

The role of formative immediate feedback and formative delayed feedback in vocabulary learning of pre-intermediate EFL learners

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Abstract

The present study is aimed to compare the role of formative assessment associated with immediate feedback with formative assessment with delayed feedback in vocabulary gain of pre-intermediate EFL learners. In order to compare the role of these two types of feedback applied with formative assessment in vocabulary learning of pre-intermediate EFL learners, two groups with the same level of English proficiency and vocabulary knowledge participated in this study. Regarding the first group formative assessment of vocabulary was associated with immediate feedback. The second group, on the other hand, received vocabulary formative assessment with delayed feedback. After applying quasi-experimental research design including the pretest, treatment and post-test to answer the question of the study and running an independent sample t-test between two groups of participants, the results showed that those pre-intermediate EFL learners attending in the group whose vocabulary gain was assessed formatively while the feedback was provided immediately after each test using a mobile

application named Socrative performed significantly better in posttest than the group assessed formatively but with delayed feedback ($\text{Sig}=0.03<0.05$).

Keywords: “immediate feedback”, “delayed feedback”, “vocabulary”, “formative assessment”

Introduction

Actually, teaching and learning processes always consist of two main essential and inseparable activities, namely: teaching and assessment. The two cannot be separated since teaching is always followed by administering an assessment to get an insight into the students' ability and their understanding of the learning material which is being taught. Bachman (2004) defined assessment as “a process of collecting information about something that we are interested in, according to procedures that are systematic and substantially grounded” (pp. 6-7). The result of an assessment procedure can be a score or a verbal description. Assessment could be defined as a systematic process of gathering information about what a student knows, is able to do, and is learning to do. The information obtained from assessment, on the other hand provides a foundation for decision-making and planning for further instruction and learning. Therefore, assessment is an integral part of instruction that enhances, empowers, and celebrates student learning. However, testing is a way of conducting assessment which is technically associated with definite timing and settled procedures (Brown, 2004).

Briefly, by using a variety of assessment techniques, teachers gather information about what students know and are able to do, and provide positive and supportive feedback to students. Therefore, one important factor influencing the process of teaching and assessment is the feedback provided for both teachers and students.

Formative Assessment

The term “formative assessment” can be traced back to the use of the terms “formative” and “summative evaluation” by Scriven around 1967 in the context of program evaluation. Formative assessment was popularized when the term was used by Bloom (1971) in his *Handbook of Formative and Summative Evaluation of Student Learning* (Guskey, 2005). Bloom made a distinction between formative and summative by referring to summative evaluation as assessments that occur at the end of an instructional unit, and formative evaluation as assessments that occur during instruction, or in the process of learning.

There are three steps that form the foundation of formative assessment which have remained the same over the last 30 years: knowing (1) where the learner needs to be, (2) where the learner is, and (3) what needs to be done to get him or her there (Brookhart, 2007; Hattie & Timperley, 2007; Ramaprasad, 1983; Sadler, 1989; Wiliam, 2010). The first step entails a clear understanding of learning goals, and the identification of criteria that demonstrate the achievement of learning goals. In the second step, evidence of current understanding is elicited through instructional activity or assessment. In the final step, the elicited information is then used to determine whether learning has occurred, what needs to be done, and which strategies and correctives are required to close the learning gap. This three-step process may be spontaneous or planned, formal or informal, include oral or written communication, conducted at the individual- or group-level, and supported by a teacher, peer, computer or even mobile.

Fernandes (2011) presents an overview of the basis of the formative and summative assessment. According to him the two

concepts emerged in the late 1960s but were initially used to assess programs, and not students and their learning outcomes. In the 1970s, the formative assessment was, for the first time, used to assess student’s learning, but still, it was very focused on the results and done only towards the end of each curricular unit. It is important to mention this first use, because it brought to students’ evaluation some innovative practices for the period.

In the late 1980s, a new formative assessment emerged, focused on a process that occurred during the learning, more attentive to the processes underlying learning itself but without disregarding the results. Formative assessment was considered to be more interactive and continuous, and, contrary to other forms of evaluation, it needed the active participation of students in order to be done. This new kind of Formative assessment came alongside with a clearer concept, assessment for learning, in contrast with assessment of learning, which correlated to summative assessment.

Simply put, formative assessment is the promotion of assessment to support learning (Gardner, 2006). Its main objective is to gather information in order to support and guide students to help them improve during their learning. That way, feedback is significant, and must be done considering its frequency in a more descriptive nature, rather than a purely quantitative one. Regarding the quantitative characteristic of this type of assessment, however, Fernandes (2011) stated that formative assessment, similarly to summative assessment, can be quantitative.

Based on its objectives, formative assessment can be characterized as follows: (a) it is an assessment carried out by teachers on a daily basis during the teaching and learning process; (b) it provides feedback for the teachers to do immediate revision; and (c) it aims at modifying teaching and learning activities in order to improve students’ learning achievement. In line with the objectives of instructional processes, consequently, most classroom assessment is formative because it allows teachers to consider what improvement should be made immediately which will greatly help the

students in achieving the learning objectives completely (Decristan, et al., 2015; Dunn & Mulvenon, 2009).

Black and Wiliam (1998a) characterized formative assessment as “all those activities undertaken by teachers and/or by their students that provide information to be used as feedback to modify the teaching and learning activities in which they are engaged” (p. 7). The goal of any modifications to instruction is enhanced student learning. It is often claimed that the practice of formative assessment is rooted in Bloom’s concept of “mastery learning,” an instructional approach that espouses the use of assessments to gauge students’ progress toward mastering a learning goal (Bloom, Hastings, & Madaus, 1971). Bloom suggested that, rather than waiting to assess students at the end of a unit (common practice at the time), teachers use assessments “as an integral part of the instructional process to identify individual learning difficulties and prescribe remediation procedures” (Guskey, 2010, p. 108). According to Guskey, Bloom borrowed the term “formative” from Scriven (1967), who used it to describe program evaluation activities conducted during the course of a program to give feedback on the program’s progress so that it could be improved if need be.

Formative Assessment and Feedback

Teachers and students are both engaged in formative assessment. Throughout formative assessment students have the opportunity to assess and monitor their own progress which helps them find their strength and weaknesses. On the other hand, teachers are able to modify the style of teaching and revise the already adopted teaching materials. In other words, formative assessment is a process of providing useful information for both students and teachers. Teachers use this type of information to shape and improve instruction while students use it to better develop their own learning (Trumbull & Lash, 2013).

Duncan and Dunn (1988) defined formative assessment as the assessment concerned with providing information for class management

decisions. Therefore, formative assessment is strongly connected with feedback. The feedback provided by this type of assessment should be based on some critical points. Stobard and Gipps (1997) believed that Feedback must be descriptive, specifying, and constructing the way forward. Actually, the role of feedback in the process of formative assessment is very crucial.

Regarding the relationship between formative assessment and feedback, O’Connell (2015) believed that formative assessment has a significant positive effect on student learning. Sadler (1998) also stated that formative assessment happens to provide learners with feedback on their performance which at the same time helps them progress in their learning cycles. Therefore, teachers play a pivotal role in learners’ progress by engaging them in class discussions with their peers, and providing questions to help learners find their current levels of understanding of the course.

Formative assessment helps teachers adjust their teaching styles or materials based on the students’ needs. Formative assessment, hence, would be helpful for both teachers and students as it has a monitoring purpose for continuously checking the learners’ progress. Actually, students become active agents in their own learning and are increasingly engaged in independent skills through formative assessment process (Clark, 2012). To fulfill a formative purpose, assessment needs to provide actionable information for both teachers and learners (Heritage, 2010a & b; Shepard, 2005). Feedback provision is indeed the central part of assessment. As Brown, Bull and Pendlebury (1997) stated, when people are trying out new approaches, they may be insecure and vulnerable. Supportive and constructive feedback is also important in the processes of teaching, learning and assessment. Accordingly, Pintrich and Zusho (2002) highlighted that formative assessment and feedback empower the students as self-regulated learners. Furthermore, feedback promotes learning (Black & Wiliam, 1998) and helps learners clarify learning goals, their own progress toward goals of leaning, and what they require to do in order to achieve the goals

(Hattie & Timperley, 2007). Actually, formative feedback discloses something about a learner's development toward goals of learning, thinking processes, and misconceptions (Supovitz, 2012).

With the aid of formative feedback, students can advance the capability to monitor, assess, and tailor their learning (Nicol, 2010). It is noteworthy that some researchers (e.g. Bangert-Browns, Kulick, & Morgan, 1991; Elawar & Corno, 1985) also indicated that feedback on tests and assignments provides learners and teachers with specific comments about diagnosed mistakes and particular suggestions to improve learners' understanding of the course and fill the gap between their knowledge and the desired level of proficiency.

Teachers' feedback might be verbal or written, but the most effective feedback should have the criteria of being timely, specific, and related to the explicit criteria. The limited evidence on feedback suggested that students want more (Higgins, Hartley & Skelten, 2002). It also showed that teachers try to adjust their teaching or assessment strategies to meet the learners' needs (Koller, 2005). So, feedback empowers students, especially those with low proficiencies to be successful in their learning process (Black, 1998).

In a study, Wiggins (1997) enumerated the criteria of facilitative feedback which improves learning. These include: highlighting students' strengths, reminding the students of the existed gaps which they still need to learn, and preventing the students from making the same mistakes. However, feedback should be continuous and presented at the appropriate time. Otherwise, the students will learn nothing if the teacher's feedback is received too late. In the case of delayed feedback, the students might forget their mistakes or have no interest to be reminded of them.

All in all, formative assessment and appropriate feedback are strongly attached to each other. But the fact is that in the process of formative assessment and giving feedback some points should be taken into account. For example, giving feedback should not take a long time because feedback is provided to

make students aware of their knowledge immediately and such delay in giving feedback to learners damages the process of formative assessment. The presents study is aimed to experimentally find out any probable effect of providing immediate feedback of the results of formative assessment on vocabulary gain of pre-intermediate EFL learners.

3. Methodology

3.1 Participants

The participants of this study were 40 EFL learners who studied General English language at Chabahr Maritime University, Iran. Their age ranged from 18 to 22. The participants had been preassigned to two different groups, each with 20 students, prior to the study and hence they were not randomly selected. They were all native speakers of Persian language and Balouchi. The participants of these two groups attended in their General English class 3 hours a week with the same instructor and textbook. The only difference between these groups was the type of formative feedback allocated to each one. A group assessed formatively and provided with immediate feedback (same session) was experimental group (n=20). The other class as control group (n=20), was also assessed formatively but the feedback was provided with delay (at least next session).

3.2 Design

Based on the purpose and the nature of this study, quasi experimental design consisting of a pretest, treatment and a posttest was used to answer the research question. After applying a Longman proficiency test to all participants signifying that they all were at pre-intermediate level of English proficiency, one vocabulary pretest exhibited that there was no significant difference of vocabulary knowledge among the participants at the outset of the study. The treatment in two groups took 10 sessions to be performed. Since the study was around formative assessment, 10 quizzes based on vocabulary introduced in their textbook as new words were applied. One posttest, then, was designed to examine what two groups learned in these 10 sessions and determined whether there was any significant difference between two groups after treatment or not.

3.3 Procedure

To answer the question of this study, two groups of English language learners were required. These classes were selected from General English classes of Chabahar Maritime University with the same instructor, same textbook and same method of teaching. First of all, a Longman proficiency test was applied to both classes to determine the level of their English proficiency. Each group contained 20 students who took part in their own General English class without any extra class. The textbook selected by instructor for both classes was Concepts and Comments written by Patrick Ackert.

A pretest-posttest design was selected for the current study. Since the study focused on vocabulary learning, a pretest, an English Vocabulary in Use Pre-intermediate and Intermediate Level Test, was applied to both groups to ensure that they had no significant differences at the outset of the study. After the pretest, the instructor started to teach both classes using the same method. The only difference was the type of feedback provided by the teacher. In the experimental group, immediate feedback after each test was applied. Therefore, during the semester students of this group took 10 vocabulary quizzes formatively, one at the end of each class. These quizzes were based on the words taught in each given session and the sessions before. The other group named control was also assessed formatively. The same quizzes with the same questions applied to first group was applied in this group too, but the feedback was provided in next session and after teacher corrected the tests. A posttest, then was applied in both groups specifying

any significant difference between their vocabulary learning after treatment. To analyze the results of all mentioned steps containing pretest and posttest, received data were entered to SPSS software version 23. Regarding the question of the study, the type of feedback (immediate or delayed) was specified as the independent variable and vocabulary gain as the dependent variable. Therefore, to analyze the data gathered from two groups of the study in pretest and posttest and to answer the question of the study, an independent sample t-test was run.

4. Data Analysis, Results and Discussion

As it was mentioned before, the present study is a quasi-experimental study including one pretest, treatment and posttest applied to two intact groups (classes of students). Therefore, throughout this study and after administering the proficiency test assuring that participants were pre-intermediate English learners, a pretest was administered among two groups to say there was no significant difference of vocabulary knowledge among participants of two groups before the starting point of the treatment. Another test as posttest to examine the improvement of groups after treatment was also administered.

4.1 Longman Proficiency Test

First of all a Longman proficiency test was administered to ensure that the participants of both groups were pre-intermediate English learners. The assortment proposed with the questions showed the range of scores falling in each level, therefore those who scored from 26 to 45 belonged to pre-intermediate language learners. The results of the

proficiency test applied to both groups are shown in table 4.1:

Table 4.1
Longman proficiency test for two groups

	N	Minimum	Maximum	Mean	Std. Deviation
FMA	20	19.00	62.00	33.2500	13.43552
FPA	20	12.00	54.00	30.9000	11.81836
Valid (listwise)	N 20				

As it is shown in table 4.1, the mean for each group is between 26 and 45 which means that all participants in both experimental and control groups could be regarded as pre-intermediate EFL learners. The results showed that the study was going to be conducted dealing with homogeneous learners and their proficiency level had no undesirable effect on the process of data collection and analysis.

4.2 Pretest

To answer the first question of the study, a pretest, first of all, was administered to both experimental and control groups. The experimental group was composed of those EFL learners whose vocabulary formative

assessment was provided with immediate feedback. Regarding the other group, on the other hand, vocabulary gain was going to be assessed formatively but by receiving delayed feedback. The pretest was administered at the outset of the study to confirm that learners were at the same level of vocabulary knowledge before starting the treatment of the study.

Since the only independent variable regarding the first question of the study was the type of feedback (immediate or delayed) and the only dependent variable was vocabulary knowledge of participants, an independent sample t-test was run the results are shown in tables 4.2 and 4.3.

Table4.2
Descriptive Statistics for Pretest scores

	Groups	N	Mean	Std. Deviation	Std. Error Mean
vocabulary	expeime nt	20	18.6000	10.34357	2.31289
	control	20	19.9000	9.55262	2.13603

Table 4.3
Independent Samples T-Test for Pretest between experimental and control group

Independent Samples t-Test for Pretest Between Experimental and Control Group										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Vocabulary Pretest	Equal variances assumed	.255	.617	-.413	38	.682	-1.30000	3.14835	-7.67350	5.07350
	Equal variances not assumed			-.413	37.762	.682	-1.30000	3.14835	-7.67482	5.07482

The tables 4.2 and 4.3 gives the fact that although mean score of control group was higher (19.90>18.60), there was no statistically significant difference between two groups before starting the treatment (sig=0.617>0.05). Therefore, the vocabulary knowledge of participant was not as much different to affect the process of research.

4.3 Posttest

After applying different types of treatment in both groups, to find out any significant difference between vocabulary gain of two groups after the treatment, a posttest was administered.

Since feedback providing of vocabulary assessment (immediate or delayed) was the only independent variable beside vocabulary gain of learners as the dependent variable, an independent sample t-test was proposed to be employed to see whether there was a significant difference in vocabulary gain of experimental group and control group after applying different types of feedback throughout the treatment or not; tables 4.4 and 4.5 are provided by SPSS software to answer this question of the study.

Table4.4

Descriptive Statistics for Posttest of experimental and control

	Groups	N	Mean	Std. Deviation	Std. Error
vocab_posttest	FMA	20	83.2500	14.62469	3.27018
	FPA	20	70.7500	21.47673	4.80234

Table 4.5

Independent Samples Test for Posttest between experimental and control

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
vocab_posttest	4.576	.039	2.151	38	.038	12.50000	5.81004	.73819	24.26181
				33.502	.039	12.50000	5.81004	.68611	24.31389

As it is shown in Tables 4.4 and 4.5, beside the fact that mean score of experimenal group where vocabulary assessment feedback was provided immediately was higher than control group where vocabulary feedback provision was delayed (experimental group

mean=83.25> control group mean=70.75), there was also statistically significant difference between two groups after the treatment (sig=0.03>0.05). Therefore, vocabulary learning of those pre-intermediate EFL learners who were

provided with formative immediate feedback (experimental group) was significantly better than the control group where formative assessment was applied but the delayed feedback was provided after each test.

5. Conclusion

Throughout the present study the significance of timing in feedback provision after assessment was investigated. Actually, regarding the experimental group, the immediate feedback provided by teacher and mobile application helped students be more aware of their learning process and try to influence their learning as soon as possible. On the other hand, the immediate feedback provision could not be applied without using technological applications designed for assessment.

Assessment as one main section of EFL classes was proved to be influenced by computers. CBT which stands for computer based test, according to previous studies, can replace paper based test appropriately. Thus, through this study the application of another technological device named mobiles in assessment was examined. Not necessary to say that because of the importance of vocabulary learning and also to narrow down the domain of study to get more reliable results, the vocabulary subskill was assessed in this study.

Formative assessment which is defined as the process of assessing students during the term for better learning is ignored nowadays by English teachers. Applying technology to facilitate this type of assessment in EFL class was suggested in this study. Mobile as a device which is considered as an inseparable part of human life was used as a means of performing a better vocabulary formative assessment. Immediate feedback as an advantage of mobile based formative assessment beside attractive atmosphere of mobile testing application and faster process of test taking differentiated this type of assessment with paper based ones where it took longer time for teacher to correct the papers and give the feedback to students. Being aware of their results in one test immediately, students tried more for next

tests. Therefore, they learned more and performed better in consequent tests and posttest.

Regarding implications and with considering the conclusion of the study, the application of mobile based formative assessment especially for vocabulary sub skill is proposed but the main implication of this study is the application of immediate feedback after each test of formative assessment. University students studying general English participated in this study. English institutions and schools can also apply this type of assessment and feedback and encourage their teachers provide immediate feedback for their students after each test of formative assessment.

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