

Probing the Impact of Formative Testing in Iranian English Language Learners upon their Enhancement

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ABSTRACT

Formative assessment (FA) helps learners interpret feedback as a means of learning rather than as punishment or reward (Tunstal, 1996). FA serves the dual purpose of giving the teacher information on the effectiveness of the lesson and giving students information on the current state of their learning. Such information can guide future instruction decisions. FA is tightly linked with instructional practices. Teachers need to consider how their classroom activities, assignments, and tests support learning aims and allow students to communicate what they know, then use this information to improve teaching and learning.

Though many trainers or tutors are exceedingly focused on summative test which is an attempt to summarize student learning at some point in time, say at the end of the course, it is necessary to observe that over the course of an educational year, teachers can build in many opportunities to assess how learners are learning and then use this information to make beneficial changes in instruction on the basis of recognition of strength and weaknesses of the learners. This diagnostic use of assessment to provide feedback to teachers and students over the course of instruction is called formative assessment (FA). It is in contrast to summative assessment, which commonly takes place after a period of instruction by grading or scoring a test.

Hence, this study investigated the effect of formative testing used by teachers on students' achievement in EFL classes. Our hypothesis was that providing learners with formative testing during the instruction will have a positive impact on their improvement and learning.

The sample consisted of one experimental and one control group. The data collected were analyzed using t-test. The results revealed that there was a significant difference in the level of achievement of the treatment group in comparison to the control group in the summative test due to taking advantage of formative assessment.

KEYWORDS: formative assessment, summative test, diagnostic, achievement, instruction.

INTRODUCTION

As Crooks (2001) says, formative assessment is a range of formal and informal assessment procedures employed by teachers during the learning process in order to modify teaching and learning activities to improve student attainment. Huhta (2010) states that FA typically involves qualitative feedback (rather than scores) for both student and teacher that focuses on the details of content and performance. According to this researcher feedback is the central function of formative assessment. It typically involves a focus on the detailed content of what is being learnt, rather than simply a test score or other measurement of how far a student is falling short of expected standard. Feedback encourages positive motivational beliefs and self-esteem and helps shaping teaching, Nicol (2005).

Researchers have concluded that standard-based assessments are an effective way to prescribe instruction and to insure that no child is left behind (Marzano, 2006 p. 13). In classrooms, short quizzes and portfolios could be used as a formative assessment (Cohen, 1994). FA is generally contrasted with summative assessment which seeks to monitor educational outcomes, often for purposes of external accountability, (Shepard, 2005). Along similar lines, Cowie and Bell (1999) define FA as the process used by teachers and students to recognize and respond to student learning in order to enhance that learning, during the learning. Nicol and Macfarlane-Dick (2005) state that FA aids learning by generating feedback information that is of benefit to students and to teachers. They also add that feedback on performance, in class or assignment, enables students to restructure their understanding / skills and build more powerful ideas and capabilities. Formative assessment is typically contrasted with summative assessment. The former supports teachers and students in decision-making during educational and learning processes, while the latter occurs at the end of a learning unit and determines if the content being taught was retained, Arinsworth (2006).

Black and William (1998) define assessment broadly to include all activities that educators and pupils undertake to get information that can be used diagnostically to alter teaching and learning. Under this definition, assessment encompasses teacher observation, classroom discussion, and analysis of student work, including homework, and tests. Assessment becomes formative when the information is used to adapt teaching and learning to meet students needs. When teachers know how students are progressing and where they are having trouble, they can use this information

to make necessary instructional adjustments, such as re-teaching, trying alternative instructional approaches, or offering more opportunities for practice. These all can lead to improving student success.

The essence of using tests and other evaluation instruments during the instructional process is to guide, direct and monitor students learning and progress toward attainment of course objectives (Alonge, 2004, Kolawole, 2010). The utilization of formative testing in teaching-learning process involve breaking up the subject matter content or course into smaller hierarchical units for instruction, specifying objectives for each units, designing and administration of validated formative test, offering a group based remediation in areas where students are deficient before moving to another units and then administration of summative test on completion of all units; Bloom, Hastings and Madaus (1971) stated that formative evaluation is useful to both the students as a way of diagnosing students' learning difficulties and to the teachers as a means of locating the specific difficulties that the students are experiencing within subject matter content and forecast summative evaluation result.

The available research evidence suggests that formative assessment produces greater increases in students' achievement than class-size reduction or increase in teachers' content knowledge, and at a fraction of the cost (William and Thompson, 2007). The undoubted power of formative assessment and strength of it according to Shepard (2007) have led to a plethora of services that describe themselves as "formative assessment"

According to Popham (2008), FA is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes'.

As Cauley and McMillan (2010) said, FA is a strategic process which uses evidence regarding the extent of student knowledge (declarative knowledge) and skill (procedural knowledge) to support further learning and as such increases student motivation.

Advancement in classroom practice does not come easily and needs examining various teaching models and strategies. Today, burgeoning interest in formative assessment reflects the view that the most powerful use of assessment occurs hand-in-hand with classroom teaching and learning (Bloom, 1968 & Shavelson, 2006). However, the current study aimed at examining the effect of FA on enhancing EFL learners performance.

2. REVIEW OF LITERATURE

Formative assessment occurs when teachers feed information back to students in ways that enable the students to learn better, or when students can engage in similar self-reflective process. It is more valuable for day-to-day teaching when it is used to adapt the teaching to meet students' needs. FA helps teachers to monitor their students' progress and to modify the instruction accordingly. It also helps students to monitor their own progress as they get feedback from their peers and the teacher. Students also find opportunity to revise and refine their thinking by means of formative assessment. Formative assessment is also called as educative assessment and classroom assessment. It gives chances to students to participate in modifying or re-planning the upcoming classes (Bachman & Palmer, 1996). It also raises students' awareness on their target language. In consequence, it helps students to achieve their goals successfully as well as teachers be the facilitators to foster students' target language ability. Michael Scriven coined the term formative assessment in 1967. Benjamin Bloom took up the term in 1968 in the book *Learning for Mastery* to consider FA as a tool for improving the teaching-learning process for students.

FA has been shown to be highly effective in raising the level of student attainment, increasing equity of student attainment, increasing equity of student outcomes, and improving students' ability to learn. The evidence shows that high quality formative assessment does have a powerful impact upon student learning.

Over the past several years, a growing emphasis on the successful use of assessment has emerged. (Black & William, 1998); Leung & Mohan, 2004). They defined FA as "all these activities undertaken by teachers or students which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged.

Wininger (2005) examined the impact of FA on second administrations of an Educational psychology exam. In this study, the treatment group which in comparison to the control group received feedback from the instructor. And classmates, and students were guided to self-evaluate their performance. As a result, the treatment group significantly outperformed the control group.

William, Lee, Harrison, and Black (2004) explored the impact of 24 teachers' use of FA after a six-months training period. They witnessed the rise of students under training. Wang (2007) also conducted an assessment of the impact of FA module and Test Analysis System (TAS) and found its positive effects. This study showed that students who experienced this system showed significant gains in understanding.

3. METHODOLOGY

3.1 Participants

The present research was conducted at Scientific and Applied University of Darrehshahr city, Iran. There was a group of 50 university students majoring in accounting. They were both males and females and ranging from 18 to 24 years old. One of their three credits lessons was General English. Since both classes were to be taught by the same instructor, he was asked to divide the students into two homogeneous classes. The educator had M.A. degree and was graduated in TEFL. He had a good experience in teaching English in EFL contexts for many years. However, by conducting a proficiency test regarding the

English language proficiency, he divided them into two homogeneous groups determined as experimental and control group according to the scores, the experimental and the control group were 25 and 25 respectively (see **appendix A** at page 13).

3.2 Materials and Instruments

The major materials used in the current study was textbook. The textbook was *Select Reading* (2011, 2nd edition, pre-intermediate level) published by *Jungle Publication* in Iran and it is used mostly in Iranian universities in EFL classrooms. It was written and published by *Oxford University Press*. It was taught in 14 sessions each session two hours. The syllabus was reading, grammar and vocabulary. The experimental group was worked on by the instructor and took advantage of formative assessment (FA) in each session while the control group was deprived of such a strategy and just experienced a summative test at the end of the course.

3.3 Design and Procedure

A quasi-experimental design was conducted in the present study. Totally, two homogeneous classes each consisting of 25 learners as the experimental and control group studying in the second term were used. The experimental group came to class on Sundays and the control group came to class on Mondays.

In the former group all class sessions were taught and held jointly with formative assessment by the instructor during each class session. While in the latter one, no formative test was conducted in any class sessions. For this group, just a summative test was conducted as the achievement and final test. Put it another way, the experimental class group was informative-based assessment class whereas the control group didn't take advantage of such a beneficial strategy.

4. RESULTS

This study included two kinds of statistical analysis. First, the raw scores obtained in the pre-test and post-test exams were analyzed descriptively. They were analyzed according to inferential statistics. The results related to pre-test showed that with respect to raw scores (see **appendix A**, page 13), both groups have the same range of distribution (11.50). This range as an index of variability according to Hatch and Farhady (1981) demonstrated a logically normal distribution of scores which to some extent verify the homogeneous English competence of the two classes.

Moreover, to see whether or not the differences between the groups are statistically significant, the t-test procedure was conducted in table 1.

Table 1: the result of independent samples t- test on learners' language proficiency.

	groups	N	Mean	t.	d f	Sig.(2-tailed)
pretest scores	control group	25	12.0800	.575	48	.568
	experimental group	25	11.6000			

As we witness in the table, through t-test technique the homogeneity in English proficiency between two classes was verified. Since the t-observed (.575) is not significant at $p < .05$ (.568), it can strongly be claimed that there is no significant difference between control and experimental groups with regard to the general knowledge of English. Put it another way, supported by two indexes of range and t-test, English competency of both groups was congruent to each other.

The research question was to investigate the role of formative assessment (FA) in the vocabulary, reading and grammar enhancement of the learners majoring in accounting. To see the difference between experimental and control group after implementing the treatment, an identical achievement test of vocabulary, reading and grammar was administered to both groups. The results obtained from that achievement test, shown in **appendix B**, show the scores of learners in both groups (see page 14). In order to test the research question, another t-test was run to check if there was a meaningful difference in the mean scores of two group of learners.

Table 2: the result of independent samples test on learners' vocabulary, reading and grammar learning .

	groups	N	Mean	t	d f	Sig.(2-tailed)
posttest scores	control group	25	11.0000	-8.607	48	.000
	experimental group	25	16.0000			

Data shown in table 2 revealed that there was significant difference between two groups of learners with respect to the t-observed (-8.607).

Therefore, it can be stated that the difference in instruction method had influenced the learners' degree of learning. Put it another way, the results of the empirical study described here illustrated that meaningful difference was found between the experimental and control groups.

5. DISCUSSION AND CONCLUSION

A collection of previous studies verified the influence and usefulness of formative testing in the educational settings and environments. The findings of the current research seem to be congruent and come line with those studies. More particularly, the findings of the study revealed that formative assessment-based trained learners outperformed the students who received traditional and ordinary method of teaching. In other words, formative

assessment (FA) model in this particular environment contributed to better outcomes in learning vocabulary, reading and grammar than just the single achievement instruction approach.

For this reason, it might be logically recommended that the model could be suitable to be implemented in every educational system in order to teach vocabulary, reading and grammar. Altogether, it is logically recommended that teachers apply such an influential strategy in teaching contexts. Some advantages of "formative assessment model" are as follows:

1. It provides feedback for teachers to modify subsequent learning activities and experiences, Huhta (2010).
2. It facilitates the development of self-assessment in learning.
3. It provides opportunities to close the gap between current and desired performance.
4. It clarifies what good performance are (goals, criteria, and expected standard).
5. It improves students' meta-cognitive awareness of how they learn, Shepard (2005).
6. Teachers can inform students about their current progress in order to help them set goals for improvement.
7. Teachers can decide what minor modifications or major changes in instructions they need.
8. Teachers recognize the full range of achievements of all learners.
9. Students are more motivated to learn.
10. Students can become users of assessment alongside the teacher.
11. Students learn valuable lifelong skills such as self-evaluation, self-assessment, and goal settings.

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Appendix A

Learners' pre-test scores

Control group	Experimental group
8.00	14.00
8.50	15.00
14.00	10.00
9.00	9.00
14.00	7.50
16.00	14.00
8.00	10.00
15.00	10.00
17.00	12.00
9.00	12.00
19.00	15.00
12.00	15.00
12.00	12.00
7.50	10.00
15.00	15.00
10.00	12.00
10.00	14.00
12.00	10.00
11.00	9.00
11.00	8.00
14.00	15.00
15.00	10.00
13.00	17.50
10.00	10.00
12.00	6.00

Group Statistics					
	groups	N	Mean	Std. Deviation	Std. Error Mean
pretest scores	control group	25	12.0800	3.07097	.61419
	experimental group	25	11.6000	2.82474	.56495

Appendix B

Learners' post-test scores (achievement test)

Control group	Experimental group
11.00	18.00
15.00	12.00
14.00	19.00
11.00	15.00
9.00	17.00
8.00	14.00
14.00	18.00
10.00	16.00
8.00	14.00
15.00	15.00
12.00	12.00
11.00	17.00
10.00	18.00
15.00	16.00
12.00	15.00
12.00	14.00
10.00	12.00
10.00	18.00
9.00	14.00
9.50	18.00
10.00	16.00
11.00	18.00
10.00	16.00
10.00	18.00
8.50	15.00

Group Statistics					
	groups	N	Mean	Std. Deviation	Std. Error Mean
posttest scores	control group	25	11.0000	2.14573	.42915
	experimental group	25	16.0000	1.95789	.39158