A CRITICAL LOOK INTO TEACHING OF LANGUAGE LEARNING STRATEGIES, AND THEIR POTENTIALITIES FOR ENHANCING INDEPENDENT LEARNING

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ABSTRACT

This study investigates the frequency of language learning strategies (LLSs) and the impact of teaching them on foreign language learners’ choices of their strategies. The collected data were analysed qualitatively by the Grounded Theory approach and quantitatively via descriptive statistics, independent-sample-t-test (SPSS). The analysis of the findings shows that the students were 'medium' users of strategies and that teaching them has a significant impact on the LLSs. This study demonstrates that students when engaged in group work and teachers and more able peers offer scaffolding when necessary, progress in the zone of proximal development. Practical recommendations and suggestions are made.

INTRODUCTION

There has been growing interest in Language learning strategies (LLS) since the mid-1970s up to now. Despite the proliferation of studies and research articles that investigated LLSs in the West, few have been done in the Sultanate of Oman to the best of my knowledge, e.g. (Awadh: 2000) and (Osman: 2013). Also in spite of the research that has been conducted into LLSs over the past three decades, one important issue needs to be considered is teaching them explicitly in classrooms. Another important issue could be observed by those who teach English as a foreign language to Arabic speakers, that they transfer language learning strategies from L1 to L2, which may affect negatively their learning. Students do not deny their shortcomings in their use of L2 and they blame these defects on the way they are/were taught and may rarely blame their own ways of learning. The present study aims at investigating the role learners play in the process of learning and exploring and explicating the relationship between the appropriate use of language learning strategies and independent learning in a socially set classroom. The key argument of this study is that LLLs can be taught explicitly and that teachers can engage learners in the process of learning by forming mixed abilities group work and by offering scaffolding when needing arises. Teachers should encourage learners to use language as a mediation (see section 1.3.3) tool in the learning process as claimed by Donato, 1994.

Language Learning Strategies: Definition and Taxonomies

There are different definitions of Language learning strategies but the most comprehensive definition, in my opinion, is Oxford’s (1990) who claims that learning strategies are “Specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective and more transferable to new situations.”

Classification of learning strategies

As noticed by Ellis (1994, p 535) the earliest researchers focused on studying inventories of the learning strategies employed by learners rather than classifying the strategies into general categories. Skehan (1989) cited in Ellis (1994, p 535) summarised this early work. He mentions three areas which fit to the different taxonomies. The first is the learner’s abilities to place themself on the learning situation such as asking for clarification/verification (Rubin: 1981). The second is concerned with the learner’s technical predispositions such as realizing the language as a system (Neiman et al 1978). The third one concerns the learner’s ability to assess, e.g. monitoring, testing out guessing, correcting errors and finding out what causes errors. The sections that follow cast light on
the cognitive and sociocultural theories that are relevant to the present study which is based on these perspectives.

Learning strategies within Two Perspectives

Cognitive Perspective

Learning strategies used to be researched within the cognitive point of view by some researchers. For example, O’Malley and Chamot (1999, p 19) argue that second language acquisition should be viewed as a cognitive skill. In their opinion, language learning strategies are cognitive processes; therefore, they have grounded the study of language learning strategies within the framework of information-processing model influenced by Anderson (1980, 1983).

Vygotsky’s Sociocultural (SCT) Perspective

The study of SCT has recently been prominent research in the area of second/foreign language pedagogies. Mediation and zone of proximal development are two important aspects of SCT.

Mediation

Lantolf and Thorne (2006:59) think that mediation is the vital concept of sociocultural theory. They claim that mediation has played (and is playing) an important part in the sociocultural theory. According to them, human beings live in two worlds: one consists of signs and symbols, accomplished mainly through language; the other is composed of concrete objects, controlled mostly through our hands and brains. These two means help human to control and improve their environment. It is worth mentioning that, this study introduces LLSs within two perspectives: cognitive and sociocultural.

Zone of Proximal Development (ZPD)

ZPD as pointed out by Rezaee and Azzizi (2012, p 51) reflects Vygotsky’s point of view on the nature of development and the relationship between learning and development. Vygotsky, as noticed by Kinginger (2002, p 240) views learning as being different from development, but it may lead to development. ZPD could explicate the potential impact of learning on development. One may consider the ZPD as a tool that guarantees the genesis of cognitive development within social interaction, when those who are involved are provided with help from more able others, whether they are teachers or classmates, while they are engaged in learning activity.

Cognitive and SCT

These two perspectives have been viewed as two irreconcilable views as noticed by Oxford and Schramm (2007, p 47). They find that the difference lies in foci; one’s focus is the individual and the other’s is the group. However, they have attempted to break the boundaries between them by “noting important theoretical contributions from each perspective and indicating how each perspective can learn from the other.” And they suggest that “... it is not essential to consider only one focus; both are valuable and, in fact essential for a better understanding of how languages are learnt.” I am of the opinion that LLSs should not only be based on a cognitive view only as some scholars have argued, e.g. O’Malley and Chamot (1990). It should be expanded to include a sociocultural perspective as well. Therefore, learning should include the two perspectives: cognitive and sociocultural as complementary and commensurable.

Research Questions

The purpose of this study as mentioned above, were to find out the strategies being used by Omani university students and how frequently they use them. Moreover, to know whether collaborative learning helps and to find out ways of helping teachers integrate LLSs into their teaching procedure and how to encourage independent learning. Four research questions were used in the present study.

✓ What are the strategies students mainly employ to enhance their English language learning?
✓ How frequently do they use these strategies?
✓ What is the role of collaborative learning in consolidating the use of learning strategies and in encouraging independence learning?
✓ How can teachers integrate strategies training into their teaching procedures?

MATERIAL AND METHODS

Context

This study took place at the University of Nizwa in Oman. It is an English medium institution; students are obliged to enrol first in the Foundation Institute to be able to build the skills of the English language.

This study was an attempt to determine if teaching language learning strategies (LLSs) explicitly and collaborative learning in a social setting classroom have any effect on the way Omani university students employ LLSs and develop independent learning. In this study, the independent variables are collaborative and independent learning and the dependent variables are the six categories of LLSs found on SILL (Oxford: 1990).

Sample of the study

The students who participated in the study were 140 students selected from those who enrolled at the university. The participants of the study were selected randomly from among those who were studying General English. The rationale for choosing them was to investigate the extent to which students utilize learning strategies and whether they might be able to transfer those strategies when they study their Majors in English and the impact of collaborative learning on their use of these strategies.

METHODOLOGY

The present study was carried out following the mixed methods approach in two phases. The first phase was at the start of the semester to investigate the students’ use of learning strategies before teachers’ intervention. The second phase was at the end of the semester to gauge the effect of ‘teachers’ intervention and to explore the extent to which teaching methods influenced students’ learning strategies. The research tools used were questionnaires, interviews, students’ diary and the researcher’s observation. The questionnaire was used to generate self-reported data concerning learning strategies employed by the students to enhance their learning at the beginning and end of the semester. The students of were interviewed before and after teachers’ invention. The observations carried out by the
researcher throughout the semester, were discussed with the other professor who was teaching the second classroom and exchanged ideas with him.

The main instrument used was the questionnaire. It was based on the Strategy Inventory for Language Learning (SILL) designed by Oxford (1990a) with a slight modifications to suit the Omani context. The researcher used SILL because it is one of the most widely used strategy questionnaire as asserted by many scholars, for example, Oxford and Burry-Stock (1995), Oxford et al (2004), and Chamot (2008). The questionnaire asked the participants to report their frequency use of learning strategies. The questionnaire was conducted at the beginning of the semester before any actual teaching started in order to find out the strategies learners use on their own with no intervention from a teacher or more able peers. At the end of the semester (almost 4 months later), the same SILL inventory was administered to discover the impact of learning strategies instruction on the use of learning strategies.

**Instruments and Data Collection Strategies**

A variety of instruments were used to collect the data for the study. A questionnaire, which was based on Oxford’s SILL (1990), was conducted (Appendix A). This was followed by interviews to complement the data collected. The questions for the interviews (Appendix B and C) regarding learners covered the six categories of SILL. The aim of the interview was to further investigate and inquire into the use of learning strategies and to probe teachers on their views towards learners’ use of these strategies.

**Results Data Analysis**

The data collected from the participants’ responses to the questionnaire were computed via descriptive statistics, Independent-sample T-test and Box-plots. The Statistical Package for Social Sciences (SPSS) was used. The data collected by other means, such as interviews and observations, were analyzed quantitatively.

The findings which are presented below show how learning strategies were ranked by the students.

**Table 5.1** shows means, standard deviations and the ranks of the learning strategies employed by The TG and the CG at the beginning and end of the semester

<table>
<thead>
<tr>
<th>Treatment and Control Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.39</td>
<td>.52</td>
<td>2</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.34</td>
<td>.41</td>
<td>3</td>
</tr>
<tr>
<td>Cognitive strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.20</td>
<td>.49</td>
<td>6</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.21</td>
<td>.41</td>
<td>5</td>
</tr>
<tr>
<td>Compensation strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.35</td>
<td>.52</td>
<td>4</td>
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<tr>
<td>Control</td>
<td>70</td>
<td>3.40</td>
<td>.57</td>
<td>2</td>
</tr>
<tr>
<td>Metacognitive strategies</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
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<td>3.60</td>
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<td>1</td>
</tr>
<tr>
<td>Affective strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.38</td>
<td>.58</td>
<td>3</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.27</td>
<td>.55</td>
<td>4</td>
</tr>
<tr>
<td>Social strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.22</td>
<td>.51</td>
<td>5</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.15</td>
<td>.60</td>
<td>6</td>
</tr>
</tbody>
</table>

The descriptive statistics of Table 5.1 demonstrate that metacognitive strategies head the list of learning strategies for both the Treatment Group (hereafter TG) and the Control Group (hereafter CG). They have the highest mean (3.60, 3.55) respectively, followed by memory strategies (3.34 TG) and compensation strategies (3.40 CG), affective strategies (3.38) by the treatment students and affective strategies (3.38) by the control group, memory strategies (3.34) by the treatment group and compensation strategies (3.35) by the treatment group, affective strategies (3.27) by the control group. The least employed strategies by the treatment groups are social strategies (3.22) and cognitive strategies (3.22) and the lowest ranks by the control group are cognitive strategies (3.20) and social strategies 3.15. By studying the means of the two groups deeply one may notice they are almost similar, especially the high-ranking and low-ranking strategies. Although compensation strategies ranked high in the control group and low in the treatment group, the difference between the two means is not so vast (3.40 and 3.35). It is noticed that for the two groups metacognitive strategies ranked high while cognitive strategies ranked low. This study is consistent with another one conducted in Saudi Arabia by McMullen (2009) in which metacognitive ranked as the first category.

Table 5.1 shows the two groups are almost homogeneous. This similarity of the two groups may indicate that the students were honest in responding to the questionnaire and that they were not exaggerating in their answers. Therefore, this consistency of the answers may give confidence that the data collected may represent a valid picture of what it aims to represent. However, to be more confident, the researcher combined both quantitative and qualitative analysis.

**Table 5.2** shows the summary statistics of means, standard deviations and the ranks of the learning strategies employed by the participants (Treatment and Control Group after treatment)

<table>
<thead>
<tr>
<th>Treatment and Control Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.96</td>
<td>.35</td>
<td>2</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.35</td>
<td>.35</td>
<td>3</td>
</tr>
<tr>
<td>Cognitive strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.76</td>
<td>.25</td>
<td>4</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.40</td>
<td>.34</td>
<td>1</td>
</tr>
<tr>
<td>Comp. strategies</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Treatment</td>
<td>70</td>
<td>3.84</td>
<td>.47</td>
<td>3</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.34</td>
<td>.53</td>
<td>4</td>
</tr>
<tr>
<td>Meta. strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.97</td>
<td>.36</td>
<td>1</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.37</td>
<td>.38</td>
<td>2</td>
</tr>
<tr>
<td>Affect. strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.67</td>
<td>.50</td>
<td>6</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.32</td>
<td>.56</td>
<td>5</td>
</tr>
<tr>
<td>Social strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>70</td>
<td>3.72</td>
<td>.34</td>
<td>5</td>
</tr>
<tr>
<td>Control</td>
<td>70</td>
<td>3.27</td>
<td>.46</td>
<td>6</td>
</tr>
</tbody>
</table>

Closer scrutiny to Table 5.2 reveals the differences between the two groups after the TG was taught. The TG still ranked metacognitive strategies as the first category with a mean of (3.97) while the CG ranked cognitive strategies the first category. One may notice that memory strategies ranked in the second place (3.96) by the TG and came third (3.35) among the CG. This is not surprising because as mentioned elsewhere,
Arabic speakers tend to use the strategy of rote learning may be as a result of transfer from L1. Compensation strategies ranked the third most frequently used by the TG (M. 3.84), while it ranked fourth by the CG (3.34).

Cognitive strategies ranked fourth category by the TG (M. 3.76) and first by the CG (M. 3.76). Although cognitive strategies which enhance students’ learning by practicing, receiving and sending messages, analyzing and reasoning…etc. are important (Oxford: 1990), metacognitive strategies are essential because learners without these strategies are considered to be without direction, having little or no opportunity to organize their learning, trace their progress and review what they have done so far to prepare for their future learning direction (O’Malley and Chamot: 1990).

Both groups made progress in cognitive strategies at the end of the semester, however, the CG made a noticeable progress in these strategies and this may be at the expense of metacognitive strategies. The social strategies which were the least frequently used by the two groups may indicate that the TG did not change its attitude towards cooperative work, although, regarding the means one may notice some progress (M3.22, 3.72). During the semester, group work was encouraged and less able students were assisted by the more advanced learners operating in their Zone of Proximal Development (ZPD). This may be attributed to the way these students review their lessons outside the classroom, the fact that these students come from different regions of Oman and that they may not work together outside the classroom. This needs further investigation and research. Another noticeable observation to be made is that both groups gave a low ranking to affective strategies, 5th and 6th respectively. According to Oxford (1990:163) learners lower their anxiety by using progressive relaxation, deep breathing, using music, using laughter, making positive statement, discussing feelings with someone else, and so on. The fact that these students belong to a conservative society may justify why they, the majority being females, rank these strategies low. This assumption also invites further research.

DISCUSSION

The Impact of Teaching on the Use of Learning Strategies

There is a proliferation of writings on language learning strategies, but few have investigated the impact of teaching on the use of these strategies. The following sections investigate to what extent the teaching of these strategies affects their use and consolidate them

The Comparison between the Treatment Group and the Control Group

This section investigates the impact of teaching and cooperative work on the use of learning strategies and the hypothesis is ’students whose attentions are turned by their teachers and peers to use varieties of learning strategies and avoid the ineffective ones become better learners and more effective (learning strategies) users than those who are left on their own. The null hypothesis postulates that there is no difference between them. To determine this, independent sample t-test and box-plots were conducted.

Memory Strategies

Two instruments were used: box-plots and t-test to complement each other. To use independent-sample t-test, the following three conditions must be fulfilled (Carver and Nash: 2009): 1. Independent samples. 2. Normal populations. 3. Equal population variances (for small samples). Therefore, prior to performing this tool, the researcher used to check to see whether the data met these conditions, for example by using the box-plot.

Figure 6.1 Box-plots Depict Memory Strategies at the beginning of the Semester.

Figure 6.1 shows the results for the memory strategies used frequently by the learners. The box-plots display the data of the TG and the CG before the TG was taught. The boxes that represent the TG (on the left) and the CG (on the right) show the median point. The median line lies in the middle which indicates even distribution of the means across the two groups so the inter-quartile (IQR) range are almost similar. The whiskers of the two boxes are almost the same and none of them is skewed, which illustrates that the two groups at the beginning of the semester were symmetric. None of them shows an outlier, indicating that no points extend more than 1.5 times the IQR above or below the box. Any difference that was observed between the two groups pertaining to the use of learning strategies may be attributed to the impact of the teaching or/and the scaffolding provided by more able peers as hypothesized in this research.

Figure 6.1.1 Box-plots Indicate Memory Strategies after Treatment.

Figure 6.1.1 shows the results for the memory strategies used frequently by the learners in the TG and the CG after the TG after the intervention from teachers and scaffolding from more able peers occurred.

The box-plots show some variation across the group. For example the medians of the boxes in both box-plots indicate...
that the box of each group has the median in the centre. However, the boxes illustrate that there are different distributions of scores between the TG and the CG. For example, the distribution of the TG is positively skewed. The whisker is seen to be extended out to the maximum scores of distribution. There is one outlier below the box, indicating that one student was different from his/her group. The box representing the CG has almost similar size whiskers which indicate the even distribution of scores. It has three outliers, one above the box, which may indicate that this student is far more advanced than his/her classmates, and there are two outliers below the box which may indicate these two students may reveal that the teachers' intervention and the collaborative learning have affected positively the frequency use of the cognitive strategies employed by the TG, which my support the research hypothesis. The shapes of the box-plots above indicate that it is suitable to perform t-test. The following section displays the data using the t-test.

**Table 6.3.1** Results of the independent Samples Test (memory strategies)

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>Df</th>
<th>Sig</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Memory Strategies</td>
<td>.643</td>
<td>138</td>
<td>.522</td>
<td></td>
</tr>
<tr>
<td>Post-Memory Strategies</td>
<td>10.16</td>
<td>138</td>
<td>.000</td>
<td>.42</td>
</tr>
</tbody>
</table>

$\alpha \leq .05$

A closer look at Table 6.3 and Table 6.3.1 reveals that there was similarity between the two groups before the teachers and more capable peers’ intervened. For example, the TG scored (M = 3.39, SD = .52), and the CG scored (M = 3.34, SD = .41). There was no statistically significant difference between the two groups before the learning strategies were taught and group work was conducted. The $p$-value (2-tailed sig.) was .522 which was more than .05. On the other hand, the tables show dissimilar direction between the two groups at the end of the semester, i.e. after the interventions of teachers and more able peers. For instance, the TG scored (M = 3.96, SD = .36) and the CG scored (M = 3.35, SD = .35). There was a significant difference between the two means. The sig. (2-tailed) was .000 which was less than the $p$ value.

**Cognitive Strategies**

This section examines the second direct strategies reported to be used by students. First the box-plots are used to examine the suitability of using the t-test and to find out the degree of dispersion, skewness and the outliers. Then the t-test was performed to examine the difference of means between the two groups.

Figure 6.3 illustrate the box-plots of cognitive strategies of the two groups before the treatment. It is evident that the range of scores is wide for the TG as indicated by the length of the whiskers on either side of the box, but comparatively it is narrow for the CG. The CG has also some values as outliers. The box of the CG is slightly skewed since its median is not perfectly in the centre of the box. The CG has several outliers which may be attributed to the normal individual differences between the students. However, the differences between the two boxes are not so wide as to distort the group means. The following section displays the means of the two groups after the treatment.

A closer look at Figure 6.3.1 indicates that the two medians are different. The CG data are positively skewed and it has few outlier values. The median line of the CG is skewed and it is adjacent to the bottom of the box. Still the CG box has outliers. The whiskers of the TG box are not symmetrical around the median line. It is negatively skewed with the majority of scores concentrated towards the upper end scale. The TG box has more top scores. Comparing the two boxes, the CG box is seen to have lower scores. The data displayed by the box-plot may reveal that the teachers’ intervention and the collaborative learning have affected positively the frequency use of the cognitive strategies employed by the TG, which my support the research hypothesis. The shapes of the box-plots above indicate that it is suitable to perform t-test. The following section displays the data using the t-test.
Table 6.4.1 depicts the independent Samples Test outcome:

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>Df</th>
<th>Sig</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Cognitive Strategies</td>
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<td>.868</td>
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</tr>
<tr>
<td>Post-Cognitive Strategies</td>
<td>7.4</td>
<td>138</td>
<td>.000</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Table 6 and Table 6.1 illustrate that there was similarity between the two groups at the beginning of the semester. For example, the TG scored (M = 3.20, SD = .49), and the CG scored (M = 3.21, SD = .41). There was no statistically significant difference between the two groups before the learning strategies were taught. The sig. (2-tailed) was .868 which was more than the p-value .05. On the other hand, the tables depict statistically significant differences between the two groups at the end of the semester, i.e. after teachers’ intervention. For instance, the TG scored (M = 3.76, SD = .25) and the CG scored (M = 3.40, SD = .35). There was a significant difference between the two means. The sig. (2-tailed) was .000 which was less than the p value .05.

**Compensation Strategies**

This section examines the third direct strategies frequently used by students according to the self-perceived questionnaire. The researcher has used the same tools to track how frequently students use them and the impact of teachers’ intervention on the way students use them. First a box plot is used to examine the suitability of using the t-test. Then the t-test will be performed to examine the difference of means between the two groups.

Figure 6.3 Box-plots illustrate Compensation Strategies (at the beginning of the semester)

Visually the two boxes are different. Although the sizes of the two boxes are superficially similar, the distribution of the means among the TG and CG group is obviously asymmetrical. This indicates that the TG possibly was affected by the teaching of learning strategies within sociocultural theory. The whiskers of the TG are between 3.00 and 5.00, while those of the CG are between 2.00 and 4.70.

T-test may clarify this further as will be seen in the following section.

Table 6.5.1 depicts the independent Samples Test outcome:

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>Df</th>
<th>Sig</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
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<td>.591</td>
<td></td>
</tr>
<tr>
<td>Post-Cognitive Strategies</td>
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<td>.000</td>
<td>0.23</td>
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</tbody>
</table>

Table 5 and Table 5.1 illustrate that there was similarity between the two groups at the beginning of the semester. For example, the TG scored (M = 3.35, SD = .52), and the CG scored (M = 3.40, SD = .57). There was no statistically significant difference between the two groups before the learning strategies were taught. The sig. (2-tailed) was .591 which was more than the p-value .05. On the other hand, the tables depict statistically significant differences between the two groups after the learning strategies were taught and more able students helped the less able ones operating on their ZPD. For instance, the TG scored (M = 3.84, SD = .47) and the CG scored (M = 3.34, SD = .53). There was a significant difference between the two means and the magnitude of the difference in the means according to eta squared was very large (eta squared = 0.23). The sig. (2-tailed) was .000 which was less than the p value .05. This difference can be attributed to the intervention of teachers.

The following section discusses the first indirect strategies reported frequently used by the students as depicted by the self-perceived SILL questionnaire (Appendix A).
Figure 6.4 Box-plots Indicate Metacognitive Strategies (at the Beginning of the Semester)

Figure 6.4 illustrates metacognitive strategies of the two groups before teachers’ intervention and collaborative work from the more able peers. Both boxes have wide range of scores as indicated by the lengths of the whiskers. However, both of them are skewed since their medians are not perfectly in the centers. The differences between the two boxes are not wide that may distort the group means. While the TG has two outliers, the CG has four. The following section displays the means of the two groups after the treatment.

Figure 6.4.1 Box-plots Show Metacognitive Strategies (at the end of the semester)

The above box-plot displays two different boxes. Although the sizes of the two boxes are similar, the distribution of means among the TG and the CG group is obviously asymmetrical. This may indicate that the TG was affected by introducing of learning strategies within the cognitive and sociocultural theories as hypothesized by this study. and the cooperative work. The whiskers of the TG are between 3.60 and 4.80, while those of the CG are between 2.00 and 4.00. Both groups have outliers. T-test may clarify this difference further as will be seen in the following section.

Table 6.6.1 depicts the independent Samples Test outcome:

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>Df</th>
<th>Sig</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Cognitive</td>
<td>.528</td>
<td>138</td>
<td>.598</td>
<td></td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Cognitive</td>
<td>9.5</td>
<td>138</td>
<td>.000</td>
<td>0.23</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p \leq .05$

Table 6.6 and Table 6.6.1 illustrate that there was similarity between the two groups at the beginning of the semester regarding learning strategies utility. For example, the TG scored (M = 3.60, SD = .51), and the CG scored (M = 3.55, SD = .50). There was no statistically significant difference between the two groups before the learning strategies were taught. The sig. (2-tailed) was .528 which was more than the p-value .05. On the other hand, the tables depict statistically significant differences between the two groups after the learning strategies were taught and more able students helped the less able ones operating on their ZPD. For instance, the TG scored (M = 3.97, SD = .36) and the CG scored (M = 3.37, SD = .38). There was a significant difference between the two means. The sig. (2-tailed) was .000 which was less than the p value .05. Eta squared showed a very large magnitude of the difference in the means (eta squared = 0.23). This difference can be attributed to the intervention of teachers and cooperative work.

Figure 6.5 Box-plots Show Affective Strategies (at the beginning of the semester)

A closer look at figure 6.5 shows that both boxes are symmetrical in terms of the median lines and the lengths of whiskers on either side of the box. This indicates that the two distributions have equal variance in terms of length of the boxes or the interquartile range (IQR). Also the scores that fall between 25th and 75th percentile are equal. The t-test results may clarify further the distribution of the means. The next section is about the affective strategies after the treatment.

Figure 6.5.1 Box-plots Show Affective Strategies (at the end of the semester)

Table 6.6.1 Box-plots Show Affective Strategies (at the end of the semester)
received from their teacher and the more able peers, which may support the hypothesis of the study, as will be discussed in Discussion and Implication chapter later. The results of the t-test may clarify any ambiguity of the box-plot above.

**Table 6.7.1** depicts the independent Samples Test outcome

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>DF</th>
<th>Sig</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Affective</td>
<td>1.086</td>
<td>138</td>
<td>.279</td>
<td></td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Affective</td>
<td>3.89</td>
<td>138</td>
<td>.000</td>
<td>.09</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$p \leq .05$

A closer look at the Table 6 and Table 6.1 show that the two groups were roughly the same. For example, the TG scored ($M = 3.38$, $SD = .58$), and the CG scored ($M = 3.27$, $SD = .55$). There was no statistically significant difference between the two groups before the learning strategies were taught. The sig. (2-tailed) was .279 which was more than .05. On the other hand, the tables illustrate significant differences between the two groups at the end of the semester, i.e. after teachers’ intervention. For instance, the TG scored ($M = 3.67$, $SD = .50$) and the CG scored ($M = 3.32$, $SD = .56$). There was a significant difference between the two means. The sig. (2-tailed) was .000 which was less than the $p$ value .05 but the magnitude of the difference was moderate (eta squared = .09). This difference can be attributed to the intervention of teachers and help received from the more able students during cooperative work.

**Figure 6.6** Box-plots Show Social Strategies (at the beginning of the semester)

A closer look at figure 6.6 shows that both boxes are asymmetrical in terms of the median lines and the lengths of whiskers on either side of the box. The box on the left which represents the TG has some positively skewed distribution while the one on the right, which represent the CG, has normal distribution. Moreover, the box representing the CG has a few outliers while the TG box has only one outlier. However, the boxes have almost equal sizes which indicate that the have equal variances. The lengths of the whiskers, which indicate the range of the data, in the two boxes are almost the same. Therefore, it appears there was no difference between the two groups at the beginning of the semester. The t-test results may clarify further the distribution of the means.

**Figure 6.6.1** shows the box plots of Social Strategies (at the end of the semester)

Figure 6.6.1 illustrates asymmetrical boxes with comparable variance or spread. The median lines indicate that the averages are different. The TG is positively skewed, with the majority of scores towards the upper end of the scale, while the CG box is negatively skewed with the majority of scores concentrated towards the lower end of the scale. The whiskers of the CG have outliers at both sides. The TG box may suggest that this group was affected by the help students received from their teacher and the more able peers as will be discussed in Discussion and Implication Chapter later. The results of the t-test may clarify any ambiguity of the box-plot above.

**Table 6.7.1** Results of the Independent-Sample Test (Social Strategies)

<table>
<thead>
<tr>
<th>Variable</th>
<th>T</th>
<th>DF</th>
<th>Sig (2-tailed)</th>
<th>Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Affective</td>
<td>.747</td>
<td>138</td>
<td>.456</td>
<td>.004</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-Affective</td>
<td>6.51</td>
<td>138</td>
<td>.000</td>
<td>.3</td>
</tr>
<tr>
<td>Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Qualitative Data Analysis**

**Introduction**

Qualitative data are dissimilar to quantitative data since they are made up of words and observations. They require in-depth analysis and interpretation to understand them. To interpret and make sense of what these students wrote in their diaries or talked about during the interview, the researcher followed a rigorous scientific method by employing a Grounded Theory approach in order to generate theories that will support the rich diverse data collected in the field. The Grounded Theory approach principally linked with the work of Glaser and Strauss (1967). According to Denscombe (2010), it is an approach which is dedicated to generating theories rather than testing theories. Therefore, it can be considered as a bottom-up strategy since it enables researchers to develop perspectives and insights that often remain hidden, when relying on other approaches. Qualitative approaches enable the research to delve behind initial understanding and provide opportunities for constant validity checks.

The category most frequently used by the students was writing the new words several times and repeating them orally many times. This may reveal that most of the students, whether more able or slow learners use the same strategies to learn new words. Regarding grammar rules, the focus on grammar seems...
to be influenced by students' specialty. However, a considerable number of the participants reported that grammar was important. This focus on grammar and vocabulary may reflect the way these students were taught at schools in the past. Another category which the interview revealed was that the participants prefer to study and review their lessons alone rather than with others. Many of the participants use bilingual dictionaries and tend to translate English words into Arabic. When they write, many of them reported that they used to think in Arabic and then 'translate' into English.

What students wrote in their diaries may reveal that they have utilized from the learning strategies they were taught and from collaborative learning, "working in group and learning strategies are useful."

The author completed the open coding procedures and then categorized all the interview questions that are similar together in order to make it easy to control. The next stage is axial coding.

### Table 6.10 Depicts the Paradigm Model

<table>
<thead>
<tr>
<th>Element</th>
<th>Description (Memo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenomenon</td>
<td>Language learning strategies</td>
</tr>
<tr>
<td>Causal Condition</td>
<td>Learners face difficulty in using language learning strategies effectively</td>
</tr>
<tr>
<td>Context</td>
<td>Helping students use LLS effectively</td>
</tr>
<tr>
<td>Intervening Conditions</td>
<td>Teaching these strategies and group work will help students to use these strategies efficiently</td>
</tr>
<tr>
<td>Action/Interaction Strategies</td>
<td>Collaborative learning, ZPD and scaffolding will help them to receive assistance from more able ones who know these strategies better. Students will be able to employ effective strategies efficiently.</td>
</tr>
<tr>
<td>Consequences</td>
<td></td>
</tr>
</tbody>
</table>

The researcher scrutinized the data and posed the following questions as suggested by Corbin and Strauss (1990)

1. What were the conditions that make learning strategies difficult and ineffective? It can be hypothesized that if students were not taught these strategies or helped by students who are more able they face difficulty in using them efficiently.
2. In what context were these learning strategies employed? For these students to effectively employ learning strategies, teachers should teach them explicitly and learners should exchange these strategies with each other and scaffolding should be offered on the right time.
3. By what actions/interactions did they occur? Explicit teaching, collaborative learning, and group work may be of great help.
4. What were the consequences? It is expected that at the end of the semester, students would be able to use these strategies efficiently.

**The Main Findings**

The aim of this section is to pull together what has been done in the previous sections. The interview tackled the same learning strategies categories dealt with in SILL (see appendix D). At the beginning the participants were 10 students selected randomly from the TG. Eight of the interviewees were females. They were classified, according to their TOEFL grades, as successful/unsuccessful learners. The researcher did his best to select students who represent high, medium and low achievers to be similar to the questionnaire population and also to represent different majors that comprise the class. The interview was conducted in the researcher's office, near the end of the semester and it took almost two weeks to finish. It was not recorded because of the sensitivity of recording female students. In presenting and interpreting students’ interview, the researcher did his best to be objective and to avoid as far as he could subjective judgments.

**Observation**

As discussed earlier, observation was one of the tools used to collect data for this study. The researcher started writing down his own observations from the beginning of the semester and depended mainly thereon. However, he tried to discuss with the teacher who taught the other treatment class and exchanged ideas with him. The specific aim of the observation was to answer the following questions:

1. What learning strategies do the students frequently use, for example to understand a reading text which contains unfamiliar words?
2. What learning strategies do students frequently use when they are asked to write a paragraph(s)?
3. How do 'good language learners’ differ from the other students in terms of learning strategies?
4. How do the more able students help the less able ones?
5. How do less able students benefit from their more able peers and the teacher in dealing with a specific skill, e.g. reading, writing?

In what follows, the researcher will present the most salient observation he wrote down throughout the semester, mainly based on Oxford’s (1986) classification of learning strategies.

**Core Category (Phenomenon)**

The core category of this research was the language learning strategies and how they were impacted by teaching them. The choice of learning strategies as a central phenomenon was based on the fact that language learning strategies thought to be a broad category which embedded in the main research questions of how the teaching them may have impact on their use.

The “story line” of the study exemplifies how the university students, learning English as the medium of instruction, employ learning strategies.

The core category explored in this study composed, as mentioned above, of six subcategories. The research investigated the frequencies learners use these categories and the factors that impact their use. These subcategories sought were:

- Memory strategies, to investigate how students memorize new words, spelling of these words, grammatical rules and whether students exchange experience with others.
- Cognitive strategies: The focus here was to know how students prepare for English test, whether they prefer working alone or with others, to what extent they use the dictionary and what type of dictionary they consult, whether they translate words into their native language and the extent to which they guess
the meaning of new words from contexts and also to find out if they underline while reading the texts and so on.

- Compensation strategies: The aim of this subcategory was to find out how these students compensate for their lack of vocabulary.
- Metacognitive strategies: The focus of this subcategory was to know whether students take notes during the lectures, plan and organize before they commence writing and how they do to be good language learners.
- Affective strategies: The researchers intended to know the attitudes of the participants towards the English language and their learning and how they feel when they speak English in front of others and their feelings when they were corrected by others.
- Social strategies. Finally, the aim was to explore whether these participants exchange experience, work together and help each other or prefer working on their own and find out their attitudes towards other people’s culture.

This study adopted mixed methods approach; quantitative and qualitative approaches. For the latter, the grounded theory, as suggested by Strauss and Corbin (1998) was employed in this study. The researcher followed rigorously these authors’ framework in terms of sampling, data collection and analysis (open coding, axial and selective coding were used).

The sections above covered the following research questions

1. What are the language learning strategies reported being utilized by the participants learning English in a foreign language context?
2. Would learning strategies instruction lead to awareness of the learning strategies process on the part of students and would it encourage them to apply these strategies beyond the classroom?

The following section covers the research questions

1. To what extent do teachers perceive their students’ frequency use of learning strategies?
2. In what way do teachers help learners to utilize learning strategies and to shift from ineffective to the most effective ones?

Analysis of the teachers’ Interview

The purpose of this section is to discuss the oral interview carried out by the researcher with the teachers at the University of Nizwa.

The researcher interviewed 10 teachers (there are 14 teachers at the department). The researcher made an effort to secure a representative sample (Nunan: 1992). The sample covers all the field taught, literature, linguistics and translation. They also belong to different countries and native and non-native English speakers, males and females. The questions of the interview covered teaching methods and learning strategies (see Appendix). The teachers who participated in the study in general showed positive attitudes towards LLS.

The following section turns to conclusion and recommendations

CONCLUSION AND RECOMMENDATIONS

The findings of the study have yielded that the students in this context use language learning strategies in different ways and there are some types of these strategies which have preferences and others come at the bottom of students’ frequency use. However, these strategies were ranked differently by the participants. The ranking of the students, at the beginning of the semester was as follows: metacognitive came at the top of the list by both groups, memory strategies was the second choice of the TG and the third of the CG. Compensation strategies were the second frequently used by the TG and forth by the CG. Cognitive strategies ranked at the bottom by the TG and the second to the bottom by the CG. Affective and social strategies were ranked low by the two groups. These rankings differed at the end of the semester probably as the result of teaching and collaborative learning as explained in Chapter Seven.

The findings indicated that the way students were taught in the past may affect the way they conceptualise learning and what aspect of the language they may focus on. This may clarify why memory and cognitive strategies ranked top.

Implications and Recommendations

These are some recommendations for teaching and learning English as a foreign/second language may be drawn as will be presented in what follows:

1. The findings also revealed the importance of teaching learning strategies explicitly to teach students what to learn and how to learn.
2. It is recommended that teachers should focus on Affective/Social strategies because they are important ones. As explained by Oxford (1990a).
3. It is also recommended that teachers try to raise students' awareness about these strategies and also to encourage group and collaborative learning.

Limitations and Suggestions for Future research

The following points raise critically these limitations

1. The participants of the study were those students who were enrolled in English 2 (ENGL 152) course who have different experiences of learning English which may negatively affect the population.
2. The number of teachers who were involved was not enough to probe teachers’ opinions and views about learning strategies instruction.
3. In terms of methodology, interviews and observations have the danger of subjective interpretations of the data collected which may negatively affect the findings.

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References


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