The Effect of Dynamic Assessment on Elementary EFL Learners' Overall Language Attainment

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Abstract—Dynamic assessment has opened new horizons for teaching and assessment of language learning. The present study was undertaken to explore the impact of dynamic assessment on improving overall language attainment of elementary Iranian English as a foreign language (EFL) students. To make sure about the homogeneity of the participants in both groups the standard Placement Test of Top Notch was administered on 74 male students and 40 students were selected for this research. They were randomly placed in two control and experimental groups each group including 20 participants. Then, the participants in the control group were taught Top NOTCH-FUNDAMENTALS A in the normal class procedure until the post test. But, participants of the experimental group were taught through dynamic assessment technique. After the treatment, to see whether participants' overall language attainment has been improved through dynamic assessment, a post-test was administered to the participants of both groups. The result of post-test showed that there was significant difference between two groups' overall language attainment, that is, group dynamic assessment outperformed control group. The findings can have pedagogical implications for language teachers, testers, teacher educators, and syllabus designers.

Index Terms—dynamic assessment, language attainment, ZPD, static assessment, EFL learning

I. INTRODUCTION

Language learning is important in our everyday lives. We use language to communicate with other people, to assert our emotions, feelings, desires, etc. English is an international language that has a fundamental and undeniable role in our lives. So learning English seems to be vital.

Dynamic assessment (DA) has some general characteristics that may be influential on the improving overall language attainment of EFL learners. DA has a process-oriented nature in which instruction and assessment are integrated as a unified activity. Assessment and instruction are dialectally integrated into the same development oriented activity. In other words DA takes monistic view toward assessment and instruction.

DA is administrated based on the test-intervention-retest format which is closely related to the learner's modification. One significant characteristic of DA is that, unlike Non-Dynamic assessment (NDA), it measures a learner's response with an attempt to intervene in order to change, guide, or improve the learner's performance.

DA as a performance based test through providing the learners with appropriate mediation can decrease the learners' anxiety and create a positive attitude toward assessment and instruction. Also, DA through providing close relationship between teacher and learner makes learners more eager to learn new abilities.

Lantolf and Poehner (2004) believe that DA provides a complete picture of learners' abilities, and also by providing the learners with mediation or instructional intervention assists them to develop their L2 abilities.

Traditionally, assessors were taught to be neutral and provide the test takers with directions as the way the test "is." But, mediation has an important in DA and it can be said that mediation is the core of DA. When assessor conducts DA, he/she should not consider himself/herself as a neutral third party. Instead he/she should provide learners with mediation based on their zone of proximal development (ZPD), and find rotes to move the learners to the next level of development (Haywood & Lidz, 2007).

According to Vigotsky's sociocultural theory (SCT), the concept of ZPD takes the view that learners' abilities are not fixed and they are flexible. The counter distinction of ZPD is zone of actual development (ZAD). Learners' responsiveness to mediation suspends on their current level ability (ZAD).

Vigotsky (1978) believed that teachers at school just look at learners' individual problem solving, while progress in concept formation can be achieved through learners' cooperation with a more mature counterpart. He considered that

social interaction and mediation have an important role in the learners' internalization. The role of more mature counterpart is that to provide the learners with constructive mediation or scaffolding.

Vigotsky held the view that interpersonal interaction is one of the main factors in the learning abilities. When these abilities are internalized, they can be transformed to become the learners' inner cognitive processes. Thus, through cooperation and mutual interaction between the learners and their more mature partners, it is possible to be revealed certain emergent functions that have not yet been internalized.

It should be considered that, nowadays product oriented teaching and testing are being used more than process oriented teaching and testing, and what is important for language teachers around the world including Iranian teachers is the final scores of students. Sometimes it can be heard that teachers complain of their students' scores. They state that we don't understand why some students perform very well in the class cannot get high grades from the tests. Dynamic assessment which focuses on process rather product or outcome, can be reasonable solution for this problem.

Considering the above mentioned features of DA and comparing it with NDA it can be said that DA can be more impressive on improving elementary EFL learners' overall language attainment. DA assessment has generated an impressive body of research in the study of general intelligence and of basic learning abilities among individuals with special needs. The effect of DA on development of individual skills has also been investigated in a few studies. However, the effect of dynamic assessment on overall language attainment which is more practical for language teachers in communicative and task-based classes has not received the attention it really deserves. Therefore, this study for the first time intended to investigate the effect of DA on elementary EFL' overall language attainment.

II. LITERATURE REVIEW

A. Dynamic Assessment

Vygotsky's colleague Luria was the first person who coined the term DA. DA has been used for more than fifty years, and in fact it is not a new approach in teaching and testing. Although it has been used for more than half century, but it is still not widely applied around the countries of world including Iran. DA is an alternative to standardized tests, and it can be regarded as a complement to other types of testing, not a replacement for them. Feuerstein was the first person who did some studies on this topic. He used DA in order to estimate the learning potential of low level performing children. Psychologists have used it in order to assess cognitive development potential of learners (Anton, 2003).

DA aims to measure, intervene, modify behaviors and document the process of learning. In DA examiner and learner should have an active role. Also, in DA individuals' behaviors are viewed modifiable. Thus, DA is above all social, interactive, and qualitative (Haywood & Lidz, 2007).It should be taken into account that mediation has a crucial role on internalization and it is the process by which a person moves from object/other regulation (i.e. explicit or implicit mediation and scaffolding of parents, teacher, or peers) to self-regulation (i.e. having voluntarily control over L2 to regulate thought).

Traditionally assessment and instruction were viewed as separable activities. In other words traditional conceptualization of assessment was that assessment and instruction are different from each other and they cannot be integrated with each other and they have a dichotomous relationship (Haywood & Lidz, 2009). DA takes the view that assessment and instruction should not be separated from each other, and they should be fully integrated. In fact, DA challenges traditional view on teaching and testing and takes a monistic view toward them. It is worth to mention that intervention has an important role in the integration of teaching and testing. It should be embedded within the assessment procedure to reinterpret learners' abilities and move them to higher level of functioning (Lidz, 1991).

Poehner (2008, P.102) has defined DA as "an interaction between an examiner-as-intervener and a learner-as-active participant, which 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 and Gindis (2003, P. 100) point out that for Vygotsky, "abilities are not innate but are emergent and dynamic". What can be inferred from this is that abilities must not be regarded as stable and fixed traits that can be measured; rather, they should be considered as the results of learners' history of social interactions in the world.

B. Dynamic Assessment Procedure

DA procedure has a test-intervene-retest format. At first, learners should be given test in order to establish their independent performance (without interaction and mediation of examiner). Accordingly, examiner should provide the learners with intervention in order to produce changes. After these, they should be given retest in order to assess the degree and nature of their changes. According to Haywood and Lidz (2007), it is very important that the content used for pre-testing (and post-testing) be just beyond the individual's zone of actual development (ZAD) and, therefore, requires mediation or intervention. Intervention is the core of DA and it cannot be assumed without intervention, and it is not reasonable to provide intervention for contents that are either already mastered or so far from the learners' current knowledge that may discourage them. Through providing the learners with appropriate mediation and also interaction between the assessor and the learner it will be possible to create learners' zone of next (proximal) development (ZPD).

C. Theories behind Dynamic Assessment

Theoretical framework of DA rooted in the Vigotskys' writing on the ZPD. Mediation has a crucial role on the ZPD and Vygotskys' theory. Higher order thinking depends on individuals' interaction with other people and with physical and symbolic artifacts. It can be said that, in this way individuals' relationship to the world is mediated and it is not a directed process.

Vygotsky (1998, p.201) believed that independent problem solving is not sufficient in indicating mental functioning and it shows only part of individuals' mental ability, that is, their actual development level. He argued that assistance is a main factor in the understanding mental functioning. Indeed, through responsiveness to assistance it can be possible to provide the learners' future development. That is, what the learner can do already with assistance, they are able to do it later alone.

It should be taken in to account that, potential development is different from actual development. Actual development cannot predict potential development, and this means that potential development cannot be predicted without concrete mediation. Indeed, through providing the learners with mediation it can be possible to predict their potential development.

D. Previous Studies of DA

Although there is a lot of research on DA in general education and psychology, it can be said that this approach is relatively new in second/foreign language. Among the limited number of empirical studies is Hill and Sabet's research (2007) in which they run a dynamic assessment on Japanese students' speaking. This study based on the dynamic assessment procedure was done in three phases. First, students were asked to speak about one of their previous experiences, using past tense. In the second phase, the students were given a more difficult test task (paraphrasing a story, using the past tense). During this phase, they provided the students with mediation in the form of the explicit feedback. Finally in the third phase in order to check how much of the mediation is transferred from the second to the third phase, the students were asked to rephrase another story in the past. The scores were given according to what learners were able to do with the help they were provided with. Data analysis revealed a significant difference.

In another study, Ukrainetz et al. (2000) used DA for assessing the language ability of Native American children. They did this study through implementing a test-teach-retest protocol. Participants were taught the principle of categorization (i.e., grouping items). Through implementing DA procedure and providing the children with appropriate mediation their skills were markedly improved. The results further indicated that posttest scores differed between stronger and weaker learners.

In an informing study on DA, Ajideh, Farrokhi and Nourdad (2012)implemented dynamic assessment to find new and hidden aspects of reading ability for Iranian EFL learners of different proficiency levels. The findings showed differences in the extent of overestimation and underestimation of reading ability for high, mid, and low proficient readers. Differences were also found for the source and stage of development in these proficiency groups. The most important part of the data was related to the development and transcendence of the reading ability which was the main goal of DA. It was concluded that high proficient learners had the highest ability in taking advantage of interactions and applying them into new and similar tasks in independent performance and the transcendence ability decreased for the lower proficiency level readers.

Ajideh and Nourdad (2012) also investigated the effect of DA and NDA on reading comprehension ability of Iranian EFL learners and also the immediate and delayed effect of it. The results of the study showed a significant difference between DA and NDA with a statistically significant increase in the reading comprehension scores of the group being assessed dynamically. The results of the study also revealed the existence of not only immediate but also delayed effect of DA on reading ability of the participants.

In another study Zoghi and Malmeer (2014) investigated the effects of DA on Iranian EFL learners' grammatical abilities with different age groups. The results revealed the learners in both age groups benefited the application of DA in their classes. It also revealed that learners belonging to different age groups were not influenced by DA to the same degree, and adults benefited more than teenagers when an interactionist DA was presented.

Previous studies, some of which were mentioned above with all the promoting results imply that more studies are needed in the field of language learning in order to better understand the effects of DA on language learning and provide more guidance to language teachers who wish to use DA in their language classrooms. They all considered the effect of DA on specific skills, while in language institutes language attainment includes integration of skills and subskills. The present study therefore aimed at filling some part of the gap in DA literature by investigating the effect of DA on elementary EFL's overall language attainment. No study has previously investigated the role of DA on elementary EFL's language attainment. Considering these points the following research question was raised.

RQ: Does implementing dynamic assessment improve overall language attainment of elementary EFL learners?

III. METHODOLOGY

A. Participants

Altogether 40 Iranian students took part in this study. They were male students and were taking elementary courses. They were randomly assigned into two groups of experimental and control.

B. Instruments

Two types of instruments; a placement test and complete assessment package were utilized to gather the required data. As to the first instrument, to make sure about the homogeneity of the participants and equality of the language proficiency in both experimental and control groups the standard Placement Test of Top Notch (Joan Saslow & Allen Ascher, 2006) was administered on 74 male students in Avaye Danesh institute, and 40 students who got 0 to 10scores were selected for this research. The reason of selecting students with these scores is that based on the scoring rate of the designer of this test, students whose scores were between 0 to 10 would be placed in the elementary level. The placement test consisted of Listening, Reading, Speaking, and General Test. In other words, it was used in order to pick up elementary EFLs, and also to check the homogeneity of the participants. In addition, this test was used as a pretest for students' language attainment. As to the second instrument, the complete assessment package (standard achievement test of Top Notch-Fundamentals A) was used to score overall language attainment of EFL learners during the term.

C. Procedure

74 male learners of a language institute in Iran were given the placement test of TOP NOTCH series which were in fact the main course books of the institute. According to the guidelines of the test package and based on the placement test, forty male elementary students who got 0 to 10scores were picked up as elementary level learners and were randomly placed in two groups of experimental and control each group including 20 participants. The pre-test test was conducted in NDA way as Iranian student are familiar with. It is worth to mention that students' scores in the placement test were regarded as a pre-test for their language attainment. Through this test students' zone of actual development (ZAD) or their independent performance was identified. Based on the institute curriculum Top NOTCH-FUNDAMENTALS A including seven units was taught for elementary EFL learners. After the pretest, the participants in the control group were taught Top NOTCH-FUNDAMENTALS A in the normal communicative class procedure until the post test. But, in experimental group dynamic assessment procedures were applied for all the class tasks and activities. In an interventionist model one of the researchers as the teacher of the class mediated all of the class members together. Some of them had higher ZPDs than the others, therefor just a hint was sufficient for them to perform their tasks appropriately. But, some of them needed more mediation therefore the teacher provided them with more explicit mediations. Although it was difficult for the teacher to provide appropriate mediation for all of the class members together but he did his best and moved from implicit to explicit in his three hints for each problem. After 10 sessions treatment to see whether the DA procedure led into any development in the participant's language attainment, both groups were given the complete assessment package (standard test of Top Notch-Fundamentals A) to measure their during the term language attainment. Then the mean scores of control and dynamic assessment group were compared using an independent t-test to see whether implementing DA was effective on language attainment of Iranian elementary EFL learners or not.

IV. FINDINGS

Table 1 below shows the descriptive data for proficiency scores of the participants.

TABLE 1:
DESCRIPTIVE STATISTICS FOR TOP NOTCH PROFICIENCY TEST

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Proficiency Test	**Experimental**	20	7.75	1.06	.239
	Control	20	7.72	1.25	.279

An independent-samples t-test was run to compare the scores of experimental and control groups' language proficiency in Top Notch proficiency test the result of which is presented in Table 2.

TABLE 2:
INDEPENDENT-SAMPLES T-TEST FOR TOP NOTCH PROFICIENCY TEST

	Levene's Test for Equality of Variances		t-test for Equality of Means			
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Equal variances assumed Attainment	1.55	.22	.06	38	.94	.025
Equal variances not assumed			.06	37.1	.94	.025

According to table 2, there was no significant difference in proficiency scores for experimental (*M*=7.75, *SD*=1.06) and control group [*M*=7.72, *SD*=1.25; *t* (38) = .06, *p*=.94> .05], that is, both groups were homogeneous.

In order to compare the mean score of both groups' language attainment an independent-samples t-test was run for the post-test scores of the two groups. The results of the descriptive statistics are presented in Table 3.

TABLE 3:
DESCRIPTIVE STATISTICS FOR POST-TEST REGARDING LEARNERS' LANGUAGE ATTAINMENT

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Attainment	**Experimental**	20	86.05	6.09	1.36
	Control	20	69.20	6.18	1.38

According to the mean scores, there was a difference between two groups' language attainment, and the mean score of the DA group was higher than the NDA group. An independent t-test was employed to check the significance of the difference, the result of which is shown in table 4.

TABLE 4:
INDEPENDENT-SAMPLES T-TEST FOR POST-TEST REGARDING LEARNERS' LANGUAGE ATTAINMENT

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
Equal variances assumed Attainment	.045	.83	8.67	38	.00
Equal variances not assumed			8.67	37.9	.00

An independent-samples t-test was conducted to compare the language attainment scores of both groups in post-test. There was a significant difference in scores for experimental group (M=86.05, SD=6.09) and control group [M=69.20, SD=6.18; t (38) = 8.67, p=.00 < .05], that is, the effect of dynamic assessment on learners' language attainment was significant. In other word, there was an increase in the scores of the learners in the experimental group in post-test. Therefore, it can be said that implementing dynamic assessment can improve overall language attainment of elementary EFL learners.

V. DISCUSSION

The findings of this study indicated that DA intervention is an effective means of improving elementary L2 learners' overall language attainment. Findings of this study are in line with the results of previous studies in the literature such as Zoghi and Malmeer (2014), Ajideh and Nourdad (2012), Ajideh, Nourdad and Farrokhi (2012), Hill and Sabet (2007), and Ukrainetz et al. (2000). It should be noted that the findings of this are in contrast with the study conducted by Frisby and Braden (1992). One possible reason for the obtained results could be the positive effect of providing learners with a great number of opportunities to interact with the instructor in different forms of mediation in the process of DA. During the term whenever the learners made a mistake, the researcher gave them implicit or explicit mediation, and prompted them in order to give them the opportunity to revise their performance in appropriate ways. Unlike to NDA which emphasizes the end product, DA has a process oriented nature. One of the important reasons why learners in the experimental group outperformed those in the control group could be the positive washback of DA. Learners in the group DA were very eager to participate in the classroom actively, and also weaker students expressed their ideas freely without any fear. Learners in the group DA were eager to attend in the class timely, and they also seemed to be more motivated than participants in the control group. These could be helpful in improving their overall language attainment.

VI. CONCLUSION

DA takes a monistic view toward assessment and instruction and it integrates them into a unified activity. Considering that DA can be as an impressive technique in the classroom, this study investigated the effect of DA on elementary EFL learners' overall language attainment. The results and findings of this study showed that there was a significant difference between two groups' score, that is, dynamic assessment group outperformed non-dynamic assessment group. Therefore, it can be concluded that dynamic assessment can improve elementary EFL learners' overall language attainment. The findings of this study can have several pedagogical implications for teaching and testing, curriculum developers and syllabus designers and foreign language learners.

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