Dynamic Assessment in Developing EFL Learners' Depth of Vocabulary Knowledge through Critical Reading

(Pentaksiran Dinamik dalam Membangunkan Kedalaman Kosa Kata Pelajar Bahasa Kedua melalui Pembacaan Kritikal)

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ABSTRACT

The emergence of dynamic assessment (DA) in applied linguistics has opened new horizons in second language acquisition (SLA) and language assessment. This quasi-experimental study determined the effect of DA in fostering Iranian EFL learners' depth of vocabulary knowledge through critical reading. A total of 61 upper-intermediate EFL learners were selected as participants and were randomly divided into treatment group (DA, n = 31) and control group (non-DA, n = 30). A vocabulary Scholastic Aptitude Test (SAT) was administered non-dynamically to both groups as pre-test. Mediation programs which included Enrichment Program and assessment sessions were held within six weeks. Graduate Prompt Approach was used as a mediation procedure in the DA group. After receiving six mediation sessions, the same test was administered dynamically as a post-test to the DA group and non-dynamically to the non-DA group. One month onward, far transfer assessment test was done via DA procedures to the DA group. The results of independent t-test, one-way ANOVA, and Pearson Correlations indicated that there was a significant difference in scores between the DA and non-DA groups. Findings indicated that the mediation program and DA procedures enriched the students' depth of vocabulary knowledge. This study suggests that DA procedures can help lackadaisical learners to promote their language competency.

Keywords: Critical reading; depth of vocabulary knowledge; dynamic assessment; enrichment program; mediation

ABSTRAK

Kemunculan penilaian dinamik (DA) dalam linguistic terapan telah membuka arena baru dalam penguasaan Bahasa kedua (SLA) dan penilaian bahasa. Kajian kuasi-eksperimen ini menentukan kesan DA dalam membina kedalaman pengetahuan kosa kata para pelajar EFL Iran melalui bacaan kritis. Seramai 61 orang pelajar EFL pertengahan atas dipilih sebagai peserta dan dibahagikan secara rawak kepada kumpulan rawatan (DA, n = 31) dan kumpulan kawalan (bukan-DA, n = 30). Aptitude Scholastic Test (SAT) kosa kata diberikan secara tidak dinamik kepada kedua-dua kumpulan sebagai ujian-pra. Program pengantaraan termasuk Program Pengayaan dan sesi penilaian telah diadakan dalam masa enam minggu. Pendekatan Promosi Graduan telah digunakan sebagai prosedur pengantaraan dalam kumpulan DA. Selepas menerima enam sesi pengantaraan, ujian yang sama diberikan sebagai ujian-pasca secara dinamik pada kumpulan bukan-DA dan secara dinamik kepada kumpulan DA. Sebulan kemudian, ujian penilaian pemindahan jauh diuji melalui prosedur DA kepada kumpulan DA. Hasil ujian-t bebas, ANOVA sehala, dan korelasi Pearson menunjukkan bahawa ada perbezaan signifikan dalam skor antara DA dan kumpulan bukan-DA. Dapatan menunjukkan bahawa program pengantaraan dan prosedur DA memperkayakan kedalaman pengetahuan kosa kata pelajar. Kajian ini mencadangkan bahawa prosedur DA dapat membantu pelajar yang kurang mampu untuk menambah baik kecekapan bahasa mereka.

Kata kunci: Pembacaan kritikal; kedalaman pengetahuan kosa kata; pentaksiran dinamik; program pengayaan; mediasi

INTRODUCTION

Testing and assessment are inextricable aspects of a teaching process; and one of the major concerns of teachers is knowing whether knowledge has been transferred to the students and how they can mirror in their students' real learning situation (Chan 2006). Most static assessments that are analogous to traditional assessments tended to measure learners' true scores or their current existing ability (Feuerstein et al. 1979). Lantolf (2013) claimed that in traditional assessments, the intrusion of someone else into the process is proscribed because it introduces an error factor, while in Dynamic Assessment (DA), the intrusion (known as mediation) is required. One of the main criticisms laid against this static type of assessment is that learners' performance cannot be assumed as static. As Feuerstein et al. (2010) contended, human beings do not have inborn talent with an uncanny ability that remains permanent throughout their lives. In fact, there is always a potential for change, through providing mediation in an appropriate learning environment.

With the emergence of DA in applied linguistics, new horizons have opened in second language acquisition (SLA), particularly in language assessment, in which assessment

took a more process-oriented nature and tended to focus on the fluid ability of the students rather than focus merely on their already existing abilities. According to Lantolf and Poehner (2014):

> This work has emphasized the dialectic integration of assessment with teaching through teacher-learner interactions during which mediation is negotiated for learners to optimally contribute to activities and for mediators to gain insights into learner abilities necessary to guide their efforts to move development forward.

Therefore, DA is supposed to be a much stronger replacement for the static assessment technique, especially when it comes to measure learners' language abilities.

Regarding the utility of reading skills in EFL, it seems that the standardized psychometric test (i.e. static test) has also malfunctioned to assess reading ability properly among poor test takers, according to several critiques. First and foremost, Camilleri & Botting (2013) critiqued that: In static assessment, all instructions are usually confined in the first phase of guiding through the modality of response. The objective of static assessment is to achieve a measure of an examinee's independent performance on a specific scope of the time.

Second, according to Kozulin and Garb (2002), considering the fact that the results of the static assessment indicate to us the Zone of Actual Development (ZAD) – the current competency level of the student – analysing the Zone of Proximal Development (ZPD) – the potential next competency level – could evaluate the capability of the students to learn from peers or more knowledgeable others (MKO) via interactions. This kind of assessment or analysis may provide a better forecast of the students' educational needs than the static assessment. By the same token, learners can promote their linguistic ability via interaction with MKO among their peers.

Third, Swanson and Lussier (2001) claimed that static assessment has been questioned for the glaring inadequacy of understanding the whole capability of the student and lacking sensitivity towards so-called poor students (Pena et al. 1992; Utley et al. 1992) and students with lack of abilities (Lidz 1987). Ironically, traditional assessment is often utilized to recognize and determine low-achieving, at-risk learners. Due to floor effects, scores on static assessment tests are complicated to interpret for low achieving students (Lidz 1987).

DA differs from other forms of traditional assessment with the presence of the mediation in the assessment process. In DA, learning is amalgamated with assessment, which means that the learners receive feedback (mediation) from the assessor during the process of assessment. The assessor's (mediator's) responsibility is to assist the learners in developing their cognition through providing constructive mediation.

DA is rooted in the theory of development outlined by the renowned Russian psychologist, Lev Vygotsky. As far as Vygotsky's (1978) perspective is concerned, what an individual can do autonomously only represents a small portion of her considerable ability, for the individual can have the next-level capability with a MKO present to assist him/her. Vygotsky described the gap between what an individual can do autonomously and what he/she can achieve through mediation as ZPD (Khonamri & Kazemian 2016). DA, which is the pedagogical instantiation of the ZPD, emerges naturally from the dialectical perspective. Lantolf (2012) stated that DA merges teaching and assessment into a single pedagogical unit.

In DA, there are two approaches, namely the interactionist and interventionist approach. These two approaches that were proposed by Lantolf and Poehner (2004) have direct links with their methods of research methodology. Interventionist approach is more or less analogous to quantitative research paradigm and what Sternberg and Grigorenko (2002) called "Dynamic Testing," which delimits DA practices by favouring the word "testing" to "assessment" (Lantolf & Poehner 2014). Interactionist approach is akin to qualitative approach and in line with Minick's (1987) belief that understanding the ZPD as a means of gaining insight into the kinds of psychological processes and the kinds of instruction or assistance which will be required (Lantolf & Thorne 2006). As a matter of fact, what makes a distinction between these two approaches of DA is the amount and kind of meditation. Both approaches, the interactionist and the interventionist have merits; however, the approach which the researchers implement must be in line with the setting in which the research occurs (Lantolf & Thorne 2006; Lantolf & Pohner 2008). As will be discussed in the methodology section, this present study takes on the interventionist approach.

Campione and Brown (1987) developed the Graduated Prompt Approach (GPA), which is a form of DA. The method of this approach is a hierarchy of prompts divided into levels or stages; i.e., from the most implicit to the most explicit. In fact, there is no deviation and it is standardized. A specific important facet of GPA is the incorporation of transfer tasks which are planned to establish how well learners can manoeuvre their learning beyond the assessment. The GPA aims to determine if learners have acquired the mediation from DA and can explore new tasks either autonomously or with much less support than at the dawn of the process (Lantolf & Poehner 2007).

DA has been one of the hot topics in applied linguistics since last decade. DA has been applied and studied with regards to the development of language skills as well as language components. For example, Hessamy and Ghaderi (2014) investigated the role of DA in the vocabulary learning of 50 intermediate EFL learners. They followed interventionist procedures in the study, whereby the subjects were divided into two groups; i.e. treatment group and control group. Mediation was given only to the experimental group. The results showed a significant difference in the post-test between the treatment group and the control group.

Meanwhile, Ahmadi and Barabadi (2014) explored 83 Iranian EFL learners' knowledge of grammar through a Computerized Dynamic Test. In this study, they sought to: 1) examine the difference between dynamic and non-dynamic tests, 2) understand test takers' potentials for learning, and 3) find out how mediation works for high and low ability students. Similar to the study mentioned above, the findings of this study also revealed that the computerized dynamic test made a significant effect on enhancing the Iranian students' grammar knowledge. In addition, the test also obtained information about the students' potential for learning, which would be useful for their next level of development.

Ahmadi Safa and Jafari (2017) studied the effect of two main models of DA, Interventionist and Interactionist, on EFL learners' grammar. A total of 96 intermediate EFL learners from a high school and private language institutes were involved in the study. They followed both the main approaches of DA in two experimental groups (Group A-Interactionist & Group B-Interventionist) and one control group (Group C-Traditional Assessment). They had 12 mediation sessions. The results indicated that both approaches of DA had significant effects on grammar learning of EFL learners, compared to the traditional assessment.

From a review of the literature, despite the fact that the aforementioned reviews have already been done regarding DA on the components of language, there is still a lack of studies done to ascertain the effect of DA on the depth of vocabulary knowledge in the context of critical reading. All in all, this research aims to shed more light on the issue, to explore how the application of DA would affect EFL learners' depth of vocabulary knowledge in the context of critical reading. In the present study, we sought to ponder whether mediation influences the effectiveness of DA to enrich the depth of vocabulary knowledge. The research questions that guided this study were:

1. Is there any difference in the depth of vocabulary post-test scores between the DA and non-DA groups?
2. Does mediation influence the effectiveness of DA to enrich the depth of vocabulary knowledge?
3. Is there a positive correlation between the depth of vocabulary post-test scores and the far transfer assessment scores of the DA group?

Below are the hypotheses for this study:

Ho_1: There is no significant difference in the depth of vocabulary post-test scores between the DA and non-DA groups.

Ho_2: There is no significant influence of mediation on the effectiveness of DA to enrich the depth of vocabulary knowledge.

Ho_3: There is no positive correlation between the depth of vocabulary post-test scores and the far transfer assessment scores of the DA group.

CRITICAL READING

Critical reading is related to engaging in what you read through information from visual, semantic, conceptual and linguistic sources combined to make sense of the meanings from sentences and phrases. These levels have been characterized as reading the lines, reading between the lines and reading beyond the lines, in that the reading act goes beyond the literal meaning by questioning the functions and purposes of the reading material (Mclaughlin & DeVoogd 2004). Critical reading involves different skills and strategies: guessing, acknowledging, comparing and contrasting, assessing and decision-making by which the readers will be able to get a thorough understanding and use of what they read. Nation (2008) proposed that effective reading requires learners to acquire different reading strategies such as: previewing, setting a purpose, predicting, making inquiries, connecting to schematic knowledge, paying attention to grammatical structure of the text, evaluating, and pondering on the text. According to Yu (2015), in detailed reading, techniques such as note taking, raising questions, and writing summaries are very useful. This being the case, the students get a thorough interpretation of the material and take an active approach to their reading. He argues that once they read critically, they reach a clear understanding of the reading material.

As critical reading accentuates the active nature of reading, learners need to think critically if they want to read critically. Therefore, as Paul (1995) suggested, critical readers "question, organize, interpret, synthesize, and digest what they read" (p. 491). Similarly, as asserted by Rivers (2001), critical readers have been recognized as having the potential capability to switch to the most suitable reading skills, as demanded by the situation.

Numerous studies have dealt with the impact of critical reading on vocabulary learning. Regarding the study by Suacillo et al. (2016), a moderate positive correlation has been found between critical reading strategies and reading comprehension. The results of Khabiri and Pakzad (2012) demonstrated that the strategy of critical reading is a promising method to acquire vocabulary, especially in retention and there exists a meaningful and reciprocal relationship between reading strategies used by language learners and their vocabulary knowledge.

Similarly, another study by Talebi and Marzban (2015) maintained the necessity of the teaching of critical reading strategies in L2 vocabulary retention through reading. Based on their study, 48 out of 98 EFL learners had 8 sessions of teaching and practicing the critical reading strategies. Through their research, the teaching of critical reading strategies has been affirmed to have a significant effect on advanced EFL learners' vocabulary retention. They further posited that the more L2 readers apply critical reading strategies, the more they can boost their vocabulary and reading skills to become more successful readers. The findings of the study by Nemat Tabrizi and Akhavan Saber (2016) also supported this theory and revealed that by

teaching critical reading strategies, retention of collocations by Iranian EFL learners will be ameliorated.

BREADTH VERSUS DEPTH OF VOCABULARY
KNOWLEDGE

Out of all the major components of language, having a wide vocabulary repertoire is vital to second-language learning. Being competent in vocabulary items is indispensable for reading comprehension as well, since without the recognition of the meaning of the words, it would be impossible to perceive the language. Schmitt (2008) also asserted that vocabulary learning is an essential part of mastering a second language. Similarly, Nushi and Jenadzadeh (2016, p. 51) also stated that "*vocabulary is essential to conveying meaning in a second language.*" Meanwhile, Nation (1990, p. 31) also argued that a comprehensive knowledge of a word is consist of eight elements:

1. Meaning: What does the word mean? Are there multiple meanings? Are there connotations (implied additional meanings)?
2. Written form: What does the word look like? How is it spelled?
3. Spoken form: What does it sound like? How is it pronounced?
4. Grammatical behaviour: In what patterns does it occur?
5. Collocations: What words are often used before or after the word? Are there certain words we must use with this word? Register: Is the word formal or informal?
6. Where can I expect to hear it or use it?
7. Associations: How does the word relate to other words? What words could we use in place of this one?
8. Frequency: Is this word common? Is it rare? Old-fashioned?

Zimmerman (2014) describes that the knowledge about the aspects of each word is referred to as vocabulary depth. On the other hand, she depicts vocabulary breadth as knowing an enormous number of words. Unald (2011) believed that knowing a particular word involves much more than simply being able to recall the meaning of the word. Different types of knowledge associated with a word such as pronunciation, spelling, word associations, discourse features, stylistic features, collocational meanings, are also to be considered (Zhang 2012). Qian (2002) and Vermeer (2001) considered vocabulary knowledge as comprised of two parts of breadth and depth of vocabulary knowledge. Breadth of vocabulary knowledge shows a person's vocabulary size, or approximately the number of words in which one is familiar. On the other hand, the depth of vocabulary knowledge tackles the quality of an individual's knowledge of a word which features all lexical properties, such as syntactic, semantic, collocational as

well as frequency and register (Qian's, 2002). According to Cobb (1999), this type of knowledge mostly comes from implicit learning of words through extensive reading.

A few researches have been carried out on the depth and breadth of vocabulary knowledge and their relationship to reading comprehension. Sen and Kuleli (2015) investigated the relationship between depth of vocabulary and breadth of vocabulary, where they found that breadth of vocabulary is moderately correlated with depth of vocabulary. Qian (2002) examined the effect of depth and breadth of vocabulary knowledge in university-level reading comprehension with a sample of 217 ESL university students. Results from this study showed that performances in depth of vocabulary knowledge were highly correlated with those of reading comprehension. Although Qian (2002) did not attach importance on the number of words a learner knows, he highlights the importance of depth of vocabulary in guessing the meaning of unfamiliar words in a text. In another study by Bardakci (2016), the effect of breadth and depth of vocabulary knowledge on the vocabulary profiles of EFL learners were examined. The results revealed that both breadth and depth of vocabulary knowledge had a significant impact on the L2 vocabulary profiles of the EFL learners, while depth of vocabulary knowledge turned to be a better prognosticator of vocabulary profiles. Similarly, the results generated from a study conducted by Mehrpour, Razmjoo and Kian (2011) found that while both depth and breadth of vocabulary knowledge play a pivotal role in EFL learners' reading comprehension, depth of vocabulary knowledge makes a more significant contribution. In the same study by Marzban and Hadipour (2012), it was also depicted that through reading, the depth of word knowledge was a more significant prognosticator of lexical inferencing success.

METHODOLOGY

RESEARCH DESIGN

This study takes on the interventionist approach of DA, which is analogous to quantitative research paradigm. This approach is in line with Kozulin and Garb's (2002) sandwich format; i.e. test-teach-test paradigm (Budoff 1987; Guthke 1993; Carlson & Wiedl 1992; Khonamri & Kazemian 2016). In a more conventional notion, this is a quantitative study that employed the quasi-experimental pre-test and post-test design (Gall, Gall & Borg 2003). There is a treatment group (DA group) that is given a pre-test, receives a treatment (mediation in DA), and then is given a post-test. At the same time, there is a control group (non-DA group) that is given the same pre-test, does not receive the treatment (no mediation in static assessment), and then is given the same post-test as the treatment group. The independent variable in this study is the type of assessment given to the groups, while the dependent variable is the post-test scores. The mediation sessions including the enrichment program (EP) and assessment

(post-test) were held within a six-week period. The EP sessions were done in a group, while the assessment sessions were conducted individually. Additionally, one month after the EP sessions and assessment sessions, a follow-up far transfer assessment was carried out to the DA group. This is done to determine the learners' capability to use (or transfer) newly acquired vocabulary knowledge to "novel" or "authentic" problems or context.

PARTICIPANTS

This study utilized non-random purposive sampling method (Mackey & Gass 2005) to homogenize the participants' linguistic proficiency. The chief rationale behind choosing purposive sampling was so that the errors of judgment in the selection will counterbalance one another (Ary et al. 2014).

A total of 80 male learners, age ranging between 16 to 30 in Iran language Institute in Rasht, Iran had been tested via Preliminary English Test (PET). Among these 80 students, 61 students identified as having upper-intermediate language competency level were purposively selected in this study. All of them spoke Farsi as their native language and were mainly from middle socio-economic class. For the purpose of this study, the participants were divided into two groups: the treatment group (DA, n = 31) and the control group (non-DA, n = 30). The participants' collaborations with the class discourses and activities via implementing DA were the chief yardstick of assessment. It should be indicated that their participations were voluntary.

INSTRUMENTATION

During the participants selection phase, the prospective participants were tested using Preliminary English Test (PET) to diagnose their English language proficiency levels. The PET is a test to assess students' general commands of English at Intermediate and High Intermediate levels. The test covered all four commands of the English language: reading, writing, listening and speaking. It is worth noting that the internal reliability of the test was conducted and obtained a Cronbach's Alpha value of 0.80. In this study, the PET was used during sampling to select the participants.

For the purpose of pre-test and post-test in this study, the vocabulary section of the Scholastic Aptitude Test (SAT) was used. The SAT, as defined by Mousavi (2012, p. 648-649) is "the most widely used college admission test which measures abilities that are predictive of success in academic tasks. Publishers of this test emphasize that the SAT measures developed abilities, despite some of the excess meanings popularly associated with the term "aptitude"." In this study, the most frequent and bombastic vocabulary items of SAT were chosen. Moreover, the internal reliability of the test was done and obtained a Cronbach's Alpha value of 0.79.

Material used in the enrichment program is the depth of vocabulary pamphlet. The pamphlet was a conglomeration of different Scholastic Aptitude Test (SAT), Graduate Record Examination (GRE), and depth of vocabulary skills preparatory books. The pamphlet contained different vocabulary strategies and miscellaneous types of vocabulary items (academic and bombastic words).

PROCEDURES

During the six-week enrichment program, mediation was provided through hints, prompts, questions, suggestions, logomachies, and explanations. The rationale behind mediation is to develop the EFL students' depth of vocabulary knowledge; this includes understanding of the roots of vocabulary items and their suffixes and prefixes, inferring a word from a text, comprehending the meaning of bombastic vocabulary items, recognizing collocations and fixed expressions, arguing about words (logomachies), noticing other meanings of the vocabulary items, having a logical and critical thinking about the relations among vocabulary items, and conjecturing the text academically (educated guess) through the clue of context. During the pre-test, assessment was done statically for both DA and non-DA groups. In the post-test, assessment was done statically for the non-DA group, and dynamically for DA group. The main method of utilizing DA in this research was the Graduated Prompt Assessment (GPA) method by Campione and Brown (1987).

It is worth noting that the corresponding researcher himself taught both the experimental and control groups. Thus, the researcher mediated the learners and videotaped the interactions that transpired between the researcher and learners during mediation. Whenever some of the subjects were absent for a session, the researcher gave a record of that particular session to them and they could utilize the videos in order to have the same advantage of those learners who were present in class. The philosophies of utilizing the video tape were:

1. Monitoring every step of the mediation procedure by an expert.
2. Using the recorded sessions as self-reflection so that the learners could figure out whether they were on the right track, as well as analysing them to specify the applicability of DA on depth of vocabulary knowledge of critical reading.

DATA ANALYSIS METHOD

The data collected was analysis inferentially using Statistical Package for the Social Sciences (SPSS). For the first research question, independent sample t-test is carried out to find out the difference in the depth of vocabulary post-test scores between the DA and non-DA groups. Second, one-way ANOVA is carried out to determine the influence of mediation on the effectiveness of DA to

enrich the depth of vocabulary knowledge. Third, Pearson correlation was done to determine the relationship between the depth of vocabulary post-test scores and the far transfer assessment scores of the DA group.

FINDINGS AND DISCUSSION

DIFFERENCE IN THE DEPTH OF VOCABULARY POST-TEST SCORES BETWEEN THE DA AND NON-DA GROUPS

To determine the difference in the depth of vocabulary post-test scores between the DA and non-DA groups, an independent sample t-test was conducted. The SPSS output of the post-test scores for the DA and non-DA group is shown in Table 1 and the outcome of the independent samples t-test is as in Table 2.

As shown in Table 1, the DA group obtained a mean of 15.48 and the non-DA group obtained a mean of 5.43 in the post-test. In Table 2, it can be seen that equal variances is not assumed, as the significance level of the Levene's test was 0.009 ($p < 0.05$). The t-test analysis shown that there was a significant difference in the depth of vocabulary post-test scores between the DA and non-DA groups ($t = 13.319$, sig = 0.000). This finding shows that the post-test score of the DA group (m = 15.48) is significantly better than the post-test score of the non-DA group (m = 5.43), ($t = 13.319$, sig = 0.000). Thus, the null hypothesis was rejected.

TABLE 1. Post-test scores for the DA and non-DA group

	Group	N	Mean	Std Deviation	Std Error Mean
Post-test scores	DA	30	15.48	3.785	.680
	non-DA	31	5.43	1.794	.328

TABLE 2. Independent samples t-test output

		t-test for Equality of Means							
		Levene's test for Equality of Variances		t	df	Sig. (2-tailed)	Mean difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.						Lower	Upper
Post-test scores	Equal variances assumed	7.335	.009*	13.179	59	.000	10.051	.763	8.525	11.576
	Equal variances not assumed			13.319	43.145	.000	10.051	.755	8.529	11.572

* significant at 0.05 level

The analysis indicated that the DA group's ZAD was enhanced through DA procedures so that their ZPD could be enriched. The finding supports Anton's (2012) viewpoint that articulation and detailed feedback in mediation seem to have a powerful influence and is associated with improved performance. The results of the current study also support Haywood and Tzuriel's (2002) study which reveals improvement of test performance as a result of mediation. Similarly, the finding is also in line with the result of Mehrpour et al. (2011), where they revealed that DA had significantly contributed to the development of the depth of vocabulary knowledge.

INFLUENCE OF MEDIATION ON THE EFFECTIVENESS OF DA IN ENRICHING THE DEPTH OF VOCABULARY KNOWLEDGE

To determine whether mediation influenced the effectiveness of DA in enriching the depth of vocabulary knowledge, a one-way ANOVA was carried out. The DA group's pre-test score (DAGPRV), post-test score (DAGPOV), and transfer score (DAGTV) were analysed.

TABLE 3. Test of Homogeneity of Variances

F	df1	df2	Sig.
2.643	2	90	.077

TABLE 4. One-way ANOVA of DA pre-test score, DA post-test score, and DA far transfer test score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3114.774	2	1557.387	169.347	.000*
Within Groups	827.677	90	9.196		
Total	3942.452	92			

Table 3 shows the test of homogeneity of variances between the groups. The result (sig = 0.077, p > 0.05) shows that the error variance of the DAGPRV, DAGPOV and DAGTV are equal across groups.

As shown in Table 4, there was a statistically significant difference at the p < 0.05 level in the test scores for the aforementioned scores (F(2,90) = 169.347, p = 0.00). The result showed that the independent variable (mediation) significantly affected at least one of the dependent variables (test scores). Thus, the second null hypothesis was rejected.

Note that the ANOVA alone does not tell us specifically which test means were different from one another. To determine that, we would need to follow up with multiple comparisons (or post-hoc) test.

TABLE 5. Multiple comparisons (Tukey's HSD post-hoc test) analysis

(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
DAGPRV	DAGPOV	-12.774*	.770	.000	-14.61	-10.94
	DAGTV	-11.710*	.770	.000	-13.55	-9.87
DAGPOV	DAGPRV	12.774*	.770	.000	10.94	14.61
	DAGTV	1.065	.770	.355	-.77	2.90
DAGTV	DAGPRV	11.710*	.770	.000	9.87	13.55
	DAGPOV	-1.065	.770	.355	-2.90	.77

* The mean difference is significant at the 0.05 level

Table 5 shows the results of the post-hoc test. This result reveals how the test scores differ from each other. From the analyses, it can be seen that there is a significant difference between DAGPRV and DAGPOV (p = 0.000), as well as DAGPRV and DAGTV (p = 0.000). This indicates that mediation influenced the effectiveness of DA in enriching the depth of vocabulary knowledge. Therefore, this supports the earlier notion that the second null hypothesis is rejected.

This finding indicates that the mediation provided through the DA procedure provided a great significance to the development of different skills and subskills, especially in depth of vocabulary knowledge. This is in line with other studies that have found the same; for instance, the studies by Kozulin and Grab (2002), Poehner (2008), Albbeva (2008), Birjandi et al. (2011), Naemi and Duvall (2012), Saeidi and Hosseinpour (2013), Khonamri and Kazemian (2014), Malameer and Zoghi (2014), Hessamy and Ghaderi (2014), Ahmadi and Barabadi (2014), Hanifi et al. (2016), Ahmadi Safa and Jafari (2017), and Ebadi and Yari (2017). The results of these researches revealed that the subjects' performances were enhanced, indicated by the DA post-test and the far transfer assessment tests. Thus, it can be said that the mediation sessions were fruitful for enhancing the learning of the participants in the DA group in these studies.

However, the result also revealed that there is no significant difference between DAGPOV and DAGTV (p = 0.355). This show that the mediation did not have much influence on the far transfer scores. It might due to some external factors such as fatigue and lack of time to prepare for the exam preparations.

CORRELATION BETWEEN THE DEPTH OF VOCABULARY POST-TEST SCORES AND THE FAR TRANSFER ASSESSMENT SCORES OF THE DA GROUP

To determine whether there is a positive correlation between the DA group's post-test score and far transfer assessment score, the Pearson correlation was employed. The analysis is shown in Table 6.

TABLE 6. Pearson correlation

		DAGPOV	DAGTV
DAGPOV	Pearson Correlation	1	.643**
	Sig. (1-tailed)		.000
	N	31	31
DAGTV	Pearson Correlation	.643**	1
	Sig. (1-tailed)	.000	
	N	31	31

** Correlation is significant at the 0.01 level (1-tailed)

As illustrated in Table 6, the analysis shows that there is a significant positive correlation between the two variables (r = 0.643, p < 0.05). Additionally, the strength of correlation is moderate (r = 0.0643). This shows that as the post-test scores increase, so does the far transfer scores moderately. This shows predictability value, even though not a strong one.

This finding shows that DA may create a situation for language instructors to measure more accurately and precisely students' level of comprehending and awareness so that it can resolve what may be specified to foster the development of the students by knowing their ZADs and ZPDs. Therefore, the information obtained from DA procedures may assist lackadaisical and unmotivated learners to assess themselves in terms of their proficiency

levels and how they learn, improve their depth of vocabulary repertoire.

This finding supports the findings by Kozulin and Garb (2002), where they argued that DA procedure is both useful and effective in helping teachers to obtain information on their students' learning potential, which can be used to predict the students' future development and performance. In addition, it is also in line with Poehner et al. (2017) study that stated that not only can DA contribute to the discourses concerning how classroom assessment may endorse the processes and procedures of learning, but it also can advocate student's learning so that it can introduce novel paradigms in formal testing. To recapitulate, to our knowledge, this study with its own particularities seems to be virgin in the EFL circle.

CONCLUSION

This study determined the effectiveness of DA in fostering Iranian EFL students' depth of vocabulary knowledge in critical reading by utilizing an interventionist approach. Findings show that DA group achieved a significantly higher post-test score compared to the non-DA group, mediation played a significant role in enriching the depth of vocabulary knowledge among the DA group, and there is a moderate positive correlation between the DA group's post-test score and their far transfer test score. To sum up, the results of this study highly recommend that static assessment, which is the typical assessment approach in EFL programs testing grossly underestimate the power of flexibility of a learner. In other words, the results challenged the adequacy of static assessment. Although DA is still in an infancy stage in the context of language assessment, the implications of this study can be twofold. Firstly, language instructors who are the designers and consumers of a variety of classroom practices (including testing) need to equip themselves with knowledge about DA approaches and mediation procedures. This is so that not only good students, but apathetic students would not be left behind, they could also promote their language proficiency through adequate mediation. Secondly, it may be high time that the policymakers who are the curriculum developers, language schools and assessment organizations came to grips with reality and pondered over the complexity of static tests via applying DA procedures.

Further research can be carried out with more subjects in other settings. In addition, further studies can be done to females or the combination of both genders, as this study only involved males. In addition, interactions between students and MKOs can also be explored to determine its influence on students' depth of vocabulary knowledge development.

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