

Challenges to Dynamic Assessment in Second Language Learning

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Abstract—The concept of the zone of the proximal development can contribute not only to the assessment, but also to the teaching within the second language learning environment. However, the unifying philosophy within sociocultural theory (SCT) in relation to language and thought has also merged the assessment and teaching procedures into the concept of Dynamic Assessment (DA). The process of DA lets the teacher/mediator permeate into both the actual and potential zones of the development. It teaches and assesses at the same time. This contributive and critical article focuses on the peculiarities of DA. It introduces two new approaches within DA: Dynamic Assessment and Teaching (DAT), and Dynamic Teaching and Assessment (DTA). Moreover, it will discuss where DA stands within applied linguistics, the idea of transcendence both as the device of development and assessment, and the doubts applied linguists might have regarding the promising outcome of metacognitive awareness as a key point in the process of development in DA. After evaluating the problem of validity and reliability of DA, the article will critically analyze the two realizations of DA: interactionist and interventionist. Finally, the mere process of development within SCT in general, and DA in particular will be discussed.

Index Terms—sociocultural theory, dynamic assessment, dynamic assessment and teaching, dynamic teaching and assessment

I. INTRODUCTION

Dynamic assessment was born as an inspiration of Vygotsky's major concern for instruction and assessment. Vygotsky (1986) investigated the issue of instruction and assessment in the zone of proximal development (henceforth ZPD) in that the collaborative activity between two individuals in a purposeful manner would make a difference in the development and learning of the students. Not only could the implementation of ZPD foster a better instructional outcome which leads to the acquisition of tools and development toward higher mental functioning, but also it assists the assessment process toward a more comprehensive examination of learners' mental functioning. Two individuals who receive the same score on their exams cannot be perceived as having the same cognitive ability, but that they have to be mediated carefully in order to assess who advantages the mediation more than the other so that the assessment authorities can select with more confidence the one who has more actual and potential ability than the other. According to Poehner and Lantolf (2005), the unit of analysis in ZPD-sensitive activities is "the interpersonal functional system formed by people and cultural artifacts jointly to bring about development" (p. 238).

Luria (1961) introduced the idea of Dynamic Assessment (henceforth DA) to the western research community. The concept merged the instruction and assessment to reemerge then as a learning/assessment procedure in that neither the instruction nor the assessment part of the DA could be exactly distinguished.

The process takes what the individual has acquired before and what will be possible within his reach in the ZPD. Valinsier and van der Veer (1993) believe that "all development involves in the construction of distance between the present and the past, and overcoming the distance from the present and the future" (p. 266). In order to have a more comprehensive understanding of the person's ability for our assessment goals and their development of the abilities for instructional goals, one needs entering the process of interaction. The dynamic assessment aims at assessing the abilities of the learners through transforming them via dialogic activities between the learner and the mediator (Zhang, 2013). The mediator on his part has to see how much the learner benefits from the cues, prompts, hints, and in general the intervention he¹ provides, and on the other, the learner has to struggle to access higher levels of performance to develop. More narrowly, it is actually the interactiveness of the process sensitive to learners' responsiveness as well as metacognitive awareness that differentiates DA from other models of assessment and instruction (Haywood, 1992). The effort used by the mediator in order to see how much change is possible through assistance reveals the potential development of the individual.

¹ No sexist orientation is intended

In the field of second language development, Poehner and Lantolf (2005, p. 234) have supported the implementation of the DA approach since:

A full picture [of an individual cognitive ability] requires two additional bits of information: The person's performance with assistance from someone else and the extent to which the person can benefit from this assistance not only in completing the same task or test, but in transferring this mediated performance to different tasks or tests.

The former part of the above quotation implies the collaboration of another person (mediator) who has more knowledge and ability in the content of interaction. The information acquired through the assistance of the mediator is aimed at more valid assessment. Although DA does merge the instruction and assessment, the goal of DA is to realize the individual's "full picture" of cognitive ability in the field of second language learning.

II. DAT OR DTA

Poehner (2008) visualizes the possible unwelcoming attitude of the teachers for DA due to the assessment part of the concept. Assessment could trigger very difficult-to-understand-and-use affectives for the teachers. Mostly, teachers are dealing with the classroom assessment not that of high risk ones. However, DA has the learning part within itself. The title of DA has been in favor of the assessment part, not that of the teaching part. If we agree on the merging process of instruction and assessment, we have to show the instruction part of it too. Unlike the favor attributed to the assessment part of the DA, the concept has to be figured out as to the function it provides. If it is the assessment part, so the Dynamic Assessment could be a justified title. But what if the instruction part is the goal? Although the word instruction has some sense of "instructivism", we suggest the word "teaching" since there is more of constructivism to it which is in line with the general philosophy of sociocultural theory (henceforth SCT). Therefore, the term could be titled upon its use. What should be added is the teaching part. Dynamic Assessment and Teaching (DAT) prioritizes the assessment aspect of the process over the teaching, though the teaching part of the process is within the assessment. That goes to the merging of both concepts. On the other hand, the Dynamic Teaching and Assessment (DTA) emphasizes the teaching part of the process of interaction over the assessment part. Although, there are lots of practitioner's guides written in the market (Lidz, 1991; Poehner, 2011a), it could be more stress releasing for the students of language teaching or in-service teachers to be introduced to the field of DA as DTA so that they realize that it is not all about assessing, but also teaching. Of course, as (Butler, 1997) mentions, DA needs deep-insight knowledge of the field and teachers have to be intensively trained as how to put into practice the cognitive developing concept.

According to Poehner and Lantolf (2010), DA is born out of the concept of ZPD, in that "the jointed activity intended to reveal a learner's ZPD and the provision of mediation to support continued development are fully integrated in DA" (p. 312). However, the concept of ZPD is a general umbrella for the interactional, jointed, and collaborative activities. One can realize the development of the individual in the practical concept of scaffolding (Amerian and Mehri, 2014), where the bots and bolts of the scaffolding could lead to the development of the individual. But what we need to realize is that the scaffolding part could not give us enough evidence into the cognitive functions of the individual, unlike DA in which the mediator sweeps into the abilities and disabilities of the learner in order to gain insights of the basic reasons of the problems learners have in doing a certain activity or developing a specific mental tool (Sternberg and Grigorenko, 2002). Therefore, the scaffolding concept could sometimes be haphazardous. It could not be as principled as DA is in the course of interaction. Although scaffolding makes a change in the cognitive function, the assessment of where the learner stands, what he has gained so far, why he has certain problems, and all in all, the assessment of the individual is almost lost. On the other hand, the DAT/DTA could have a bifunctional outcome since it could be finely scripted and principled as the interventionist approach suggests, or it could be interactively investigational as the interactionist approach claims. Moreover, DA has the favor of transcendence which provides new skills for the learner as a result of the mediator/learner interaction in order to perform in increasingly more difficult and complex relevant tasks (Dowing and Chirchi, no date). The transcendence part of DA, unlike scaffolding, takes the learner out of the here-and-now consideration to the potential future (Xiaoxiao and Yan, 2010).

III. DYNAMIC AND STATIC ASSESSMENT

DA is usually contrasted with the static assessment (henceforth SA) or whatever approach which is not dynamic, and it is titled non-dynamic assessment (NDA) (Poehner, 2008). Static and Dynamic assessments are contrasted in their theoretical assumptions, the process employed, and the interpretation of their results. SA does not bring about assessment and teaching within the same process. Although the washback effect brings about learning, it is related to the dualistic view of teaching and assessment as separate instructional activities. Actually DA cries for the assessment and teaching within the same interactional opportunity. In contrast, SA practically divides the teaching phase of education from the assessment phase. In the assessment phase, SA assumes that the intelligence of the learners could be crystallized and assessed through answering some ability related items. In other words, the mental abilities are said to be under a microscope, measured objectively, and analyzed for the results of the test. In addition, SA assumes that all the learners have the same cultural-historical background, motives and emotions (Haywood, 1992), and they have been raised to the same norm the SA might refer to for the interpretation of the test results. Gillam, Pena, and Miller (1999) maintain that the test bias of SA, its process of standardization is against those learners who have different

understanding and experience from the current education and assessment. They have to be completely familiar to the bolts and nuts of tests within the SA approach to show their ability thoroughly. Baek and Kim (2003) mention that the tests of SA are decontextualized since the learner has to be separated from the real world experience and answer each item individually in order to let the assessment authorities know whether he has acquired the content of the course and if he has a certain level of intelligence competency. As a result of decontextualization and standardization, the learner has to be objectively observed, in that he is not allowed to consult anybody during the test and nobody is allowed to enter into an interaction as to provide feedback or get involved with the testee (Hill and Sabet, 2009). Wagner (1992, p. 176-177, cited in Lidz, 1995) sees the problems of SA as follows:

Beyond providing a very rough index of general level of cognitive functioning... the tests do not provide the kind of specific information that is needed to train students in the processes and products of learning. IQ tests sample only a narrow slice of the range of competencies that are required for effective school learning, let alone learning in out of school context.

To increase a test's reliability and validity, SA followers believe that if they intervene in the process of the test, they jeopardize the information they aim to get and result in the instrument decay which is vastly problematic to the inferences based on the test scores. The scores introduce the past-to-present information of the learners, that is, what the learner has acquired so far, and the generalization of the test performance is based on the previous learning. This latter criticism could be viewed positively. Since the turn of the 20th century, the SA system of evaluation has helped us in almost all areas of knowledge. The mass production of the post-Second World War has brought to us unseen opportunities, the assessment of which has been on the shoulder of the SA approach toward the examination of mind. We cannot ignore the fact that static approaches have helped us tremendously in structuring the assessment system of most of the academic, school, and educational centers, not to mention its quick and cheap implementation. Therefore, it is this long termed service of SA that makes some researchers in the field (Lidz, 1987; Nazari, 2012) believe that DA has to be a complementary approach for SA.

IV. DA ASSUMPTIONS

To understand the DA assumptions, one has to emphasize that DA not only tries to understand the previous learning and independent performance of the individual, but also his potential ability in jointed performance. In DA the examiner intervenes in the problem the learner is about to solve in order to figure out the strategies and processes of mental functioning he puts into action in the collaborative environment that has been provided (Macrine and Lidz, 2001). Therefore, there is no attempt to bias the collaboration as to what previous experience the learner has gone through, but the potential he has brought in, since all the humans, according to Feuerstein, Ran, and Rynders (1988), are modifiable. This characteristic of DA does not ignore the cultural-historical differences among people and raises the fairness of the educational system (Poehner, 2011a). Learners are viewed not only in their actuality, but also in their potentiality for pursuing their studies and development for better opportunities in life and career. The society can have a huge impact on the individual's life trajectory since the opportunities could be deprived by the social and educational systems.

The intervention of the examiner in DA challenges the reliability of the test which provokes cries of SA followers for the consistency of the test scores in the process of standardization of the test. This assumption, of course, is in sharp contrast with the belief of DA due to its changing prospect. One of the DA's basic goals is to change the person and see the potential for change in the course of interaction. As a result, the reliability of the test does not have a critical meaning and place in its perspective. Better said, the traditional definition of reliability in the SA related studies should be revisited and redefined in DA related studies.

The issue of reliability in DA does not ruin its accuracy in determining the ability of an individual. Gillam and Pena's (2004) study reveals that the use of DA increases the clarification of ability among different ethnic backgrounds. The SA approach might not be able to distinguish comprehensively among individuals, and could deprive people from life costing opportunities for education and development. Therefore, the idea of a democratic educational system could benefit tremendously from DA since the results assist the educational centers in more accurate and fairer selection of the students.

Haywood and Lidz (2007) explain that DA's interactive mood objectively measures the possibility of change through different techniques. But there is a disadvantage to this change and measurement of the process. The time, cost, and deep knowledge of the instructors it requires may hinder a vast implementation of the DA approach in designing a curriculum. Despite the problem, if DA is used for the purpose of teaching (DTA in our classification as opposed to DAT), the high quality form of education can be the reward for our selection.

V. TRANSCENDENCE AND THE PROBLEM OF METACOGNITIVE AWARENESS

Transcendence as a feature of DA in the transference of abilities to other more complex and difficult situations can be to the advantage of the learners in coping with other problems of a similar kind. The introduction of the purposeful more difficult tasks to the learners pushes them toward acquiring underlying principles of the course content. Actually, Kozulin (2011) believes that the process of DA equips the learners with the learning potential. In this process which refers to the acquisition related abilities, the learner benefits from the mediation and scaffolding techniques. Now to

validate this acquisition related abilities, the cognitive modifiability element which refers to the thinking related abilities of the model Kozulin provides for the assessment and development of the intelligence is well justified. By cognitive modifiability, it is meant the independent selection, application, and integration of the knowledge acquired in the learning potential phase in more complex tasks and activities. Therefore, it is the transcendence task that distinguishes DA from other forms of assessment and development approaches.

According to Dunn and Lantolf (1998), DA improves the "learning to learn" criteria for educational programs and it increases the quality of learning. The metacognitive awareness, as one of the characteristics of DA (Dowing and Chirchi, no date) is believed to make learners conscious of their mental processes, thus their problem solving ability would increase. DA promises to qualitatively change the mental capabilities through the appropriation of mental tools warily, thus metacognitive awareness, and implement them in other contexts of use, thus transcendence. However, one has to question the absolute validity of such claims.

In the second language learning environment, there are occasions where the learner cannot and possibly is not to have complete awareness of what happens when they learn something. The metacognitive emphasis that researchers in the second language learning put forth (Poehner, 2008; Poehner and Lantolf, 2010) could not be thoroughly acceptable. The learners could feel that what they are saying is correct but could not have any reason for it. In fact this is related to their implicit knowledge of the language. Even if we ignore Biber, Johansson, Leech, Conrad, and Finegan (1999) that there are many grammatical points we are still wondering what they are, the proponents of DA could not easily ask learners to reason about their every bit of learning. There are many grammatical points in every language that do not expose themselves at the level of analysis and explanation easily. The teacher or the examiner should hold a Ph.D. in linguistics to be able to explain the reasons for highly complex structures. In Poehner's (2002) study, borrowing the steps of mediation from Aljaafreh and Lantolf (1994), the researcher emphasizes that the learner has to put forth a reason for their selection of the grammatical choice. Of course, it could be a method of research to conceptualize the process of the learning, and a reason for problems, but the mere fact of not knowing the reason could not necessarily mean that the person does not have the knowledge. The claim that DA has over the control of mind and metacognitive awareness could not be applied to all areas of language learning. Even in the process of teaching, there are occasions of implicit teaching, where learners might not confidently announce their reason for the point acquired. Long (1990) argues that a theory should not attribute all learning to be unconscious. In similar vein, the consciousness of learning is to be practical to some extent. Now, even if the learner acquires the specific metacognitive knowledge we like them to acquire, the transference of this awareness about the principles of metacognition should be applied in the transcendence phase of DA. The transfer here means that the new task holds specific principles of the previously accomplished activity but changes some others into more difficult ones. Another question here is that what type of changes makes one task more difficult than the other? What are the criteria of these changes? The possible solution we suggest is the reference of the DA users to the tasks-based syllabus design in arranging the hierarchy of difficulty in tasks based on several criteria provided in the literature (see Ellis, 2003).

VI. THE PROBLEM OF VALIDITY

The validity aspect of DA also bears certain problems. To examine the ability we intend to examine, one needs evidence. The interactive feature of DA provides bundles of information for the assessors to assure their users of the validity of the test. Messick (1989) believes that the process of validation should support the evidence for the construct one claims to measure. The pros of DA is that its mental process-oriented approach can dig into what happens in the mind of the learner that he performs how he performs, an evidence for the construct validity. For example, in a study on the reading comprehension test, Cohen and Upton (2007) believe that the engagement of the learners in the test could not necessarily mean that they are adhering to their reading ability. Learners might use strategies as short cuts to the answers. Rather than deeply following the text to answer the question, they might circumvent it.

In constructing a structured support for the validity of DA, Poehner introduces the micro/macro framework of validity for DA; however, it seems that the construct fuzziness (Jitendra and Kame'enui, 1993) of the evidence is not as principled and vast productive as it firstly shows. According to Poehner (2011b), "while micro validity points to particular instances of mediator-learner cooperation during a DA session, macro validity considers patterns throughout the session" (p. 259). The macro validity puts forth evidence for the independent performance, the form of mediation, and the responsiveness of the learner to that mediation (ibid). However, the patterns need specific classifications. This is a matter of person to person interaction that could result in a profile of the individual and validity of the construct examined. The vast implementation of the approach could not be as easily handled as the framework suggests. Also, the micro validity requires the learner's verbalization, while previously we argued that the learner might not be competent enough metacognitively, due to the jargons or ability to explain, to open up the reasons behind his choices. The framework also has to answer the following questions: a) If the assessment is based on the learners immediate needs, how should one specify the size of overlapping ZPDs of different grammatical points? b) Can the framework clarify the expansion of one's degree of ability, whether potential or actual, in one session of interaction? If yes, on what criteria? c) How can the framework show the development in a large class size, if it is argued that the group DA has also the required validity?

VII. INTERACTIONIST AND INTERVENTIONIST APPROACHES OF DA

A. *Analyzing Interactionist DA*

DA in second language learning is divided into two approaches of interactionist and interventionist (Lantolf and Poehner, 2004). Each of these approaches bears certain characteristics on the one hand and lacks some on the other. The interactionist approach of DA is in favor of the qualitative approach of investigating the learners' mental development. Emphasizing the emergent interactiveness of this approach, van Compernelle (2010) believes that "the social interaction is itself the locus of situated cognition, where learners or novices can appropriate the means for participation in social-interactive activity of more expert social members" (p. 66). Therefore, it is more in line with Vygotsky's qualitative approach of higher mental functioning. Vygotsky insisted that the individual should not be measured but interpreted and this is only possible through the collaborative interaction with the person. The interaction between the mediator and the learner makes the problems be negotiated rather than predicted (Lantolf and Poehner, 2004) in the interactionist approach. This emergent view of the interaction in the process of problem solving provides a great amount of freedom for the mediators to make an effort to tune their assistance to the learner's need throughout the course of completing the activity. The permeation of the mediator into the learner's needs and cognitive process through interaction lets him understand his mental functioning in detail. The interactionist approach bears resemblance to the Feuerstein's learning potential assessment device. Although the design of Feuerstein's work is basically interactionist, the process of examining and developing learners does not identify the primary level of the individuals. Feuerstein, Johansson, Leech, Conrad, and Finegan (1988) believe that the fluidity of the interaction gives some sense of understanding to the mediator as where the individual stands so far as his/her competency in the given task is concerned. However, there is not any specific procedure for how to follow the course of interaction and what reaction should be provided when specific problems happen in the interactionist approach. It is all figured out based the interpretation of the mediator from the situation.

The interactionist approach is not without its shortcomings. First of all, any mediator adopting the interactionist approach toward developing or assessing the individuals' cognitive functions might reveal different styles of behavior due to his/her own competency and interpretation of the learner's needs in the context of interaction (Kozulin and Garb, 2001). The examination of each individual with a different outcome and style, even by the same mediator, might not let the exact comparison between the learners for selection and scoring purposes. Although Poehner (2008) insists that the preparation of profiles for each individual might reduce the problem of comparison, it could first let different interpretations of the results, and second, raise the time and effort for handling the large amount of information for assessing and developing a great number of learners. In addition, most of the studies borrowing an interactionist approach have taken a one-to-one interaction as a source of data for their analysis. The basic characteristics of the approach do not allow the whole class interaction at the same time. Also, the interaction with the whole class or large groups might not let the teacher or the researcher enter into the detail analysis of each individual. There are some attempts as to solve this problem.

Brown and Ferrara (1999) have suggested a "community of learners" in which there is a common goal among the individuals who seek to reach through constructive collaboration. Although there are differences among the members of the group, they can contribute to the ZPD of the group in general and each person's ZPD in particular. Moreover, each learner might follow different ZPDs for different abilities and cognitive functions. For example, learners of second language could have different ZPDs for different grammatical points. One learner's ZPD for the past tense could be wider than another's, while the former learner's ZPD for the future tense might be narrower than the latter's. Thus, the group member's overlapping ZPDs could contribute to the development of each other's specific ZPD (Nazari, 2012; Mehri and Amerian, in press).

In his classification of different group formats, Petrovsky (1985) viewed three forms of group. The group-as-context is just an opportunity for the learners to be associated for the sake of time and place. The group members use the opportunity of gathering for their own recovery. In group-as-cooperation, the members have specific goals for themselves, and in addition they regard the interrelation of their goals with other group members. It is actually the last form of group format, namely group-as-collective, that all the members have a common goal, they share their resources and mental tools in order to develop the functioning of all members individually and the group collectively.

Lantolf and Yanez-Prieto (2003) claim that when an appropriate activity is given to the group, and one member is faced with a problem, his interaction with the mediator should be assumed significant for other members of the group. Therefore, they form a primary interactants, while the other members are in the status of secondary interactants. All in all, all the members benefit from the interaction, whether primary or secondary. However, one has to doubt the exact development of the learners. If the purpose of DA is to assess the individual's actual and potential levels of development, in the group oriented DA, the learners are not assessed individually, but collaboratively. In other words, even if we can be successful in submitting a score for the potentiality of the group, it is the group's score. The ZPD of each individual in different areas (different grammatical points for example) could be distinct. The argument for the primary and secondary interactants have a significant effect on the development of the individuals since the interactions are stepping stones for everybody to develop, however, this is due to the teaching part of the DA, that is DTA, and not that of DAT. Moreover, Skinner and Madden (2010) argue that learners, due to their individual distinct characteristics, who believe that they are in the need of help, might not be as much certain as to ask for help. The group DA assumes that the

learners are effectively contributive to their and that of others' development. As a result, the claims on the basis of the validity of this form of DA are not evidenced justifiably. The next criticism is related to constructivism, according to Karpove and Haywood (1998), in that it is possible that the learners form unintended concepts in their mind without further mediation. It also might refer back to the spontaneous and scientific concepts of Vygotsky (1988), in that the change from the spontaneous-discovery based concept formation could mislead the learners to unpredictable scientific concept.

B. Analyzing Interventionist DA

The interventionist approach of DA is more favored among those working in the area of second language learning since it bears resemblance to the traditional psychometric assessment. The interventionist approach enjoys the standardization of the procedure for the interaction in DA sessions. In the course of implementing an interventionist approach, the mediators are "not free to respond to the learners' need...but must instead follow a highly scripted approach to mediation in which all prompts, hints, and leading questions have been arranged in a hierarchical manner" (Poehner, 2008, pp.44-45). Unlike the interactionist approach in which the mediator's different abilities in interacting with the learner could have different outcomes, the scripted based interactional behavior in the interventionist approach increases the possibility of score comparison between individuals. The scoring procedure, on the other hand, does not require a lot of qualitative profiles, but the quantification process allows the examiners to satisfy both learners and parents easier (Poehner, 2011b). According to Poehner and Lantolf (2013), the case of the interventionist approach provides the opportunity for dynamic assessors to administer DA for a large number of learners on the one hand, and reduces the effort and time on the other. However, there are also some disadvantages attributed to this approach.

First of all, the scripted standard procedure for implementing the interventionist approach limits the mediator in replying to the learners' needs. Since the mediator has to follow strict modes of mediation (from the most implicit to the most explicit according to Aljaafreh and Lantolf, 1994), he has to stick to the limited number of points he can mediate for the learner. The hierarchical arrangement of the hints, prompts, questions, and other mediational reactions can hinder the on-the-spot answer since the prediction of the beforehand mediation assumes an idealized learner whose individual characteristics are general for all the learners. The interventionist approach cannot seek into the difference between the learners from different socio-historical backgrounds as accurately as the interactionist approach can. However, the generalization for all the learners equips the interventionists to administer the approach in the classes with a large number of learners. This feature could be realized through the mediator-learner interaction.

To expand the scope of administration, Poehner and Lantolf (2013) have taken the idea of interventionist approach into the computerized format. Computerized dynamic assessment (C-DA) is a recent field of research within the SCT in general and DA in particular. The learners are introduced with a set of hints in the process of assessment as the scores are attributed to the degree of explicitness the learners need for answering the items. One of the claims of socioculturalists is that if learners are equipped with metacognitive awareness they can control the content of instruction. In his study, Poehner (2011a) conducted a study with the L2 French learners. The mediation required learners to explain the reason for their choice of the tense. Even if the implicit form of mediation was projected by the mediator, the learners had to explain the reason why or why not they used the tense. If the reason was not acceptable, they would have to wait for a more explicit form of mediation, the last of which is the explanation of the point itself by the mediator. Although the case of the approach in Poehner study is interactionist, most of the DA followers claim for the presence of explicit reasoning, or more technically, a metacognitive awareness of the learners. The use of C-DA reduces the time and effort of previous realizations of DA. However, if the learner can select the correct response through the hints, he is not provided with the opportunity to explain his reason for the selection. Only is the last mediation the explicit explanation of the correct response which is given by the computer display, or the explicit explanation would be provided given the examinee answers the question correctly. Therefore, even in C-DA, the examiners cannot very definitely address the source of the problem of the learners. He cannot be as sure as in the interactionist approach in claiming that the construct validity of the test is because the learner has the required amount of ability in the given domain. The examiner should trust the prompts in that they fit for all individuals. In other words, the C-DA's construct validity and interpretation of the test results are not, in our current state of knowledge, firmly evidenced. Although the micro/macro framework of validity is a serious attempt toward justifying the acceptability of the approach, the researchers have to merely trust the validity of DA in the curriculum design.

VIII. DEVELOPMENT IN SCT/DA

The basic claim of SCT in general and DA in particular is that they can lead the learner toward more development. The mental tools of mind have certain interrelationships and the development of these mental tools, as well as the injection of newly acquired tools, means that their interrelationship becomes more complex. To have a psychological reality in the experimental research, Vygotsky puts forth the concept of ZPD and believes that all that happens regarding the relationship between the learning and development happens in this zone. Moreover Poehner and van Compernelle (2013, p. 355-356) believe that:

Mediators should not take over full responsibility for completing tasks but should continually position learners to maximally contribute. Learner struggle, from this perspective, is not something to avoid because it is through the

tension to exceed one's present capabilities that development occurs. Of course, for such interaction to be most effective, mediator and learner must have a shared orientation to the task, that is, an agreed understanding of the goal they intend to realize.

The struggle the learner should have for expanding their ability in the zone of proximal development through interaction is well supported, in that the mutual intersubjectivity between the learner and the mediator, through providing the mood for expression of the learner, would stretch the zone of potential development (Aljaafreh and Lantolf, 1994). But the development and extension of abilities do not guarantee the complete control of the person over the task in hand, especially in second language learning. Unlike Piaget's claim over the structure dependent development in mental functioning, the followers of SCT in general and DA in particular believe that the mediation process could change the person into more mental functioning, bearing that the individual can benefit from the interaction within the scope of his ZPD.

In relation to interlanguage studies (Corder, 1971; Selinker, 1972), the language system the learners make in their mind, or multi-competence as a web of interconnected language systems in the mind of the multilingual speakers (Cook, 2008), the language system or systems seem to have some fundamental specific principles. Some of these principles could be under the influence of the first language. For example, the Persian first language speakers acquire the third person "s" of English language very late. It is assumed that this grammatical point is delayed in its acquisition due to several possible reasons, one of which is that the concept is not present in the Persian language. If we take this idea to the DA field of investigation, we need to be cautious about the implications. Given that the DA approach cries out for the metacognitive awareness of the learners, the third person "s" grammatical point could be easily comprehended by the learners.

In addition, the mediation of the learner cannot assuredly influence the full development of the point in question. In other words, the ZPD for this grammatical point despite so much effort is delayed to later stages of second language learning. The ZPD of the third person "s" is very low and is kept low until late stages of full competency over the second language (here English for Persian first language speakers). Development in general is not finely predictable. There are many occasions which can contribute to the development of the individual, and thus the independent functioning of the person on the given problem. However, one needs to be cautious that the regression of the second language learning is also at work. As Poehner and Lantolf (2005) contend the "development in the ZPD is not a smooth and predictable process but is revolutionary in the sense that it entails both progress and regression" (p. 245).

The development of the individual in so far as their actual level of functioning is concerned, could not be easily identified. In other words, those who are low at the actual level of functioning in relation to second language compared to those who are at high level of actual functioning do not have the same sense of development if that is to be examined by the DA approaches. They could not be easily compared as in their line of potential development. De Beer (2002, p. 98-99) in the following provides an interesting example:

If someone were to say that a university mathematics professor has no learning potential, quite a few eyebrows would be raised. A person who functions at such a high level should by all accounts be able to cope better than most people with virtually any new learning situation. If the focus is on the ability to learn, then credit also needs to be given to learning that has already been accomplished and which forms part of the learner's repertoire. The professor will probably obtain a very high score on the initial (actual) level of performance and consequently can show only limited improvement. Within the restrictive framework of considering only the difference score as the score that indicates learning potential, it is therefore possible to say that she has very little learning potential. To take the example to the extreme, when selecting someone for further training, this professor could find herself being dropped in favour of a primary school pupil who showed more improvement, since the latter's difference score (ZPD) is larger – and this, in spite of the fact that the overall level of performance of the primary school pupil is substantially below that of the professor.

The example gives credit to the Vygotsky's interpretation of the ZPD in that the actual level of development should also be part of the examination within DA in addition to the potential level (Amerian and Mehri, unpublished). The above mentioned example refers to the concept of the ceiling effect in research methods too. The study of Hill and Sabet (2009) justifies the point in speaking DA that those learners who are in the most competent side of the continuum of second language ability are at a ceiling level where even their minor development is highly influential in their mental functioning, as opposed to those at the least competent side of the continuum whose huge effort could quantitatively or qualitatively seem to be developmentally trivial in comparison with their more competent counterparts.

In language studies on the other hand, according to Gillam, Pena, and Miller (1999), those who have a high level of control over language, or are good language learners have a better opportunity for learning more complex levels of discourse forms than those who are at the lower levels. This indicates that the different layers of language learning could benefit their development at different levels of competency.

IX. CONCLUSION

DA approaches of development and assessment have been very effective and useful in different lines of research: from psychoeducational assessment of socially at risk students, to culturally deprived people, impaired individuals, mentally retarded children, people with psychiatric disorders, and language learners. However, one needs expanding the

scope of knowledge and specification of the impedance and problems for a better evaluation of the approach. It is academically justifiable that the interdisciplinary research can contribute to the better understanding of the phenomenon in question, but the within-disciplinary investigation has specific peculiarities which require answering specific questions. One cannot ignore the findings of the other realms of research, interlanguage studies for example, in relation to the implementation of DA in second language learning. Also, there are still many questions the DA researchers and followers have to find some answers to, some of which we tried to highlight through our analysis. The continuous reflection and self-assessment of the status of knowledge within our field of research can assuredly help us in the development of the field.

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