The Effect of Divergent Tasks on Accuracy and Fluency of Young Iranian EFL learners in Speaking

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Abstract

This study was an attempt to measure the impact of divergent tasks on young EFL learners’ fluency and accuracy of speaking. In doing so, it followed a quasi-experimental design and from among 109 male and female students (aged 10 to 13), 96 were selected based on the results of their scores in their final exams for three levels and subsequently divided into three groups. In this study, two kinds of tasks such as story-generated drawing task and story-generated task used to collect data. Two oral narrative tasks were administered for pre-test and post-test. After 10 sessions of treatment, the learners took part in post-test. The voices in pre-test and post-test were transcribed and analyzed. The data of the study were analyzed through ANOVA and Kruskall Wallis test using SPSS. The data analysis revealed that divergent tasks had no effect on accuracy and fluency of speaking.

Key words: accuracy, creativity, divergent tasks, fluency

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Introduction

English speaking is sometimes ignored in young EFL classrooms, for most teachers tend to talk a lot in class, while giving few chances for students to speak English. Consequently, those learners are underdeveloped in their spoken English. 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). Ur (1996) considered speaking as the most important skill among four skills (listening, speaking, reading, and writing) According to Ur (1996), there are many factors that cause difficulty in speaking, and these difficulties are inhibition, nothing to say, low participation, and mother tongue use.

The other problem is related to the articles used by learners in the classroom. Articles in English are very important, as we use them all the time. Differences in marking definiteness among various languages have been considered one of the most confusing areas for speakers of different languages (Mizuno, 1985). In recent teaching context, a lot of attention has been paid to design activities which focus more on tasks that are balanced between the need to achieve fluency and accuracy. The impetus to task-based tendency originally emanated from Input Hypothesis (Krashen, 1981), Interaction Hypothesis (Long, 1981), and the socio-cultural view of Vygotsky (1978). Indeed, task-based teaching is deeply concerned with catering for the learners' cognitive and affective domains. It seeks to promote learners’ communicative, discoursal, linguistic, strategic, and socio-cultural competence through natural, authentic, genuine, and creative activities (Moskowitz, 1977).

The psycholinguistic approach to task-based language teaching, also known as the cognitive approach (Skehan, 1998; Ellis, 2003) uses the classification of divergent vs. convergent tasks ((Duff, 1986) to refer to tasks that are consistent with the two cognitive modes of convergent versus divergent thinking style so that with a cognitive information processing perspective in task-based activities, as a part of the problem solving process, readers collaborate in convergent or divergent styles to explore the meaning structures of the text (Richards and Rodgers, 2001). It is believed that such different task types cause learners to focus on different characteristics of the text because the demands of tasks are not the same (Joe, 1998). Divergent tasks are those that require new significant knowledge and have various outcome options with possibly more than one goal (Hommel, 2011). A number of studies have addressed the impact of various task types on features of oral speech. Yet, to the researchers’ knowledge, it is not much known about the effect of divergent tasks on accuracy and fluency of speech produced by young EFL learners. In a study, Rahimpour (1997) investigated the effects of closed tasks on the accuracy and fluency of the Iranian EFL learners' language production found that closed tasks generated more fluent speech, but there was only a trend for higher accuracy in closed tasks. In contrast to divergent thinking, convergent thinking requires focusing onto one possible response per item and thus calls for a strongly constrained
search process. Haji Pour Nezhad (2013) verified that convergent thinking emphasizes recognizing the familiar outcome, reapplying techniques, and accumulating information. Divergent thinking, however, causes the learner to generate and evaluate many creative ideas and draw unexpected connections (Duff, 1986). Duff (1986) brought the importance of goal orientation to the attention of L2 researchers in her study of the effects of convergent and divergent tasks. Katamadze (2006) studied using creativity to practice articles with geographical names. She believed that article is one of the most problematic issues in teaching English. Students find it difficult to use the article correctly and often make mistakes. She tried to help students to learn articles creatively. She concluded that creative thinking is efficient in learning articles. Flowers (2010) studied the effect of creativity on learning articles. He believed that with any field, technology education and its close relatives have numerous strengths and weaknesses. One of these weaknesses that has too long been overlooked is learning articles. We might think of technology education as empowering students, divergently fostering their own creativity. Hajesfandiari, GholamiMehrdad, and Karimi (2014) compared the effects of convergent and divergent teaching methods on learning articles. The findings indicated positive effects of both convergent and divergent teaching methods on learning articles; however, the convergent approach proved more effective than the divergent one in improving the participants’ knowledge of articles. With the aim to improve young EFL learners’ speaking competence, the present study was an attempt to measure the impact of applying divergent tasks on elementary EFL learners’ fluency of speaking as well as accuracy of speaking. According to the problems mentioned above the following two research questions were formulated

RQ1: Do divergent tasks affect the fluency of EFL learners’ speaking?
RQ2: Do divergent tasks affect the accuracy of EFL learners’ speaking?

**Fluency measure:** For measuring speaking fluency, the speech samples were transcribed and the following seven temporal variables 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 variables were divergent tasks. 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 96 students, this sample was selected from among 109 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 and male 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. In this study two divergent tasks were designed: one story-generated drawing task and story-generated task. The former involves students to draw pictures according to their understanding after reading two pages of their story book and the target vocabularies in those pages each session in the latter, students write a new story according to the new vocabularies and pictures which are in their story books. In both groups students were encouraged to be as imaginative and creative as possible.

Procedure: The data collection was carried out over a period of six weeks. The researcher selected 96 out of 109 elementary Iranian EFL learners studying English as a foreign language. Their proficiency determined on the basis of their scores in their final exams for three levels in this institute. It’s worth mentioning that the final scores of three terms were rated by three different instructors with at least six years of teaching experience. According to the obtained mean (89.22) and standard deviation (6.70), Students whose scores were between 82 and 96 were selected (see Section 4.1). The subjects were divided into three groups one control group and two experimental groups. The instructor of all these classrooms was same. 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. In the sixteenth and seventeenth sessions of the term the second series of pictures as a post-test was given to the participants to narrate and their voice was recorded. However for the experimental groups other procedures were applied. The same as control group the first series of pictures as a pre-test was given to the participants in both experimental groups 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 one 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 ask 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 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 pair.
The same procedure which was done in the first experimental group was applied with different task in second experimental group. Participants were going to generate a story with given stimulus words and the pictures from their picture story book. 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 groups to narrate and the researcher recorded their voice. Participants in all three groups were made aware of recording 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 the study were analyzed through ANOVA and Kruskal Wallis test using SPSS.

**Result**

Do Divergent Tasks 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. In order to prove the normality of the scores of the pretest from the mean of three raters, another statistical procedure, namely, one sample Kolmogorov-Smirnov test was performed and it found that the distribution of dependent variable for three groups were non-normal. For non-normality distributed data, Kruskal-Wallis test was implemented to test for differences among groups.

The result showed the homogeneity of the participants in term of this feature at the onset of the study was verified.

Having treated the groups differently under the previously specified conditions, the researcher administered an oral post-test to see if these divergent tasks 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 as it can be seen in Table 1 the difference among the three groups in term of fluency of speech was not significant (0.78 >0.05).

**Table 1. Kruskal-Wallis Test for Post-Fluency Measure**

<table>
<thead>
<tr>
<th>Post-test Fluency</th>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Drawing</td>
<td>35</td>
<td>48.91</td>
</tr>
<tr>
<td></td>
<td>Story</td>
<td>30</td>
<td>50.77</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>31</td>
<td>45.84</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>96</td>
<td></td>
</tr>
</tbody>
</table>

**Fluency**

<table>
<thead>
<tr>
<th></th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp Sig.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>.489</td>
<td>2</td>
<td>.783</td>
</tr>
</tbody>
</table>

Do Divergent Tasks 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. Since the data meet the requirements for a parametric test in post-test, one-way ANOVA was used.

Table 2. One-way ANOVA Results for Accuracy Measure

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>810.122</td>
<td>2</td>
<td>405.061</td>
<td>1.367</td>
</tr>
<tr>
<td>Within Groups</td>
<td>27548.146</td>
<td>93</td>
<td>296.217</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28358.268</td>
<td>95</td>
<td></td>
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</tbody>
</table>

One-way ANOVA results shown in Table 2 revealed that the treatment applied in the study did not have a significant impact on the accuracy of the language learners under the study (p = .260 > 0.05) and it can be claimed that they have not made any development in this respect. According to the results it can be claimed divergent tasks had no significant effect on learners' accuracy.

**Discussion and Conclusion**

The first research question addressed the effect of divergent tasks on learners' speaking fluency. According to the findings, divergent tasks did not have a significant impact on the fluency of the language learners under the study. The findings are inconsistent with Pashaie and Khalaji (2014) who studied the effect of open task outcome on speaking improvement of pre-intermediate learners. The results of the study revealed that the participants' levels of speaking fluency in the experimental group was significantly higher than those in the control group.

The second research question, on the other hand, addressed the effect of divergent tasks on the accuracy of oral production of learners. According to the findings, the changes in accuracy measure were not statistically significant among three groups. Divergent tasks did not influence the accuracy of the participants' speech at all. The findings of present study are not in line with Katamadze (2012) who studied using creativity to practice articles with geographical names. She believed that article is one of the most problematic issues in teaching English. Students find it difficult to use the article correctly and often make mistakes. She tried to help students to learn articles creatively. She concluded that creative thinking is efficient in learning articles. These findings are not in line with Shoarnaghvi, Seifoori, and Ghafoori (2014) who studied the effect of divergent tasks on the accuracy and complexity of learners' task-based oral speech and data revealed that the experimental group outperformed the control group and the accuracy of their speech increased noticeably; however, there were no significant difference between groups in the complexity of their speech. The obtained data is partly in line with the findings reported by Rahimpour (1997), which was performed to investigate the effects of closed tasks on the accuracy and fluency of the Iranian EFL learners' language production found that closed tasks generated more fluent speech, but there was only a trend for higher accuracy in closed tasks. The findings of this study seem to provide support for the research carried out by Hajesfandiari, Gholami,
Mehrdad, Karimi (2014) who compared the effects of convergent and divergent teaching methods on learning articles. The findings indicated the convergent approach proved more effective than the divergent one in improving the participants’ knowledge of articles. This finding is in line with those obtained by Long (1990) who stated that closed tasks had positive effect on the accuracy of the learners’ performance. The reason behind this differences of results lie in the fact that some other variables have been at work which were beyond the control of the author e.g. doing the research in Ramadan month, shortage of the number of sessions, lack of time during the session, and difficulty of following the language institution rules.

References

