THE BENEFICIAL IMPACTS OF APPLYING FORMATIVE ASSESSMENT ON IRANIAN UNIVERSITY STUDENTS’ ANXIETY REDUCTION AND LISTENING EFFICACY

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ABSTRACT

This study investigated the continuous influence of applying formative assessment on EFL (English as a foreign language) learners' anxiety and listening efficacy. The participants, divided into an experimental and a control group, were 60 Iranian EFL learners in an English-language institute. This study thus highlights the pedagogical implications of assessment in EFL classrooms. Therefore, this report investigated the effect of formative testing used by teachers on students' achievement in EFL classes and its effect on reducing anxiety and improvement of listening efficacy. All in all, our hypothesis was that providing learners with formative testing during the instruction will have a beneficial impact on their improvement and learning. The sample consisted of one experimental and one control group. The data collected were analyzed by using t-test. The results revealed that there was a significant difference in the level of achievement of the treatment group in the intended matters (anxiety and listening efficacy in comparison to the control group in the summative test due to taking advantage of formative assessment).

Key Words: Formative assessment, Instruction, Listening efficacy, Anxiety

1. Introduction

Testing and evaluation of subject matter are among the ways to improve student’s learning experiences. Testing refers to testing within shorter periods than the commonly used two or three midterms (Formative) and final exam type evaluations (summative), (Basol, G., & Johanson, G. 2009). Language assessment has played a significant role in recent educational settings worldwide. Based on Thissen, and Wainer (2001), a test or examination (informally, exam) is an assessment intended to measure a test-takers’ knowledge, skill, aptitude, physical fitness, or classification in many other topics (e.g., beliefs).

Assessment is usually used to measure how much students have learned up to a particular point in time (Cheng, 2005; Ableeva, 2008). According to William (2013) the idea that assessment is intrinsic to effective instruction is traced from early experiments in the individualization of learning through the work of Benjamin Bloom to reviews of the impact of feedback on learners in classrooms. Learning and
language achievement does not happen suddenly, it occurs continuously and gradually. So evaluation needs the judgment of the process of learning by degrees.

Formative assessment is a means to monitor and regulate learning process, features prompt feedback. If students can receive continual positive feedback, which in turn will build up their confidence and relieve their anxiety (Ecclestone K and Pryor J, 2003).

Listening had been neglected in English Language Teaching (ELT) for long time. As Nunan claimed “listening is the Cinderella skill in second language learning. Based on Bozorgian and Pillay (2013), in Iran listening is overlooked. Their findings indicate that in Iran, at school level, for the dominance of Grammar Translation Method (GTM) on school pedagogy, teachers’ pay more attention to reading and writing than listening. At university level, reading is the main skill. Listening is only taught in language institutes. Often, despite instruction of listening skill being specified in the syllabus of many English language institutes, teachers do not teach listening skills but test it in the EFL classrooms in Iran. Bozorgian and Pillay (2013) indicated that some listening strategies such as guessing, making inferences, identifying topics, repetition, and note taking can improve students listening comprehension in an EFL context rather than just adopting the traditional approaches. They suggested that using L1 to explain and teach these strategies in EFL classes is indispensable and beneficial.

1.1 Statement of the Problem

Many EFL students’ academic listening skill in English are not strong enough to cope with their academic study in English-medium universities, in particular understanding English lectures and expressing opinions and comments. Such students have not gained sufficient English language skills for their academic study (Brown, 2005). The formative evaluation is the process used by designers in order to obtain information that can be utilized to revise the instruction, to make it more efficient and more productive. Formative assessment provides feedback and information during the instructional process, while learning is taking place, and while learning is occurring. Formative assessment measures student progress but it can also assess your own progress as an instructor. For example, when implementing a new activity in class, you can, through observation and/or surveying the students, determine whether or not the activity should be used again (or modified). A primary focus of formative assessment is to identify areas that may need improvement. These assessments typically are not graded and act as a gauge to students’ learning progress and to determine teaching effectiveness (implementing appropriate methods and activities). It is hypothesized that students with formative or weekly quizzes not only perform better on tests but also it has a positive effect on their anxiety and listening efficacy. Hence, the current study attempted to answer that whether administering formative tests result in better performance on final achievement tests or not.

1.2 Significance of the Study

Testing plays an important and central part in both teaching and learning. But does it always have an effect on learning? Is just learning due to nature of the test or can it have another reason? Can frequent testing positively affect teaching and learning? Testing is not an isolated event. Testing, teaching, and learning are related to each other. Put another way, working in either field without being constantly concerned with the other is nearly useless. Hence, the separation of testing from teaching and learning
is somewhat impossible. The influence of testing on teaching and learning is called wash back effect (Bailey, 1996). According to Alderson and Wall (1993), if teachers use tests to get their students to pay more attention to lessons and to prepare more thoroughly, it is positive wash back. If teachers fear poor results and the associated guilt which might lead to the desire for their students to achieve high scores in tests, it might be a reason for teaching to the test (Cited in Djurić, 2008). However, as a nominal step, the current study can be regarded as a beneficial attempt in the field of teaching and testing.

Learning and language achievement does not happen suddenly, it occurs continuously and gradually. So evaluation needs the judgment of the process of learning by degrees. Testing and evaluation of subject matter are among the ways to improve student’s learning experiences. Testing refers to testing within shorter periods than the commonly used two or three midterms (Formative) and final exam type evaluations (summative), (Basol, G., &Johanson, G. 2009).

1.3 Review of Literature

Harlen (2003) indicated formative evaluation contributes to lower level learners’ learning in that it enables lower-achieving students to make progresses step by step. Formative assessment not only works out in endowing equal learning opportunities to all parts of the community, but also diminishes special need placements. Formative assessment weighs understanding along the process of learning and directs teacher decision making about future instruction. Formative assessments also provide feedback to students so they can improve their performance. Rea-Dickins, (2001) has described a formative class in which learners try to form a picture of success and to use each assessment to learn how to improve their learning. Shohamy, (2001) believes that the least quantity use of formative assessment enables teachers evaluate the process of learning in their classes both qualitatively and quantitatively. Teachers will also be able to check their learners’ development and decide on what they need to develop their mastery. Formative assessments allow the learner to judge their own learning achievement. Formative assessments are administered throughout the learning process as an effort to inform both teacher and learner during the learning process. The Assessment Reform Group (ARG) defines formative assessment as the process of seeking and interpreting evidence for learners and their teachers to decide where the learners are in their learning, where they need to go, and how best to get there (Assessment Reform Group, 2007). A central premise to formative assessments is the goal of assisting the learner in establishing an index to their own learning. Probably the most common and almost intuitive form of formative assessment is that of question-and-answer during the teaching of a lesson. This allows a teacher and a student to gain instant feedback on understanding and learning. In this sense formative assessment is obviously not a new concept. Socrates’ preferred way of teaching was to question the learner, using questions to promote higher order thinking and foster learning (Gareis, 2006). Formative assessment as an instructional method enables learners to contribute to their own process of learning by providing a quick index to their learning during the instruction process. Students in this situation are then enabled to ask questions and express nonunderstanding of the lesson while the teacher is still discussing the topic.

A recent study was conducted by Shafiq et.al (2011) who examined the effect of classroom quizzes on academic achievement of the students. Shafiq et.al (2011) found that students who received regular quizzes outperform those who experienced no quizzes. Shirvani (2009) studied testing frequency in
high school mathematics classes for six weeks. According to Shirvani (2009), daily quizzing as an assessment strategy would significantly increase student mathematic achievement and he concluded that students’ score assignments for the experimental group significantly outperformed the control group. Basol et al. (2009) conducted his study through a meta-analytic review on frequent testing. According to the results of Basol et al. (2009), most of the studies on the effect of frequent testing report a positive effect on academic achievement. Also, the effectiveness did not differ according to the frequency level used in high, medium and low frequency group studies (p.119). In 2009 Zgraggen in his research paper “The Effects of Frequent Testing in Mathematics classroom” examined testing frequency to determine whether students retain information better if they are tested on a weekly basis or on a biweekly basis. Zgraggen (2009) found that bi-weekly testing is more beneficial for these students than weekly testing. Goh (2008) stated that learners may become anxious because they may make a mistake and they fear they will be negatively evaluated by their teachers or other pupils. Yang (2010) explored whether EFL listening anxiety and EFL listening comprehension are related to intentional forgetting. He found that the participants with low anxiety level should possess higher ability in retrieval inhibition than those with high anxiety level. Marwan (2007) found that the majority of students experience some kind of language anxiety and many of them use specific strategies to control their foreign language anxiety. Having interviewed with 20 of the most anxious students, Lui (2012) contended that personality factors, fear of negative evaluation, and parental pressure, low English proficiency, lack of preparation, pressure from the language instructor, and tests are the most common sources of foreign language anxiety.

1.4 Research Questions

With regard to the intended contents of the ongoing research the following questions are raised:

RQ1. Does Formative Assessment have effect on Iranian University Students’ Anxiety Reduction Efficacy?

RQ2. Does Formative Assessment have effect on Iranian University Students’ Listening Efficacy?

2. Methodology

2.1 Design

The design of the study is a pre and post-test design which is considered as a quasi-experimental study in which the experimental groups experienced formative tests during the term (each week one quiz). Sixty EFL learners took part as the participants in two groups of 30 EFL learners. After the treatment period lasted, the post-test was conducted to determine the impact formative assessment on listening efficacy and anxiety reduction of the participants.

2.2 Participants

To determine the objectives of this study, 60 male and female Iranian EFL students in an English language institution in Poldokhtar city with the age range of 19-25 studying participated in this study. These participants were selected through a proficiency pre-test, from 80 learners in the same
institution. Therefore, the numbers of selected participants for the sake of study were 60 students. Because of the number of the participants, the treatment was conducted in one term. The participants’ selection procedures were also done at the beginning of the term meaning that the proficiency was administered at the outset of the term through which 60 learners were chosen. Then, 30 in the control and 30 in the experimental group, as the participant of the study are our focus of the study.

2.3 Instruments and Materials

The researcher designed a program which used formative tests throughout the study rather than mere summative test. It is worth mentioning that the researcher aimed at investigating the effect of formative tests on anxiety and listening efficacy. The researchers conducted a pre and post academic achievement test, with the help of the curriculum professors, which covers all aspects of the topic to measure the different levels of academic achievement. Both pre and post tests similarly included 20 questions in each test but different in content: the pretest was a proficiency test but the post test was an Oral Proficiency Test (OPT) since the aim was measuring the effect of formative tests on anxiety and listening efficacy.

Both pre and post tests were in multiple-choice format. The tests were made in an objective way and it was submitted to a group of arbitrators to judge it scientifically and pedagogically, in terms of the scientific material, its suitability to students and the clarity of its form (the arbitrators were teachers of the curriculum). After knowing their views and suggestions, few questions were modified then the test came out in its final form.

However, the materials used in this study, were listening passages recorded on tapes from internet which were the same for both groups. However, miscellaneous passages were taught to both groups. For the control group, teaching instruction was in traditional way whereas the experimental groups experienced formative tests during the term (each week one quiz). Put another way, the control group were given a mere summative posttest at the end of the terms. All in all, the materials of the study included listening passages, pretest and posttests.

2.4 Procedure

The pre-test conducted to exclude any bias or preference in doing the research. Then both groups paved the way. The score means of the participants was computed. Both groups took part in the study. They listened to various passages followed by questions. Both groups were taught by the same instructors. The whole course lasted two months. A listening achievement test as the post test was given at the end of course of instruction that measured how much students have learned from the course. The experimental group took benefits of formative tests as the effect of this trend on anxiety and listening in the whole semester and the control group didn’t take benefits formative tests during the course. The study was employed an experimental design. The study was conducted at a famous institute in Poldokhtar city in Lorestan province, Iran. Simply speaking, in the beginning of the study, based on a proficiency pretest, 60 participants out of 80 EFL learners were randomly selected based on their proficiency and assigned into two groups (i.e., control and experimental groups, 30 students in each group). After that, they were assigned into two groups, the treatment (getting benefit of
formative tests) was begun to see whether it does have any impacts on EFL learners’ anxiety and listening.

At the end of the course and after conducting the post test, to see whether there are any identifiable differences in the listening ability completed by Paired Samples t-tests were used to see the individual differences.

2.5 Data Analysis

In the present experimental study, data were obtained from the homogeneity test and was performed as a pre-test. Then, the trend was conducted to see its effect on students’ performance in the final test. Independent and Paired Samples t-tests were conducted on the data collected through the final OPT post-tests. Therefore, the results of the statistical analysis provided direct answers to the research questions. Descriptive statistical, analysis of variance, and inferential statistics between the experimental and control groups showed any significant differences regarding the pre-test and post-test scores.

After grouping participants into two equal groups, the scores of both groups were calculated. The experimental group got benefit of formative tests through taking the tests. In each session of instruction, the students experienced formative test after listening some passages and enough time was allotted to its applications. The control group was taught listening through the traditional methods of language teaching. To analyze the data obtained through the post-test, the T-test procedure was employed and the results were reported. Independent sample t-test was run to compare the anxiety and listening efficacy of control and experimental group on the post-test.

3. Results

To answer the research questions sixty EFL learners of either sex with the age range of 19-25 studying in university in Poldokhtar, Iran selected among ninety students were chosen to take part in a pre-test to be known as homogeneous. The first t-test calculation showed that the two groups were homogeneous. According to the data in table 1 in pretest, for control group, the calculated mean and the standard deviation were respectively 51.83 and 26.19, and for experimental group, they were respectively 44.40 and 11.43.

According to the data in table 3 in posttest, for control group, the calculated mean and the standard deviation were respectively 58.36 and 23.38, and for experimental group, they were respectively 68.56 and 14.53.

Table 1: Descriptive Statistics (Pre-test)

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>30</td>
<td>44.3333</td>
<td>11.19303</td>
<td>4.78217</td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>51.5663</td>
<td>14.56377</td>
<td>2.08751</td>
</tr>
</tbody>
</table>
Table 1 shows the pre-test calculated means and the standard deviations of the experimental and control groups, they were respectively 44.3333 and 51.8333. To show the significant difference, independent samples t-test reveals the difference between the experimental and control groups in Table 2.

**Table 2: Independent Samples t-test (Pre-test)**

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>23.205</td>
<td>.000</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>1.425</td>
<td>39.665</td>
</tr>
</tbody>
</table>

Table 2 shows the observed t (1.425) is less than the critical t (2.000) with df=58. Thus the difference between the groups is not significant at (p<0.05). The results of the post-test descriptive statistics are presented in Table 4.3.

**Table 3: Descriptive Statistics (Post-test)**

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>30</td>
<td>58.3667</td>
<td>23.38801</td>
<td>4.27005</td>
</tr>
<tr>
<td>Experimental</td>
<td>30</td>
<td>69.8667</td>
<td>14.19017</td>
<td>2.59076</td>
</tr>
</tbody>
</table>

Table 3 shows the post-test calculated means and the standard deviations of the experimental and control groups, they were respectively 69.8667 and 58.3667. To show the significant difference, independent samples t-test reveals the difference between the experimental and control groups in Table 4.
Table 4: Independent Samples t-test (Post-test)

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std.Error Difference</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances</td>
<td>7.299</td>
<td>.009</td>
<td>2.303</td>
<td>58</td>
<td>.025</td>
<td>4.99</td>
<td>-21.49</td>
<td>-1.50</td>
<td></td>
</tr>
<tr>
<td>not assumed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances</td>
<td>47.80</td>
<td>.026</td>
<td>11.50</td>
<td>47.80</td>
<td>.026</td>
<td>11.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that the observed t (2.303) is greater than the critical t (2.000) with df=58, the difference between the groups is significant at (p<0.05). Table 4.5 shows the descriptive statistics of experimental and control groups' post-test.

Table 5: Descriptive Statistics (Control and Experimental Groups’ Pre and Post-test)

<table>
<thead>
<tr>
<th>Pair</th>
<th>Control Pre-test</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>44.333</td>
<td>30</td>
<td>26.19303</td>
<td>4.78217</td>
</tr>
<tr>
<td></td>
<td>Control Post-test</td>
<td>58.367</td>
<td>30</td>
<td>23.38801</td>
<td>4.27005</td>
</tr>
<tr>
<td>2</td>
<td>Experimental Pre-test</td>
<td>51.566</td>
<td>30</td>
<td>11.43377</td>
<td>2.08751</td>
</tr>
<tr>
<td></td>
<td>Experimental Post-test</td>
<td>69.867</td>
<td>30</td>
<td>14.19017</td>
<td>2.59076</td>
</tr>
</tbody>
</table>

Table 5 shows the pre and post-test calculated means and the standard deviations of the experimental and control groups. To show the significant difference, paired samples t-test reveals the difference between the experimental and control groups’ pre and post-tests in Table 6.

Table 6: Paired Samples t-test (Control and Experimental Groups’ Pre and Post-test)

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std.Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Pre-test</td>
<td>-6.533</td>
<td>28.467</td>
<td>5.197</td>
<td>-17.163</td>
</tr>
<tr>
<td>vs. Post-test</td>
<td></td>
<td></td>
<td></td>
<td>-1.257</td>
</tr>
</tbody>
</table>

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Table 6 shows that the observed t (1.257) is less than the critical t (2.045) with df=29, the difference between the control groups’ pre and post-tests is not significant at (p<0.05). However, the observed t (9.316) is greater than the critical t (2.045) with df=29, the difference between the experimental groups’ pre and post-tests is significant at (p<0.05). Since the observed t (1.257) is less than the critical t (2.045) with df=29, the difference between the groups is not significant at (p<0.05) while the observed t (8.666) is greater than the critical t (2.045) with df=29, the difference between the groups is significant at (p<0.05).

Throughout the study two t-tests were administrated. According to Hatch and Farhady (1981) if the t-observed is higher than t-critical, our hypothesis is approved. After there were one dependent variable and one independent variable, a t-test was run.

As the above results show, t-observed is smaller than the t-critical at the p<0.05 level of significance for pre-test. Based on these results, it can be concluded that the difference between two groups is not meaningful and both groups are nearly homogeneous (see Table 2). Later, both groups were given a similar post-test. During testing administration, both groups favored the similar conditions. As there were one dependent variable and one independent variable, a t-test was run; the results are shown in the Table 2. Table 2 indicates the observed t (to=1.425) is less than the critical t (tc=2.000) with df (58); therefore, the difference between the two groups has not been significant at the level (p<0.05). This shows the groups’ homogeneity at the beginning of the experiment.

The t-test for post-test (Table 4) indicates that the observed t (to=2.023) is greater than the critical t (tc=2.000) with df (58), the difference between the two groups is significant at the level (p<0.05). In other words, Formative assessment trait has been effective in developing participants’ listening ability and anxiety reduction. Thus, it indicates that the learners’ listening enhancement in experimental group improved significantly.

As Table 5 represents, the calculated mean and the standard deviation for control group were respectively 58.36 and 23.38, and for experimental group, they were respectively 69.86 and 14.19. The means for both groups have been illustrated in Table 5. All in all, according to t-test principles if the calculated t-test exceeded the critical value (2.000) at the (0.05) level of probability for d.f =58, the null hypothesis might be rejected; otherwise, it might be contributed to other factors.

More specifically speaking, descriptive statistics including minimums, maximums, means, and then standard deviations of pre-test and post-test of all groups were computed. Results indicated that the mean score of control group which had been 44.33 in pre-test exam reached to 58.36 in post-test exam. It also indicated that the mean score of experimental group which had been 51.56 in pre-test exam promoted to 69.86 in post-test exam.
Conclusion

This study began with the assumption that applying formative tests in listening classes could enhance the Iranian EFL learners' listening ability and anxiety reduction. The two groups were taught by different instruction, i.e., the experimental group got benefit of formative assessment during listening instruction whereas the control group didn't receive such trend. Put simply, the control group received conventional instruction. The instructor explored to see if the application of formative assessment application has any effect on the Iranian EFL learners' listening enhancement due to the trend.

Having administered the post-test and analyzing the data through st-test, the researchers found that results indicated that the instruction of using formative assessment did affect the learners' listening enhancement. The results also showed that applying the trend improved the learners' listening enhancement level. Formative assessment application brings training and teaching to life. Formative assessment application helped promoting listening comprehension. Formative assessment application also makes learning a lot more enjoyable. Everyone needs a little fun sometimes.

Teachers, who use instructional Formative assessment report that their students retain more information, understand concepts more rapidly and are more enthusiastic about what they are learning. With formative assessment as one component in a thoughtful lesson plan, students often make new connections between curriculum topics, and discover links between these topics and the world outside the classroom.

References


