

A Comparison Study of Two Testing Approaches in Formative Assessment in English Majors Listening Teaching

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Abstract: With the popularity of computers and the appearance of the Internet, researches about the application of formative assessment in English teaching under the Internet environment is increasing. The experiment of this paper taken on the basis of Formative Assessment in classroom English teaching and the principles of online formative assessment is to see whether there are any significant differences between these two different ways of testing in improving students' listening comprehension ability. The result shows that there is a feasibility of online-based testing methods in formative assessment, like the traditional paper-based testing in formative assessment, but there are no significant differences between these two methods. Some reasons are discussed including test frequency, the influence of answering webpages and students' mental state, and the experiment lasting periods, etc. However, students are all in favor of online-based testing and hope it will be continuing used in the English teaching and learning. Limitation of this study is discussed and some suggestions about online-based testing in formative assessment for further research are provided by the author.

1. Introduction

Formative assessment focuses on the process the language learning. It emphasizes that students have to inspect and explain their ways of language learning by self-criticism, get to know better of their own language level and find ways to improve their abilities. Then students can reflect their studies persistently, and they become more confident in study performance (Liu Ping 2010). Plenty of studies prove that formative assessment on the basis of network environment is helpful for language learning and it is beneficial for cultivating students' autonomous learning competence (Lu Bing 2012). In *China's 10-year Development Plan for Education Informatization (2011-2020)*, Ministry of Education of the People's Republic of China (2012) encourages the innovation of talents cultivation. Yue Bin (2013) studied the washback effects of Formative Assessment in college English learning. He summarized that students' the ability of self-assessment and self-monitoring were improved. In the *Instruction of Improving English Majors Teaching Reform and Development in Higher Education*, the ELT (English Language Teaching) Advisory Board under the Ministry of Education (2014) stresses that teachers should update teaching philosophy, and innovate teaching methodology. Teachers should focus on the development of education technology and the education informatization. Using modern education technology in teaching appropriately is encouraged. However, many researches of Formative Assessment based on the network or multimedia environment have been carried out for non-English majors in English Listening or English Listening and Speaking Class, very few for English majors. Most results indicated that Formative Assessment can help students to improve their learning achievement in English listening and speaking.

Therefore, it is necessary to see the effectiveness of two testing approaches in Formative Assessment. The results of paper testing and online testing in Formative Assessment are both expected to be found in English Majors in Lijiang College of Guangxi Normal University.

2. The Theoretical Framework of this Research

The theoretical framework is mainly adopted by Luo Shaoqian's approaches of formative assessment. Referring to the online-based test of formative assessment, Kigandi's viewpoints towards online formative assessment are taken into consideration in this thesis. Therefore, the formative assessment in English Listening course is applied in this way. The two different types of formative assessment will be used together in the study, the assessment with tests and the assessment without tests. The forms of the assessment with tests are online-based tests and paper-based tests. The forms of the assessment without tests are items including tools, such as classroom observation, interviews, and portfolios. The classroom assessment practices are self-assessment, peer assessment, and teacher assessment.

3. Research Methodology

3.1 Research Questions

This study mainly figures out the answers the following questions:

- (1) Will online-based test approach in formative assessment improve students' attitudes and learning strategies of listening comprehension?
- (2) What factors will influence the effect of online-based test formative assessment of English listening teaching?

3.2 Subjects

The study was conducted in the spring semester. The participants of this study were the freshmen in a university. There were 116 English majors from four natural classes. In order to avoid some factors which would influence the validity and reliability of the study, the author randomly chose the experimental class and the control class. All the students were taught by the author in the teaching experiment. Class One and Class Three was conducted the formative assessment mode of online-based test approach as the experimental classes (EG) while Class Four and Class Six was implemented by the formative assessment mode of paper-based test approach as the control classes (CG). There were 29 students in Class One, 29 students in Class Three, 30 students in Class Four, and 28 students in Class Six. These students had 80-minute English Listening class per week for seventeen weeks of a semester. Meanwhile, they shared the same background. For example, by the time of this research, they have the experience of learning English for at least six years.

3.3 Instruments

The instruments for this study are quantitative and qualitative instruments. Both of them are used to gather data in order to make sure all data collected will be of objectivity. The quantitative measurement includes the pre-test and post-test. Qualitative instruments in this research involves three aspects, such as classroom observation, interviews, and portfolios. All the methods used in this study will be elaborated below in details.

3.3.1 Tests

Referring to the test design, there are rules to follow. When we make decisions about the construct, the tasks and the texts, we are creating the test specifications. There were details of test specifications that summarized for test designers (Gary, 2001). Meanwhile, there is no standardized exam papers for English majors in the first year. Therefore, combing with the curriculum outline and stages teaching objectives that designed by the author based on the students' actual listening level in Lijiang College, the author designed the pre-test paper and post-test paper.

These two test papers include both objective questions and subjective questions. The question types of each part in the two papers are the same, including multiple choices, True or False, gap-filling, spot dictation and passage dictation. However, the difficulty of the post-test paper is suitably enhanced in keeping with the students' competence of English listening. These two paper were designed by the author followed by the details of test specifications and they were checked by

the chief institutor. The quantities of two papers are believed to be reasonable and the points of testing are in line with the syllabus requirements.

3.3.2 Classroom Observation

In this research, students in EG was carried out the classroom observation within seventeen-week teaching experiment. There were 2 periods of listening class each week. Only 80 minutes in total, but the online-based tests were given in two periods of time, in-class and after-class periods, which was the superiority of the Internet. The teacher could detect the students' performance after-class online as well. There were several aspects the teacher mainly observed with the help of Internet and LCWLLP (Lange Campus-Wide Language Learning Platform). In the periods of after-class, some online-based tests were assigned to students which required them to finish within a week or weeks. The teacher used the "classmate groups" in the platform to connect to the individual learner or some group members to observe the progress and performance. The function of classmate groups looked like QQ groups.

3.3.3 Interviews

"Interview were carried out throughout the research because it is a forum for becoming initially or better acquainted with the students" (Choate, 1992). So, the teacher can learn students' learning process by interviewing. In this research, the forms of interview mainly are discussions or conversations between the teacher and individual learner or group learners at a regular time interval if necessary. The students in the EG were asked to have interviews during the study, which could help the author get to know the opinions about online-based test approach of formative assessment in the course. Four questions were asked in the interviews.

- 1) What do you think about the evaluation method of online-based testing in English Listening class?
- 2) What are the effects on online-based testing approach of formative assessment on your learning interest and learning attitude?
- 3) In your opinion, on what aspects that the online-based testing method of formative assessment is helpful for you to form effective learning strategies and improve the level of English Listening?
- 4) What's your view towards the change of evaluation method in Listening course on developing your potential and becoming an autonomous listening learner?

3.3.4 Portfolios

It was believed that a portfolio was a collection of students' works with purpose, which demonstrated to students and others' efforts, progress and achievements in particular areas (Genesee & Upshur, 2001). Both students in EG and CG collected their works. According to the theories mentioned above, the portfolio for each student was designed in this research, including the following areas: (1) students' general information; (2) samples of students' works; (3) records of extracurricular learning behavior; (4) records of testing; (5) self-assessment, once a month; (6) peer assessment; (7) teacher assessment; (8) self-reflection; (9) other materials like some interesting listening recordings, movies and songs that students shared with each other.

3.4 Research Procedures

The experiment for comparison of the two different testing approaches of formative assessment, online-based testing and paper-based testing, started from the March to late June and lasted for the one semester with 17 weeks. All students from the CG and EG use the same textbook for English Listening class. The first week of teaching, the pre-test was conducted to the students in EG and CG in the evening aiming to see whether they have significant differences in English listening proficiency level. With the help of teacher assistants, 116 copies of pre-test were distributed and 116 copies were returned. Besides, the students in experimental classes were divided into 12 study groups on voluntary basis, six groups for each class.

3.4.1 Experiment

Both EG and CG were conducted to formative assessments. The difference was that the students in EG would receive online-based testing as a method of formative assessment by using the language learning platform, while students in CG just had paper-based tests in that semester. There were three periods in this teaching experiment. Here is the table of data collection methods in different stages.

Table 1 Data Collection Tools in Experiment Periods

Stages	Data Collection Tools
Pre-experiment Period	Pre-test
In-process-experiment Period	Classroom Observation
	Interviews
	Self-assessment
	Peer assessment
Post-experiment Period	Post-test
	Teacher assessment

3.4.2 Data Analysis

The statistical analysis of data is conducted through SPSS 17.0 (Statistical Package for Social Sciences 17.0) on the data. In the very beginning of this semester, after pre-test, Paired-samples T test was employed to see if there are significant differences between EG and CG in the students' academic performance of English listening. After the teaching experiment, Paired-samples T test was used to analyze the data from the post-test in order to find out whether online-based testing approach of formative assessment has the positive effects on the students' academic performance of English listening. Meanwhile, interviews, classroom observation, and portfolios in the relevant research questions would be discussed as qualitative analysis in this research.

4. Results and Discussion

4.1 Results of the Research

4.1.1 Data Analyses

There were 116 students attended in this experiment. 58 students are in the Experimental Group (EG), the rest 58 are in the Control Group (CG). This research is aiming to see whether there is a significant difference of effectiveness of the two approaches of testing in formative assessment. So, the Paired-Samples T-Test was used to check. The following are the results for pretest and posttest of the English listening tests for CG and EG.

Table 2 Pre-test Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-test CG	72.2586	58	14.33412	1.88216
Pre-test EG	73.9741	58	10.76032	1.41290

Table 2 are descriptive statistics. It shows that the mean score of Control Group's pretest is 72.2586, the Std. deviation is 14.33412, and the Std. Error Mean is 1.88216, while the Mean score of Experiment Group's pretest is 73.9741, the Std. deviation is 10.76032, and the Std. Error Mean is 1.41290.

Table 3 Pre-test Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Pre-test CG & Pre-test EG	58	-0.33	0.804

From table 3, it can be seen that the samples selected from each group are 58 students, Correlation is -0.033, and Sig. = 0.804. In Paired-Samples T-Test, a hypothesis is that there is no significant difference between the means of the two variables. If the result of $P > 0.05$, it can't refuse to the hypothesis. Therefore, in this table, we can learn that there is still no significant correlations between the pre-tests for CG and EG.

Table 4 Pre-test Paired Samples Test

	Paired Differences					t.	df	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-test CG & Pre-test EG	-1.71552	18.20717	2.39072	-6.50285	3.07181	-.718	57	.476

From table 4, it is shown that $P = 0.476 > 0.05$, which improves that there is no significant differences of pre-test scores between the CG and EG.

Table 5 Post-test Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Post-test CG	70.8276	58	10.95747	1.43879
Post-test EG	73.9310	58	9.63885	1.26564

Table 5 are descriptive statistics. It shows that the mean score of Control Group's post-test is 70.8276, the Std. deviation is 10.95747, and the Std. Error Mean is 1.43879, while the Mean score of Experiment Group's post-test is 73.9310, the Std. deviation is 9.63885, and the Std. Error Mean is 1.26564.

Table 6 Post-test Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Post-test CG & Post-test EG	58	-.144	0.280

From table 6, it can be seen that the samples selected from each group are 58 students, Correlation is -.144, and Sig. = 0.280. In Paired-Samples T-Test, $P > 0.05$, it can't refuse to the hypothesis. Therefore, in this table, we can learn that there is still no significant correlations between the post-tests for CG and EG.

From table 7, we can see that $P = 0.135 > 0.05$, which improves that there is no significant differences of post-test scores between the CG and EG.

To sum up, the effectiveness of this experiment is not significant. In other words, we cannot make a conclusion that online-based testing approach in formative assessment that used in the English Listening course can be helpful to improve students' listening level. The advantages of involving the Internet in the formative assessment didn't present in this experiment.

Table 7 Post-test Paired Samples Test

	Paired Differences					t.	df	Sig.(2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Post-test CG & Post-test EG	-3.1034 5	15.60217	2.04867	-7.2058 3	.99893	-1.515	57	.135

4.1.2 Classroom Observation Results

In this teaching experiment, the classroom observation was conducted both in the EG and CG. Compared to the students in EG, students in CG did pay much attention to the test as they handed in the papers. Most of them didn't have the habit of reviewing after the class. Only a few parts of students would ask the teacher or teacher assistant for help about the problems they couldn't solve. Because the teacher just had a general picture of the performance of the students in CG, the teacher usually spend more time in explaining, which took up a lot time and had impact on the normal teaching schedule. So, the frequency of such tests had to be reduced to once a month. Things were different in EG. The feedback of online-based test was positive. When the teacher ended the tests, students could access to the query result module to check their performance and the results of the whole class as well. When after getting used to this kind of evaluation, especially when it came to the news listening practice late in the term, students took part in the test actively. Some of them noted down the new expressions. They were fond of supplementary knowledge in a form of online-testing and they looked forward to it each time.

4.1.3 Portfolios Results

When the Internet was involved in the test as a way of assessment, students in EG found that they were willing to do some listening exercises after class. Students learned their classroom performance very well and knew what areas were needed to be improved. Students in CG also made plans for reviewing with the purpose of improving their English listening skills level. Especially at the stages of listening to the news reports, students in CG and EG both completed the projects in groups with a clear division of each work. The assignments of finding background of the news items, listing the vocabulary, and summarizing the main ideas of each news item were handed out separately. Then they sit together, exchanged the information they collected and shared their understanding with each other. The comments on finishing the assignments on LCWLLP for the students in EG, were heated discussed in their portfolios. They believed that it's an objective and fair way to evaluate their English Learning after-class. They're in favor of the application of LCWLLP. As students collected their learning materials, they've got better understanding towards their development in English listening. Meanwhile, the teacher's assessments and encouragements are helpful to enhance relevant skills in English listening.

4.1.4 Interview Results

As the experiment progressed, students became familiar with online-based testing approach as a formative assessment. The attitudes towards the news assessment method had been changed. Here are the results of the questions of interviews. First, almost all the students are very supportive, and hope it could continue to be used in English Listening teaching, and some of them suggested that online-based tests after-class might be suitably increased. Secondly, when students were asked about whether the application of online-based testing approach of formative assessment has any influence on their learning interest and learning attitude, most of the students think it has positive influence to improve interest in Listening.

Most of them believed that each time the teacher gave comments to the problems of students' performance in the test, which could solve the common difficulties. Everyone treated these online-based tests very seriously. However, there were a small number of students who expressed their felling towards this new kinds of evaluation. They said that they would have preferred it, however, online testing in the class made them feel a big psychological pressure, because they were informed that the result of each test would be a part of this course grades.

Referring to the Listening Learning strategies, most students believed that their ways of learning were influenced by online-bases testing approach. Students could remember them or take notes about the solutions. That was a perfect introduction for them to follow.

Almost all the students agreed the changes in curriculum evaluation. They believed that it stimulated their learning potential, and their English listening autonomy has been improved. Therefore, we can learn that students in EG are mostly positive to the application of online-based testing approach in formative assessment. From their perspectives of views, the effect of online testing is supportive in English listening ability, English listening learning interest, attitudes, and strategies. And it is helpful for students' autonomous learning ability of English listening as well.

4.2 Discussions of the Research

On account of the result of this study –there is no significant difference between online-based testing and paper-based testing methods in formative assessment –the author hereby makes some discussions combing with the results of data analysis, classroom observation, students' portfolios and interviews.

Firstly, there is no significant difference between these two approaches in formative assessment. The main reasons for that could be concluded (1) the different frequency of the two testing approaches; (2) the psychological state of the students from EG and CG are different because of the different ways of answering the tests; (3) the time cycle of this experiment is not long enough to see the difference of these two approaches.

Secondly, students show positive attitude towards online-based testing approach in formative assessment and they hope it will continue to apply in the next semester. Online-based testing can give timely feedbacks to the teacher and all the participants. Both the teacher and the students are able to learn students' proficiency of English listening skills and quantity of vocabulary. The teacher gives specific explanation to the students according to the data analyzed by the platform, while students can check their detail answers of the tests with the help of it.

Thirdly, Lange Campus-Wide Language Learning Platform plays a significant role in English listening teaching. With the application of LCWLLP, students can get tutoring from the teacher by the modules of "alumni groups" and "Homework Instructor", and they can get help from other classmate by peer assessment online as well. Most students believed that it influenced their learning interest, learning attitude. The online-based testing method of formative assessment is in favor of forming an affective learning strategies and improving English proficiency and it can develop the potential to become an autonomous listening learner.

5. Conclusion

The result of this experiment shows that compared with the traditional test in formative assessment, though online-based testing approach in formative assessment cannot improve students' English listening proficiency in an obvious ways, to some extent, it does influence their listening learning interests, learning attitudes and strategies. It cannot be found that in this experiment result that they can get a better scores in this period of time, but it is believed that as long as their interests for listening are continuing, and the adjustment of their learning strategies, they could get the benefits from this learning experience, which leads to the development of autonomous listening competence finally. As the periods of this research is not long enough and the result of it maybe still be questionable. The following suggestions are provided for further study in future. Firstly, the methods of formative assessment may update involving the application of educational technology. Secondly, the periods of experiment should be assigned long enough to see the effectiveness.

Thirdly, teachers have to learn how to use SPSS to analyze the reliability and validity of test that teachers make by themselves. Fourthly, the role of teaching assistant is very important. The research benefits a lot from the records that teaching assistants' job. Then a research about teaching assistant in English Listening course can be carried out in the future.

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