers can use the titles, sub-headings and illustrations to trigger the learners’ inference strategy; they can make them guess the meaning of unknown words by using contextual clues (ie. the words surrounding the unknown word) as well as word formation clues such as suffixes, prefixes and word type clues (verbs, nouns, adjectives etc.). The teachers should help learners to recognize a contextual clue in the text and use it to decipher an unknown word. The researcher believes that practice and giving judicial feedback are two essential parts of the training process in teaching learners the strategy of guessing meaning from the context. Learning this strategy will help the learners to establish an effective self-learning device which could assist them in comprehension and reading independently. Language learners who try to infer or guess meaning of unknown words by investigating context clues are cognitively more involved
with the text, and as a result, are more deeply involved in the learning process, which helps the retention of the knowledge in their long term-memory.

In after-reading activities, the teacher should help the learners check their comprehension of the text by consolidating their skills. They need to be encouraged to answer the global comprehension questions provided at the end of the text by making use of scanning and skimming, inferring, guessing meaning from the context and more importantly, summarization. During the post reading stage, the teacher can ask learners to produce either a written or oral summary of the whole text or some part of it which will help the readers to understand the theme of the text. The researcher’s experience has shown him that the summarization strategy is a really challenging one to teach and learn. It requires the skills of writing as well, and the learners need to have an understanding of the semantic relationship of the elements of the texts as well as syntactic knowledge. They need to have an overall understanding of the text, decide which pieces of the text are more important than the others, leave out the less important ones and organize the important pieces together in a more concise format which carries the same information in a shorter version of the original text.

As one can see, learners have to find a way to solve a jigsaw game in summarization. In the while reading stage, the teacher can make this process easier and less daunting for the learners by getting the learners to work out which parts of a paragraph/passage are important and why. This involves familiarizing them with the structure of a given paragraph and helping them identify the position of its three main elements: the topic sentence, supporting sentences, and concluding sentence. Learners also need to be given practice in mind-mapping so that they can organize in their minds the main ideas of the paragraph or passage they are reading. Teachers need to help the learners understand the value of writing first and second drafts as a preparatory activity for summarization.

Having a reasonable active treasure of vocabulary also plays an important role in the process of reading in EFL. The literature review in Chapter Two of this study showed that lack of an adequate vocabulary stock could have a negative effect on the performance and motivation of EFL readers to initiate reading on their own. Iranian EFL teachers
should emphasize and stress the value and contribution of vocabulary stock and range to reading in English by giving learners enough practice in vocabulary development in the class. The teachers could use graded readers, vocabulary cards, definitions, and the strategy of guessing meaning from the context to help the learners to increase their vocabulary rate. Activities that teach vocabulary in context—free word lists form should be avoided as it does not aid vocabulary development in a foreign language. Instead, texts that make learners encounter new words, and activities that help them work out meanings of new words should be used.

One of the important activities of the post reading stage is also engaging learners in extensive reading. Teachers should encourage their learners to apply the learned strategies on extensive reading by making them read texts outside class hours and in their private time. Teachers should encourage extensive reading as it gives learners practice in skills such as improving background knowledge, and grammatical and semantic knowledge and motivation for further independent reading. Extensive reading also gives learners the opportunity to improve vocabulary learning strategies by using learned strategies. The more adept at reading independently that learners become, the more encouraged they will be to read texts outside the school requirements. This will also have a cyclic effect on the publication industry as well. Since extensive reading in English is not a popular activity in Iran, there is not much publication in English. By making learners read extensively, teachers would give publishers encouragement to make more reading material available for Iranian learners.

In an extensive reading programme, the teachers should provide students with a variety of materials in terms of different topics and genres. Since in each class there are students with different levels of proficiency, the teachers should let them read texts based on their level of comprehension. Teachers also need to make learners take extensive reading seriously by motivating them academically i.e. by giving extra credits for reading the assigned materials for extensive reading. The teachers can ensure that the reading material is interesting and appropriate to their level by selecting books that are culturally easy to comprehend. The researcher’s experience, supported by findings of research by Florencio (2004), has shown that sometimes learners may have access to all the linguistic
knowledge to understand the meaning of the text, but they still fail to understand the text due to cultural differences. The teacher should play a role as a facilitator to help the learners choose books which are closer to the learners’ background knowledge and existing cultural knowledge. This would enable the learners to connect new meaning to existing meanings, and use their older schemata in the procedure of decoding content of a new text, which in turn will motivate them to read more.

However, a note of caution is in order here. In spite of the positive impact and effectiveness of strategy instruction that the researcher conducted during his intervention, there may still be some students who cannot improve their reading ability as much as other members in the group i.e. they are unable to transfer the recently learned strategies to new contexts. The researcher thinks that the root of the problem with these learners may stem from the lack of use of multiple strategies during reading. Even after receiving intervention, poor readers may not be able to make use of different strategies simultaneously; they tend to use only one or two strategies which are easier to work with during reading a text. This problem has also been attested by research conducted by scholars like Gooden (2012), who have commented that good readers operate a wide range of strategies automatically, and less proficient readers are not able to do the same.

Finally, reading comprehension strategies will be learned if they are practiced and refined through use in different contexts and across different text types. The assessment of the findings showed that the intervention programme seems to have been effective in improving reading comprehension of the intermediate Iranians EFL learners as it gave the learners practice in a wide range of strategies through a variety of exercises and prolonged practice. In Chapter Six, the lessons learnt from the results of the field study will be discussed in a broader pedagogical context.