The Effect of Learner-generated Drawing Task on Young EFL Learners' Fluency and Accuracy in Speaking

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Abstract
The aim of this study was to identify the impact of learner-generated drawing task on young EFL learners’ fluency and accuracy of speaking. In doing so, it followed a quasi-experimental design and from among 40 female students (aged 10 to 13), 31 were selected based on the results of their scores in their final exams for three levels and subsequently divided into two groups. In this study, one drawing task used to collect data. Two oral narrative tasks were administered for pre-test and post-test. After 10 sessions of treatment, learners took part in post-test. The voices in pre-test and post-test were transcribed and analyzed. A within group dependent t-test revealed that drawing task resulted in significant differences in subjects’ oral discourse in terms of fluency and accuracy. Researchers and teachers might find it very beneficial to design effective drawing task to help young language learners improve their oral production.

Key words: accuracy, creativity, drawing task, fluency

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Introduction
Recently researchers have seen rapid growth in the numbers of children being taught foreign languages at younger ages. Learning a foreign language is a process through which learners need to improve some skills and sub skills such as reading, writing, vocabulary, and speaking in which they are supposed to express themselves orally. Young learners, since they are “young” and their speaking equipment has not yet developed perfectly, will probably have limitations in speaking. Young children learning English as a foreign language do not develop English –Language skills more readily than older learners. Consequently, those learners use their mother tongue in order to communicate in the classroom. Speaking is equally important in children’s overall language development. It is the first output after the first input (Listening), long before they can write. Speaking competence mainly covers speaking accuracy and fluency. Accuracy refers to "the degree to which the language produced by the speaker conforms to target language norms" (Skehan 1996, p. 47). Fluency refers to "the learners’ capability to mobilize one's linguistic resources for the sake of real-time communication at relatively normal rates, approaching to one's own native-language speech rates" (Skehan 1996, p.48). In order to improve fluency and accuracy of learners’ in speaking foreign language teachers and researchers seek for the best strategies. Various tasks have been used in language classrooms to engage leaners in authentic oral communication. Methods of communicative and task-based language teaching often employ tasks that require students to use their imagination and to generate ideas. These tasks might provide creative learners with more chance to practice and produce more comprehension output, which could lead to greater success in second language acquisition (Swain, 1985). With the aim to improve young EFL learners’ speaking competence, this paper explored the effect of learner-generated drawing task on fluency and accuracy of learners in speaking. Learner-generated drawing is defined as a strategy in which learners construct drawing(s) to achieve a learning goal. Drawing is considered a strategic process because it matches several dimensions along which strategies are defined: learner-generated drawing is goal-directed, serves to organize knowledge, and, when matched to the task, improves learning (Paris, Lipson, and Wixson., 1983). As such, learner-generated drawing is similar to other strategies such as summarization, self-questioning, or prior knowledge activation. As a strategic process, the behavior of producing a drawn, external representation is believed to direct underlying cognitive processes responsible for task performance (Van Meter, 2001). The definition of drawing used in this article is directed and constrained by the hypothesized underlying cognitive processes involved. Johnson (1988) uses learner-generated drawing in the language arts classroom. In the drawing method she describes, students first read about a language rule. After reading, students create posters to illustrate the meaning of the rule, in Johnson’s use of drawing, students are instructed to incorporate writing by including explanatory words from the text. Completed posters are presented to the class and students
explain how their drawing represents the rule. Fisher (1976) discusses drawing as a means to improve elementary-aged remedial readers’ listening comprehension. Fisher (1976) uses this process to engage students in the story and discuss different story parts. Fisher believes that learner-generated drawing not only improves comprehension but also increases student involvement.

Similarly, Rich and Blake (1994) describe using drawing with fourth and fifth grade remedial readers to improve both text comprehension and knowledge acquisition. Students in these classrooms are taught to use drawing to represent main ideas and to combine drawing with words. In addition, Rich and Blake indicate this strategy can be used before reading to activate background knowledge and to prompt discussion.

In writing, drawing is seen as a means to stimulate students’ thoughts during story formation (Dietz, 1976), as an aid during revision (Ernst, 1997a), and as a support for “detailed and descriptive writing” (p. 26, Ernst, 1997b). Additionally, many believe that drawing supports young students in making the transition from oral to written forms of expression (e.g., Hubbard, 1987; Karnowski, 1986). Learner-generated drawing has been specifically used to help students generate story ideas and plan writing activities. Dietz (1976), for example, had fourth grade students in her classroom generate drawings to spur imagination and to express these ideas in writing creative essays. To explain how she uses this strategy, Dietz describes an activity in which students were to invent and write about a monster. The activity began with students participating in a group creation and drawing of a class monster. Drawings were accompanied by written descriptions and stories about the monsters. Dietz contends this strategy helps students generate novel ideas for writing and promotes other literacy activities in the classroom.

A review of related research studies has revealed minimal examination of learner-generated drawing task on Iranian EFL learners’ fluency and accuracy of speaking especially with young learners. Therefore, the aim of this study was to find out the effect of learner-generated drawing task on fluency and accuracy of Iranian EFL young learners’ speaking.

According to the problems mentioned above the following two research questions were formulated

RQ1: Does learner-generated drawing task affect the fluency of EFL learners’ speaking?
RQ2: Does learner-generated drawing task affect the accuracy of EFL learners’ speaking?

Fluency measure: For measuring speaking fluency, the speech samples were transcribed and the following three temporal variables; speech rate, articulation rate, and mean length of runs were calculated according to the methods used by Kormos and Denes (2004, p. 151-152).

Accuracy measure: Target-like use (TLU) of articles. Target-like use of articles was measured by dividing the number of accurately supplied articles by the number of obligatory contexts and inappropriately supplied articles, and then multiplying the result by 100% (Ortega, 1999; Pica, 1983; Robinson, 1995; Wigglesworth, 1997).

Method
Design: The design of the study was quasi-experimental design with pre-test and post-test. The independent variable was drawing task. The dependent variables were the accuracy and fluency of speech in the participants’ oral performance.

Participants: In order to conduct the research project, the researcher selected 31 students, this sample was selected from among 40 junior students of a private institution in Tabriz based on the results of their scores in their final exams for three levels in this institute. The sample included female students with the age range of 10 to 13.

Instruments: Two cartoon pictures as narrative tasks were used as the oral pre-test and post-test to elicit oral speech and measure accuracy and fluency of speech. In order to elicit participants’ oral narrative during the treatment, the researcher utilized one illustrated glossary item story book.

Procedure: The data collection was carried out over a period of six weeks. The researcher selected 31 out of 40 elementary Iranian EFL learners. According to the obtained mean (90.30) and standard deviation (5.62), the subjects were divided into two groups of control and experimental.

In the control group, before starting the new term an oral narrative task as a pre-test employed to elicit oral language performance. The researcher recorded their voice. The rest of the term the class was held normally according to institute structure.

However, for the experimental group other procedure was applied. The same as control group the first series of pictures as a pre-test was given to the participants in the experimental group and they were expected to narrate what is happening as a whole orally. The researcher recorded their voice. After pre-tests and familiarization sessions, learners in experimental group went through the ten-session treatment. The amount of time, which allocated to the treatment in experimental groups, was 20–25 minutes at the end of each session. In the experimental group in each session after teaching the new vocabularies, the participants had to read two pages of a story with the list of target words from their story book. After reading they were told to close their story books and draw some pictures in a piece of paper according to those target words and what they understand from the story book. They were encouraged to be as imaginative and creative as possible and not to worry about how well or poorly they draw. The researcher asked the students to narrate their drawings for their friends. The teacher helped the participants to solve any kind of problems such as vocabulary, grammar, or pronunciation. As students were describing their drawing in front of the board teacher just listened to them and wrote their mistakes and didn’t interrupt them. It should be mentioned that the written mistakes were related to Target-like use of articles. Then those mistakes were written on the board and teacher asked students find the mistakes in pairs. In the sixteenth and seventeenth session of the term the second series of pictures as a post-test were given to the participants in both experimental and control groups to narrate and the researcher recorded their voice. In both pre-test and post-test, the accuracy and the fluency of the collected data were evaluated by three raters.
Data Analysis: the data of current study were analyzed through calculating an independent t-test and a dependent t-test.

Results
Does learner-generated drawing task affect the fluency of EFL learners’ speaking?
For measuring speaking fluency, the speech samples were transcribed and analyzed. Then a Pearson-product moment correlation was performed in order to test the inter-rater reliability of scores on pre-test obtained by three raters in three groups of the study. An independent t-test is run to compare the mean scores of the experimental and control groups on the pre-test of speaking. The mean scores for the experimental and control are 85.72 and 95.80 respectively. The t-observed value is 1.15. This amount of t-value is lower than the critical value of 2.04 at 29 degrees of freedom. Based on these results it can be concluded that there is not any significant difference between the mean scores of the experimental and control groups on the pre-test of speaking. That is to say the two groups were homogenous in terms of fluency before the administration of learner-generated drawing task to the experimental group. Having treated the groups differently under the previously specified conditions, the researcher administered an oral post-test to see if this learner-generated drawing task did make any significant difference to the fluency of the participants' oral speech. Similar statistical analysis were conducted to compare the groups in post-test and the difference between two groups in term of fluency of speech was not significant (0.73 >0.05). However there was not a significant difference between groups, a within group dependent t-test for paired samples was computed to find out whether or not there were significant differences between the mean scores of the first and second performances. Table.1 shows that during the first performance, the fluency mean score of the participants in experimental group was 85.72, whereas during the second performance it increased and became 106.59.

Table1. Descriptive statistics for performance of the two groups on pre-test and post-test

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-drawing</td>
<td>85.723</td>
<td>16</td>
<td>14.105</td>
</tr>
<tr>
<td>Post-drawing</td>
<td>106.594</td>
<td>16</td>
<td>15.690</td>
</tr>
<tr>
<td>Pair2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-control</td>
<td>95.807</td>
<td>15</td>
<td>31.822</td>
</tr>
<tr>
<td>Post-control</td>
<td>108.441</td>
<td>15</td>
<td>14.264</td>
</tr>
</tbody>
</table>

A statistically significant difference between the first performance and the second performance scores in experimental group was found at the p<0.05 level (see Table.2). This means that fluency was significantly improved as a result of learner-generated drawing task.

Table2. Matched T-Tests for Fluency

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre/post-drawing</td>
<td>-3.858</td>
<td>15</td>
<td>.002</td>
</tr>
</tbody>
</table>

5
Does learner-generated drawing task affect the Accuracy of EFL Learners' Speaking?

Similar statistical analysis used for fluency were conducted to compare the groups in pre-test and post-test for learners' accuracy. An independent t-test is run to compare the mean scores of the experimental and control groups on the pre-test of speaking. The mean scores for the experimental and control are 28.93 and 32.71 respectively. The t-observed value is -0.60. This amount of t-value is lower than the critical value of 2.04 at 29 degrees of freedom. Based on these results it can be concluded that there is not any significant difference between the mean scores of the experimental and control groups on the pre-test of speaking. That is to say the two groups were homogenous in terms of accuracy before the administration of learner-generated drawing task to the experimental group.

Having treated the groups differently under the previously specified conditions, the researcher administered an oral post-test to see if this learner-generated drawing task did make any significant difference to the fluency of the participants' oral speech. Similar statistical analysis were conducted to compare the groups in post-test and the difference between two groups in term of accuracy of speech was not significant (0.13 > 0.05). However there was not a significant difference between groups, a within group dependent t-test for paired samples was computed to find out whether or not there were significant differences between the mean scores of the first and second performances in experimental group. Table 3 shows the t-test and mean scores results of the accuracy for the first and second performances. It shows that during the first performance, the fluency mean score of the participants in experimental group was 28.93, whereas during the second performance it increased and became 52.22.

**Table 3. Descriptive statistics for performance of the two groups on pre-test and post-test**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std.Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-drawing</td>
<td>28.930</td>
<td>16</td>
<td>19.562</td>
</tr>
<tr>
<td>Post-drawing</td>
<td>52.226</td>
<td>16</td>
<td>17.676</td>
</tr>
<tr>
<td>Pair2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-control</td>
<td>32.718</td>
<td>15</td>
<td>15.160</td>
</tr>
<tr>
<td>Post-control</td>
<td>41.670</td>
<td>15</td>
<td>20.915</td>
</tr>
</tbody>
</table>

A statistically significant difference between the first and the second performances scores in experimental group was found at the p<0.05 level (see Table 4). This means that accuracy was significantly improved as a result of learner-generated drawing task. Students committed fewer errors in the second performance.

**Table 4. Matched T-Tests for Accuracy**

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair2</td>
<td>-1.469</td>
<td>14</td>
<td>.164</td>
</tr>
</tbody>
</table>
Discussion and Conclusion

The present study has focused on the impact of learner-generated drawing task on fluency and accuracy of oral language performance. The results showed some evidence that learner-generated drawing task resulted in improvement in learners' oral performance. The current study is consistent with some previous studies (Johnson, 1988; Dietz, 1976; Rich and Blake, 1994) that found support for the beneficial effect of learner-generated drawing task on learning. This study also supports the previous study of Fisher (1976) that found learner-generated drawing task increases student involvement in the classroom. The learner-generated drawing task could assist foreign language learners with low level of proficiency who do not have ready-made plans to facilitate language production under real time. The findings of this study concluded that when young EFL learners are asked to do drawing task, they are likely to get some improvements in their accuracy and fluency. One implication of the current study is that researchers and teachers might find it very beneficial to devote some of their time to designing effective drawing task to help language learners improve their oral production.

References