Dynamic Assessment: From Underlying Constructs to Implications for Language Teaching

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Abstract. Testing as a general trait of social life has received a great deal of attention by many language teachers and scholars. Throughout history, people have been tested to prove their abilities and experiences or to confirm their capacities. Many authorities have said that assessment and instruction should be integrated as a single and inseparable activity which seeks to understand development by actively promoting it. This pedagogical approach known as Dynamic Assessment (DA) developed based on Vygotsky's theory, focuses on the widespread acceptance of independent performance of individuals' abilities. Following Vygtosky's Zone of Proximal Development (ZPD) and his argument that DA involves purposeful mediational techniques, true development goes beyond traditional assessments (static assessments). In this article, a theoretical perspective of dynamic assessment is mentioned and it concludes with recommendations for future research on implementing dynamic assessment in L2 classrooms.

Keywords: Dynamic assessment, mediation, zone of proximal development

1. Introduction

In traditional assessment, final examinations become official instruments for announcing the passed/failed students with no attention to the pedagogical, psychological, and physiological attributes of under-achievers. From this perspective, optimal instruction contains just two aspects; teaching and finally testing. If "*learning*" is put as the final target of instruction, then the loss of a third aspect is felt in this framework.

Teaching ➡ **Testing**

Dynamic assessment (DA) adds this third aspect in the form of teacher's mediation in students' learning processes during or/and after the final exam (teaching, testing and then teaching again) to traditional framework of assessment and unlike static assessment, aims at increasing the number of successful language learners at the end of the course. Undoubtedly, since holding 'remedial teaching' sessions of dynamic assessment is both costly and time-consuming in natural contexts of language teaching and learning, most teachers and learners have not experienced its miraculous results so far.

Testing   **Teaching**
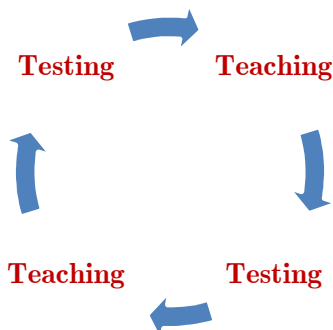
Teaching   **Testing**

According to Birjandi and Sarem (2012), one of the fields in which language testing is of great use and has significant implications is language teaching. Feuerstein, Rand, and Hoffman (2012) believe that most traditional assessments measure learner's actual development or what the learners have already learned, and thus they are called static assessments by some researchers. Kumaravadivelu (2006) mentions that language-centered and learner-centered educators decided on a product-oriented syllabus to fulfill their major learning-teaching needs. But later

emerging learning-centered methods such as natural approach and communicative approach moved toward process-oriented approaches to language teaching. Process-oriented testing is the type of assessment that mostly focuses on the ability of the students/learners to produce or demonstrate their own learning.

The above mentioned shift in the assessment system, moving from product to process-oriented testing, corresponds to another shift, moving from summative to formative assessment. Bachman (1990) points out that summative assessment is carried out after learning has been completed and provides information and feedback that expresses the teaching and learning process. Bachman (1990) states further that formative assessment, in contrast to product-oriented summative assessment, provides feedback and information during the instructional process, while learning is taking place. It is used to support learning in that it helps the student and the teacher to understand what the student knows so that the teacher can give attention to any areas of weaknesses or mistakes in future lessons.

Formative assessment which is closely related to instruction is done to analyze both learning purposes and the educational processes (Vafaee, 2012). This kind of classroom-based assessment is used to raise the learners' awareness of the language content and lesson objectives.

"Unlike traditional psychometric approaches to assessment, dynamic assessment capitalizes on instruction during the assessment itself. It taps into the pedagogical function of assessment in providing opportunities for learning to occur (Bavali, Yamini, & Sadighi, 2011). Lantolf and Poehner (2008) assert that the explicit goal of dynamic assessment is adjusting learners' performance during the assessment itself.

Vygotsky refers to the difference between learners' potential level and actual level as Zone of Proximal Development (ZPD) (Lantolf, 2006; Otha, 2000; Roebuck, 2000). Simply put, Zone of Proximal Development can be better understood as the difference between what learners can do independently and what they can complete with assistance (Vafaee, 2012). According to Poehner and Lantolf (2005), in dynamic assessment, the purpose of assessment is not only to help learners to accomplish a

certain task but also to help learners with their future tasks by mediation that is negotiated between the instructor and the learners.

Despite the presence of a rich research literature reflecting years of professional works in psychology and general education, dynamic assessment in the context of second language studies is still very new to the researchers. Dynamic assessment, not as an alternative but as a supplement, can be administered in the EFL classrooms.

2. Literature Review

Dynamic assessment is rooted in research studying children's abnormal behaviors (Mathews, 1961). Dorfler, Golke, and Artlet (2009) have defined dynamic assessment as an approach to obtaining insight into the present level of learner's ability as well as into how this ability can be influenced by certain educational interventions. Garb (as cited in Xiaoxiao and Yan, 2010) points out that in dynamic assessment, the teacher and the students engage in a dialogue to find out the students' present level of performance on any task and share with each other the possible ways in which that performance might be improved in future. Thus, the focus of dynamic assessment is students' future development, not the result of the past development. As Davin (2011) mentions, the purpose of dynamic assessment is twofold: to improve development and to determine developmental potential. Birjandi, Daftarifard, and Lange (2011) state that dynamic assessment views language learning as knowledge construction and the result of interaction between students and teacher.

Vygotsky (as cited in Ajideh, Farrokhi, and Nourdad, 2012) holds that any human mental function must pass through an external social stage on its path to development in order to become an internal mental function. Therefore, the function is fundamentally social and the process through which it becomes an internal function is known as internalization. So, the role of social mediation in internalization process is of great importance in sociocultural theory.

As a matter of fact, individuals gradually develop awareness and control over their mental functions and become more independent. Independence or autonomy of learner, gained after interaction and internalization, is

strongly emphasized in Vygotsky's sociocultural theory (Ajideh et al., 2012). According to Ellis (2000), learners need help from another person to carry out a new task and then after internalizing it, they can do the task autonomously. As a result, social interaction mediates learning.

To distinguish between learning and development, Vygotsky (as cited in Davin, 2011) states that while learning is the ability to do a task with the assistance of a more skilled person, development is the ability to perform alone when there is no assistance. Therefore, learning and development cannot be separated or examined in isolation. According to this theory, learning occurs before development, and development cannot happen without learning.

According to Vygotsky (as cited in Aljafreh and Lantolf, 1994), the zone of proximal development is the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or through mediation in collaboration with more capable peers.

2.1. Dynamic Assessment: Components
Through this mediated learning, the learner is able to generalize what s/he has learned to new conditions. This definition sheds light on the components of dynamic assessment. These components are as follows: intentionality, reciprocity, and transcendence.

2.1.1. Intentionality
In Poehner's view (2008), a mediator probes, asks questions and gives hints and clues to assist a learner to do a task that is within his/her ZPD, but which he/she can't do alone. With dynamic assessment, a mediator achieves a more detailed insight of a learner's potential abilities than with a non-dynamic test, and the mediator is also able to enhance development in the learner by teaching at the same time as testing.

2.1.2. Reciprocity
Ableeva (2008) indicates that reciprocity is best understood as the learner's responsiveness to the instructor's mediation. That is, the learner's ability to respond to the instructor's mediation allows the

instructor to determine the amount and quality of mediation needed to produce significant cognitive changes in the learner's performance. According to Feuerstein (2002), reciprocity emphasizes the importance of a triangular relationship between the mediator, the learner, and the stimuli in the formation of the intended cognitive structure. While stimuli are transformed to more attractive and noticeable forms, the child's curiosity is awaken, his attention is directed and his perception is focused, and the mediator does everything she can to keep the child's alertness like showing significant features, asking questions, making suggestions, gesturing, and continually getting the child's responses and making adjustments and changes to maintain his involvement.

2.1.3. Transcendence

"Transcendence is associated with the widening of interaction beyond its present purposes to other purposes that are farther in time and space" (Feuerstein, 2002, p.76). According to Bavali, et al. (2011), transcendence is the ultimate purpose of the mediated learning, and when it is achieved it can be claimed that cognitive development has happened as well.

2.2. Dynamic Assessment: Approaches

According to Lantolf and Poehner (2008), there are two major approaches to dynamic assessment, interactionist and interventionist that usually involve three phases: pre-test, mediation, and post-test.

Poehner (2008) maintains that interactionist dynamic assessment follows Vygotsky's tendency for cooperative interaction. Mardani and Tavakoli (2011) point out that in this approach, assistance emerges from the interaction between mediator and learner, and thus is very sensitive to the learner's zone of proximal development. Ableeva (2008) believes that during an interactionist dynamic assessment, leading questions, hints or prompts are not pre-planned; instead, they stem from mediated dialogue between the examiner and the examinee in which the examiner responds to the examinee's needs and continually re-adjusts his/her mediation. Interactionist dynamic assessment is qualitatively oriented (Thouesny, 2010).

Lantolf and Poehner (2008) indicate that interventionist dynamic assessment is a more formal and standardized approach, concerned with psychometric properties of test procedures. In their view, interventionist dynamic assessment includes studies that devise and use a pre-determined list of hints followed rigidly during assessment activities in order to produce a weighted score. Poehner (2008) believes that during an interventionist approach, teachers are not free to respond to learners' needs, but must instead follow an approach to mediation in which all prompts, hints, and leading questions have been pre-fabricated and arranged in a hierarchical manner.

Poehner (2008) states that the obvious feature of interventionist dynamic assessment is the use of standardized administration procedures and forms of assistance in order to produce easily quantifiable results that can be used to make comparisons between and within groups, and can be contrasted with other measures and used to make predictions about performance on future tests.

2.3. Dynamic Assessment: Models
Two main models have been developed over the years to apply dynamic assessment in psychological and educational experimental contexts: sandwich model and layer cake model.

2.3.1. Sandwich Model
The sandwich model usually consists of three phases: pre-test, mediation and post-test. First, learners are asked to finish pre-test tasks; then they are provided with mediation which is either planned in advance or tailored to the learners' needs based on their performance during pre-test and finally they move on to post-test activities. The sandwich model is called so, because the instruction is given all at once between the pre-test and the post-test. The performance on the post-test is compared to the pre-test in order to determine how much development a learner made as a result of mediation.

2.3.2. Layer Cake Model
The layer cake model refers to procedures in which mediation is given during the test administration, usually whenever a problem occurs. In

this model, learners are given a test item by item. If they answer the first item appropriately, then the second item is given. Otherwise, they are offered graded assistance, like layers of icing on a cake.

2.4. Dynamic Assessment versus Traditional Assessment

Dynamic assessment is different from traditional one in that it looks at assessment from a contrasting theoretical point of view, that is, the integration of instruction and assessment through mediation in order to develop the abilities being assessed. Strenberg and Grigorenko (2002) summarized the methodological differences between dynamic and non-dynamic (traditional) assessment in three ways.

Firstly, non-dynamic assessment focuses on the outcome of past development, while dynamic assessment foregrounds future development. Secondly, with regard to the examiner's orientation, in non-dynamic assessment, examiners are expected to adopt a neutral and objective viewpoint in order to minimize measurement error, while in dynamic assessment; the examiner intervenes in the assessment process. Finally, at the level of assessment administration, in non-dynamic assessment, examinees are given little or no feedback on the quality of their performance until assessment is complete, while in dynamic assessment, a specific form of feedback (mediated assistance) is provided and this is the most important part of the assessment process.

2.5. Empirical studies on L2 dynamic assessment

Although a lot of discussion has been made at the theoretical level of dynamic assessment in language education, the number of empirical or practical studies which could provide guidance for methodological applications are very limited.

Anton (2009) examined the effectiveness of dynamic assessment with university students. She carried out the study with five second language learners majored in Spanish. After completing a non-dynamic entry exam that assessed grammar and vocabulary, listening comprehension, reading comprehension, writing, and speaking, students took part in a mediated learning experience focused on the written and spoken portions of the test. During the mediated learning experience, students were asked to write about their experience with their language and their plans after

graduation. The mediation protocol was non-standardized; students were allowed to consult a dictionary and a grammar manual, as well as to ask the examiner questions. The dynamic writing assessment was followed by a dynamic speaking assessment in which the students interacted with the examiner. Anton wrote that the mediator responded to learners' discourse by tailoring intervention to what was needed in each individual case in order to finish the task and show the full potential of the learners' ability. In this study, the form of evidence was response to mediation. Based on students' responses to mediation during the dynamic speaking test, Anton gained a clearer picture of students' abilities.

Poehner (2008) conducted a series of extensive dynamic assessment case studies examining oral proficiency among advanced undergraduate learners of French. He dynamically assessed university students' ability when narrating a movie. Poehner concluded that the mediation resulted in improved understanding of two tenses in French (imparfait and passé compose).

Tzuriel and Shamir (2007) conducted a study with 178 students, half of them were third grades and chosen as mediators in the study, and half of them were first grade students and chosen as learners. During the program, children in the experimental group learned the mediated learning experience principles as well as basic communication skills. Tzuriel and Shamir found that both the mediators and learners in the experimental group showed higher improvement than those in the control group.

Restrepo, Morgan, and Thompson (2013) evaluated the efficacy of a vocabulary intervention for dual-language learners (DLLs). In this study the authors also examined whether the language of instruction affected English, Spanish, and conceptual vocabulary differentially. The authors randomly assigned 202 preschool DLLs with language impairment to one of 4 conditions: bilingual vocabulary, English-only vocabulary, bilingual mathematics, or English-only mathematics. Fifty-four DLLs with typical development received no intervention. The vocabulary intervention consisted of a 12-week small-group dialogic reading and hands-on vocabulary instruction of 45 words. Results indicated that the bilingual

vocabulary intervention facilitated receptive and expressive Spanish and conceptual vocabulary gains in DLLs with language impairment compared with the English vocabulary intervention and no-intervention groups.

Hadigheh and Khaghaninezhad (2012) investigated the effect of dynamic assessment on general English test's performances of Iranian medical students. The study's participants were 58 English learners of both genders. On the basis of the marks the students had received in their course leaving exam, the real subjects of the study were determined. The teacher's meditational approach to subjects' learning processes was generally in the form of a series of individualistic interviews with the participants. The researchers found that all participants had improved their performance.

Limited number of studies 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 dynamic assessment on language learning, and in order to provide more guidance to language teachers who wish to use dynamic assessment in their language classrooms.

3. Summary and Conclusion

Dynamic assessment is a teaching approach that is supported by theories of mind and development. It is an approach which places emphasis on the inseparability of assessment and instruction. Through applying dynamic assessment, test takers are more involved in their process of learning; therefore, such a test can help students overcome their non-intellective factors such as lack of motivation, fear of failure, and anxiety by making the second language assessment more learner-friendly. Adding dynamic assessment to the testing setting reduces the stress, gives learners extra confidence and the feel that there is someone who cares about them when they get stuck. Dynamic assessment also has the ability to identify the specific areas of difficulty. It further offers a chance for language teachers to more accurately measure students' level of understanding and awareness and thereby determine what may be targeted to promote their level of development in relation to their

current level of independence and assisted performance. In addition, understanding each individual's learning potential will help a teacher design more effective lesson plans that will serve the individuals more properly. Teachers must be taught the importance of providing mediation to their students attuned to the ZPD of those students. This issue is obviously important for Iranian students who often lack strategies for coping with language task and easily fall behind in completing the demanding task.

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