

GENDER-INDUCED DIFFERENCES IN TASK-COMPLEXITY-BASED INSTRUCTION OF INCIDENTAL VOCABULARY: THE CASE OF IRANIAN ACADEMIC LEARNERS

Parviz Alavinia

Faculty of Humanities and Letters,
Urmia University, Urmia,
IRAN.
pevinia2006@yahoo.com

Fariborz Malehmir Chegini

Department of English Language and
Literature, Islamic Azad University,
Urmia, IRAN.
fariborzm.chegini@yahoo.com

ABSTRACT

The researchers in the current study were after finding the viable interrelationship between elementary Iranian academic individuals' gender and their performance in terms of vocabulary learning as a result of task-complexity-based incidental vocabulary instruction. The study was conducted with sixty Iranian academic learners, and the instruments used were Nelson Test, English Vocabulary in Use Elementary Level Test, and Basic Tactics for Listening. Based on the findings, while the effect of gender on learners' performance was quite significant for the experimental group participants (on both pretest and posttest), no such significant difference was found to be at work regarding the relationship between the control group participants' gender and their performance on the vocabulary pretest and posttest.

Keywords: Incidental vocabulary, Task-complexity-based instruction

INTRODUCTION

Since its inception through the pioneering work of Prabhu, task based instruction has always been in the foreground of attention of manifold researchers, practitioners and all those involved with varied aspects of pedagogical endeavors. As Ruso (2007, p.2) puts it, "Prabhu stands as the first significant person in the development of TBL. His main contribution has been raising awareness of the ELT world to TBL." In his early attempts to popularize the notion of task, he delineated the term as "an activity which required learners to arrive at an outcome from given information through some process of thought, and which allowed teachers to control and regulate that process" (Prabhu, 1987, p. 24).

Though a plethora of work has, thus far, been appropriated to probing varied aspects of task-based instruction, the majority of work done in this domain has mainly centered around two dominant facets of the issue, i.e. rehearsal and strategic planning, as Ellis (2009) puts it. Among the issues toward which almost no heed has been given in the literature on task is the would-be effect of gender on learners' vocabulary learning through the implementation of task-complexity-based instruction of incidental vocabulary. Thus, the primary objective strived in the present study was coming up with a clear-cut view regarding the viable relationship between the individuals' gender and their vocabulary learning as a consequence of task-complexity-based instruction of incidental vocabulary.

Since task based learning is among the major issues of interest for both general education and higher education (particularly in the recent decades), the findings of the present study might prove to be quite fascinating for all those who are somehow involved with education, in general and novel perspectives and theories of teaching and instruction, in particular. The findings are also thought to be of great significance due to the focal role given to a rarely-headed area of research on vocabulary, i.e. incidental vocabulary. Based on the orientation taken in the current study, the following research question was formulated:

Is there any significant relationship between gender of elementary Iranian academic individuals and their performance in terms of incidental vocabulary learning?

LITERATURE REVIEW

Recent Empirical Research on Task

Though literature is replete with myriad studies conducted on various aspects of task-based instruction, the researchers' intention is not to provide a comprehensive review of the work being done on different facets of the issue. Rather, the main objective pursued in this concise section of the study is going over a couple of recent studies in the realm of task based learning. In an investigation in the litigious area of strategic planning, Mochizuki & Ortega (2008) made use of 56 Japanese freshmen and strived to determine the effect of drawing the learners' attention toward a particular grammatical feature on their performance on that specific feature. Based on the findings, fluency of the learners was characterized by a higher degree of improvement within the non-guided planning group than the other two groups, i.e. no planning and guided planning groups. Nonetheless, in the area of complexity, no significant differences were encountered, and for accuracy, guided planners were found to have gained more than unguided planners.

Behbahani, Pourdana, Maleki, and Javanbakht (2011) intended to find the effect of task-induced involvement on the process of incidental vocabulary learning. Their investigation benefited from Sixty-eight junior high school students. Using three different pieces of tasks, a reading comprehension task followed by five multiple-choice items, a reading comprehension task followed by five fill-in-the-blank items, and a sentence-writing task, the researchers in this study came up with the result that the learners' better performance on the third task (compared to the first and second tasks), which is to be taken as the higher degree of involvement on this task, led to their higher scores on both the immediate and delayed posttests. Thus, they concluded that more task-induced involvement on the part of learners has resulted in better performance in terms of incidental vocabulary learning.

Finally, in a more recent scrutiny, Lertola (2012) sought to measure the effect of exposure to authentic material and focusing on the subtitling task on learners' retention of incidental vocabulary. A total of sixteen second-year university learners had participated in this project and, in line with the findings, the learners in both subtitling and non-subtitling groups had made considerable progress in terms of incidental vocabulary acquisition from pretest to immediate and delayed posttest. Now that a brief account of some task-oriented investigations is presented for the readers, it's time to turn to the other major variable of the current research and go through some of the recent probes in the domain of incidental vocabulary learning and instruction.

Recent Empirical Research on Incidental Vocabulary

In a hunt for the distinctions holding between intentional and incidental vocabulary learning, Ahmad (2011) administered two sets of tests, i.e. Standard Confirmation Test and a Contrastive Extempore Test of intentional and incidental vocabulary, to twenty Saudi Arabian students. At the end, the researcher concluded that the learners' performance on incidental vocabulary test had proven to be much better compared to intentional vocabulary test.

Alavi & Keyvanshekouh (2012) probed the impact of extensive reading via the use of MoodleReader – a database of over 1600 online quizzes on graded readers – on Iranian EFL learners' acquisition of incidental vocabulary. Benefiting from thirty eight sophomores as the participants of the research, and assigning Production and Recognition Vocabulary Levels Tests (as pretest and posttest) to both groups, they found that the exerted treatment had led to better learning of vocabulary on the part of experimental group participants, particularly in terms of production rather than recognition. Furthermore, based on linear regression analyses, they came up with a significant go-togetherness between experimental group learners' vocabulary production and their utilization of vocabulary learning strategies.

Finally, in a quite recent article, Ghabanchi & Ayoubi (2012) investigated the impact of four different reading conditions on the process of incidental vocabulary learning and recall. The participants of this study were 120 intermediate EFL learners, and as the treatment they were asked to read two short texts under four disparate reading conditions (L1 Marginal Glosses, L2 Marginal Glosses, Dictionary Use, and Summary Writing). As the results of their study revealed, "Support was found for the hypothesis that the four vocabulary learning conditions and the time interval between the two tests

have a meaningful influence on the retention of the meaning of unfamiliar target words." Further, it was found that, "All of the four reading conditions had a significant effect on incidental learning and recall of the words, but neither the immediate nor the delayed tests revealed significant differences among the four types" (p. 85). Having gone through a pithy reappraisal of the previous work done in the areas of task-based instruction and incidental vocabulary learning, the researchers will now turn to the elaboration of different specifications of the current research.

METHOD

Participants

The participants of the current study were originally 80 male and female learners majoring in computer software in Raja Non-profit Institute in Qazvin. The subjects were chosen among the freshmen with age range of 19 to 21. They were all passing the general English course with one of the researchers in the said institute and in the second semester of 90-91 academic year. Successive to the administration of the proficiency test (Nelson Test for elementary level, test 100 D) aimed at homogenizing the subjects, twenty subjects were excluded from the original sample on account of their outlying scores, and hence the main study was carried out with the remaining sixty participants. Afterwards, the participants were randomly assigned to two separate groups (an experimental and a control group), each consisting of 30 learners. Out of the entire 30 participants taking part in group A (the experimental group), %66.7 were females and %33.3 were males. Nonetheless, compared to the experimental group, a higher proportion of males (%56.7 out of the total) attended the control group (group B). Thus, the percentage of females present in this latter group amounted to only %43.3 of the whole.

Instrumentation

A number of varied instruments, including different tests and materials were utilized in the present study. To be more specific, at the very beginning Nelson test (elementary test, number 100 D) was administered to the participants with the purpose of coming up with a homogeneous sample. Nelson test which is, in effect, a test battery encompassing three separate sections or test books, was originally written by Fowler and Coe and published in 1976 as a collection of three tests each appropriate for a particular level of proficiency, i.e. elementary, intermediate and advanced. The test used for the purpose of performing the current study was randomly selected from the introductory part of the said test, which was designed for elementary level.

Next to holding the homogeneity test, *English Vocabulary in Use Elementary Level Test* (published by Cambridge University Press, 2010) was administered to the learners as the pretest (and later as the posttest) of the study. It's worth noting that the above-mentioned test was composed of 50 multiple-choice vocabulary questions, and the content of the test was based on the materials presented in the corresponding student book, which was entitled *English Vocabulary in Use* for elementary level, written by Michael McCarthy and Felicity O'Dell (2010).

The last instrument employed in the study was the book entitled *Basic Tactics for Listening*, out of which complexity-based graded and non-graded tasks were selected and applied to learners as the treatment content. The book was comprised of 24 units, with each unit being presented on four pages. From each unit the four tasks which were presented on the second and third pages were utilized for providing the treatment. It's worth mentioning that the tasks employed were of varied natures (some drawing on the learners' productive skills and others tapping their recognition and perception), and sufficient amount of time in each session was appropriated to the completion of tasks.

Data Collection Procedure

To commence the study, 80 male and female learners majoring in computer software in Raja Non-profit Institute in Qazvin were selected. It's worth noting that these students were passing their general English course with one of the researchers in the second semester of 1390-91 academic year, and were at the elementary level in terms of language proficiency.

At the outset of the study, Nelson test (Fowler & Coe, 1976) (elementary test number 100 D) was administered to the learners for the purpose of homogenizing the sample. Successive to test administration, twenty students who were found to be outliers were set aside, and, therefore, the main study was pursued with the remaining 60 subjects, which were later assigned to experimental and control groups (with 30 participants in each group) on a random basis. Afterwards, on the second session of their course, a ready-made test of vocabulary entitled *English Vocabulary in Use Elementary Level Test* (published by Cambridge University Press, 2010) was given to learners in both groups – as the pretest of the study – to tap their knowledge of incidental vocabulary at the outset of the study.

Subsequent to this stage, the learners in the experimental groups were exposed to treatment for a matter of three months (12 educational sessions). The treatment applied in the experimental group was founded on the lessons from *Basic Tactics for Listening* (Richards, 2011), whose tasks were graded based on the complexity level, and applied to learners based on the rising level of complexity of the tasks chosen (tasks assigned to this group were ordered from simple to complex by the researchers prior to their implementation). Though the same material was covered in the control group, the level of complexity of the tasks was not kept within control, and hence the participants in this latter group received an amalgam of different lessons and tasks from the said source without any arrangement in terms of complexity level. It's also worth noting that, the tasks selected for treatment were in compliance with the topics in *Elementary English Vocabulary in Use* (McCarthy & O'Dell, 2010), and were hence thought to provide a rich context for learners to experience the incidental contact with the targeted vocabulary, i.e. the vocabulary forming the main bases of the test given to them as pretest and posttest.

As the learners were passing a three-credit general English course with one of the researchers, one third of each weekly session (which lasted for a 3-hour class time with a break time in between) was allotted to the application of treatment in each group. As the treatment was thought of as a part of their general English course requirement, it was applied during the first hour of each session, after which the learners went through the regular weekly schedule for the course. Further, the content of each session's treatment was composed of four tasks which were administered to learners on two pages and the learners were given sufficient time for the completion of the tasks; the tasks were played for the learners using a laptop connected to speakers, and then ample time was provided for the learners to fulfill the activities required in each segment.

At the end of twelve sessions of treatment, the very vocabulary test (*English Vocabulary in Use Elementary Level Test*) was given to learners once more, this time as the posttest of the study. Ultimately, the results of pretest and posttest were compared to come up with a lucid view with regard to the possible improvements in learners' performance resulting from the treatment applied.

DATA ANALYSIS

To analyze the obtained data, a number of different statistical analyses were run. To test the normality of the performance of the sample, Kolmogorov-Smirnov test was run. To further analyze the data in the current study use was also made of Eta correlational analysis as well as (paired and independent samples) t-tests. The reason for using Eta correlation test was that the researchers were after finding the relationship between a nominal variable (gender in the case of the current study) and an interval variable (the learners' performance on the vocabulary test).

RESULTS

Table 1 illustrates the results of the independent samples t-test run for the influence of gender on the performance of learners in groups A and B on both pretest and posttest. In line with the reported data, gender is found to play a significant role in the learners' performance on both pretest ($t = 2.42$, $df = 58$, $p = 0.02$; ≤ 0.05) and posttest ($t = 2.56$, $df = 58$, $p = 0.01$; ≤ 0.05). Furthermore, based on Eta correlation test results, the degree of influence of gender in pretest equals 0.34, whereas on the posttest this amount is 0.55.

Table 1. Independent Samples T-test Run for the Effect of Gender on the Learners' Performance on Pretest and Posttest

| | Gender | N | Mean | Std. Deviation | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|-----------|--------|----|-------|----------------|---|------|------------------------------|----|------|
| | | | | | F | Sig. | t | df | Sig. |
| Pre-Test | Female | 33 | 14.19 | 2.01 | 0.00 | 0.97 | 2.42 | 58 | 0.02 |
| | Male | 27 | 12.92 | 2.01 | | | | | |
| Post-Test | Female | 33 | 14.66 | 2.24 | 0.09 | 0.76 | 2.56 | 58 | 0.01 |
| | Male | 27 | 13.11 | 2.42 | | | | | |

Table 2. Eta Correlation Analysis for the Effect of Gender on the Learners' Performance on Pretest and Posttest

| Gender | Eta ² | Eta |
|-----------|------------------|------|
| Pre_Test | 0.34 | 0.58 |
| Post_test | 0.55 | 0.74 |

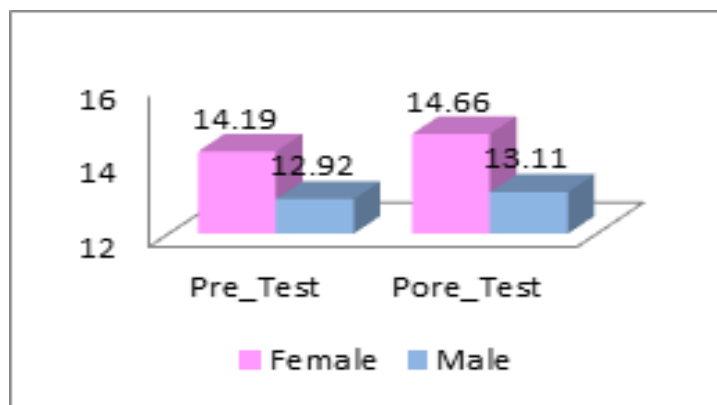


Figure 1. The Comparison of the Participants' Performance on Pretest and Posttest Based on Gender

In what follows the obtained independent samples t-test results are reported for groups A and B in isolation. In case of Table 3 a significant amount of difference is reported for the effect of gender on the performance of group A subjects on the pretest ($t = 2.27$, $df = 28$, $p = 0.03$; ≤ 0.05) and posttest ($t = 2.00$, $df = 28$, $p = 0.04$; ≤ 0.05). Moreover, as the findings reported in Table 4 divulge, in line with Eta correlation test results, the degree of influence of gender in pretest equals 0.34, whereas on the posttest this amount is 0.35.

Table 3. Independent Samples T-test Run for the Effect of Gender on Group A Learners' Performance on Pretest and Posttest

| Group A | Gender | N | Mean | Std. Deviation | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|-----------|--------|----|-------|----------------|---|------|------------------------------|----|------|
| | | | | | F | Sig. | t | df | Sig. |
| Pre-Test | Female | 20 | 15.05 | 1.38 | 4.35 | 0.06 | 2.27 | 28 | 0.03 |
| | Male | 10 | 13.55 | 2.23 | | | | | |
| Post-Test | Female | 20 | 15.93 | 1.18 | 2.15 | 0.15 | 2.00 | 28 | 0.04 |
| | Male | 10 | 14.90 | 1.58 | | | | | |

Table 4. Eta Correlation Analysis for the Effect of Gender on Group A Learners' Performance on Pretest and Posttest

| Gender | Eta ² | Eta |
|-----------|------------------|------|
| Pre_Test | 0.34 | 0.58 |
| Pore_test | 0.35 | 0.59 |

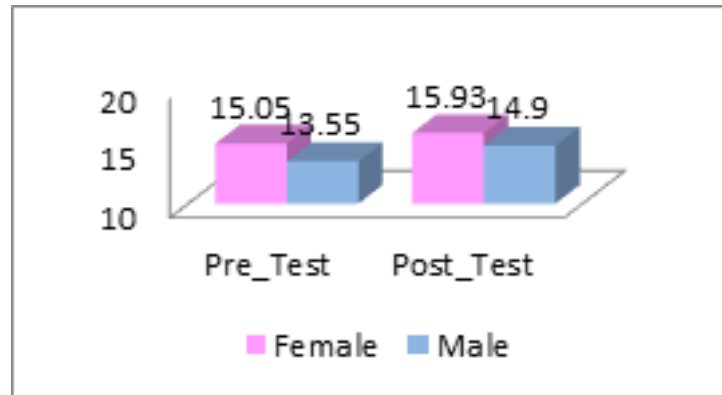


Figure 2. The Comparison of Group A Participants' Performance on Pretest and Posttest Based on Gender

Nonetheless, as the results of independent samples t-test for the control group reveal (Table 5 and Figure 3), no significant correlation is found to exist for the effect of gender on the performance of group B on both pretest ($t = 0.59, df = 28, p = 0.55; > 0.05$) and posttest ($t = 1.07, df = 28, p = 0.29; > 0.05$).

Table 5. Independent Samples T-test Run for the Effect of Gender on Group B Learners' Performance on Pretest and Posttest

| | Gender | N | Mean | Std. Deviation | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|-----------|--------|----|-------|----------------|---|------|------------------------------|----|------|
| | | | | | F | Sig. | t | df | Sig. |
| Pre-Test | Female | 13 | 12.96 | 2.17 | 0.27 | 0.61 | 0.59 | 28 | 0.55 |
| | Male | 17 | 12.53 | 1.83 | | | | | |
| Post-Test | Female | 13 | 12.85 | 2.18 | 0.03 | 0.87 | 1.07 | 28 | 0.29 |
| | Male | 17 | 12.00 | 2.19 | | | | | |

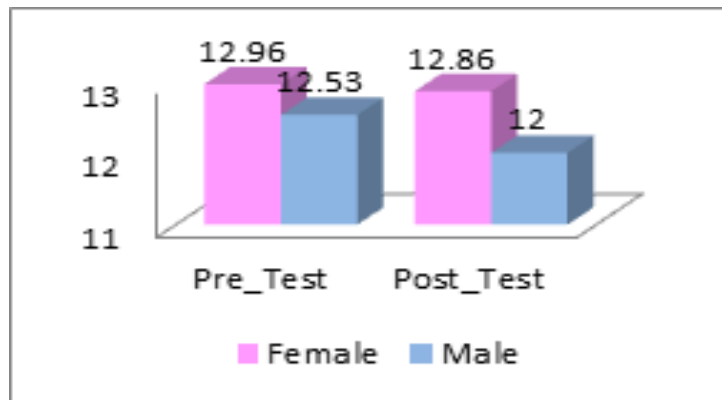


Figure 3. The Comparison of Group B Participants' Performance on Pretest and Posttest Based on Gender

DISCUSSION

As stated earlier, the researchers' principal preoccupation in the current study was to pinpoint the would-be significant relationship between gender of elementary Iranian academic individuals and their performance in terms of vocabulary learning, following from the task-complexity-based instruction of incidental vocabulary. As the findings revealed, while the effect of gender on learners' performance was quite significant for the experimental group participants (on both pretest and posttest), no such significant difference was found to be at work regarding the relationship between the control group participants' gender and their performance on the vocabulary pretest and posttest.

One pertinent piece of work which might be cited as supportive evidence for the findings gained in the present study might be the study done by Javanbakht (2011), in which the impact of different task types on learners' incidental vocabulary learning was investigated. Yet, in this study the researcher didn't control for the possible role of gender on the obtained upshots, and hence its results won't very strongly support the findings of the current study.

Yet, contradictory results were gained by Gholami (2011) in his hunt for the possible effect of gender on task-based performance. Working with 120 Iranian EFL learners and making use of three task types (information-gap, reasoning-gap and opinion-gap activities), he concluded that gender difference doesn't bring about any significant difference in the performance of learners on the tasks involved.

CONCLUDING REMARKS

Task sequencing in terms of complexity and difficulty has always been regarded as a main determining factor contributing to the comprehensibility of the input provided for learners. Though a great deal has been done with regard to the implications of controlling task complexity and difficulty for the learners' improvement with the whole process of learning, the current study might be regarded as a unique study in its own right as it sheds light on some unattended aspects of task-based instruction, which mainly emanate from its noticeable orientation toward the effect of task-complexity-based instruction of incidental vocabulary on learners' general vocabulary learning process.

This study is thought to be laden with manifold implications for varied stakeholders within the realm of didactics, including language teachers, learners, syllabus designers, test developers, educational bodies and many other individuals in the ministries of education and higher education. The main significance of the obtained results lies in the fact that vocabulary instruction plays a key role in any instructional arena and hence coming up with appropriate ways for improving this fundamental component of language in learners can help alleviate much of the learners' problem with the whole process of learning. Furthermore, teachers can gain a lot from the experience of incidental vocabulary teaching for the overall betterment of the vocabulary knowledge in their learners.

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