The Effect of the Dicto-gloss as a Cooperative Learning Technique on EFL Learners' Self-efficacy in Writing

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Abstract—This study investigates the effect of Dicto-gloss as a cooperative learning technique on the perceived self-efficacy of Iranian EFL learners in writing. There were 46 Persian speaking EFL learners participated in this study. Out of 46, 23 participants were taken as the experimental group and the other 23 as the control group. They were heterogeneous due to the cooperative nature of the study. As the first phase of data collection, a self-efficacy in writing questionnaire developed by Yavuz-Erkan (2004) was administered to both groups as a pretest in order to evaluate the degree of their self-efficacy in writing. The experimental group was exposed to the Dicto-gloss technique of cooperative learning, while the control group was exposed to the traditional method of writing instruction in TEFL writing classes. After 13 sessions of treatment, the self-efficacy in writing questionnaire was reapplied to both groups as the post test. The participants’ scores in the two groups were calculated and compared. The results revealed a difference between the two groups, indicating the effects of THE dicto-gloss technique of cooperative learning on self-efficacy in the writing of EFL learners.

Index Terms—cooperative learning, the Dicto-gloss technique, self-efficacy in writing, EFL learners

I. INTRODUCTION

One of the significant elements of education reform is to recognize the importance of the affective variables in learning second language. Honeck (2013) believes that most of the students have negative beliefs about their second language learning abilities and writing skill due to possible factors such as academic inexperience, language barriers, cultural differences, stress, tension and apprehension. He argued that these negative factors may affect learners' academic success. When confronted with completing the required tasks for their ESL/EFL courses, students need to have self-confidence. This required self-confidence in performing task is called “self-efficacy” (Bandura, 1977). The reason behind why many students have difficulty in school is not just because they are incapable of performing successfully but, according to Pajares (2002), because they are incapable of believing that they can perform successfully. He believes that many, if not most, academic crises are crises of confidence.

Self-efficacy, as a component of social cognitive theory, refers to the belief that one can successfully perform a task (Bandura, 1977). In academic settings, self-efficacy helps a student put efforts and persistence on a task. Bandura (1997) argues students’ judgments in their capabilities to perform a particular task influence their academic achievement, since these beliefs affect emotional states such as stress, anxiety, apprehension, and depression, as well as motivation. Researchers have clearly shown the self-efficacy beliefs influence academic achievements directly or indirectly through its influence on goals (see Zimmerman & Bandura, 1994). This means that if individuals have a high degree of efficacy, they will set challenging goals and persist in achieving them.

It should be noted that self-efficacy judgments are both “task-specific” and “situation-specific” (Bandura, 1986). The term writing self-efficacy was coined by Frank Pajares (2003), to mean that a strong sense of confidence enables the learners to write well when writing an essay because it delivers greatest interest, attention and persistence in the face of difficulties in writing process. Self-efficacy beliefs have been noted as one of the strongest predictors in writing performance (Klassen, 2002).

Interestingly, self-efficacy is malleable and can be enhanced by many strategies (Bandura, 1986). In educational settings, instructional syllabus and teachers can implement a lot of strategies to motivate and enhance the self-efficacy beliefs of learners. For instance, one of the student-centered approaches is cooperative learning. The idea of
cooperative learning, according to Joseph (2004), is based on the premise that an individual can only achieve his/her goals, if other members of the group with whom s/he is learning can equally attain their goals. Johnson & Johnson (1999) also mention that unlike individualistic or competitive learning, cooperative learning activities result in greater effort for achievement, more productivity, greater commitment, more self-esteem, greater social competence, more positive interpersonal relationships, and greater psychological health. Hence, it is assumed that cooperative learning, as learning and teaching strategy, can be implemented for self-efficacy beliefs.

One of the techniques that can be used in cooperative learning activities is the Dicto-gloss technique. The term was originally introduced by Wajnryb (1996). Dicto-gloss, according to Jacobs & Small (2003), is "an integrated technique for language learning in which students work together to create a reconstructed version to them by their teacher" (p:1). Dicto-gloss is an activity that naturally incorporates the elements of a text read cooperative learning, it is "a classroom dictation activity where learners listen to a passage, note down key words, and then work together to create a reconstructed version of the text" (Vasiljevic, 2010, p, 41). In fact, it is a model that embodies the current language teaching method for its learner autonomy, cooperation among learners, curriculum integration, focus on meaning, diversity, thinking skills, alternative assessment and teachers as co-learners (Jacobs & Farrel, 2001). It is an effective way of combining individual and group activities which can potentially have several advantages over other models of writing performance. Dicto-gloss can thus be used as a cooperative technique in EFL classroom activities. However, in spite of its possible effects, the use of this technique has not been studied in classroom activities as far as self-efficacy in writing is concerned. As a result, this study explores the impact of the Dicto-gloss technique of cooperative learning on self-efficacy of EFL learners.

II. LITERATURE REVIEW

There is a considerable body of research on finding the relationship between self-efficacy construct and other variables in second language contexts. Many researchers have examined self-efficacy construct in relation to learning strategies, language apprehension, motivation, self-esteem, critical thinking, age, learning styles, personality traits, language performance and second language achievement. The study of all these researchers shows that the learners' self-efficacy effects learners' motivation to learn (Pintrich & De Groot, 1990; Pujares, 2003; Schunk, 1991).

As far as self-efficacy in writing in EFL classrooms is concerned, there is not considerable research on the investigation of self-efficacy beliefs in second language writing. Prilah (2011) conducted a study on 120 Malaysian ESL learners' writing self-efficacy and found that the learners' overall self-efficacy was at a moderate level, which paralleled their moderate level of writing performance. Shah (2011) investigated the writing self-efficacy of Malaysian students learning English. They also studied the relationship between the learners' writing performance and their self-efficacy. Descriptive analysis of their study showed that the participants had a medium level of self-efficacy in writing and there was a significantly positive relationship between self-efficacy and writing performance.

It is interesting that efficacy is not perpetual and genetic characteristic or a congenital ability which could be present or absent in the people's capabilities or behavior (Bandura, 1997). The controversial issue is that if self-efficacy is not a congenial and permanent behavior and if its cultivation is affected by many external factors and affective functions, there must be some strategies to enhance this construct.

Research has proposed several strategies for this purpose, some of which include goal-setting, rewards, feedback and modeling are the suggested strategies for improving self-efficacy. Bandura (1997) suggested that self-efficacy can be enhanced through four major sources: "Mastery experience", "vicarious experience", "verbal persuasion", and "emotional arousal". According to him, mastery experience, which is the most influential sources of efficacy information, refers to the past experiences of success or failures of people. It means that people who have experienced successful performance tend to have high self-efficacy; hence, past experience plays a key role in developing self-efficacy beliefs. Vicarious experience, in the learning context, is when learners observe their peers accomplish a task successfully; they enhance efficacy beliefs about their own abilities in accomplishing the task and hence this situation can develop the learners' self-efficacy (Bandura, 1997). Social persuasion based on Bandura's explanation (1997) refers to the time when people receive encouragement and positive feedback which affect their efficacy. Bandura then mentions that the fourth way of increasing self-efficacy is concerned with emotional arousal (1997). In fact, affective arousal is divided into positive and negative responses. With negative responses, stress, anxiety, fatigue, negative attitude, and adverse mood can be experienced when facing challenges (Pajares, 2002). Consequently, in learning context, learners who have not language apprehension in performing the task, feel relaxed and see the learning situation as pleasure, so their efficacy beliefs can be enhanced.

Although there is a vast body of research that show the application of cooperative activities in second language learning is effective (Slavin, 1995), studies related to using cooperation for enhancing self-efficacy beliefs are not enough. One study (Ahour, 2012) tried to find out the effect of Cooperative Directed Learning on the writing performance of ESL undergraduate students compared to Directed Reading without cooperation and no treatment. The results revealed that the Cooperative Directed Learning had better performance in writing fluency and writing accuracy than Directed Reading without cooperation and treatment. Their finding verified the importance of using cooperative learning for writing.
As mentioned earlier, not enough research has been done to suggest the effectiveness of cooperative learning in increasing learners' self-efficacy. Reisberg & her colleagues (2012) conducted a study to examine the effect of cooperative education on the three dimensions of self-efficacy: work, career, and academic of students of undergraduate-engineering. Of the three forms of efficacy, work self-efficacy was found to be affected by cooperative teaching. Fletcher (1990) attempted to explain how cooperative learning activities might strengthen learners' self-efficacy. As a consequence, there is a lack of research in developing self-efficacy beliefs of EFL learners in writing through cooperative learning. In fact, to the best of the researchers' knowledge, there is no study examining the impact of the dicto-gloss model of cooperative learning on self-efficacy of EFL learners in writing. Accordingly, the purpose of this study is to investigate the effect of the Dicto-gloss as a cooperative learning technique on self-efficacy in the writing of EFL learners.

III. Method

A. Participants

46 Persian speaking English learners, both male and female, took part in this study. They had passed already several basic courses in speaking, listening, reading, and writing in English in Pooyande institute. The participants had been already ranked based on their total scores on the language proficiency test administered by the institute. In fact, the principal factor for cooperative learning activities is heterogeneous groups (Slavin, 1982), so they were not needed to be on the same level of language proficiency. Kagan (1992) justifies the reason behind the heterogeneous group of learners as he believes it develops opportunities for peer support, maximizes cross-sex and cross-ethnic relations, and ensures that each group has one proficient participant. Johnson and Johnson (1989) argue many advantages of heterogeneous group of learners. They believe that such group formation improves social behaviors and develops self-esteem, enhances acceptance of differences and learners' tendency to have higher self-efficacy. Slavin (1982) clarifies cooperative learning as an "instructional methods involving small heterogeneous groups work together towards a common goal (pp.10-11). Slavin (1995) refers to Piaget and Vygotsky's developmental theories which emphasize on the problem solving by interaction among peers.

B. The Questionnaire for Self-efficacy in Writing

Data in this study was collected through one questionnaire that was administered two times, one to estimate writing self-efficacy of EFL learners before treatment and the other after treatment for both the experimental and control groups. Based on the self-efficacy construct proposed by Bandura (1977), Yavuz-Erkan (2004) developed a 28-item writing self-efficacy scale to assess the amount of subject's beliefs in their writing ability. The items of this scale were graded with the four-type Likert scale: I do it very well, I do it well, I do not do it well, or I do not do it well at all. According to Bandura (1997), each statement was preceded by the phrase "I can..." (see appendix 1). The author of the questionnaire completed a number of statistical tests and factor analysis to determine the reliability and validity of his instrument. For this questionnaire, Yavuz-Erkan (2004) considered five factors for reliability and validity including: Content, Design, Unity, Accuracy, and Punctuation. The scale was found to have cronbach alpha coefficient .88 for the first factor (Content), .80 for the second factor (Design), .77 for the third factor (Unity), .74 for the fourth factor (Accuracy), and .50 for the fifth factor (Punctuation) respectively. According to the factor analysis results, the variance explained with five factors was found to be 66.16.

C. Procedure

The treatment was done for 13 sessions held once per week and 30 minutes for each session. For the first week, self-efficacy questionnaire was administered to both classes. The questions in the questionnaire focused on exploring students' writing self-efficacy. The allocated time for this test was thirty minutes. For the next and the last 8 sessions, students were given three text topics to choose one based on their interest and background knowledge. Then the students listened to the short text. In the next step, students worked together in small groups to reconstruct the text, in a completed sentence form. They discussed to make a cohesive text type. They shared the key words, key content words and key structures. At this stage, even weaker members had the capability to share their notes with groups, since even the strongest had not the ability to remember all. This helps each individual to have one thing to do in a cooperative group working and increase his/her self-esteem. However, in the last step, which was for correction and analysis, learners relied on the more competent students. This stage of process lasted about 30 minutes. The control group practiced the conventional way of learning writing. After the treatment period, the questionnaire was reapplied in order to see whether there were any changes in writing self-efficacy of learners in the experimental and control groups.

IV. Results

An independent t-test was run to compare the mean scores of the experimental and control groups on the pretest of self-efficacy in order to examine whether the two groups enjoyed the same level of self-efficacy prior to the administration of the dicto-gloss model of cooperative learning activity. The scores of both groups were calculated. Table (1) presents the results of the pretest.
The purpose of this study was to find out the effect of the dicto-gloss technique as cooperative learning on the perceived self-efficacy of EFL learners in writing. To find out possible effects, independent sample t-tests were used (SPSS 21 version 2). The analysis of the obtained scores through t-test ($p$ value: 0.0009 $<$ 0.05 and $t$ = -2.00) revealed a significant difference between the variances of the two groups in the pretest. The results ($t$ = -2.00, $p$ = 0.089 > 0.05) show that the null hypothesis is rejected suggesting that there is a statistical difference in the writing self-efficacy of EFL learners in the posttest. The descriptive and inferential statistical calculations concerning the posttest suggest some information about the differences in the scores for two groups. The larger than 0.05, the variances of the two groups are not significantly different. Thus, the results ($t$ = -2.00, $p$ = 0.089 > 0.05) indicate that there is no significant difference between the mean scores of the two groups in the pretest.

As Table (1) indicates, the mean scores of both the control and experimental groups are almost the same with only a slight difference. So one can infer that the raw scores of the participants do not differ greatly, and both groups had almost similar scores on self-efficacy. Also, the results of t-test shown in Table (2), statistically confirm that there is no significance difference between the variances of the groups in the pretest.

Table (2) provides us with the results of the Levene's test for equality of variances. Levene's test examines the sameness of the variance of scores for two groups. If the $F$ value is smaller than 0.05, it can be concluded that there is no significant difference between the mean scores of the two groups in the pretest.

After the treatment, the self-efficacy in writing questionnaire was reapplied to both the control and experimental groups. Table (3) illustrates the group statistics of the scores in the posttest. According to Table (3), there is a difference between the participants’ mean scores in the pre- and post-tests. In order to have more accurate and valid information, the independent t-test was used to compare the participants’ scores in the posttest; the results indicate a significant difference between the two groups (Table 4).

As Table (4) indicates, with the $F$ value of 0.000 at the significance level of 0.009 being smaller than 0.05, the variances of the two groups are significantly different. Since this value is smaller than 0.05, it can be concluded that there is a statistical difference in the post-test mean scores of the Dicto-gloss and non-Dicto-gloss groups. It can be concluded that the difference at the end of the treatment could be attributed to the effect of the treatment. In fact, the results ($t$ = -2.00, $p$ = 0.009 $<$ 0.05) show that the null hypothesis is rejected suggesting that the dicto-gloss model of cooperative learning activity does influence and has a significance effect on the writing self-efficacy of EFL learners.

V. DISCUSSION

The purpose of this study was to find out the effect of the dicto-gloss technique as cooperative learning on the perceived self-efficacy of EFL learners in writing. To find out possible effects, independent sample t-tests were used (SPSS 21 version 2). The analysis of the obtained scores through t-test ($p$ value: 0.0009 $<$ 0.05 and $t$ = -2.00) revealed...
that there was a significant difference between the mean scores of the groups at the post-test. It can be concluded that Dicto-gloss as a cooperative learning activity affects writing self-efficacy of the experimental group.

It can also be concluded that the Dicto-gloss technique as a cooperative learning activity in writing increases learners' efficacy. This can be due to the fact that cooperation reduces anxiety. Many researchers (Johnson & Johnson 1989, Slavin 1991, Oxford, 1997, Ghaith & El-malak, 2004, Law, 2011) believe that cooperative learning activities decrease learners’ anxiety and foster their attitudes toward language learning.

Cooperative learning activities increase self-efficacy of learners through peer modeling, vicarious experience and mastery experience as the possible sources of self-efficacy enhancement (Bandura, 1997). Cooperative learning activities affect self-efficacy since it enhances learners' cognitive style and motivation through interaction and negotiation (Nunan & Lamb, 1996). It has also been argued that cooperative learning gives students “a feeling of control over what they are doing, which leads to the Learners' self-determination that is necessary for motivation and high achievement” (Bandura, 1977, p. 202). Gillies (2002) believes that “When children were provided with the opportunity of working cooperatively together to exercise control over their own learning, they were more committed to the group goals and had a greater unanimity of purpose than when cooperation was not actively promoted” (p. 139).

The results also support Garduno’s findings (2001) that cooperative problem solving influences mathematics achievement, self-efficacy and attitudes toward mathematics in gifted students. Reisberg (2012) supports this hypothesis in his study, claiming that cooperative education is a means to enhance self-efficacy among sophomores in undergraduate engineering. The findings of the present study correspond to Araban’s (2012) results, the cooperative learning effects on self-efficacy and academic achievement of high school students. He concluded that cooperative learning activities affect both self-efficacy and academic achievement of English students.

In the Dicto-gloss model of cooperative learning, the students learn best communicating with students of different abilities when trying to solve a problem. Different strategies are demonstrated by different individuals with different learning styles in accomplishing the task. Among other researchers (Dishon & O'leary, 1984; Johnson and Johnson, 1989) pointed out the heterogeneous group of learners develop more merits than homogenous ones as it helps people to be exposed to different information in the discourse due to differences in background knowledge and ways of learning. Such differences help the learners learn from each other. It should be noted that “Piaget &Vygotsky also emphasize the social nature of learning and both suggest the use of mixed-ability learning groups to promote conceptual changes” (Slavin, 2003, p.258). Vygotsky's (1978) most known concept, the Zone of Proximal Development (ZDP), refers to the level of knowledge that is beyond which the learner is able to do. To help a learner to move to a higher level, teachers are suggested to provide a situation of cooperation among learners. In cooperative situations, the person who is a more knowledgeable peer at a level that is just above the novice learner's abilities at that time could help the novice learner to move to the next level of knowledge. To help learners progress into their ZDP in the peer cooperative groups, more peers are expected to scaffold the novice or less proficient learners in a way to actualize their potentialities. Slavins'(1982) heterogeneous cooperative model supports Vygotsky's (1978) belief in asymmetrical relationship between peers. Cooperation does work when the peers cooperate with each other for the sake of filling the gaps.

Additionally, van Lier (1991) argued that interaction, participation, and negotiation create learning opportunities in L2 classrooms. Also, Alijaafreh (1994) mentioned learning is a collaborative process, not something that an individual does alone. In fact, teamwork is necessary in assisted performance.

Kohn and Vajda (1975) believed in the heterogeneous grouping of learners. They argued that small group organization should be similar to a natural world setting in which students of different degrees of knowledge and skills cooperate with each other and such heterogeneity increases interaction. Ohta’s (2000) study revealed that learners were capable to do some tasks together that they were incapable individually. In fact, cooperative learning exhibits performance accomplishment which is a key factor for developing self-efficacy (Bandura, 1997). In this study, learners accomplished the tasks in the Dicto-gloss model since they benefited from peer collaboration. Learners had repeated experiences of success. According to Schunk (1990), progress of success influences learners' efficacy and their motivation to work harder to accomplish the task. In fact, the Dicto-gloss technique of cooperative learning serves the purpose of performance accomplishment. The sense of experience in accomplishing the tasks both creates and increases the efficacy beliefs. It is obvious that the efficacy beliefs of learners in writing in the experimental group were increased through vicarious experience, peer modeling, and mastery experience (Bandura, 1997). In addition, more proficient learners in heterogeneous groups developed their sense of efficacy through "mastery experience" as one source of efficacy enhancement (Bandura, 1997). More advanced learners have an opportunity to adjust, refine, and experience with their own language through interaction (Ohta, 2000).

VI. CONCLUSION

The findings of this study show that cooperative activities influence learners' self-efficacy. More specifically, the learners who receive cooperative activities have a better sense of self-efficacy in writing. In fact, one way that teachers can increase students' self-efficacy in academic settings is through peer modeling and cooperative tasks. If students see a successful learner in their group, this would give them a positive view about their own abilities, and this would have a significant influence on students' self-efficacy. If the cooperative learning instrument is implemented correctly in the classroom, each individual is expected to be accepted as being helpful by his/her peers in the group. This means that
more proficient learners are respected for their knowledge as well as their disposition to share their knowledge; less proficient are valued for their inclination to make improvement and to share what they remember. Teachers can provide an atmosphere in the classroom which is free of anxiety and writing apprehension. Students need to enjoy from cooperative tasks with their peers and teachers can provide such situations. Therefore, by implementing cooperative tasks, teachers can help learners to mostly overcome the feeling of uncertainties about their capabilities, and develop writing self-efficacy in learners through peer modeling, mastery experiences, verbal persuasions and decreasing their apprehension and anxiety.

In addition to teachers, syllabus designers and material developers can also play an important role in this regard. They can provide materials for teaching writing to language learners and design exercises by teaching basic principles and different formats of writing. They can also implement some strategies in their materials for students to work cooperatively in classes.

APPENDIX

Questionnaire
Perceived Writing Self-Efficacy Beliefs Rate Scale (developed by Yavuz-Erkan, 2004)
Read each statement below and then use the following scale to indicate various degrees of effectiveness. Of course, there are no right or wrong answers to such questions, so do not spend too much time on any one statement, but select the answer that best applies to you. Thank you for your cooperation.

1= I do it very well  2= I do it well  3= I do not do it well  4= I do not do it well at all
1 I can write interesting and appropriate response to a given topic
2 I can easily cover all the information that should be dealt within a given topic.
3 I can use appropriate style to the task.
4 I can easily match style with topic
5 I can generate ideas to write about easily.
6 I can think of ideas rapidly when given a topic to write about.
7 I can write on an assigned topic without difficulty.
8 I can easily find examples to support my ideas.
9 I can justify my ideas in my compositions.
10 I can write grammatically correct sentences in my compositions.
11 I can use complex language in writing without difficulty.
12 I can produce error free structures.
13 I can spell very well.
14 I can use the punctuation correctly.
15 I can edit my compositions for mistakes such as punctuation, capitalization, paragraphing.
16 I can easily use structures I have learned in my class accurately.
17 I can link ideas together easily.
18 I can use transition words correctly to make my composition a better one.
19 I can use connectors correctly to make my composition a better one.
20 I can use a wide range of vocabulary in my compositions.
21 I can use synonyms in a composition rather than repeating the same words over and over again.
22 I can write a brief and informative overview of a given topic.
23 I can manage my time efficiently to meet a deadline on a piece of writing.
24 I can rewrite my wordy or confusing sentences to make them clearer.
25 I can extend the topic to fit in a given word limit.
26 I can choose and defend a point of view.
27 I can make long and complex sentences.
28 I can fulfill a writing task without difficulty within a given time limit.

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