Web 2.0 Incorporated Dynamic Assessment to Assess Writing Ability of Iranian EFL Learners

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Abstract

In dynamic assessment which emphasizes the process rather than product learners are provided with corrective feedback in categorized levels. On the other hand, Blog is an on-line and user-value driven technology widely used in language learning. This study was an attempt to investigate the effect of the Web 2.0 on writing ability of Iranian EFL learners through the process of dynamic assessment. To do so, twenty low advanced EFL learners were randomly selected to take part in an eight-session class in advanced writing. The participants were assigned into two control and experimental groups consisting of ten members. Both groups were exposed to dynamic assessment however they differed in that the dynamic assessment of the experimental group was applied online through using a blog and the dynamic assessment of the control group was based on traditional paper-and-pencil method. The quantitative data were analyzed through using a paired t-test and the answers to open-ended questions extracted from distributed questionnaires among the experimental group were analyzed qualitatively. The results indicated that the use of blogs not only improved the writing ability of the learners but also facilitated the procedure of their writing assessment.

Index terms— blog, call, dynamic assessment, web 2.0, writing ability.

1 Introduction

t is generally believed that the traditional method or the psychometric model of language testing is no longer adequate. Therefore, it has been replaced by assessment as a means of comprehensive testing which gradually shifted to dynamic assessment in which the emphasis is on the process rather than product. In fact the idea of the difference between competencies which were already completed and had turned into performance and the ones which are being developed and flourished (by Vygotsky) is the main motivator for dynamic assessment (DA) in the realm of assessment. Lidz terms DA as the interaction between examiner as an intervener and learner as an active participant that seeks to estimate the degree of modifiability of the learner and the means by which positive changes in cognitive functioning can be induced and maintained **??**Lidz, 1987). In this perspective DA is basically different from traditional assessment (TA).

In contrast to TA which emphasizes on what a learner knows and can perform now, DA focuses mainly on what a learner can acquire in future. Another distinction between formal assessment and DA has been made by Lantolf & Poehner, 2011 where they state that in the former learners receive no form of feedback during the process of assessment while in the later they do in different and orderly levels.

In Web 2.0 technology users can produce their own contents, vote to others' contents, review, comment, syndicate, mash-up and even edit others' work without having to know sophisticated aspects of software engineering and even programming. Web and web 2.0 are rather recent developments in assessment with a vast range of tools and applications such as blogs, v-blogs, m-blogs, audio and video conference, chat, instant messaging, email, e-journal, Wiki, e-note (Tuparova & Tuparov, 2010) or more modern approaches such as Skype, iPod's, etc. **??**Sarica & Cavus, 2009).

Web 2.0 and its related applications have been widely used in language learning (Bran, 2009; Dettoria, & Lupib, 2010; Ivanovaa, & Ivanov, 2010; Kovacic, Bubas, & Coric, 2012). But their use in the realm of assessment is rarely touched. This paper focuses on one of these technologies (blogs) to find out how effective they are on the writing ability of EFL learners in the process of dynamic assessment. The concept of Web 2.0 and its function in Dynamic Assessment is twofold. It not only connects to the area of Computer-Assisted Language Learning (CALL) but also goes under the domain of assessment.

2 II.

3 Review of Literature a) Related Studies On Dynamic Assessment

Dynamic assessment is theoretically rooted in Vygotsky's notion of mediation and zone of proximal development (ZPD). Mediation is by definition the process by which other-regulated activities are transformed into self-regulated ones (Birjandi & Ebadi, 2012). This process happens through scaffolding which is defined as the process of data mediation from more proficient peers (or instructors) to less proficient ones in the borders of Zone of Proximal Development. This zone is an area in which learners current capabilities are distinguished from those capabilities that can be acquired with the help of other more proficient peers or instructors. Based upon this theory, Aljaafreh and Lantolf (1994) distinguished a distinction between learners' actual level of performance (what is actually assessed in traditional assessment) and their potential development level of performance (what is supposed to be assessed in dynamic assessment).

Sternberg and Grigorenko (2002) identified three differences between TA and DA. The first refers to the distinction between considering performance as a static state or a dynamic process. The second is about feedback. In DA a form of explicit or implicit feedback is provided for learners while this is not the case in TA until the test is done. Finally the third is about the relation between test-giver and test-taker. While this relation in TA is completely neutral, in DA it is somehow an interactive and mutual relation. In all three cases, Web 2.0 and its related technologies (specifically in the case of this study; blogs) are powerful and at the same time flexible tools for dynamic assessment of learners' performance. Although the related studies are all on the effectiveness of any type of treatment using these technologies (Delclos, Burns, & Vye, 1993;Yeh, & Lo, 2005) there are few studies on utilizing such technologies in the field of language assessment (e.g. Shresthaa & Coffin,2012; Swanson & Lussier, 2001). These technologies can be categorized into synchronous computer-mediated communication (SCMC) and asynchronous computer-mediated communication (ACMC).

SCMC includes applications such as instant messaging systems or online chat rooms (textual or multimodal) in which learners are provided with real time communication in the form of written or audio and visual texts. Most studies on the bridge between web2.0 and DA is done in this category for instance, Birjandi and Ebadi (2010) explored learners' socio-cognitive development through DA in a web-based qualitative inquiry in SCMC and with Google Wave Interface Assistance. They used micro genesis as a general analytical framework to investigate the change in learners' progress by means of mediation. They concluded that Web 2.0-incorporated DA can provide better insights into the participants' level of regulation and their potential socio-cognitive development in future based on Vygotsky's ZPD model.

In another study, Oskoz (2009) explored the plausibility of applying DA to SCMC by examining students' performance in oral interaction following DA and of Aljaafreh and Lantolf's (1994) 5-level scale (based on the frequency and type of assistance provided to the learner) to assess learners' development in English. She claimed that although traditional assessment still needed to be performed for learners, the 5-scale framework of Aljaafreh and Lantolf can provides a more accurate picture of learners' stage of development.

Internet chat relay system is another instance of SCMC systems. It is among other prevalent technologies which is incorporated in education though not yet specifically in assessment. Ingram, Hathorn and Evans (2000) studied chat rooms in terms of providing opportunities in addition to pitfalls of using graphical chat programs in education. They concluded that chat rooms are likely be used effectively to hold discussions with students over a distance to bring together people who may not otherwise communicate.

What have been mentioned thus far were manifestations of SCMC systems, another approach is ACMC available in services such as email, use net, news groups, on-line forums and blogs (to mention a few) in which learners are provided with a semi-real time communication mostly through written texts and other static graphical aides such as emotions and masks. According to Ellis (2008) these technologies provide learners with self-paced and enough time for their competence to be emerged in proper time. Since the instrument of the present study is blogs it seems necessary to deal with its different aspects.

4 b) Related Studies On Blog

Blog or weblog as defined in Wiki is a personal electronic journal which is published on the net (World Wide Web), consisting of discrete entries, usually around a specific subject and which is updated usually on regular bases by its users and is displayed in reverse chronological order. Free access and user-friendliness (site maintenance without having knowledge of programming) are two aspects of blogs which have helped to their widespread use

and utilization in different areas. Another reason for such a growth is that blogs are an application for social networking and Web 2.0 technologies.

A study by Azizinejad and Hashemi (2011) reveals that a blog provides its users with a customized environment in which they can write their own contents and then update, edit or delete it. The users can comment on others contents and make suggestions which can be considered as a guide for further evaluation and modification. On the other hand, Kovacic, Bubas and Coric (2012) by foregrounding psychological aspects of blog, introduced it as a means to provide learners with an encouraging, nonthreatening, collaborative, self-paced learning environment according and in concordance with their own learning style in which they can organize and structure their own learning contents.

In addition to the mentioned facilities provided by different instances of Web 2.0 applications, Grosseck and Holotescu (2010) introduced other advantages of such technologies such as cost of maintenance and customizability, personalized and customizable environment and more importantly, collaborative facility in writing which are specific to blogs. Blogs allow subscribers or bloggers to learn from other subscribers in terms of ideas, language and structure, and organization of their essays.

Autonomy is another important factor in using blogs which is investigated by Zaini, Kemboja and Supyan (2010). They proposed that blog helps to gain and offers to learner a sense of autonomy in which they see themselves as an author who is capable to produce their own content, then to review and to modify it gradually until to turn it to something acceptable. They described it as self-learning process and believed that self-learning signals students ability to be independent and thus become their own player in learning process.

5 III.

6 Purpose of the Study

Dynamic assessment encourages assessing the process of learning rather than its product and evaluating potential performance of learners instead of their current one. Since learning environments which are provided by Computer Mediated Communication (CMC) technologies in many cases (chat rooms, blogs, etc.) show the process which is taking place in the mind of learners to produce their final product blog (as an instance of a CMC system) with assistance to DA provides it with an excellent homogeneity with its underlying assumptions therefore it seems that it can be utilized as a suitable tool for learner's assessment.

Because of the difference which lies between traditional assessment (which emphasizes on product) and DA (which emphasizes on process), the assumption underlying CMC (which is mostly interested in the process of learning rather than its product), the difficulty of learners assessment in terms of learning processes and the widespread use of such systems in education today, this study intends to evaluate the effectiveness of the use of blog in the process and product of dynamic assessment. To accomplish the purpose of the study, the following research question was posed:

Is there any significant difference in the process and product of dynamic assessment by using blog instead of regular paper and pencil in teaching advanced writing to Iranian EFL learners?

While the term 'product' pinpoints the final works of participants which are analyzed quantitatively using statistical procedures, the term 'process' points to the processes and procedures which participants are involved in to perform their tasks. These processes are discussed qualitatively based on the outcomes of the questionnaires.

IV.

7 Method a) Participants

Students of an engineering college were called to register for an eight-week English advanced writing course. Sixty students who registered for the course took a pre-test based on the ACTFL guidelines (2012) of the low advanced level. Twenty participants were selected and ten of them who had access to a broadband connection to the Internet at their place were randomly assigned in the experimental group. Other ten participants were considered as the control group. Both groups received the same contents and took part in the same classes for the same period of time (two-month advanced writing program; 8 weeks; one session per week). The groups went through dynamic assessment. However, while the control group submitted their works and were assessed traditionally, the experimental group did so through a specially designed blog for this purpose.

8 b) Instrumentation

The instruments used in this study included a pre-test of writing, ACTEFL guidelines, teaching materials drawn from "Steps to Writing Well" by Wyrick (2008), the blog (http://www.dainallame.blogfa.ir), and a questionnaire.

9 c) Design

The design of the study was Qual/Quan (mixed method) approach to investigate the effect of using blog in making improvement in the process and product of dynamic assessment of writing ability in Iranian EFL learners. The information gathered from questionnaires was analyzed qualitatively and for the quantitative data gathered from the writings of the students a paired t-test was used to see the differences between the groups' means.

10 d) Procedure

This study was an attempt to investigate the effect of Web 2.0 ASMC (Asynchronous computer mediated communication) systems (specifically blogs) as a medium to facilitate the process and improvement of the product of dynamic assessment of Iranian learners in an advanced writing class. The experiment and control groups of the study both underwent an 8session treatment on an advanced writing program. In control group, the students submitted their writings manually and received their ratings on the spot three times per session (per week). On the contrary, the students of the experiment group submitted their writings on line in the blog and received their ratings online. They were able to see the ratings of the other members as well as the recommendations and corrections to the others' essays. The procedure will be discussed in two parts; treatment and assessment.

11 e) Treatment

The treatment included instruction, assessment and correction (dynamic assessment). Since the participants' level were reckoned as high intermediate, a lesson plan including 8 sessions of treatment on advanced writing based on some chapters of the book "Steps to Writing Well" were planned and administrated. The book is popular in teaching advanced writing courses in many higher education institutes in Iran. The treatment was conducted for both groups at the same time and in the same manner. The following shows details of the lesson plan for each session as well as the criteria for objective scoring.

12 Second session: Introductory paragraph and thesis statement

Begin your essay with a paragraph in which you introduce the topic in a couple of brief sentences. (Don't forget the guidelines of the previous session). Through these sentences you should convey to your reader what you think about the topic. This paragraph ends with a preferably simple (or compound) sentence including the main ideas of your essay and your mood about the whole subject. A good thesis statement should: Full credit for all essays was 100 from which a fraction (as it is clarified fully in each session's lessen plan) was deducted for each error. The students were informed that their essays would be rated according to these ratios: 30% grammatical structure and vocabulary (-5 for each error) 30% adherence to above guidelines (-5 for each deviance) 40% how successful were they to transfer their thought (subjectively; 10 for not comprehensible, 20 for hard to understand but perceivable, 30 for understandable and normal, and 40 for eloquent).

13 Eighth session: Body paragraph development; Final examination

Level 1: participant is not able to notice his error Level 2: participant notices his error with assistance and can correct it with explicit help. Level 3: participant notices his error with assistance and able to correct it with implicit help. Level 4: participant notices his error with assistance and able to correct it without help.

Level 5: participant notices his error without assistance and corrects it himself.

The last session of our treatment was conducted as a means of assessing the overall capability of participants on using the previous seven strategies in developing body and introductory paragraphs.

They were asked to choose among four predetermined subjects and write about them by each strategy they prefer. Their essays were rated according to the common criteria which were practiced in the previous 6 sessions. their class. At this phase, the two groups split. The students of the control group wrote their essays on paper and submitted them to their instructor two or three days after the day of instruction. Their papers were rated by their instructor and returned to them on the spot. Then they had to modify their essays according to the graded guidelines given by their instructor and to resubmit it in two days time. This process was repeated for three times to satisfy the three basic levels of correction in the framework of Aljaafreh and Lantolf (Aljaafreh & Lantolf, 1994). **??**ljaafreh and Lantolf proposed a model of mediation from other-regulation to self-regulation in learners which included five transitional levels. These levels are:f) Assessment

The participants were required to write an essay on a free topic and in line with what they had learned in The essays of the participants were rated for the first time. The criteria for this rating were elaborated in details in procedure. The scoring procedure of the essays indicated the level of students. If no marks were spotted on the essay then admittedly he was in the level 5 of the framework. Otherwise if any error was spotted, it was underlined by the rater and was delivered to the participant. Each participant received his paper with marked errors. Then he made required adjustments according to the rater's guidelines and resubmitted the essay.

In the second submission if the participant was able to correct the underlined errors he would be considered in level 4. Otherwise in the second rating administration his error would be marked again by drawing a line through the error in addition to the line beneath it. The source of the difficulty was also implicitly stated in this phase.

If the participant in third submission corrected his error he would be in the level 3. Otherwise his paper would be rated for the third time with an explicit explanation about the source of the error accompanied by only a straight line through the middle of the spotted error. The ability of the learner to correct this spotted error

distinguished level two participants from the level one. Otherwise he would be considered in the first level. At the end of each week, every participant had three scores indicating his progress.

The rating of the experimental group's assignments was the same except that they submitted their essays on-line and were received their score online too. They were also able to see the essays and the assigned score for each essay by their classmates.

In order to increase the reliability of the rating, each paper was rated twice by two raters. The inter-rater reliability is reported to be 79%. Although each rater used their own idea to rate the essays, they always adhered to the criteria on which each session's instruction was focused. This process led them to more objectivity.

V.

14 Results

15 a) Quantitative Findings

All the essays were rated twice by two independent raters and the inter-rater reliability was estimated using Pearson correlation which showed:

There was a positive correlation between the two raters; r=0.7982, n=480.

Moreover, using the mean scores of all scores in each group of each session and conducting a paired t-test procedure between the mean scores of experimental and control group show:

There is a significant difference between the scores of experimental (M=64. **??**54 In order to gain qualitative insight into the reaction of the participants to the program and to triangulate the findings of statistical analysis a questionnaire containing three questions were distributed to the members of the experimental group. All questionnaires except one (one unreachable participant) were completed and returned. One of the nine completed questionnaires appears in appendix A.

Question number one asked the participants whether the program had an effect on their writing ability and if so how. All participants answered this question positively by providing their own reasons. Some of them evaluated the program effectual for an algorithmic procedure they had been offered for writing and others for usefulness of the program in their other courses.

Question number two asked the participants about their preference on on-line rating versus traditional or face to face rating. Again all participants (except one who liked to be rated face to face because he preferred real communication to the virtual one) preferred to be rated on-line. Some of their reasons for this preference included: -Faster rating, -Economy in terms of time and material consumption -Peer-effect of learning (learning from others' errors) -Physiological factors (face-saving and ego enhancement)

Question number three asked the participants to list advantages and disadvantages of using blogs in the process of teaching and testing in terms of four criteria of time, effectiveness, satisfaction and motivation. In answering this question again roughly all participants (except two who had technical problem) advocated using blogs in teaching and assessment as a fascinating, motivating as well as a time-saving and cost effective tool.

16 VI.

17 Conclusion and Implications

Computers are not supposed to replace teachers. But those teachers who are able to work with computers will replace those who are not. In contrast to some rare studies which maintain there is no improvement in using computers compared to traditional mechanisms in teaching and assessing learners and according to numerous papers (Azizinejad, & Hashemi, 2011; Birjandi, & Ebadi, 2010; Grosseck, & Holotescu, 2010; Kovacic, Bubas, & Coric, 2012; Zaini, Kemboja, & Supyan, 2010;) which advocate the role of computers in enhancing the learning process this study showed that at least for low advanced Iranian EFL learners in learning process of advanced writing there is a significant difference between traditional DA and technological DA.

Based on the qualitative analysis of the participants' answers to the questionnaires items, the study revealed many advantages of using technology (in this specific case, blog) in the process of learning mentioned by the participants.

The first and the foremost of these advantages is the capacity of blogs in making a collaborative environment for learners in which they learn from each other. Time effect of the program was another advantage of using technology which was the most cited advantage by all participants. Some older participants rightly mentioned the ability of the program to saving their face and making an anonymous environment in which they can focus on their job without being worried about others judgments. Most participants stated the fact that for many people (especially youngsters) technology is always mysterious and fascinating. And finally, they believed that using blog could enhance the quality of a learning program. All these advantages have some implications for scholars in the field specifically for materials developers, course designers and teachers.

Materials developers should bear in mind that although books will never be replaced by computers, they are not the king of educational media anymore. The computer application is increasing day by day with more flexible, fascinating, motivating and easily achievable software. If materials developers are to maintain their share of market it seems that they need to switch gradually to virtual materials which are engineered to be used as a source of instructional course. Likewise for course designers, it is the time to reconsider their methods of

compiling materials for educational stuff in virtual space rather than printed media. They are to design more attractive, authentic, up-to-date and more effective syllabi and curricula.

It should be mentioned that CMC applications are not to be digital version of regular books and courses. Students expect something novel, exciting and at the same time effective. They don't expect to see their books in the screen of their computers.

Contents, coloring and types of the materials, multimedia enhanced materials (use of sound, pictures, animation, movies, etc.), order and customization of materials presentation, according to the level and performance of learners, access control, availability of options and many other factors that are usually discussed under the realm of HCI (Human-Computer Interaction) science need to be considered in materials development and course design.

Teachers need to become familiar with technological advancements in the field to help their [1] [2] [3]

Figure 1: First??

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