

A Review on Dynamic Assessment (DA) in Iran

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Abstract

Dynamic Assessment, referred to in this paper as DA, is one of the various methods of adopting a particular evaluation procedure in order to identify possessed language skills of individual learners in addition to their learning perspective. The dynamic assessment procedure in other words accentuates individuals' learning potential before and during a systematic curriculum. This would help examiners to conduct the most fitted criteria for future sessions. DA, derived from Lev Vygotsky's (1989) Socio-cultural Theory (SCT) and his concept of Zone of Proximal Development (ZPD), is based on the view that observing individuals' independent performance discloses the results of their past development, while the purpose of most assessments is prediction of learners' future performance. The present study thus reviewed the Iranian literature on DA due to the significance of the topic. To this aim, the theoretical background of DA will be first explained. What follows next is the section on the approaches to DA that are fully examined. Finally, recent related studies conducted on DA in Iran will be addressed and reviewed.

Keywords

Dynamic Assessment (DA); Lev Vygotsky; Socio-cultural Theory (SCT); Zone of Proximal Development (ZPD); Learning Potential

1. Introduction

In language teaching arena, there are many notions which are closely interrelated in some way or another, among these, one can refer to instruction and assessment. It is because of this close interrelation that any change in one leads to a change in the

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other. However changes in these two realms have not been at the same pace. One of the manifestations of change in assessment area is the emergence of a recently proposed assessment procedure namely dynamic assessment (DA). DA, derived from Vygotsky (1978)'s SCT and his concept of ZPD, is based on the view that observing individuals' independent performance reveals the results of their past development, while the purpose of most assessments is prediction of learners' future performance. If one wishes to understand the processes of development, to intervene to help individuals overcome difficulties, to support their development and to predict their future performance, mere observation of their sole performance is not sufficient. Instead, active collaboration with the individuals reveals the full range of their abilities and promotes their development simultaneously. In educational contexts, this means that understanding the learners' abilities (assessment) and supporting their development (instruction) is a dialectically integrated activity. This pedagogical approach is known as DA. (Poehner, 2008)

2. Theoretical Background of DA

Dynamic assessment is theoretically grounded in the theory of Vygotsky's socio-cultural theory of mind (SCT). According to SCT, human mental functions develop as a result of participation in social activities mediated by others and cultural artifacts (Vygotsky, 1978). Vygotsky (1978) proposed that cognitive development occurs when external forms of mediation are internalized and reformed as psychological tools, the process that allows us to self-regulate our mental functioning. According to SCT, a child's learning occurs through participation in socially or culturally embedded experiences with a more experienced adult. Also, Vygotsky believed that learning takes place within the zone of proximal development (ZPD). The ZPD involves the range of learning that children can achieve while engaged in meaningful activities with a more experienced adult. It is measured as the difference between what the child can accomplish alone and what the child can accomplish with scaffolding. Scaffolding is a support system provided by the adult to guide the child through the learning process.

3. Approaches to DA

Based on the quality of mediation, DA falls into two main approaches. In an interventionist approach, a prescribed inventory of hints, prompts and clues from



implicit to explicit is used. This approach strives for standardizing the assessment procedure favored in psychometric testing as learning is quantified by the amount of assistance a learner requires to reach a specific level (Poehner, 2008). In interactionist approach, however, an open-ended dialogic interaction is established between mediator and learner. There is no pre-selected script to follow as the mediation should be attuned to learner needs (Lantolf and Poehner, 2010).

Further, Luria (1979) called for an additional crucial piece of information in SCT-based instruction which is related to learners' ability to transfer the new learning to other tasks. Vygotsky argued that development has no end point, because there are always new problems to solve and new forms of mediation available. The most popular DA methods include Feuerstein's Learning Potential Assessment Device (LPAD), Budoff's Learning Potential Testing, graduated prompts, the information processing framework, and testing-the-limits procedures. A brief description of these methods is presented in the following sub-sections.

3.1. Feuerstein's LPAD

Feuerstein's LPAD is a process of mediated learning that focuses on changing deficient cognitive processes in students who have difficulty learning. The LPAD was designed to develop a child's cognitive modifiability – an independent ability to self-modify cognitive processes and adapt to changing demands (Grigorenko and Sternberg, 1998). Examiners are trained to alter the administration of test items in four ways: the structure of the instruments, the nature of the test situation, the orientation to process, and the interpretation of results (Feuerstein, Rand, and Rynders, 1988). The LPAD consists of both verbal and nonverbal subtests that focus on skills such as reasoning, categorization, and memory strategies. Although the LPAD is an assessment device, Feuerstein's primary purpose is remediation.

3.2. Budoff's Learning Potential Testing

Budoff's learning potential testing is also known as test-train-test assessment (Grigorenko and Sternberg, 1998). Learning potential tests were designed as an intelligence measure, specifically for disadvantaged students. The assessment is a standardized coaching technique that redirects students' attention to a problem, explains crucial attributes of a problem, and offers continuous praise and encouragement (Grigorenko and Sternberg, 1998). Coaching continues until mastery

is reached. Budoff's measure of learning potential is unique in that it was designed specifically for disadvantaged students and for the purpose of educational placement (Grigorenko and Sternberg, 1998).

3.3. Graduated Prompts

The graduated prompts method was developed by Campione and Brown (Campione and Brown, 1987). It is also known as testing through learning and transfer. The graduated prompts method sets up a system of scaffolding in which the students are given a series of explicit hints until they can solve a problem independently. The hints are standardized and administered in a predetermined order.

3.4. Information-Processing Framework

Majority of research using the information-processing framework was conducted by Swanson (2001). He developed the Swanson Cognitive Processing Test (S-CPT), which is a standardized dynamic instrument that measures processing abilities. The primary process thought to contribute to learning is working memory. Therefore, children's difficulties in skill acquisition and learning are attributed to deficits in working memory. The S-CPT measures processing potential, which is analogous to Feuerstein's concept of cognitive modifiability. Processing potential is operationalized through the measurement of seven scores: initial score, gain score, probe score, maintenance score, processing difference score, processing stability score, and strategy efficiency score.

3.5. Testing-the-Limits Procedures

Carlson and Wiedl (1992) developed testing-the-limits procedures by combining their empirical findings with information-processing theory. They believe that test performance is a combination of the individual student, the test materials, and the test situation. The testing-the-limits approach focuses on the test situation. Examiners use conventional assessment measures, but they are trained to manipulate the test environment to improve the performance of students with learning problems.

4. Recent Related Studies: A Critical Overview

Razmjoo and Movahed (2009) sought to investigate the relationship between language proficiency and socio-cultural factors among the Iranian MA students at Shiraz University. Also, the predictive role of one or a combination of socio-cultural factors in language proficiency was investigated in this study, taking the effects of



gender, age and major into account. The results showed no significant difference between the participants' performance in terms of their gender, but majors and their social classes had a significant role in this regard. More importantly, a significant correlation was found between language proficiency and socio-cultural factors among the Iranian MA students at Shiraz University.

Pishghadam, Barabadi and Kamrood (2011) investigated the effectiveness of sociocultural theory on Iranian EFL students at intermediate level. The results indicated the significant effectiveness of sociocultural theory on the students' reading comprehension and more effect for sociocultural theory on low achievers than high achievers.

Mardani and Tavakoli (2011) presented an interactionist model based on sociocultural theory to assess Iranian EFL students' reading comprehension. The results showed a significant effect for the interactionist model on EFL students' reading comprehension. So, they concluded that the interactionist model has a positive effect on the students' test performance and learning.

Sadeghi and Khanahmadi (2011) investigated the effect of DA on Iranian EFL learners' grammar development. To this aim, they used a pre-test post-test design in their study. Finally they reported a significant effect of DA on the development of participants' grammar knowledge. This study is similar to our study in the sense that both have investigated the effect of DA on Iranian EFL learners' grammar. However, the present study has narrowed down grammar to prepositions.

In a study by Pishghadam and Barabadi (2012), a computerized test of reading ability was constructed and validated based on SCT. They found that this SCT-based test helped learners improve their reading comprehension ability. Also, they reported that this test revealed more information about the participants' learning potentiality. Taking the fact into account that reading comprehension is a necessary skill for learners of different majors, this study can have useful inter-disciplinary contributions.

Ajideh and Nourdad (2012) inspected the effect of teaching based on DA on EFL learners' reading comprehension in different proficiency levels. According to their findings, while the results were indicative of the beneficial effect of teaching based on DA (both immediate and delayed) on the learners' reading comprehension in all proficiency levels, the difference did not prove to be significant. They attributed the

long-term effect of teaching based on DA to its development-oriented nature compared with the performance-oriented nature of static assessment.

Nazari (2012) argued for the great positive impact of teaching based on DA for the learners and recommended that language teachers take advantage of this new method in their classes. However, he acknowledged the scarcity of the research in this area and pointed out the inadequacy of practical guidelines for teachers to apply DA. This theoretical study adds to the stakeholders' knowledge base in SCT and improves their familiarity with the issue.

Furthermore, a mixed-method study by Hadidi (2012) examined the microgenetic development of argumentative writing ability in a group of adult pre-university EFL learners based on Toulmin's model of argumentation. The researcher aimed to improve writing ability and argument quality through cognitive strategy training and teaching of reflective processes within the zone of proximal development. The findings proved that the procedure could help reveal learner abilities better than traditional summative assessments of writing.

Birjandi, Estaji and Deyhim (2013) were aimed at exploring the feasibility of development and implementation of DA procedure in the areas of EFL reading comprehension and metacognitive awareness of reading strategy. A statistically significant effect was found for the performance of the participants in the experimental group who had received mediation. The findings also revealed that the students' gain scores in the experimental group were significantly higher than the students' gain scores in the control group who underwent the static tests.

Tavakoli and Nezakat-Alhossaini (2014) investigated the effectiveness of the implementation of corrective feedback in the light of DA techniques on foreign language learners' learning of reported speech structures. Two English language classes in a language center in Iran each having 15 students were selected as the experimental group and the control group. The experimental group received DA treatment, whereas the control group followed only the routines of the language center. The participants took two post-tests, i.e. one immediately after the treatment and another one after two weeks. The researchers concluded that the combination of DA treatment and corrective feedback was effective in enhancing the participants' learning reported speech structures.



In a recent study, Hessamy and Ghaderi (2014) studied the impact of DA on the vocabulary learning of EFL learners. They conducted an experimental study with 50 intermediate EFL Iranian learners. The experimental group received a pre-test, mediation and post-test, whereas the control group received no mediation. The experimental group outperformed the control group significantly in their test performance and vocabulary learning. Hessamy and Ghaderi conclude that "incorporation of DA as a supplementary procedure to standard testing has positive effect on both test performance and vocabulary learning of learners" (Hessamy and Ghaderi 645).

Shabani (2014) explored L2 learners' SCT-based development trajectory of listening comprehension ability. The results indicated that non-SCT procedure fails at fully capturing the learners' underlying potential and cannot measure the ripening abilities. Also, transcendence of learning beyond the posttest task to the transcendence session was shown by the results.

Malmeer and Zoghi (2014) investigated the effect of DA on EFL learners' L2 grammar, using a pretest posttest design. This study compared the effect of DA on the teenagers and adults' grammar, in the absence of a control group, and found that the adult EFL learners significantly outperformed the teenagers.

Behroozizad, Nambiar and Amir (2014) theoretically addressed the role of Vygotskian approach to language learning, using sociocultural theory in the learning of English as a foreign language. They proposed that if teachers change the classroom context into a sociocultural context, they can help learners better learn communication and take a strategic orientation to learning.

Modarresi and Alavi (2014) explored the learners of DA and non-DA group' perceptions of DA and found the following common factors: novelty (20.7%), more opportunities (19.1%), feeling comfortable (15.4%), reaction to scores (8%), motivation (6.8%), and test timing (5.9%). According to the study results, as a result of using computerized DA, learners enjoy an emotionally safe environment, their stress, anxiety, and concerns about the consequences of their failure are reduced and their self-esteem and self-concept are increased.

Derakhshan and Kordjazi (2015) discussed some important issues in DA and different models of DA and compared them with non-DA instruction. Also, advantages

and disadvantages of DA were explained in their paper. This study has touched different models of DA from a theoretical angle so that the reader gains a full understanding of the issue.

Fani and Rashtchi (2015) compared the effect of Individualized and Group DA on reading comprehension ability of EFL learners, using Campione and Brown's Graduated Prompt Moves Protocol (GPMP). Although the study showed a positive effect of both Concurrent and Cumulative Group/Individualized DA on EFL learners' reading comprehension ability, no significant difference was found among the three DA approaches.

Mehri and Amerian (2015) conducted a theoretical research wherein they introduced two new approaches within SCT: Dynamic Assessment and Teaching (DAT), and Dynamic Teaching and Assessment (DTA), and discussed the stance of SCT within applied linguistics, and the idea of transcendence. Moreover, issues of validity and reliability of DA were evaluated and two DA approaches namely interactionist and interventionist were critically analyzed. Innovation is there in this theoretical study by introducing two new DA approaches rather than dealing with the previously introduced approaches in the literature.

Ebadi and Latif (2015) investigated the adequacy of computerized concept mapping for the development of the two EFL learners' ZPD in the listening comprehension ability by exposing them to ten sessions wherein they were involved in making concept maps for the listening passages. Results of the study indicated that as a result of ZPD-based mediation, the learners got closer to the self-regulation which meant higher levels of ZPDs of listening comprehension ability. With a view to significance of listening skill in English learning and the fact that learning listening is difficult for many learners, this study may be helpful in reducing the learners' listening problems.

Davoudi and Ataie-Tabar (2015) investigated the effect of a computerized dynamic test of writing (CDTW) on Iranian EFL students' L2 writing performance, using an interventionist approach. It was concluded that CDTW could be used to assess students' writing development. Also, the results showed that students' performance was improved in terms of the development of four major sub-skills of writing. Effectiveness of CDTW was also supported in the participants' attitudes. A



major point of interest of this study is investigation of sub-skills of writing in an attempt to spot the detailed writing problems of the students. Computerized taste of the study also adds to novelty of the topic.

Ashraf, Motallebzadeh and Ghazizadeh (2016) investigated the impact of electronic-based DA on the listening skill of Iranian EFL learners. The results showed a significant effect of electronic SCT-based teaching on Iranian EFL learners' listening skill. This study is very similar to Ebadi and Latif's (2015) study in both context and method. Accordingly, the points mentioned on Ebadi and Latif's (2015) study is also true about this one.

Ebadi and Saeedian (2016) explored the learners' development in L2 reading comprehension in novel and increasingly more complex situations through computerized DA. The results confirmed the significant effect of increased task complexity on the learners' reading comprehension development. They concluded that transcendence has an effect on the learners' development. Because the use of technology in language teaching has become a hot issue recently, this study may contribute significantly to achievements in our field.

5. Conclusion

This review addressed DA studies in the context of Iran. In educational contexts, understanding the learners' abilities (assessment) and supporting their development (instruction) are considered dialectically integrated activities. This pedagogical approach is known as DA (Poehner, 2008). The theoretical background of DA are explained. Then, approaches to DA are presented. Finally, related studies on DA in Iran are reviewed. As revealed in the review, the literature on DA is rich in the Iranian context. In the studies, the impact of different DA methods on English skills have been investigated. However, it is worth mentioning that in spite of a large number of studies on DA, the literature on the effect of DA on speaking skill is scant. This issue is worth investigating in the future studies.

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