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## The Impact of Dynamic Assessment on Reading Comprehension and Metacognitive Awareness of Reading Strategy Use in Iranian High School Learners

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### Abstract

Dynamic Assessment, with its roots in Vygotsky's theory of mind, takes the integration of assessment and instruction much further by enabling the teachers to promote learners' abilities by continually adjusting their mediation to the learners' changing needs (Poehner, 2008). This study was aimed at exploring the feasibility of development and implementation of dynamic assessment procedure in the areas of EFL reading comprehension and metacognitive awareness of reading strategy. In particular, the effectiveness of dynamic assessment compared with static assessment of reading abilities of Iranian EFL learners was investigated. In order to respond to the research questions of the study, a quasi-experimental research was conducted. The procedure included a pre-test, mediated learning phase, and a post-test. It was applied with 47 intermediate participants. They were all female, mostly aged 15-17, Iranians, L1 speakers of Persian, and high school students learning English in an EFL context. The instruments employed in this study included a PET proficiency test, metacognitive awareness of reading questionnaire, and a reading comprehension test. 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. The findings suggest that DA is an effective means of understanding the learners' abilities and helping them to overcome reading comprehension problems. The approach is especially relevant to classrooms as a method for rendering formative assessment practices more systematically. It is therefore argued that DA should be taken seriously by Applied Linguistic researchers interested in language assessment, teaching, and reading.

**Keywords:** *Dynamic assessment, static assessment, zone of proximal development, metacognitive awareness of reading strategy, reading comprehension ability*

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## 1. Introduction

Dynamic Assessment (DA) has become a significant trend for researchers and theorists over the past years. It's defined as an approach which understands individual differences and their implications for instruction and embeds intervention within the assessment procedure by including appropriate forms of mediation that are sensitive to the individual's current abilities and subsequent performance with the aim of promoting learner development (Lidz&Gindis, 2003). In other words, DA differs from traditional assessment in terms of the theoretical orientation, the assessment procedures employed, and the interpretation of results (Carney & Cioffi, 1992). It is about the relationship between assessment and instruction. More specifically, DA focuses on the evaluation process as well as the product. It attempts to modify the student's performance during testing by introducing material or instructions to elicit higher achievement levels (Embretson, 1987).

Dynamic assessment is designed to investigate how students respond to instruction during the assessment procedure. Therefore, when diagnosing reading problems, the emphasis is on collecting information related to the strategies that are used by the student during the reading decoding process (Carney & Cioffi, 1992). Likewise, the dynamic assessment approach to diagnosing reading problems attempts to identify the student's learning potential as defined by Vygotsky's Zone of Proximal Development.

There are two general approaches to DA, both of which can be traced to the different contexts in which Vygotsky discussed the Zone of Proximal Development. The first is termed interactionist DA. It finds its origins in Vygotsky's qualitative, interpretation of the ZPD one that foregrounds instruction-learning over measurement. The leading advocate of interactionist DA is Reuven Feuerstein (Feuerstein, Rand, & Hoffman, 1979; 1980; 1988; 2003). At the heart of Feuerstein's approach is the Mediated Learning Experience (MLE) – a construct mirroring Vygotsky's understanding of mediation. The second approach to DA and the one the researcher has focused on in this study is referred to as interventionist DA, which tends to follow a quantitative approach, and so lends itself more to a psychometric orientation. It is currently implemented as a pretest-mediation (intervention) – posttest experimental approach. The role of teacher is interactive, collaborating with the student to affect change in the skill being assessed (Lidz, 1987).

The present study deals with the effectiveness of dynamic assessment compared to static assessment of reading abilities. Concerns over “teaching to the test,” “narrowing of the curriculum,” and the “power” that tests have to influence and even control instructional practices suggest that teaching and assessment are generally viewed as separate activities

(Linn, 2000; Lynch, 2001; Moss, 1996; McNamara, 2001; Shohamy, 1998, 2001). At the level of research, testing and pedagogy have emerged as distinct specializations with their own traditions, professional journals, and meetings.

The main problem addressed in this study is that assessment is not in keeping with current knowledge about human cognition and learning. A model of cognition and learning should serve as the cornerstone of the design of the assessment process. Assessing learners' performance, achievement, and outcomes should be based on current scientific understanding of how pupils represent knowledge and develop competence.

## **2. Review of the Related Literature**

Dynamic Assessment (DA) is based on Vygotsky's (1978) Zone of Proximal development, which suggests that different people can have the same baseline score on a static test but differ in the extent to which they can profit from instruction. DA is no longer a new approach to psychological and educational assessment; in fact, some of its current applications have been around for more than a half century (Feuerstein, Jeannet, & Richelle, 1953; Guthke & Wingenfeld, 1992). Haywood and Lidz (2007) explain that DA is not a single method of assessment, but refers to a wide range of practices that depart from traditional, or non-dynamic assessments (NDA) by including intervention and learner responsiveness to intervention as essential elements to understand the learner abilities.

Although DA is new to Applied Linguistics, there have been some studies that have explored the applications of these procedures to L2 instructional contexts. Some of these have fallen short of the mark by losing sight of what makes a procedure dynamic. This was the case with the research reported by Grigorenko, Sternberg, and Ehrman (2000) on the CANALF-T. Other studies have been more successful. For example, Kozulin and Garb (2002) developed an interventionist approach to DA that they are currently using with adult immigrants studying EFL. The results of their study indicate that the procedure is both feasible and effective in obtaining information on students' learning potential. It is confirmed that students with a similar performance level demonstrate different, and in some cases dramatically different ability to learn and use new text comprehension strategies. One interesting aspect of their work is the manner in which they report the outcomes of the DA procedure. Rather than generating a qualitative report of each learner's performance for all stages of the study, they presented the learners' abilities with a single score which they

themselves called Learning Potential Score (LPS) which is the difference between the learner's pretest and posttest scores.

In a comprehensive review of the application of DA to educational settings, Haywood and Lidz (2007) assert that "Campion and Brown (1990) have been pioneers in their attempts to assess specific academic domains in the framework of DA" (p. 77). Lantolf and Thorne (2006) believe that the entire body of research in this new avenue of research includes only few studies that focus on L2 learners or bilinguals. They begin their review with the work of Pena and Gillman (2000) (as cited in Lantolf & Thorne, 2006) who investigated the children's reasoning through DA. The second study which they refer to is that of Anton (2003) which uses DA as a placement procedure. Participants were asked to construct orally a past-tense narrative after watching a short video clip. This time the learners received no feedback or mediation. They were then shown a second clip and asked to repeat the task, but this time with the help of a mediator who offered suggestions, posed questions, made corrections and helped them think through decisions making. After approximately six weeks of instruction, the participants were re-administered the original independent and mediated narration tasks in order to check their progress.

Poehner (2008) also conducted a series of extensive DA case studies examining oral proficiency among advanced undergraduate learners of French. Of other examples of the direct application of DA to the domain of language, we can refer to the works of Roseberry and Connell (1991) and Jacobs (2001). The results of former study indicated that addition of intervention was effective. The results of the latter study also showed that inclusion of a dynamic component to preschool program developed the knowledge of preschool children. Bendar and Kletzian (1990) applied a pretest-intervention-posttest format to 29 students from grade 9 to 12 and they saw development in their reading.

Another study is that of Ableeva (2007) who used a DA procedure in assessing listening comprehension of university level L2 learners of French which uncovered the source of comprehension problems. He found that in one case student shifted to a single lexical item and in another one to cultural knowledge. This revealed that learners' abilities were more developed than one would have surmised from unmediated performance.

From the background provided in this literature review, a number of conclusions can be reached. Traditional assessment of reading is inconsistent with current knowledge about reading and provides limited information for developing appropriate instruction. DA is an alternative to traditional assessment that involves the interaction between the examiner and student in the evaluation process. DA has characteristics that show its potential for evaluating

reading disability in a way that is consistent with current knowledge in the field of reading. It also can provide information useful for developing individualized reading instruction.

Despite the contribution of the aforementioned studies, there are still very few studies examining the relationship between reading and dynamic assessment. A more detailed account of the students' strengths and weaknesses can be provided by using a dynamic assessment approach to assess their reading abilities. This information would lead to more effective instructional programming during remediation, resulting in improved reading abilities for the student.

Moreover, evaluating the effectiveness of the DA techniques can help teachers make better decisions in their classes and result in more successful English learners. DA is an effective means of understanding learners, helping them to overcome the linguistic and cognitive problems. By the same token, the purpose of this study was to determine the usefulness of DA for the evaluation of high school students' reading comprehension, further, to examine the level of Meta-cognitive Awareness of Reading Strategy required to improve the students' reading skills in an Iranian context. Overall, it is expected that DA can provide more precise and detailed information about reading comprehension skill than traditional assessment for Iranian learners. Accordingly, in order to determine the impact of mediation in DA on the students' reading comprehension ability and levels of metacognitive awareness strategy use, the following questions were formulated.

1. Does mediation in DA lead to better results in Iranian high school students' reading achievement?
2. Does dynamic reading assessment compared to static reading assessment lead to higher levels of meta-cognitive awareness strategy use on the part of high school students?

### **3. Theoretical Framework of the Study**

There are several approaches to dynamic psycho-educational assessment which differ in how they approach mediation (Poehner, 2008; Thouésny, 2010). This interventionist DA study took advantage of Grigorenko & Sternberg's cake and sandwich formats (Sternberg & Grigorenko, 2002). The former is more integrated, offering mediation throughout the administration of the assessment, whereas the latter has a form similar to traditional assessments (Poehner, 2008), the pretest-intervention-posttest format. In this approach to DA, intervention is similarly "sandwiched" between a statically administered pre-test and post-

test. The performance on the post-test can then be compared to the pre-test in order to determine how much improvement an individual made as a result of the intervention. Sternberg and Grigorenko (2002) also point out that these procedures can be administered in either an individual or group setting. In individualized procedures the mediation may also be individualized, while in group procedures the mediation tends to be the same for everyone.

## **4. Methods**

### **4.1 Participants and Research Settings**

Forty-seven intermediate students out of a population of 70 English language learners whose score were one standard deviation (SD) above the mean and one SD below the mean (based on the participants' PET scores) were chosen and randomly divided into two groups of control and experimental, 23 students in the experimental and 24 students in the control group. The participants of this study were female high school students about 15-17 range of age learning English in "Fetrat" Language Institute. To control for the differences attributable to nationality and first language, all participants in this study were Iranians and L1 speakers of Persian. The both groups received instruction six hours (or 3 sessions) per week for eighteen sessions.

### **4.2 Instrumentation**

The instruments employed in this study included a PET proficiency test, metacognitive awareness of reading questionnaire, and a teacher-made reading comprehension test. It has to be stated that these instruments were used to answer the questions of the study; moreover, to control some variables which might affect the reliability and validity of the study such as the PET proficiency test, and consequently influence the result of the study. The development of the instruments and the manner in which they were intended to assemble data as to the variables of the study are described in the following section.

#### **4.2.1 PET (Preliminary English Test)**

In order to determine the homogeneity of groups, a sample of PET proficiency test (Cambridge ESOL Examinations, 2003) was used as a screening test at the outset of the study. This test has been composed of two parts: Reading and Writing. The reading includes five parts with 35 multiple-choice items providing simple written information such as signs, brochures, newspapers, and magazines. The writing section, on the other hands, consists of three parts with 16 items that the students were asked to do sentence completion, provide

specific information, and write a letter with the word limit of 100 words. It is important to note that the researcher used just two skills of the PET exam, i.e., *writing* and *reading*, which are relevant to the purpose of the research. The listening section was not administered due to the impracticalities involved.

#### **4.2.2 Meta-cognitive Awareness of Reading Questionnaire**

A metacognitive awareness of reading questionnaire was used as a tool for identifying the students' meta-cognitive awareness and strategy use while reading. The degree of metacognitive awareness of reading strategies of the participants was determined based on their responses to the Persian version of metacognitive awareness of reading strategy questionnaire, which taps metacognitive awareness and perceived use of reading strategies while reading for academic or school related materials. This questionnaire was originally developed and validated for adult native speakers by Mokhtari and Richard (2002), which entails three strategy subscales or factors; a) global reading strategies, b) problem solving strategies, and c) support reading strategies. These three types of strategies (i.e., global, problem-solving, and support strategies) interact with each other and have an important influence on text comprehension. Responses are based on a 5-point likert-type scale ranging from 1 (almost never) to 5 (almost always) revealing the degree of strategy use. Respondents had 10 minutes time to complete the questionnaire which was administered twice, once after the pretest and once after the posttest.

#### **4.2.3 Teacher-made Reading Comprehension Test**

The third testing instrument was a teacher-made reading comprehension test which was designed and given to the participants twice, using the test-teach-test paradigm discussed before. The test consisted of six passages with some reading comprehension questions provided for each section. The whole test comprised 30 multiple-choice items. In order to determine its reliability, the test was piloted on a 20-student sample of intermediate level studying at "Fetrat" Language Institute. Based on their scores, the item facility, item discrimination, and reliability analysis were calculated and some items were added, revised, or omitted.

#### **4.2.4 Strategies Booklet**

The participants of experimental group underwent 17 dynamic assessment sessions before the post-test. During the treatment period, the researcher strived to provide the necessary

assistance and guidance appropriate for test-takers' ZPD to meet the conditions of DA. To provide the right mediation for the experimental group, the skills and strategies used for the mediation phase were taken from reading comprehension tests and the students' studying course book entitled *Interchange3* by Richards, Hall, and Proctor (2005). The researcher designed booklet consists of these strategies:

- Scanning
- Skimming
- Identifying Main and Detail Ideas
- Guessing the Meaning of the Words from the Context
- Identifying References
- Making Inferences

For each of these strategies a definition, examples needed, and focused activities were provided to help learners focus on the strategies required for developing their reading comprehension. That is the mediator, i.e. the researcher of the study, provided the same hints for all the learners focusing on the above-mentioned reading strategies but to adjust it to their ZPD the hints were provided from the most implicit to the most direct and explicit. Thus, after each reading item or during the completion of a reading task, the learners were given feedback in the form of a graded set of standardized hints ranging from implicit to explicit. The mediator could then calculate the number and type of hints and strategies required by the learners in order to respond appropriately to the particular item. If the students couldn't respond an item correctly after reading all the hints provided, it would mean that the scope of the question is beyond his/her ZPD. That is that ability was neither developed nor developing in their cognitive system. However, if the strategies and hints helped them to answer the item correctly, it was concluded that their ability was developing.

#### **4.3 Data Collection Procedures**

In order to carry out this study, seven steps (i.e., piloting the teacher-made test, homogenizing the participants by using the PET exam, pre-testing, administering the metacognitive awareness of reading strategies questionnaire, conducting treatment, post-testing, and read ministering the metacognitive awareness of reading strategies questionnaire after treatment) were taken as follows:

*Stage 1. Pilot Study:* Before carrying out the main study, a pilot study was carried out in order to examine some of the basic factors affecting the research. The pilot study was



done on the students of one class (20 students) who were at the same proficiency level, as the participants of the main study, and were somehow identical in terms of the materials used. Internal consistency reliability of the reading comprehension test and the questionnaire's items were measured 0.75 and 0.94 by KR-21 and Cronbach Alpha coefficient which can be interpreted as acceptable and high reliability indices for both the reading comprehension test and the questionnaire.

*Stage 2. Homogenizing Process:* A PET proficiency test was administered to 70 subjects before the study to ensure that the participants in each group were homogenous with regard to their English proficiency level. Based on their scores, those subjects who obtained scores within the range of one standard deviation above and one below the mean participated in this study. The qualified participants (n=47) were randomly divided into the Experimental and Control Group with 23 participants in the experimental and 24 participants in the control group.

*Stage 3. Pre-test Administration:* Before starting the mediation stage, the teacher-made static reading comprehension test was administered to the learners of both groups to check the level of achievement before the treatment. Furthermore, a Meta-cognitive Awareness of Reading Strategies Questionnaire was used as a tool for collecting information about the students' meta-cognitive awareness strategy use while reading. This questionnaire was administered twice, once after the reading comprehension pretest and once after the reading comprehension posttest.

*Stage 4. Treatment (Mediation):* In this stage, treatment was conducted by the teacher. The treatment conditions of the study were operationalized for the students of the experimental group. The mediation used in this study was based on the principles of interventionist DA. It included 15 minutes of intervention in the classroom which went on for eighteen sessions. It was conducted the session after the pre-test, based on the pre-test material, their course book objectives, and analysis of the required pre-existing knowledge and strategies. The goal was to make the learners more aware of the strategies required for better comprehension. In contrast, the students of the control group received no treatment just the method of the language school.

*Stage 5. Post-test Process:* At the end, after treatment was conducted, a post-test of the teacher-made reading comprehension test was administered to see how the students had benefited from this kind of instruction, i.e. the mediation. The control group also received the test and metacognitive strategy questionnaire, although they had no meditation. In fact, no feedback or instruction was provided for the participants of the control group after doing the

test. It is important to note that the control group was the static test group of the study. In sum, the test and questionnaire were assigned to the students to compare their meta-cognitive knowledge and reading comprehension achievement.

## 5. Data Analysis

In order to respond to the research questions of the present study, the collected data was analyzed in the following way. The quantitative component of the study using SPSS version 20 software package for statistical analysis in social sciences included a summary of the basic descriptive statistics of the PET scores, the pre-test and post-test scores, the reading comprehension in the experimental and control groups, and running two independent sample t-tests to identify the difference between the two groups in terms of their gain scores. In fact, gain scores were calculated for both groups to determine if the students in the groups made any improvement from their pretest to posttest. More importantly, the analysis was done to either reject or confirm the null hypotheses of the study.

## 6. Results

### 6.1 Descriptive Statistics of the Groups' Pretest and Posttest Reading Scores

The participants of both the experimental and control group took the teacher-made static reading comprehension test which served as the pre-test and posttest. In this section, the changes made by the learners participating in the study in their reading test performance is described. Table 1 shows the basic descriptive statistics of the two groups' pretest and posttest scores on the teacher-made static reading comprehension employed in this study. This table reveals the mean scores, standard deviation, and standard error of mean of the experimental and control group.

**Table 1.** Descriptive Statistics for the Participants' Reading Comprehension in the Pre-test and Post-test Phase

	Group	N	Mean	Std. Deviation	Std. Error Mean
PRETEST	EXPERIMENTAL	23	18.00	3.83	.80
	CONTROL	24	16.88	4.23	.86
POSTTEST	EXPERIMENTAL	23	26.30	2.28	.47
	CONTROL	24	17.71	2.98	.60

Low means for both the experimental and control group that are 18 and 16.88 respectively, indicate that the participants were not that much tactful in reading comprehension at their pre-

test. On the other hand, the results of such calculations carried out in this study indicate that the mean score of the participants in the experimental group has changed to 26.30 at the post-test. It seems that a big gain in reading scores indeed occurred in the experimental group. However, the mean score of the learners in the control group at the pre-test was 16.88 that changed to 17.71 at the post-test.

## 6.2 The Results of Independent Sample T-test Used for Investigating the First Research Question

To detect the mean differences in terms of treatment effect, an independent sample t-test was computed to compare the experimental and control groups' mean scores on the posttest of reading comprehension. Table 2 reports the results of the independent sample t-test for the groups' post-test scores.

**Table 2.** Independent T-test for the Posttest of Reading Comprehension by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	2.65	.11	11.05	45	.00	8.59	.77	7.02	10.16
Equal variances not assumed			11.114	2.94	.00	8.59	.77	7.03	10.15

It should be noted that the assumption of homogeneity of variances is met (Levene's  $F= 2.65$ ,  $P> .05$ ). That is why the first row of Table 2, i.e. "Equal variances assumed" is reported. The results of the independent t-test ( $t= 11.05$ ,  $P< .05$ ) indicate that there is a significant difference between the experimental and control groups' mean scores on the posttest of reading comprehension. Thus, the first null-hypothesis is rejected. The results suggest that when students have strategy training for dynamic assessment, they statistically display higher achievement in reading than having just assessment with no special mediation.

## 6.3 The Results of Independent Sample T-test Used for Investigating the Second Research Question

In order to examine the second research question, a comparison was made between the mean scores of the experimental and control group based on their scores of the metacognitive questionnaire by running an independent sample t-test at two various points in time (i.e. pretest vs. posttest). The results are presented in the following Table.

**Table 3.** The Result of the Independent T-test of Differences across Two Groups for Reading Strategies

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	6.82	.01	1.29	45	.20	3.83	2.97	-2.11	9.78
Equal variances not assumed			1.2948	63	.20	3.83	2.97	-2.13	9.80

It should be noted that the assumption of homogeneity of variances is not met (Levene's  $F = 6.82$ ,  $P < .05$ ). The results of the independent sample t-test ( $t = 1.29$ ,  $P > .05$ ) reveal no statistical significant effect for the dynamic assessment of reading comprehension with higher levels of metacognitive strategy use on the part of high school learners; thus, the second null hypothesis is supported. The results could put us on a safe ground to claim that even when the students were given the opportunity for metacognitive awareness in their mediation, they statistically displayed no higher levels of metacognitive strategy use compared to being solely exposed to static reading.

## 7. Discussion of the Findings

As Lidz (1991) noted, "to merely describe the learner's performance does not allow us to draw conclusions or to derive recommendations" (p.24). Assessment information should make it possible to reveal the reasons for the learner's poor functioning, as well as to recommend efficient remediation.

To this end, the current study was undertaken to find out the facilitative effect of dynamic assessment intervention focused and its impact on the reading comprehension of Iranian high school EFL learners. The findings revealed that DA procedures had a significant and meaningful effect on the ease and feasibility of L2 reading comprehension achievement.

The implication is that learners can benefit a lot from a DA-based mediation and that teacher intervention can be very instrumental in the process of L2 reading comprehension and changing the reading behaviors through the mediated lesson. The results of the study do suggest that neither DA nor static test procedures, which are the typical of most assessment approaches in EFL programs, offer a chance for language learners to further develop their level of understanding and awareness.

In this section, the discussion of the findings of the study is presented. As indicated earlier, the results of data analysis rejected the first null hypothesis of the study while the second one was supported. The findings support the theory that dynamic assessment of reading abilities is a valid method of observing reading behavior. It complements static assessment by providing more elaborate information regarding the student's reading profile. Likewise, the results confirm the findings of earlier studies and are in line with the literature review.

The first null hypothesis, which predicted that mediation in dynamic reading assessment procedure that includes strategy training does not lead to better results in high school learner's reading achievement, was rejected by the result of this study. This result supports what Haywood and Tzurial (2002) have extracted from several conclusions of DA studies. Test performance improves after teaching or mediation; this issue is shared by almost everyone who has done research on DA. Moreover, the mediation of logical strategies leads to greater performance improvement. Some researchers have systematically compared the relative effectiveness of different intervening activities, including planned meditational teaching and the assessment of the effects of teaching on the participants' performance, with no intervening activities between pretests and posttests. Almost always mediation leads to greater performance gains (e.g., Burns, 1991; Kester & Pena, 2001; Missiuna & Samuels, 1989).

Moreover, the second hypothesis which predicted that dynamic reading assessment compared to static reading assessment does not lead to higher levels of metacognitive strategy use in high school students was supported by the result of this study.

According to the findings of Kletzien and Bendar (1990), specific strategies can help children to overcome their reading comprehension problems. The findings of the study did not demonstrate the same conclusion. The strategy analysis of the participants' performance of the study indicated that dynamic assessment did not help them to activate the strategy that allowed them to predict what was going to happen in the next paragraph. It was not in line with the idea of Clarke and Silberstein (1977) who concluded that second language learners

needed some cognitive strategies such as guessing from the context, defining expectations, making inferences from the text, skimming, and to read more effectively.

What can be concluded from the results of the MARS (Metacognitive Awareness of Reading Strategy) questionnaire is that students with a higher MARS score are not necessarily more aware of the metacognitive reading strategies. Moreover, we cannot tell from the scores whether or not students actually employed the strategies they reported that they used. Based on the students' reactions to the metacognitive awareness guidance and by the students' achievement in the reading assessment tests, we can conclude that metacognitive awareness guidance does not cause learners engagement nor does it influence their learning processes, performance, and level of achievement in the tests. Hence, dynamic assessment which includes metacognitive awareness, does not raise the learners' level of achievement, nor does it signify better performance, and good progress.

The overall results of this study reveal that dynamic assessment has a major influence on reading comprehension. Similarly, the body of research specific to dynamic assessment in applied linguistics is relatively small, but positive. The findings of this study support the hypothesis that dynamic assessment is not a replacement for static assessment, but a procedure which complements traditional methods of assessing students. By using dynamic assessment procedures with standardized test instruments, we can gain more insight into the reading profile of the student. Therefore, this can be advantageous to the assessor, because the results of dynamic assessment in reading can provide information for instructional programming. Most importantly, it is the student who can profit most from dynamic assessment because their reading abilities can be more accurately assessed which can in turn lead to higher level of reading performance. By the same token, the researcher can affirm that the paradigm of dynamic assessment is useful in the domain of EFL learning but not in the field of general cognitive performance.

## **8. Conclusions and Implications**

The results of this study revealed that dynamic assessment had a significant effect on promoting the student's achievement in reading. It was also indicated that students who had benefited from dynamic assessment had a higher gain score of reading compared with the students who did not experience the mediated system. These results lend more empirical support for the dynamic assessment approaches.

The central finding of the study was that the dynamic procedures unified instruction and assessment as a single activity. The assessor actively intervenes during the course of the

assessment with the learner with the goal of intentionally making changes in the learner's current level of independent functioning. The assessment focuses on the learner's processes of problem solving, including those that promote as well as obstruct successful learning. The results of this study revealed that mediation led to improved performance, but not the learners' enhanced understanding of the processes underlying that performance. Therefore, the findings of this study are in support of Haywood and Lidz (2007) who explained that DA is an interactive procedure that systematically and objectively measures the degree of change that occurs in response to cues, strategies, feedback, or task conditions that are introduced during testing. Intervention techniques are embedded within assessment procedures in a deliberate effort to produce changes in performance that are systematically observed and measured. In contrast to static assessment, dynamic assessment focuses on individual variations and changes rather than the comparison to normative or typical performance. The goal is to measure how and to what extent performance can improve with guidance.

However, what the present study indicates is that, within the classroom setting in which time is limited, DA may not be sufficient for developing the learners' meta-cognitive awareness of reading strategy use; other forms of assistance must be put into place to allow for higher metacognitive awareness. One area of investigation to address this limitation might involve varying the types of tasks that students are given during mediation in a way that leads to broader conceptual understandings rather than simply task compliance and completion (Davin & Donato, 2013).

The instructional value of dynamic EFL assessment lies in the fact that its results can be used for the development of individual learning plans for students with different learning needs. Furthermore, having in mind that the purpose of testing is to evaluate the teaching program and the improvement of the learners, this study inspires the test developers to bring about changes in testing, developing tests to affect the quality of teaching as well as improving the students ability to be creative in their performance on tests. Along with the development of teaching and testing for improving the quality of educational curriculum, the use of the related materials shouldn't be overlooked in view of the fact that the materials developed are of great importance in any classroom. On the basis of the results of this study, the materials developers for reading course or workshops can concentrate on the learners' needs to make language courses more relevant to their needs.

Although this study firmly supported the positive role of dynamic assessment intervention-based regarding L2 reading comprehension development, there is a need for further studies to be commissioned not only in the area of L2 reading comprehension, but

also in all other language skills and sub skills, with learners of different proficiency levels to better reveal the relative share of DA-based mediation in the accomplishment of the most important concern in education, i.e. learning.

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