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Language Learners' Memory and Language Learning Strategies: Can Cooperative Language Learning Instruction Make a Difference?

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Abstract: This study investigated the effectiveness of Cooperative Language Learning (CLL) on using language learning strategies in interaction with self-efficacy among female students. The participants included 34 third junior high school female students in Tabriz that were selected through cluster random sampling. A total of 17 students were in experimental group and 17 students were in control group. In the pre-test stage, all of the subjects in both groups answered to the Strategy Inventory for Language Learning (SILL) and General Self Efficacy Scale (GSES). Then, the experimental group was treated by cooperative English learning, control group received traditional English learning during one academic semester. After the treatment, the subjects in both groups were post-tested by the Strategy Inventory for Language Learning (SILL). Data were analyzed by ANCOVA and the results showed a significant difference between the pre- and post-test scores of memory for the experimental group. The findings also revealed no significant difference between the pre- and post-test scores of cognitive, compensation, meta-cognitive, affective and social strategies. The study discusses implications of employing CLL to foster language learning.

Key words: Cooperative language learning, language learning strategies, self-efficacy, pre-test, second language, Iran

INTRODUCTION

One of the teaching approaches, which is an important part in Constrictive Learning Theory, is cooperative learning. Cooperation means working together as a team to gain a common goal. Cooperative learning means the usage of training exercise in small groups which students work together to maximize their learning ability (Yager *et al*., 2001). There are lots of reasons why students that work together have a better function. One of the reasons is the use of high level thinking, such as; classifications, comparison, thoughts and so on. Also, cooperative learning gives students an opportunity to have other students as an example in learning (Peklaj, 2006).

Another main reason is using memory ability in information learning. Creating a relation between new data and the earlier ones is a way to keep information in memory for a long time. Learners establish this relation while explaining this information to one another (Slavin, 1996).

On the other hand, experts are interested in using learning strategies to improve the language. Oxford (1990) describes the learning strategies as learners go through to improve their language. Nisbet and Shucksmith (1991) reveal that the strategies are high level skills which are responsible for more controlling and more adjusting the scientific language skills in different situations. They give some characteristics for those strategies. They believe that the strategies always have goals to obtain. In addition, they are performance processes which help to select and adapt skills and there are higher level skills. Finally, strategies are adaptable which means they change regarding texture. Language learning strategies have been categorized several times. The categorization by Oxford is the most perfect and the most comprehensive one off all (Vidal, 2002).

Oxford (1989) classified it in six levels as: Memory strategies (like grouping noise in memory); cognitive strategies (like repetition, analysis taking notes); compensation strategies (like using the other clues); meta-cognitive strategies (like annexing new information to the earlier-self control); affective strategies (decreasing anxiety with music, self-encouragement, relate feeling to others); social strategies (asking explanation, cooperate with others, developing cultural understanding). Based on Oxford (1989), strategies are not just self-consciousness.

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In his Social Cognitive Theory about self-efficacy concept, Bandura (1997) says that the behavior of individuals not only has been controlled by circumferential and external factors but also has an important role in individual behaviors. His consideration on self-efficacy is a sense of worthiness, qualification and ability in getting along.

Self-efficacy relates with individuals' belief about their abilities this belief can be related to different abilities. In learning language, the self-efficacy's belief expresses his opinion about his ability in what they can do and how they can organize it (Bandura, 1984). Researchers show that the cooperative learning affects learning strategies. Hanze and Berger (2007) in their research find that cooperative learning has a positive effect on increasing self-discipline, internal motivation of learners. Adeyemi (2008), Onwuegbuzie and Daros-Voseles (2001), Kilic (2008) and Tanel and Erol (2008) show that individuals learn more through cooperative learning than traditional learning way. Slavin (1996) also argues that cooperative learning procedure has a longer effect on meta-cognitive than traditional procedures. Chang (1991) and Yilmaz (2010) express that among learners, the compensation strategies are used much more than affective strategies in spite of the fact that researchers know in most researches meta-cognitive has the highest usage (Magogwe and Oliver, 2007; Akbari, 2003).

Ziahosseini and Salehi (2008) stated that first of all internal motivation has got the biggest part in memory strategies. After that researchers can put the others like cognitive, meta-cognitive, social and affective strategies which have a positive and significant relationship with internal motivation. Now, there is a question and that is whether cooperative learning has any effect on using language learning strategies, especially memory strategy and whether this effect is significant in terms of self-efficacy.

MATERIALS AND METHODS

This study is a pre- and post-test experimental one with a control group to find the effect of cooperative learning on using language learning strategies. The sample population of this research was all of female third grade junior high school students in Tabriz that were selected by the cluster random sampling. Among this cluster, two classes were selected and one of them was in the experimental group (17 students) and the other one was in the control group (17 students). The first one had the cooperative teaching method with an experienced teacher and the second group had the traditional teaching method as we use in the schools now-a-days.

Instruments

The Strategy Inventory for Language Learning (SILL): This tool is used to measure how much the learners use the language learning strategy; this inventory contains 50 questions for learners that studied English as their 2nd language or foreign language and measures 6 levels of strategies as memory, cognitive, compensation, affective and social strategies. Each question has 5 alternatives (Oxford, 1990). In so many research studies in Iran that use this questionnaire, the researchers confirm its validity. Some of these researchers include Farahani and Nejati (2009) from Iran (a = 96) and Sheikh Al Eslami and Khayer (2006) (a = 59%). In this study, the reliability of this questionnaire on 30 people was found to be 79%.

The General Self Efficacy Scale (GSES): This scale is used to measure the self-efficacy with reference to no specific situation and contains 17 factors and measures the expectations of learners' self-efficacy in 3 levels: Desire for beginning the behavior; desire for finishing the behavior and resistance to face obstacles.

The Cooperative Language Learning plan (CLL): The cooperative language learning plan was two 90 min sessions a week for 3 months and it needs to be noted that the teacher was an experienced one who was completely familiar with the procedure:

- First, the students in the experimental group were divided into 4 groups including one strong, one strong and two mediocre. They were given responsibilities to do
- In the dialogues, they were asked to listen to the tape. Then, students discussed about statements, repeated them, teacher asked them some questions and certainly they learned some new words
- In grammar, they were asked to read the structures and being in the same mind and make an example and at the end each group had to deliver a report
- To strengthen the listening skill, the teacher asked them to listen to the tape and repeat some sentences if necessary
- In the case of reading, first they listened to the tape several times. Then, they read the text together and adjusted their pronunciation problems. At the end, each group delivered an summary of the text
- Now, they had some questions individually and in groups to answer and it was for that they compared their efficacy with their grades in groups and individually
- As they did a team work, the teacher was moving among them to answer their questions and cooperate with them

- At the end of each session, the average of groups' grades would be measured and the group with the highest point is known as the best ones

Intervention

Pre-test: Before classes started, the two groups had completed both strategy inventory for language learning and general self-efficacy scale.

Interference stage: The students in experimental group were given the cooperative language learning plan and the students in control group were given the traditional language learning plan. This plans lasted one semester.

Post-test: Following treatment, both groups completed strategy inventory for language learning again.

RESULTS AND DISCUSSION

Researchers used co-variance analysis to examine the function of cooperative english learning in using English learning strategies with learners. Before analyzing the results, researchers compared the students' grades on pre- and post-test in both groups. The grades' average of language learning strategies of students at experimental group in post-test was more than that of the pre-test. Also, it shows us the effect of independent variance. This difference was not observed in the control group. The result is reported in Table 1.

Also, Leven's test and equality of covariance reveal that the supposedly harmonious gradient with learning strategies is not significant or meaningful. Thus, researchers used the co-variance to examine this hypothesis and the result is on Table 1.

According to Table 1, the differences between pre- and post-test grades in both groups for memory strategy's variable ($p<0.05$, $F = 4/90$) is significant and the mean scores of the experimental group in memory strategy's variable at level of $\eta^2 = 0/16$ ($p<0.05$) is more than that of the control group. Therefore, the findings results support the effects of cooperative learning on increasing the use of memory strategies. The researchers then examined the hypothesis that cooperative learning has a significant effect on using English learning strategies with relation to self-efficacy. Researchers used the self-efficacy variable as a moderator variable and the following result showed cooperative learning had a major impact on using English learning strategies when self-efficacy was controlled ($\eta^2 = 0/138$, $p<0.05$).

The results show that the effect of cooperative learning on dependent variable (memory strategy) is significant. This finding confirm the study of Kagan (1994). Neysia *et al*. (2005). These studies also found that cooperative learning increases the learning ability of learners and improve the power of their memory. We can say the learners who used the cooperative learning strategy allocated more time to doing their homework. Spending more time to learn and more repetition caused the learning process to be deeper (Craik and Tulving, 1975).

Compared to their counterparts, the learners that used this approach received more examples. And thus, they memorized it better (Santrock, 2008). On the other hand, the learners can see the way that others pronounce words and make sentences and this helps them draw pictures to keep the information in their memory (Paivio, 1986).

This approach also helped them to establish links between the earlier information and the new one and retain it for a long time more than before (Slavin, 1996).

CONCLUSION

This study proves that the independent variable, i.e., cooperative learning did not have any significant effect on dependant variables, namely; cognitive, compensation, meta-cognitive, affective and social strategy. In this regard, the findings of this study do not correspond with those of Tanel and Erol (2008) which confirms the effect of cooperative learning on students' meta-cognitive and of Slavin (1996) reporting that cooperative learning has a significant effect on developing social skills. Researchers think that probably time limitation is the factor which affects that. It means if the learners use this method for more than one semester, most probably they will use cognitive, meta-cognitive, affective and social strategies more. Another finding of this research is that the self-efficacy could not affect the usefulness of cooperative learning on using learning strategies. Self-efficacy could predict the performance of the

Table 1: Results of ANCOVA on the mean of pre- and post-test scores of SILL

Source	Dependent variables	Type III sum of squares	df	Mean square	F	Sig.	Partial η^2
Group	Memory	128.899	1	128.899	4.902	0.036	0.164
	Cognitive	84.276	1	84.276	1.131	0.298	0.043
	Compensation	0.524	1	0.524	0.024	0.877	0.001
	Meta-cognitive	0.813	1	0.813	0.019	0.890	0.001
	Affective	18.291	1	18.291	1.477	0.236	0.056
	Social	29.464	1	29.464	1.629	0.214	0.061

students so in this study researchers controlled it and saw the major impact of cooperative learning on using of memory strategy.

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