

Conducting Web-based Formative Assessment Reform for ODL Students: A Case Study

Jingzheng Wang

School of International Exchange, Yunnan Open University, China

Yuanbing Duan

School of International Exchange, Yunnan Open University, China

Abstract—Modern open and distance education is characterized by web-based instruction, web-based assessment and research. The significance and necessity on formative assessment have been well acknowledged in the educational field. This paper firstly introduces the formative assessment innovation project conducted by China Central Radio & Television University (CCRTVU). Based on the “web-based formative assessment for English II (1)”, a required course for the non-English majors following B. A. programmes at Yunnan Radio and TV University (YNTVU, now renamed Yunnan Open University), it will mainly discuss whether it is feasible and effective to put the formative assessment online from the following three aspects: a thorough data analysis of the pilot project results; the strengths of web-based formative assessment compared with the paper-based formative assessment and finally the constraints on implementing web-based formative assessment system in the remote areas like Yunnan province, China. In the study, semi-structured in-depth interviews were employed to collect the participants’ feedback. The study found that web-based formative assessment, when carefully designed, organized and managed, is a very useful way of stimulating and facilitating student learning, it will promote students’ learning autonomy, ensure students’ learning process and help students develop their overall language competence as well.

Index Terms—web-based, formative assessment, feasibility, effectiveness

I. INTRODUCTION TO THE STUDY

Modern open and distance education is characterized by web-based instruction, web-based assessment and research. So far there has not been much research on web-based continuous assessment for the distance learners in China. As is widely acknowledged (e.g., Thorpe, 1998; Morgan and O’Reilly, 1999; Niu, 2003), continuous assessment, the so-called formative assessment, aims to enhance and improve student learning. If web-based formative assessment is enforced and becomes a necessary part of course learning, students are rewarded with certain marks, it is assumed that web-based formative assessment will play a greater role in stimulating and facilitating student learning.

With the increasing use of the Internet in English language teaching, the possibility of conducting formative assessment online is becoming greater. This paper, based on the “web-based formative assessment for *This is English 3*”, namely *English II (1)*, a required course for the non-English majors following B. A. programmes of Radio and TV Universities (RTVUs), will mainly discuss whether it is feasible and effective to put the formative assessment online from the following three aspects: an analysis of 2011 spring semester testing results in the process and an analysis of College English Test (Level B) results; the advantages and disadvantages of web-based formative assessment compared with the paper-based formative assessment and finally the constraints on conducting web-based formative assessment system in the remote areas like Yunnan. Hopefully this paper will give readers some insights into the feasibility and effectiveness of conducting formative assessment online.

Therefore, this study aims to answer two questions:

- 1) Is it feasible to use web-based formative assessment for the course of *English II (1)* as a means of continuous assessment?
- 2) What are the strengths and limitations of conducting web-based formative assessment in practice in the remote areas like Yunnan?

II. RESEARCH METHOD

A. Participants

The subjects involved in the study are all the adult students registered the course of *English II (1)* at YNTVU of China during the 2011 spring semester.

B. Procedures

The study was carried out in the spring semester of 2011, lasting from March 2011 to July 2011. In the study, Qualitative semi-structured interviews were conducted with 10 randomly chosen tutors and 50 students after the

web-based formative assessment implementation. The interviews were conducted by phone and QQ Forum, when possible, face-to-face as well. The data of students' performance both during the learning process and at the final web-based term examination were retrieved from the CCRTVU's Web-based Assessment Platform and then partly processed with the statistical tool Microsoft Office Excel 2003.

III. BRIEF REVIEW OF LITERATURE

A. *The Definition of Formative Assessment*

Black and William (1998b, cited in Chang & Liu, 2006) define assessment broadly to "include all activities that teachers and students undertake to get information that can be used diagnostically to alter teaching and learning". They reckon that "assessments become formative when the information is used to adapt teaching and learning to meet student needs". While in Carol Boston's opinion formative assessment is used "diagnostically to provide feedback to teachers and students over the course of instruction". Whatever wordings are used, at least the following three characteristics should be included in the description of formative assessment in contrast to summative assessment, which "generally takes place after a period of instruction and requires making a judgment about the learning that has occurred" (e.g., by grading or scoring a test or paper) (Boston Carol, 2002, cited in Chang & Liu, 2006):

- formative assessment is carried out during (not after) the teaching and learning process;
- formative assessment is undertaken to make necessary instructional adjustments (not to give a summary of achievement);
- formative assessment is made by teachers rather than testers or examiners.

B. *Rationale and Practice*

There are several purposes to formative assessment:

- to provide feedback for teachers to modify subsequent learning activities and experiences (Ari, 2010);
- to identify and remediate group or individual deficiencies (Ari, 2010);
- to move focus away from achieving grades and onto learning processes, in order to increase self efficacy and reduce the negative impact of extrinsic motivation (Lorrie, 2005);
- to improve students' metacognitive awareness of how they learn (Lorrie, 2005).
- "frequent, ongoing assessment allows both for fine-tuning of instruction and student focus on progress (Cauley & McMillan, 2010)".

Feedback is the central function of formative assessment. It typically involves a focus on the detailed content of what is being learnt (Ari, 2010), rather than simply a test score or other measurement of how far a student is falling short of the expected standard. Nicol and Macfarlane (2005), synthesising from the literature, list seven principles of good feedback practice:

- a. It clarifies what good performance is (goals, criteria, expected standards);
- b. It facilitates the development of self-assessment in learning;
- c. It provides high quality information to students about their learning;
- d. It encourages teacher and peer dialogue around learning;
- e. It encourages positive motivational beliefs and self-esteem;
- f. It provides opportunities to close the gap between current and desired performance;
- g. It provides information to teachers that can be used to help shape teaching (Nicol & Macfarlane, 2006).

C. *Types of Formative Assessment*

Formative assessment can be classified into many types based on different criteria. It can be classified into classroom-based and non-classroom-based ones in terms of the location where it is carried out; performance-oriented (i.e. the ability to do things), ability-oriented (the ability to think critically, to solve problems, to make judgments, to manage/develop oneself etc.) or knowledge-oriented (Choice of Assessment Method in *Good Practice in Student Assessment*) in terms of the area about which the formative assessment is intended to get information; paper-based and web-based in terms of the medium through which the formative assessment is carried out. The formative assessment to be mentioned below can be described as non-classroom-based, knowledge-oriented and web-based formative assessment. Details of the assessment system will be given later.

D. *Benefits of Web-based Formative Assessment in Contrast to Paper-based Formative Assessment*

Formative assessment is very important for teaching, since it can provide teachers with information about how well students are learning. However, in the case of RTVU's distance education, where tutors and students meet for tutorials only once every week or every month or even once a semester in some remote areas, it is more difficult to collect this information by using traditional paper-based formative assessment, not to speak of using it for improving tutorials. With the ever-increasing number of computers and the declining cost of using them, it becomes possible for tutors to keep track of students' learning process via the Internet. In addition, a lot of time and trouble can be saved without going through the process of handing in the paper-based assignments by the students and handing out the assignments with feedback by the teachers personally. Last but not the least, web-based formative assessment makes it much easier to

keep the documents for later reference and checked by the people concerned, which would otherwise be a large pile of space-consuming booklets. As a matter of fact, these are also the main reasons why web-based formative assessment has come in. Next details about the Multimedia Learning System for “*This is English 3*” are given.

IV. BACKGROUND INFORMATION ABOUT THE MULTIMEDIA LEARNING SYSTEM

The multimedia learning system for “*This is English 3*” is specially designed for the first year non-English majors following B. A. programmes of RTVUs. It spans for one semester and takes up 3 academic credits.

The system is intended to facilitate students’ self-study at their own pace while more emphasis are placed on their learning process and to improve their overall English language competence through the use of the multimedia.

The system is made up of two parts, i.e. CD-ROM-based learning system and web-based formative assessment system. The learning system has integrated all the existing materials related to the course “*This is English 3*”, including the printed coursebook, the CD and the VCD attached to it. It consists of two modules: Learning Units (including 15 common learning units & 3 review and assessment units) and Auxiliary Tool Bar (consisting of Unit Outline, Glossary, Function, Grammar, Fun Time, Online Activity, Help, Staff, etc.). In addition, extra listening and speaking exercises are incorporated into the system in hope that learners will get more opportunities to practice by making good use of the computer technology.

After each time of learning, a record will be automatically generated including the time spent and the marks gained. There is a self-assessment test in each unit, which includes Multiple-Choice (MC) questions for vocabulary, structure, function, reading and writing. For MC questions a record of the time spent and the marks gained can be automatically generated immediately after the student finishes doing them; whereas for the written work, which need to be uploaded and be marked by tutors.

It is worth noting that all the records can be uploaded immediately after each time of learning or can be stored on the computer or a disk first and uploaded to the web-based formative assessment system later. This is an important feature in the design of the learning system because not all the learners have easy access to the computer and the Internet all the time. The idea is that the student can use the learning system offline, and upload their learning record only when they have access to the Internet.

From the description above, it can be easily seen that the CD-ROM-based learning system and the web-based formative assessment system are integrated as a whole as far as the formative assessment is concerned in that the former provides the latter with basic information for formative assessment, whereas the latter provides the former with the platform for formative assessment. Therefore it can be concluded that the two systems make up two necessary parts for web-based formative assessment.

In order to implement the pilot successfully, a well-designed implementation plan for formative assessment is given. Details on how to give marks in the formative assessment are shown as the following in Table 1:

TABLE 1
CRITERIA FOR FORMATIVE ASSESSMENT

Contents for Evaluation		Score Percentage	Criteria for Evaluation
Learning Time of Common Units (15%)	Units 1-5 Units 7-11 Units 13-17	15%	It focuses on checking students’ learning time. Students are required to study each unit at least 30 minutes. Then 1 score will be given automatically for a common unit if the learning time is over 30 minutes for each.
Common Units Composition (15%)	Units 1-5 Units 7-11 Units 13-17	15%	It checks students’ writing practice. It is optional for students to choose 3 topics to write from 15 common units and submit their works to their tutors. Each writing accounts for 5%, totally 15%. And the marks will be scored directly by the tutors on the CCRTVU Formative Assessment Platform.
Review and Assessment Units (60%)	Unit 6	20%	It checks students’ self-assessment. Each unit test accounts for 20%, totally 60%. In each test 85% are MC questions and the other 15% writing will be scored by the tutors on the platform.
	Unit 12	20%	
	Unit 18	20%	
Performance (10%)	Tutorial & Autonomous study	10%	It checks students’ overall performance in the tutorials and autonomous study of the course. It accounts for 10% and will be scored by their tutors on the platform.

The formative assessment part takes up 50% of the whole course mark. As required according to the rule that if the formative assessment score accounts for more than 30% of the total course mark, students taking part in the pilot need to earn a score at least 60 in order to take the web-based final exam at the end of the semester.

In addition, requirements concerned with facilities, personnel and financial support for the formative assessment have

to be met to ensure the successful running of the system.

V. THE MULTIMEDIA LEARNING SYSTEM IN USE

A. Results of the Formative Assessment

The multimedia learning system had been piloted since 2009 at YNTVU. At first, it is optional for all the study centers to participate in this pilot project and so there were few students registered to study using the learning system each semester, and students enrolled in the course study for the web-based formative assessment were mainly from the central towns and cities where technology is more accessible and applicable.

To ensure students' learning process and improve their English competence, all B. A. programmes students are required to register and study the course *English II (1)* using the learning system since 2010 at YNTVU. It is expected that students will get accustomed to the online learning and get familiar with the web-based exam. By doing so, it might facilitate students to pass College English Test (Level B), a required National Exam for the ODL learners. As a result, there are more and more students registered this course, but still few students upload their exercises and take part in the web-based final term examination. So, a thorough analysis of the course registration and pilot implementation is badly needed. The following Table 2 shows the overall situation of students' registration for the course and their accomplishment in using the learning system during the Spring Semester of 2011 at YNTVU.

TABLE 2
AN ANALYSIS ON FORMATIVE ASSESSMENT RESULTS

Study Center	Registered Toll	Pass Toll	Pass Rate	Average Score	Standard Deviation
Baoshan Branch TVU	115	102	88.7%	85.5	7.2
Baoshan Changning	93	65	69.9%	88.4	11.5
Baoshan Shidian	13	12	92.3%	66.6	5.2
Chuxiong Branch TVU	10	2	20.0%	76.5	14.8
Chuxiong Mouding	7	7	100.0%	85.2	4.3
Chuxiong Nanhua	5	0	0.0%		
Dali Branch TVU	48	37	77.1%	69.9	6
Honghe County	67	61	91.0%	85.7	1.4
Honghe Jinping	6	0	0.0%		
Honghe Luchun	54	48	88.9%	83.3	11.1
Honghe Mengzi	5	0	0.0%		
Kunming Fumin	30	30	100.0%	65.6	3.5
Kunming Branch TVU	1	1	100.0%	90.2	
Kunming Labor Union Branch TVU	12	12	100.0%	81.5	9
Lincang Branch TVU	31	6	19.4%	76.3	8
Qujing Branch TVU	12	9	75.0%	83.2	11.6
Qujing Economy Cadre Secondary School	62	0	0.0%		
Qujing Qilin	16	10	62.5%	70.6	4.3
Lincang Gengma	3	3	100.0%	83	8.4
Zhaotong Ludian	43	43	100.0%	97.6	2.1
Central School attached to YNTVU	142	84	59.2%	86.2	11
Lincang Yongde	16	5	31.3%	80.7	10.8
Lincang Yunxian	25	8	32.0%	77.2	10.4
Zhaotong Zhenxiong	11	0	0.0%		
Lincang Cangyuan	6	0	0.0%		
Simao Branch TVU	47	19	40.4%	71.6	6.9
Simao Mojiang	1	1	100.0%	74.9	
Wenshan Nationality Cadre Secondary School	29	16	57.1%	79.8	7.3
Wenshan Branch TVU	15	15	100.0%	72.8	3.2
Wenshan Guangnan	1	0	0.0%		
Wenshan Qiubei	21	0	0.0%		
Xishuangbanna Branch TVU	93	85	91.4%	72.5	7.7
Qujing Xuanwei	30	30	100.0%	70.9	4.6
Yunnan Politics & Law College Branch TVU	5	2	40.0%	74.2	13
Total	1075	713	66.30%	78.84	3.62

As shown in Table 2, there are 1075 students registered the course of *English II (1)* during the spring semester of 2011 whereas only 713 students submitted their assignments via the formative assessment system and passed the formative assessment with an average score of 78.84. Among those students registered the course, one third of students did not submit their study record to the formative assessment platform at all. And the reasons for explanation need to be further explored. Hopefully, it seems all those completed their assignments achieved much in their language

competence.

B. Results of the Web-based Summative Assessment

Students participated the pilot project are asked to take the web-based summative assessment at the end of a study term, in which the test paper are mainly based on the exercise items in the learning system. Thus, it is expected that those had a good learning record for formative assessment are supposed to get higher marks in the final exam. It is optional for students to choose the summative assessment from web-based and paper-based type. There are only 142 students choosing to take the web-based summative assessment, which is held in certain computer rooms by two invigilators and the exam papers are automatically generated, while the rest students choose to take paper exam in the classroom due to different reasons.

TABLE 3
AN ANALYSIS ON THE WEB-BASED SUMMATIVE ASSESSMENT RESULTS

Course Code	Course Name	Exam Absence Toll	Exam Toll	Pass Toll	Pass Rate	Average Score	Standard Deviation
1844	English II (I)	33	142	126	89%	78.09	17.59

According to Table 3, it is obvious that most students can pass the final exam with a high score. The pass rate is much higher in comparison with the formative assessment. Although the standard deviation is a little bit high but still acceptable since our students are adult learners, whose background and prior knowledge of English is sharply different from each other. It also shows that many a few students were absent for the web-based final exam, probably they are afraid of the technology-driven exam or have other unknown difficulties attending the exam, which also needs further exploration.

C. Results of the College English Test (Level B)

It is also hypothesised that the pilot project might facilitate students to get accustomed to the online learning, the web-based exam and so as to pass the College English Test (Level B), a required National Exam organized by the Ministry of Education for the ODL learners in China. It is sure that student's learning process are ensured and enforced to some extent by conducting the web-based formative assessment for more than a year, as a result, the students' passing rate has been sharply increasing in contrast to the previous testing results. The data of Table 4 clearly shows us the test results and the improvement in narrowing the ratio gap between YNTVU and the total passing rate nationwide from 2009 to 2011. Therefore, it is obvious that the pilot project is very effective to students' English learning and in raising students' test passing rate as well.

TABLE 4
AN ANALYSIS ON COLLEGE ENGLISH TEST (LEVEL B) RESULTS

Testing Time	Pass Rate of Nationwide	Pass Rate of YNTVU	Exam Toll of YNTVU	Pass Toll of YNTVU	Ratio Gap
Apr. of 2009	55.08%	41.53%	1416	588	-13.55
Sept. of 2009	59.32%	42.45%	1100	467	-16.87
Dec. of 2009	55.29%	42.04%	666	280	-13.25
Apr. of 2010	62.42%	49.88%	834	416	-12.54
Sept. of 2010	61.50%	50.65%	999	506	-10.85
Dec. of 2010	61.25%	50.99%	502	256	-10.26
Apr. of 2011	71.9%	55.3%	727	402	-16.6
Sept. of 2011	69.55%	63.09%	932	588	-6.46
Dec. of 2011	70.3%	64.55%	567	366	-5.75

(Data retrieved from the Academic Affairs Office of YNTVU)

D. Results of Interview

Interviews were carried out to 10 randomly chosen tutors and 50 students focused on the two research questions stated before at the end of the term. The data obtained from these are very valuable since they are from the end users of the system.

1. Feedback from the tutors. Different tutors describe the advantages of the system from different perspectives, over 80% of the tutors interviewed think that the multimedia learning system is good for improving students' learning autonomy, helpful in directing students to pay more attention to the learning process and that the system makes it easy for tutors to monitor students' learning progress and remind students to finish their tasks in time. Around 60% of the tutors think that the system is good for increasing students' interest in learning English, practical and effective in helping students with their learning and the system helps tutors to be better prepared for tutorials according to students' needs.

At the same time, 75.3% of the tutors think that the system is unsuitable for those students who can not easily get access to computers or the Internet; 88.8% of the tutors think that the system has the disadvantage of increasing tutors' workload. Further, most of the tutors (over 80%) think that frequent occurrence of technological problems give them the greatest difficulty; 61.8% of the tutors think that their students have poor command of computer skills; 51.2% of the

tutors think that they have difficulty in coordinating with the other departments concerned and that they are unable to guarantee all the students have access to computers and the Internet.

2. Feedback from the students. First, 82.3% of the students interviewed would agree that the multimedia learning system is good for improving their learning autonomy; 68.4% of the students think that the system is convenient for them to make arrangements about what to learn and when to learn according to their own situation; 54% of the students think that the system is good for increasing their interest in learning English; 52.7% of the students think that the system is helpful in improving their overall language competence.

Second, 78.2% of the students think that the system is unsuitable for those students with difficult access to computers and the Internet; 61.9% of the students think that they are unable to get immediate help when coming across questions while learning by themselves; 42.6% of the students think that the system content is not as comprehensible as the explanations given by tutors in tutorials.

Third, nearly 80% of the students think that they do not have enough time for study; 57.1% of the students do not have computers for frequent use; 32.4% of the students are unable to upload their learning record successfully; 31.6% of the students are not very good at computers; 31.4% of the students don't think that they have the qualities required by web-based learning, such as the ability to manage time and learn by oneself; 48.3% of the students have no access to the Internet; 36.1% of the students are unfamiliar with the use of the system.

VI. FINDINGS AND DISCUSSION

A. *Strengths of Web-based Formative Assessment*

The participants made a long list of the advantages of using the multimedia learning system for formative assessment in their interview responses. Most of the tutors and students would agree that the system has many advantages in that it can help improve students' autonomy in learning; it can help tutors monitor students' learning process and students focus more of their attention on the learning process rather than merely on the final exam; it can help students develop their overall language competence, especially their listening, vocabulary and grammar etc.; it is easy for students to study at their own pace. These advantages of the system are very important for ODL students, who study most of the time by themselves. Also, due to these advantages, most of the tutors think it is necessary to use the system.

As for whether it is feasible to use the system in all the RTVUs, most of the tutors suggest that the system should be used by those RTVUs who have the infrastructure needed for the system. However, there are many factors which have to be considered if the system is to be used throughout all study centers in Yunnan province, an underdeveloped frontier area with diversified national cultures, various physical and economic obstacles as well. This paper will mainly look at the factors concerning the two major groups of users, i.e. the tutors and the students.

B. *Constraints of Web-based Formative Assessment in Yunnan*

1. **Factors concerning tutors**

a. Tutors' pressure in giving tutorials. Interestingly 86.5% of the tutors would not agree that the system help reduce their pressure in giving tutorials. Besides, students' different pace of learning, which although is a desirable feature of the system for students, might also increase the difficulty for tutors to decide on the focus of their tutorials.

Tutors' pressure might also rise from the use of the system, which is in fact a very demanding task, for tutors have to have a very good command of computer skills in addition to their command of English and teaching techniques, which are the two basic requirements of traditional way of teaching. Otherwise it would be very difficult for them to give students tutorials. This actually also increases tutors' workload as discussed below.

b. Tutors' workload. It is not surprising that nearly 90% of the tutors think that the use of the system has increased their workload and it is really troublesome. To guarantee the successful use of the system, tutors have many new responsibilities added to their old ones required by traditional ways of teaching, such as training students to use the system; providing those students with access to computers and the Internet; urging students to keep their pace of learning by the use of telephone, emails and mobile messages and offering students online help.

Understandably, only 30% of the tutors are able to provide frequent online help to students, for this is a very time-consuming and demanding job. In addition, tutors have to mark students' written assignments uploaded to them, get online to check students' learning process.

In addition, inadequate support from certain local study centers make tutors' workload and pressure even greater, as mentioned by one of the tutors. Therefore, it might be better if local study centers could pay more attention to the use of the system and make a fairly clear division of labour. In this way, the smooth cooperation among different staff will hopefully decrease tutors' workload, thus enabling them to devote more of their attention, time and energy to their teaching.

It is also worth noting that most of the tutors are part-time and are unable to devote too much of their time and energy to their part-time job. Although for students the more time and energy tutors devote to their teaching, the better, it is hard to require all the tutors especially the part-time ones to do so. It is advisable to quantify tutors' new responsibilities, on the basis of which their payment should be matched. Hopefully this will encourage tutors' greater devotion.

2. **Factors concerning students**

a. Mode of learning. Since most of the students used to study following traditional mode of learning, i.e., sitting in

the classroom listening to lectures, they do not feel safe and comfortable with the new learning mode, that is, learning mainly by themselves through the multimedia learning system. In addition, "adults prefer face-to-face learning rather than learning through the use of video or audio communications" (Stroot et al, 1998). Therefore, many students expressed their hopes to have more tutorials.

This is really a dilemma for all the learning resources are integrated into the system by making use of multi-media in hope that all the students can learn by themselves at their own pace through the system wherever they are. This is very important, for in some remote areas, students meet only once a semester for a short period of time for intensive tutorials. Even worse, when tutorials are provided, only few students attend the classes, which is really irritating and disappointing for the tutors.

As a result, students have to learn most of the time on their own. However, some students prefer learning through tutorials to that by themselves through the multimedia learning system. This is undesirable as Wenden (1991) argues that two key attitudes underlie learner autonomy: firstly, learners' attitudes towards their own role in learning and secondly, their attitudes towards their ability to learn and take responsibility for learning. Therefore, before the system is introduced, effort should be made to change students' attitudes towards their own role in learning. Besides tutors should also teach students how to learn and guide students to take responsibility for their own learning.

It is worth mentioning that the system is not intended to replace tutors. On the contrary, tutors play a very important role in the use of the system, as mentioned previously. However, most of the study centers do not have enough staff members, not to speak of highly-qualified tutors to offer adequate tutorials. Therefore, the system is developed partly in an attempt to find suitable ways to remedy this situation.

b. Overall language competence. Nearly half of the students do not think that the system is helpful in improving their overall language ability. Speaking and writing, the two language productive skills, which either requires immediate response from the listener or the feedback from the tutor are always difficult to practice online unless one-on-one online help can be provided to each of the students. But this is very impractical since someone must be online all the time to offer help at the time of students' learning. For most study centers, tutors are part-time ones with other responsibilities or employed from other traditional universities. It is nearly impossible to require them to be online all the time. Besides, most of the students do not have easy access to the Internet. This means that they can only speak and write to the computer, which might make some students feel uncomfortable and unsafe without getting immediate response or feedback from a real person.

c. Time management. Nearly 80% of the students think the major difficulty they have with the system is that they do not have enough time for self-study. All the tasks in each unit are supposed to be finished within three hours according to the designers. Note that this does not include the time for occasional occurrence of technical problems. Therefore, it usually takes students more than three hours to finish each unit if they are not very familiar with the system. However, since most of the students are working adults, who have many roles to play (For example, they have family to take care of; they have work to do, they have social activity to take part in.), the time they have for study is very limited and as non-English majors, the time left for English is even less. Many students think that for their limited time, there are too many tasks for each unit. Besides, students' feeling about the inadequacy of time also comes from the use of the system. They respond that sometimes it is really time-consuming and troublesome to upload their learning record due to different reasons.

The tentative solution to this might be combining study on the computers with study through various resources for the course, such as the coursebook, CD, etc. The dependence of the system on computers and the Internet make students unable to make use of their scattered free time, such as the time for travel from and to work, the time for housework, etc. Therefore, it is advisable to make some tasks in the system compulsory and some optional and in addition, leave students some assignments to do by using the coursebook, CDs and other portable resources.

As for how to make the formative assessment system work and be reliable, we may just base the essential and compulsory part of the formative assessment on the easy-traced online study and meanwhile allow some alternative ways conducted offline. However, this needs to be further explored.

d. Technical problems. Students have many problems with the system as far as computers are concerned. They are as follows:

i) Poor command of computer skills. Some of the students see the system as a means to improve their computer skills. However, others might see their poor command of computer skills as the greatest obstacle to learning English through the system, especially those elderly ones. To solve this problem, sufficient training should be offered to students to guarantee that each of them can use the system without much difficulty.

ii) Difficult access to computers. 57.1% of the students do not have easy access to computers. The computers they use are provided by their study centers. Since the number of computers is limited and net speed is not very fast sometimes, some students do not feel they are given enough time online. Further, most students are working far from the study centers so that it is really not easy for them to get access to computers, let alone the Internet.

iii) Difficult access to the Internet. Nearly 60% of the students do not have easy access to the Internet. Although net cafes are very common in most places of China, they might not necessarily have the computers meeting the requirements of the system. The above two problems can only be addressed by setting up more multi-media classrooms at study centers to offer students easier access to computers and the Internet. However, this requires an investment of

extra amount of money, which relies a great deal on the managers of the study centre.

iv) Difficulty in uploading learning record and assignments. Due to various reasons, many students have unsuccessful experience in uploading their learning record and assignments. The main cause for this situation is that all the students are required to upload their learning record and assignments to the network in CRTVU. This makes the path very crowded. One possible solution is to establish a platform in each RTVU at provincial level, to which students can upload their documents, and at the same time it is easier to upload the learning record with help from the local RTVUs, if called for. However, this requires further discussion and exploration.

VII. CONCLUSION

Based on the feedback from the tutors and student users, it can be concluded that the multimedia learning system for “*This is English 3*” has achieved its goals, i.e. facilitating students’ self-study at their own pace while more emphasis are placed on their learning process and to improve their overall English language competence through the use of the multimedia. Besides, web-based formative assessments have many advantages as compared to traditional paper-based ones; therefore, it is worth and feasible trying to use it on a large scale. It suits the need of adult learners and it can help achieve the aims of a course. However, there are many factors to be considered while introducing web-based formative assessment to all study centers in Yunnan. They are as follows:

- a. Students’ attitudes towards self-study;
- b. Students’ access to computers and the Internet;
- c. Timeliness of feedback to students;
- d. Tutors’ and students’ command of computer skills;
- e. Tutors’ workload;
- f. Tutors’ pressure in tutorials...etc.

To solve the problems described above, we put forward a number of suggestions. Most of all, adequate training should be provided to the participants who are poor at using a computer before the learning system is introduced. Further, to ensure the successful use of the system, at least a multimedia classroom with Internet access should be available at each study centre for students’ use, for not all the students have access to computers at home, not to speak of the Internet. In addition, all the extra time and efforts invested by the staff members involved in the application of the system should be taken into consideration in terms of the new type of workload.

Although there are many constraints in conducting the formative assessment in open and distance education, we believe teaching quality can be improved and ensured by the implementation of web-based formative assessment, the integration design of formative assessment and final examination, and the ensurance of learning process. The difficulties students encountered in the formative assessment are the ability of individual learning, the skill of computer application, the independence of course-selecting and communication of their emotion. Given that student support concerning enrollment education, technical support, learning process management, learning strategies, emotional factors and learning cooperation are promoted and well-served, all these problems can be solved.

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Jingzheng Wang was born in Jingdong, Yunnan, China in 1970. He received his B.A. degree in English Language & Literature from Yunnan Normal University, Kunming in 1995 and M.E. degree from Hong Kong Open University, China in 2004.

He is currently an associate professor in the School of International Exchange, Yunnan Open University, Kunming, China. His research interests include ELT for distance learners and comparative study on distance education.

Mr. Wang is a member of the Yunnan Association of Foreign Language Teachers.

Yuanbing Duan was born in Yuanyang, Yunnan, China in 1978. She received her M.A. degree in English Language & Literature from Yunnan Normal University, Kunming, China in 2006 and now she is a PhD candidate in Shanghai International Studies University, China.

She is currently an associate professor in the School of International Exchange, Yunnan Open University, Kunming, China. Her research interests include Pragmatics and English Teaching Methodology.