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The Effect of Dynamic Assessment on General English Test's Performances of Iranian Medical Students

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Abstract

As the need for appropriate alternative assessment techniques for general English students seems to be both obvious and critical, the researchers tried to put dynamic assessment (DA) theoretical principles into practice with Iranian medical students. The study's initial subjects were 58 freshmen at Paramedical Faculty of Gerash one of the branches of Shiraz University of Medical Science (SUMS) who were at the second semester of their university education and asked to participate in a general English test based on their course books. Seventeen participants out of fifty eight received less than half of the total mark and became the real subjects of the study. Inspired by DA mediational techniques, they were interviewed individually and provided with some guidelines, advices, and test performing techniques by the teacher/researcher. As the interviews were finished the subjects were asked to take the previous exam again after fifty days (the optimal temporal distance in which the extraneous factors such as test witness, practice effect, and cognitive maturation affect the study's performances minimally). With the aid of a paired-samples t-test it was revealed that subjects performed remarkably better on the second administration after being interviewed by the teacher/researcher about their performance problems. The study's general findings implied that teacher's mediation (derived from Vygotsky's "dialogue of unequals") within students' zones of proximal development (ZPD) can miraculously pave the way for teachers, students, and material developers to reach to the ultimate "aim" of all instructional courses which is students "learning".

Key terms: Dynamic Assessment, Zone Of Proximal Development, Dialogue of Unequals, Meditational Approach

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.

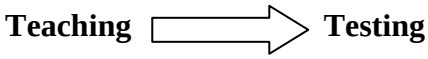

Figure 1- traditional Instruction

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 reducing the number of unsuccessful 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.

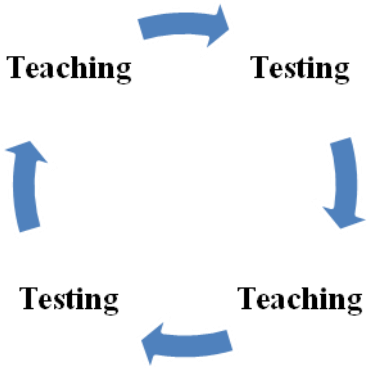

Figure 2- Dynamic Instruction

In the case of the present paper, the researchers tried to put DA theory into practice at Paramedical Faculty of Gerash one of the branches of Shiraz University of Medical Science (SUMS). They applied the trichotomous framework of instruction (teaching_ testing_ teaching) on 17 freshmen who faced different problems in receiving acceptable marks in their exams. In the following, the study's procedure and results are presented.

2. Literature review

All educational programs must at some point appraise learners' knowledge and abilities; that is, they must assess them. The purposes of educational assessment are to evaluate school achievements, predict future achievements, and prescribe educational treatments. As a result, assessment and instruction are two complimentary aspects of methodology which should optimally result in true learning. From this perspective, assessment occurs not in isolation from instruction but as a dialectically integrated activity which seeks to understand development by actively promoting it. This pedagogical approach, known as Dynamic Assessment (DA), challenges the widespread acceptance of independent performance as the privileged indicator of individuals' abilities and calls for assessors to abandon their role as observers of learner behavior in favor of a commitment to joint problem solving aimed at

supporting learner development. In DA, the traditional goal of producing generalizations from a snapshot of performance is replaced by ongoing intervention in development. The dialectic unification of assessment and instruction that DA represents has profound implications for classroom practice, which second language (L2) researchers are beginning to explore.

2.1 What is DA?

The term *dynamic assessment* was coined by Vygotsky's colleague Luria (1961) and popularized by Israeli researcher and special educator Reuven Feuerstein. Feuerstein (1979) contrasted his methods with other forms of assessment, which he labeled *static*. The difference between a child's own performance and his/her achievement when guided by an adult or in collaboration with a more experienced peer, reflects the child's developmental potentiality referred to by Vygotsky (1978) as the 'zone of proximal development' (commonly, ZPD).

The term 'dynamic assessment' includes a range of methods and materials to assess this potentiality for learning, rather than a static level of achievement assessed by conventional tests. Its aim is to reveal an individual's maximum performance, by teaching or mediating within the assessment and evaluating the enhanced performance that results. As indicated in the following lines, no single definition of DA exists in literature. In this review, DA refers to any procedure that examines the effects of deliberate, short-term, intervention-induced changes on student achievement, with the intention of measuring both the level and rate of learning. In addition, for purposes of our review, DA must provide corrective feedback and intervention in response to student failure.

2.2 The origins of DA

Vygotsky (1978) believed that the early development of understanding occurs through interaction with others. In this period greater achievement is possible when a child learns through collaboration with a more experienced or informed guide. Thus, for Vygotsky, the mental development of a child is distributed along stages: the child progresses to a more advanced stage when s/he is able to carry out alone certain tasks for which, in the previous stage, s/he would have needed the help of an adult (or more capable peer) to perform successfully. The term "scaffolding" exactly describes the sort of help the child gets from the adult when s/he is not able to perform the task. Donato (1994) explained the concept by saying that:

> In social interaction a knowledgeable participant can create, by means of speech, supportive conditions in which the novice can participate in, and extend, current skills and knowledge to higher levels of competence. This principle usually underlies therapeutic interventions but is not the way in which cognitive or language assessments are traditionally conducted (p.40).

DA is grounded in Vygotsky's Sociocultural Theory of Mind (SCT), which differs both ontologically and epistemologically from the mainstream psychological perspectives on mental abilities that inform other approaches to assessment. According to SCT, individuals' responsiveness to support, or *mediation* to use Vygotsky's (1978) term, that is sensitive to their current level of ability reveals cognitive functions that have not yet fully developed. Moreover, appropriate mediation enables individuals to exceed their independent performance, and this in turn stimulates further development (Vygotsky 1978). Thus, DA targets what individuals are able to do in cooperation with others rather than what they can do alone (Sternberg & Grigorenko, 2002). Furthermore, DA is not a standalone activity carried

out in isolation from other pedagogical activities. It is instead an on-going, development-oriented process of collaborative engagement that reveals the underlying causes of learners' performance problems and helps learners overcome those problems. In other words, DA does not differentiate instructional activities from assessment activities because every mediator–learner interaction encompasses both types of activities. Instead, DA sessions vary according to learner development so that over time learners engage in increasingly complex tasks with less mediation.

Vygotsky (1986) defines *zone of proximal development (ZPD)* as the distance between actual developmental level (independent problem-solving) and potential developmental level (problem-solving under parent's guidance or collaboration with other peers) in order to clarify the relation between learning and development. According to Lantolf and Appel (1994) and Schinke-Llano (1993), Vygotsky's implicit meaning was that ZPD is the area in which real learning takes place and those functions which are in the processes of maturation are formed.

The ZPD in Vygotsky's (1986) approach largely rests on two important, interrelated constructs: mediation and internalization. According to SCT, individuals are always mediated by cultural artifacts, social practices and activities. They are mediated even when they are working alone, in which case their cognitive functioning is mediated by their history of interactions with the world. In other words, those abilities originally residing in an individual's social interactions become internalized and reemerge as new cognitive functions. The individual no longer relies on the external environment for mediation but is able to self-mediate, or *self-regulate* to use Vygotsky's term. By focusing on ZPD and the diologic nature of participant's interactions, Vygotsky (1986) collapsed the castle of cognitive determinism by proposing *cognitive modifiability.* He mentioned that intelligence is not inherent but developmental and this results in dynamic assessment, critical pedagogy and finally critical thinking.

2.3 Why DA?

Limitations of static tests_ The limitations of static assessments are considerable in the field of SLT where the multidimensional nature of language "does not easily lend itself to single unitary measures" (Dockrell, 2001). According to her, diagnostic tests which target specific aspects of the language system are "consistently inadequate for determining whether a child is developing typically or is experiencing a delay". She also argued that:

> Standardized assessments fail to tell us how a child approaches a task or about the difficulties he may encounter. Existing tests are of little value for planning interventions. Process-based assessments such as those that would fall under the umbrella term of "dynamic assessment" are moves towards a more informative approach (p.13).

Furthermore, Nettelbladt et al. (1989) concluded that detailed case studies are the only ways at present to elucidate crucial individual differences in children with language disorders, and Enderby and Emerson (1995) concurred that, 'There are few standardized assessments available and commonly in use which would cover the range of disorders that one may find within the subject pool' (p.56).

Process versus product_ Conventional language assessment does not make the child's learning strategies and methods explicit, or his/her particular strengths and weaknesses in learning and problem-solving behavior which are termed "cognitive functions" by Feuerstein (1980)**.** Cognitive learning strategies are analogous to, concurrent with, and interwoven with,

language learning strategies. Assessment of language should access the formal concepts that enable a child to make sense of experiential learning and the skills s/he must develop to facilitate or enhance language learning (Kozulin, 1990). The assessment then becomes "domain general"; it does not describe the specific manifestation of the linguistic weakness, but rather the weakness in underlying skills of learning, language processing and problem-solving.

Predicting readiness for change_ Feuerstein (1980) believed that assessment should demonstrate the individual's potential for change when the appropriate type of intervention is available. The assessment evaluates the individual's present level of functioning and potential for change by assisting in the assessment task. This indicates his/her need for assistance. Existing language assessments typically do not fulfill this role. The procedure will be familiar to practitioners who frequently try to get a sense of a client's *stimulability* to gauge their readiness for change. This approach, however, has no stable methodology and is frequently the product of a practitioner's experience. Birnbaum and Deutsch (1996) illustrated how recommendations for intervention generated by DA can be used in collaborative target setting in the educational context. Similarly, Lauchlan and Carrigan (2005) presented materials specifically designed to facilitate the use of dynamic assessments in the local psychological service and enable dynamic assessment to be transferred to everyday practice.

Olswang and Bain (1996) put the theory into practice and demonstrated high correlation between performance on a dynamic assessment and a measure of immediate change in language production (an increase in mean length of utterance _MLU_ across the study period). Olswang and Bain's discussion highlighted a number of important issues. Some children in the study made little advance through the intervention, despite having obtained positive indications on the DA. Possible explanations given for this were that the children lacked the pre-requisite skills necessary for the next level of development, or that the treatment techniques and timing were inappropriate. The second explanation proposed by Olswang and Bain, was that although the intervention methods of modeling, recasting and elicited imitation were documented and proven methods for teaching grammar to children may not have been the most effective methods for the children used in the study. Olswang and Bain speculate about more directive, less naturalistic methods, although the children may equally have benefited from interventions utilizing a more mediational approach.

The fourth reason for necessity of dynamic assessment is its predictive validity. Caffrey and Fuchs (2008) explored the predictive validity of dynamic assessment (DA) on a mixed-methods review of 24 studies. For 15 of the studies, they conducted quantitative analyses using Pearson's correlation coefficients. They descriptively examined the remaining studies to determine if their results were consistent with findings from the group of 15. The authors implemented analyses in five phases: They compared the predictive validity of traditional tests and DA, compared two forms of DA, examined the predictive validity of DA by student population, investigated various outcome measures to determine whether they mediate DA's predictive validity, and assessed the value added of DA over traditional testing. Results indicated superior predictive validity for DA when feedback is not contingent on student response, when applied to students with disabilities rather than at-risk or typically achieving students, and when independent DA and criterion-referenced tests were used as outcomes instead of norm-referenced tests and teacher judgment.

2.4 DA models

Over time, DA has evolved into two branches of study: *clinically-oriented* and *research-oriented*. Clinically-oriented DA began as an educational treatment to remediate cognitive

deficiencies presumed to cause learning problems. Its most well-known operationalization is Feuerstein's (1980) *Learning Potential Assessment Device* (LPAD). The LPAD is a non-standardized method of assessing and treating the cognitive deficiencies of children with learning problems. Treatment duration can last many years. Research-oriented DA, by contrast, originated as an assessment tool. It typically involves a standardized assessment during which the examiner guides a student's learning in a single session. The time required for the student to reach mastery, or the necessary level of instructional explicitness to advance the student, serves as an index of the student's learning potential. Researchers and practitioners have used this form of DA to identify students who may require more intensive intervention and to place them in settings where such interventions can be implemented.

Considering the undeniable merits of DA, three concerns or in better words criticisms are typically expressed about DA; namely, its construct is fuzzy, its technical characteristics are largely unknown, and its administration and scoring are labor intensive. Fuzziness occurs, for example, when at a most general level, researchers fail to distinguish for their audience between clinically-oriented or research-oriented DA. Second, the related literature does not typically report the reliability and validity of DA measures. Many advocates of clinically-oriented DA believe standardization contradicts its spirit and theoretical orientation. Third, critics have suggested that the time required to develop protocols and train examiners may not be worth the information DA provides. DA protocols have been around for decades, but because of inadequate information about their psychometric properties, more practical investigations may be needed to establish their validity and utility.

2.5 DA versus traditional assessment

DA has been variously described as learning potential assessment, mediated learning, mediated assessment, assisted learning and transfer by graduated prompts. Across its variants, DA differs from traditional testing in terms of the nature of the examiner–student relationship, the content of feedback, and the emphasis on process rather than on product (Grigorenko & Sternberg, 1998).

In traditional testing, the examiner is a neutral or "objective" participant who provides standardized directions and does not typically provide performance-contingent feedback. The DA examiner, by contrast, not only gives performance-contingent feedback but also offers instruction in response to student failure to alter or enhance the student's achievement. To put it differently, traditional testing is oriented toward the product of student learning (i.e. level of performance), whereas the DA examiner's interest is both in the product and in the process (i.e. rate and path of growth) of student learning. In other words, some researchers claim that DA's twin focus on the level and rate of learning makes it a better predictor of future learning.

3. Method

3.1 Subjects

The study's subjects were 58 English learners of both genders at Gerash Faculty of paramedical sciences who were approximately at the same level of general English proficiency. All the students were at the second university semester and had *Science and Medicine in English* as their course textbook, while they had passed a series of preparatory courses previously in the term before. Inspired by "intact group design" (Hatch & Farhady, 1981) of quasi-experimental researches, the need for a pre-test seemed to be satiated as the subjects were supposed to be at the same level of proficiency.

3.2 Procedure

On the basis of the marks the students had received in their course leaving exam (which was a general English proficiency test based on students' course books and presented in Appendix 1), the real subjects of the study were determined; those who had received less than the half of the total mark to whom the meditational process of dynamic assessment was applied.

The teacher's meditational approach to subjects' learning processes was generally in the form of a series of individualistic interviews with the subjects which contained the following headlines;

- The subjects' general opinion about the exam.
- The real reasons of missing a plenty of exam questions in subjects' viewpoints which were discussed through these main topics;
  - *Item-reference problems:* The investigation of vagueness of the questions' directions problem, the investigation of subjects' understanding of the questions,
  - *Teaching-reference problems:* The investigation of teaching methods and techniques in class, the investigation of subjects' opinions about the course book,
  - *Affective-reference problems:* The investigation of affective factors of subjects, the investigation of subjects' attitude toward English and its necessity, the investigation of subjects' background in English,
  - *Exam-reference problems:* The investigation of subjects' expectations from the exam, the investigation of the quality of the exam procedure,
  - *Readiness-reference problem:* The investigation of subjects' readiness for the exam, the investigation of subjects' studying during the term and for the exam, the investigation of the reasons of subjects' laziness for the exam,
- Some pieces of advice or/and guidelines on teacher's part according to each subject's problem.

As the meditational process (remedial teaching process) was finished, the subjects were asked to take the same exam again after two weeks (the optimal temporal distance in which the extraneous factors such as test witness, practice effect, and cognitive maturation affect the study's results minimally (Hatch & Farhady 1981)). To determine the effects of the meditational process to which the subjects were exposed, the results of the first and the second test administrations were compared with the aid of a paired-samples t-test. In this way, the researcher became able to scan the outcome of the approach he took meticulously through numbers. For example,

Seventeen students out of 58 received less than half of the total possible mark (less than 24 out of 48) and became the real subjects of the study. They were interviewed one by one and were asked to talk about the most significant reason of their poor performances on the exam. It is worth noting that most of the subjects were astonished to see their teacher is considerate about the quality of their performance and promised to perform better in the next exam.

The performed interviews were recorded and then transcribed for a further exact analysis. Some parts of the interviews are presented in the next section for illumination of the nature of teacher's meditational role in a dynamic assessment framework. For example,

Subject 3

Subj: shoma avalin ostadi hastid ke dar morede moshkele man to nomre nagereftan makhsusan to darse zaban ….. nazare mano mikhain.

(You are the first teacher who asks my opinion about my problem of poor performance especially in English tests.)

Teach: hala in khobe ya bade? khande…..

(Is it good or bad, now? laugh….)

Subj: khande…..

(laugh…)

As it is discernable in table 1, subjects named item-referenced, exam-referenced, affective-referenced, laziness and teacher-referenced problems as the real reason of their poor performances in the exam respectively. No other source of problem was identified in this study.

Table 1- Subjects' opinions about the reasons of their under-achievements

Reasons of poor performance	**items**	**affective factors**	**exam**	**laziness**	**teacher**
Subjects' opinion	**43%**	**14%**	**28%**	**14%**	**0%**

Item-referenced problems as the most frequently reported source of subjects' failure, was estimated to be the real reason of underachievement for approximately half of the subjects (subjects 1, 3 and 5). Unfamiliarity with items, and vagueness of directions put subjects in a stressful embarrassing context. "cloze test" and "matching" items caused the greatest problems based on subjects' introspections. The teacher/researcher, proposed some guidelines to subjects in an interview which created a dialogic ZPD in Vygotsky's (1978) term. For example, subject 3 found "cloze test" the most difficult to answer;

Subject 1

Teach: kodom ghesmate emtahan bishtar barat sakht bud?

(Which part of the exam was more difficult for you?)

Subj: cloze test ha… laugh.

(Cloze tests,..laugh)

Teach: cloze test ha, ta hala cloz test ro nadide budi to emtahana?

(Cloze tests! you hadn't seen cloze tests before?)

Subj: ye bar dige yeki az ostada gerefte bood, vali in yeki kheili sakhttar bud.

(One of my previous teachers gave a cloze test once, but this one was more difficult.)

Teach: besyar khob, pas shoma to cloze test bishtar az baghiyeye soala moshkel dashti, … to in emtahan az 8 soal faght yekisho javab dadi, chera?

(Well, so you had problems with close tests more than the other items… you answered just 1 question out of 8, why?)

Subj: sakht bud dige in kalamt aslan to ketab nabud,…

(It was difficult; these words were not in the book)

Teach: ….shoma aslant miduni bara javab dadan be cloze test bayad chikar bokoni?

(Do you know how to answer a cloze test item?)

Subj: matno mikhunamo javab midam.

(I read the text and answer the questions.)

Teach: khob man fek mikonam bara javab dadane ye cloze test, aval bayad kole matno ye dor be khuni ta un temo mozuae asliye matn daset biyad ke rajebe chiye? Ravanshenasiye, memariye, takhasosiye, omimiye, rasmiye ya mohavereiye…bad…. Bayad jomle jomle matno bekhuni va bebini to har jomle che itemi kame; feal, fael, maful, harfe ezafe, yani dar vaghe tashkhis bedi un ja khali bayad joze kodum taghsimbandiye grammeri bashe, esme, feale,sefateya…. Bad yeki dota az gozine ha hazf mishe injuri mage na?

(well, to answer a cloze item, I think, firstly, you should read the whole text once to reach to a general view about the text, whether it is psychology, architecture, technical or general, formal or conversational…then….you should read the text sentence by sentence and identify the missing item in each sentence; verb, subject, object, preposition… in fact you should determine the missing word's grammatical category; should it be a noun, a verb, an adjective or… one or two of the choices can be eliminated in this way? Yes?)

Subj: bale ostad.

(Yes, teacher)

Teach: bad beine 2, 3 gozineye mojud ba tavajoh be matn va jomalate ghablo badesh ke az che noa kalamati estefade shode, yeki az gozineha ro alamat bezani.

(Then among 2, 3 choices left, on the basis of the text and the sentences before and after, by considering the type of the used words, mark one of the choices)

Subj: say mikonam.

(I will try to do so.)

Teach: in raho to emtahane badi emtahan kon, …bebinim che natijei dare….movafagh bashi.

(Apply this technique in your next exam,… we will see the results….good luck.)

Subj: daste shoma dard nakone ostad.

(Thanks a lot, teacher.)

And subject 2 acknowledged that "matching" items had drastically spoiled his performance in the exam;

Subject 2

Teach: fek mikoni bishtarin zafet koja bud?

(Where was your weakest point, you think?)

Subj: inke hamkhanevade peida konamo, match konamo, kalamato inaro…

(The finding and matching derivatives…)

Teach: Matching?

(Matching?)

Subj: Are, matching…

(Yeh, matching.)

Teach: to ghesmate matching shoma az10 ta soal faghat 2 ta ro zaheran…

(In matching part, it seems that you've answered just 2 out of 10…)

Subj: Are,..maniyaro mifahmam vali inke ba kalamate dige matcheshun konam sakhte baram.

(I understand the words but it's difficult to match them with others for me.)

Teach: besyar khob, shoma bara javab dadan be soalate matching chikar mikoni?

(Well, what do you do for answering matching items?)

Subj: rastesh miamye kalama ro in var mikhunam bad miram donbale kalame un var migardam, bad beine 2, 3 ta shak mikonam,…hich kodumo entekhab nemikonam, vel mikonam, beine 2 ta shak mikonam hamishe.

(Well, I read the words in the first column then I search for the related word in the second column, I doubt 2, 3 choices, and mark none finally. I doubt always.)

Teach: khob, fek nemikoni ke behtare masalan, aval rabeteye kalamato peida koni, masalan, bebini,…dar vaghe in 2 ta setun kalamate ham khanevade hasten, kalamate ham mani hasten, kalamate motazad hasten, in juri, ….fek nemikoni behtar bashe? …bad yeki yeki kalamato bekhuni va donbale kalameye mortabetesh to setune dovom begardi?

(Well, don't you think that it's better to find the relation of the words in the column; whether they are one another's derivatives, synonym, or antonym,…. not better?....then read the words and find the relatable item in the second column one by one.)

Subj: …mani ro to jomle behtar mifahmam.

(I understand the meanings of the words in sentences better.)

Teach: khob bara har kalame ye jomle to zehnet besaz…..rabeteye kalamato mituni tashkhis bedi?

(Well, make a sentence for each word in your mind…Can you identify the relation of the word of the two columns?)

Subj: rastesh na.

(Not, really.)

Teach: khob,avalin kari ke bayad bokoni, in eke rabeteye kamate 2ta setuno peida koni,…bad to zehnet barashun jomle besazi, bad kalamate motenasebo beham vasl koni.

(Well, as your first job, you should find the relation of the words in two columns, then, make a sentence for the words you can not remember their meanings, and finally, match the words properly.)

Subj: shayad mtahan nakardam.

(May be, I have not tried it.)

Teach: merci, movafagh bashi.

(Thanks, good luck.)

I addition to item-referenced problems, subjects with affective problems were also provided with some advice. For example, subject 4 who suffers from motivational problems was asked to create some internal motivations, as illustrated below.

Subject 4

Subj: angize nadaram, alaghe nadaram be Englisi, be nazare man zarurati nadare ke ye seri loghat hefz konam bidalil.

(I have neither motivation nor inclination to learn English, in my opinion, it is unnecessary to memorize a series of words.)

Teach: fek nemikoni ke dunestane Englisi bad be karet miad, bara edame tahsilet,…ina barat moham nist?

(Don't you think that knowing English can help you later, for continuing your education….aren't these important for you?)

Subj: chera,…moheme…..vali hich vaght alaghe nadashtam yad begiram.

(Sure they are, but I was never interested in learning English.)

Teach: ta key mikhay bi angize bashi? Zamani aya khahad resid ke to ba in dars ashti koni?

(Till when do you want to be indifferent? Will the time of peace-making with English come?)

Subj: hatman, ….un zaman ziad door nist

(Definitely, that time is not remote.)

Teach: ye emtahane dige azat migiram….to in modat,bishtar be in fek kon ke movafaghiyate tahsilit be dunestane Englisi gereh khorde… be khosus age ghasd edame tasil dashte bashi, ..be in fek kon ke che rahimituni peida koni ke be khodet bishta komak koni.

(I will give you another test…till that time, think about your success which is joined to English knowledge, particularly if you want to continue your education, think of a way of helping yourself more in this case.)

Sunj: bale hatman

(Yes, certainly.)

As the interviews finished the subjects were asked to take the previous exam again after 15 days. The results of the second administration of the test which are analyzed both individually and collectively are presented in the next section. Since the temporal distance between the two administrations was only 15 days in which no drastic cognitive maturation is possible, any improvement can be known as the effect of teacher/researcher oral mediation.

4. Data analysis

In this part, the subjects' secondary scores are analyzed both collectively and individually.

4.1 Collective analysis:

The subjects' means of the first and second administrations of the test were compared with the aid of a paired-samples t-test. As it is discernable from Table 2 (*sig* = 0.00, *p*-value < 0.05), the participants performed remarkably better in the second administration of the test after being interviewed by the teacher/researcher about their problems.

Table 2. Paired samples t-test table of first and second administration results comparison

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	Sig (two-tailed)
					Lower	Upper		
Pair 1	EXAM1 EXAM2	-18.7647	4.50735	1.0931	-21.0822	-16.4472	-17.165	.000

The means of participants' performances in two administrations is graphically shown in Figure3. Subjects in question significantly outperformed in the second administration after they were provided with some practical solutions to their presumably significant problems which resulted in their poor performances in English tests generally and the first administration, in particular.

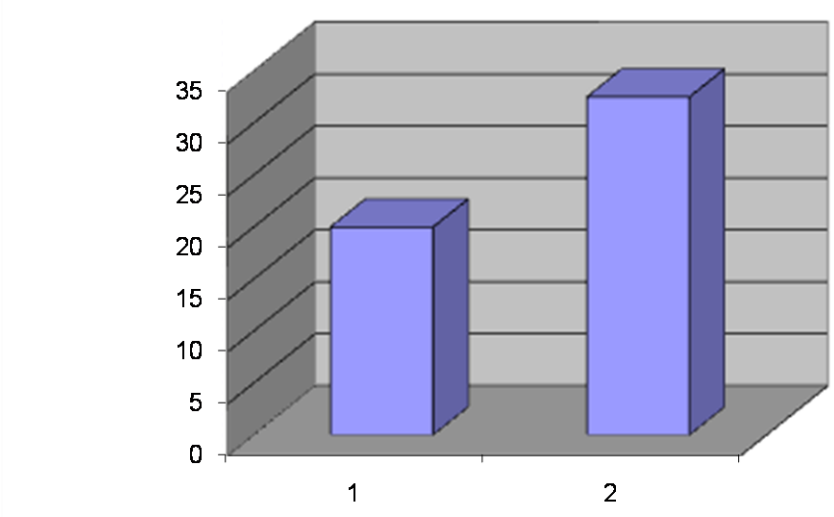

Figure 3- Mean comparison of the participants on two administration of the test

4.2 Individual analysis

As the papers of the second administration were corrected, the teacher/researcher found that all subjects had intriguingly improved their performances. However, one subject (subject 4, with affective problems) received less than half of the total mark again while he increased his mark from 17 to 23. The range of improvements on the second administration was between 5 to 15 marks. Table 3 presents individual differences on the first and the second administration for each subject.

Table 3- Subjects' different performances on two administration of the same test

Subjects	**1st admin.**	**2nd admin.**	**Range of differences**
Subject 1	21	32	+11
Subject 2	21	29	+8
Subject 3	23	36	+15
Subject 4	17	23	+5
Subject 5	19	34	+15
Subject 6	21	33	+12
Subject 7	18	30	+12
Subject 8	13	29	+16
Subject 9	20	42	+22
Subject 10	15	37	+24
Subject 11	11	38	+27
Subject 12	16	34	+18
Subject 13	19	31	+12
Subject 14	14	34	+20
Subject 15	15	31	+16
Subject 16	13	30	+17
Subject 17	14	32	+18

As it can be vividly discerned, the better performance of all subjects on the second administration is determined and shown through numbers both individually and collectively. The researcher just tried to imply the positive undeniable effects of (DA) on subjects' performances; it does not mean that all pedagogic problems _controllable or uncontrollable_ can be solved through teacher's mediation under dynamic assessment approach which is a

manifestation of what Vygotsky calls "dialogue of unequals" in students' zone of proximal development (ZPD).

5. Discussion

Dynamic assessment is described as a subset of interactive assessment that includes deliberate and planned mediational teaching and the assessment of the effects of that teaching on subsequent performance. Its historical roots are traced back to Vygotsky and Feuerstein and rests on four assumptions:

- Accumulated knowledge is not the best indication of ability to acquire new knowledge although the two are highly correlated.
- Everyone functions at less than 100% of capacity; therefore, everybody can do better.
- The best test of any performance is a sample of that performance; therefore, assessment of learning abilities can be accomplished effectively with the use of learning tasks.
- There are many obstacles that can mask one's ability; when the obstacles are removed, greater ability than was suspected is often revealed. Such obstacles include ignorance; impulsivity; impoverished vocabulary; cultural differences in learning habits, styles, and attitudes; poor self-concept as learners; and a host of motivational variables; plus, of course, inadequate development of important cognitive and meta-cognitive structures and strategies. By removing some of those obstacles, one can reveal the ability to function more adequately.

Criticisms of the use of traditional tests of intelligence and achievement to diagnose and treat learning problems have recently reached to a peak. Alert calls for assessment focusing on outcome directly linked to actual skills can be heard throughout the literature related to school psychology, regular education, and special education. The use of less traditional assessment techniques has been advocated as being more useful in assessing strengths and weaknesses and providing feedback regarding progress in meeting specific learning goals.

DA has been shown to be a powerful instrument for evaluating learning potential (Tzuriel, 2001). The advantages of DA over conventional static evaluation are related to several factors. More than with the static test approach, emphasis is given to process variables, high precision in assessing the individual's learning potential, and high accuracy in measuring individual's cognitive abilities and deficiencies and relating them to various educational, and intervention variables. Dynamic assessment, designed to measure a child's learning potential, is a nontraditional approach to assessment which may be useful for working with minority children as well as for conducting assessments directly tied to instructional goals as outlined by the individuals with disabilities.

It will be evident from the comprehensive reach of the socio-cultural perspective, which is the theoretical basis of DA, that the assessment process is part of a very much wider terrain. That terrain involves considering what the purposes of education are considered to be, how education is organized in support of those purposes, and how the system views and provides for the cognitive development of students. The perspective as a whole poses a challenge to some current views of education, such as emphasis on curriculum content without an equivalent emphasis on the processes of learning or on the acquisition of meta-cognitive skills. Moreover, other current educational goals, such as the achievement of inclusive education, pose a similar challenge. Changes to the assessment 'end' of the system should be seen as part of this context

of challenge and undoubtedly will have far-reaching implications. Dynamic assessment is particularly helpful in accounting for variables that may underestimate an individual's ability, such as unfamiliarity with the task, language, or materials. Particularly with bilingual and language minority children, ecological models of cognitive assessment are likely to be helpful (Lopez 1995).

There are a number of ways by which dynamic measures might contribute to educational intervention. These could be considered to fall into two broad groupings:

1. They may be used to provide insights into the unique nature of an individual's learning and reasoning and, in the light of this, to construct with teachers and parents an individually tailored intervention.

2. They may provide a particular profile that is matched by a prescriptive intervention program.

The need for alternative assessment techniques that are appropriate for addressing a culturally and linguistically diverse population of students is both obvious and critical. Unlike within the private sector, those working within the public school system are not able to pick and choose the population of students with whom to work. Therefore, it is imperative that those working within the public school system have appropriate training and expertise to work effectively with students from diverse backgrounds.

Although the concept of DA is not new, it is not yet widely practiced and is still virtually unknown to many psychologists and educators. There are many reasons for this state of affairs, some conceptual and others quite practical. Although what is discussed by the researcher through the study was quite positive, not all is good in the DA world. There are metric problems that have yet to be addressed seriously. The question of reliability is a pressing one, especially given that one sets out deliberately to change the very characteristics that are being assessed. At least a partial solution is to insist on very high reliability of the tasks used in DA when they are given in a static mode; that is, without interpolated mediation. Another persistent problem is how to establish the validity of DA. Ideally, one would use both static testing and DA with one group of children and static, normative ability tests with another group. The essential requirement would be that a subgroup of the DA children would have to be given educational experiences that reflected the within-test mediation that helped them to achieve higher performance in DA. The expectation would be that static tests would predict quite well the school achievement of both the static testing group and that sub sample of the DA group that did not get cognitive educational follow up. Static tests should predict less well the achievement of the DA cognitive education group; in fact, the negative predictions made for that group should be defeated to a significant degree.

References:

Birnbaum, R. & Deutsch, R. (1996). The use of dynamic assessment and its relationship to the code of practice. *Educational and Child Psychology 13(3),*14–24. [Online] Available: http://www. Readinglists.Manchester.ac.uk/items/5DA7BB75-F1A7-27B9-8ED3

Caffery, E. Fuchs, D. & Fuchs, L. S. (2008). The Predictive Validity of Dynamic Assessment. *The journal of Special Education: 41(4),*435-54. [Online] Available: http://sed.sagepub.com/content/41/4/254

Dockrell, J. E. (2001). Assessing language skills in pre-school children. *Child Psychology and Psychiatry Review 6(2):* 74–83. [Online] Available: http://dx.doi.org/10.1017/S1360641701002532

Donato**,** R. (1994). Collective scaffolding in second language learning. *Language Learning 43(1),* 121-129. [Online] Available: http://www. Citeulike.org/user/article 3620615

Enderby, P. & Emerson, J. (1995). *Does speech and language therapy work? A review of the Literature*. London: Whurr publications.

Feuerstein, R. (1980). *Instrumental enrichment: an intervention program for cognitive modifiability*. Baltimore: University Park Press.

Grigorenko, E. L., & Sternberg, R. J. (1998). Dynamic testing. *Psychological Bulletin 124,* 75–111.

Hatch, E. & H. Farhady, (1981). *Research design and statistics: For applied linguistics.* Tehran: SAMT.

Kozulin, A. (1990). *Vygotsky's psychology: A biography of ideas*. London: Harvester Wheat sheaf. [Online] Available: http://www.amazon.com/Vygotskys-Psychology-A-Biography-Ideas/dp/067494366X

Lantolf, J. P. & G. Appel**. (**1994). *Vygotskian Approaches to Second Language Research.* Norwood, NJ: Ablex Publications. [Online] Available: http://books.google.com/books/about/Vygotskian_Approaches_to_Second_Language.html?id=QbB-CGkx4hwC

Lauchlan, F. & Carrigan, D. (2005). *Getting dynamic about dynamic assessment: moving from theory to practice.* Presentation, *IACEP* 10th International Conference: University of Durham, UK.

Lopez, E.C. (1995). Working with bilingual children. In Thomas, A. & Grimes, J. (Eds.), *Best Practices in School Psychology* (pp.1111,1121), Washington, DC: National Association of School Psychologists.

Luria, A. R. (1961). Study of the abnormal child. *American Journal of Orthopsychiatry: A Journal of Human behavior 31,* 1–16. [Online] Available: http://onlinelibrary.wiley.com/doi/10.1111/j.19390025.1961.tb02104

Nettelbladt, U., Sahlén, B., Ors, M. & Johannesson, P. (1989). A multidisciplinary assessment of children with severe language disorders. *Clinical Linguistics and Phonetics 3(4):* 313–46.

Olswang, L. B. and Bain, B. A. (1996). Assessment information for predicting upcoming change in language production. *Journal of Speech and Hearing Research 39*, 414–423. [Online] Available: http://www.ncbi.nlm.nih.gov/pubmed/8729929

Schinke-Llano, L. (1993). On the value of a Vygotskian framework for SLA theory and research. *Language Learning 34(4*), 12-30. [Online] Available: http://onlinelibrary.wiley.com/doi/10.1111/j.14671770.1993.tb00175

Sternberg, R. J., and Grigorenko, E. L. (2002). *Dynamic testing: The nature and measurement of learning potential.* Cambridge: Cambridge University Press.

Tzuriel, D. (2000) Dynamic assessment of young children: Educational and interventional perspectives. *Educational Psychology Review 12(3),* 385–435. [Online] Available: http://www.Springerlink.com/content/t5456344m67564

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. London: Harvard University Press.

Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: MIT Press.