

## The Effects of Dynamic Assessment on Reading Skill Performance: A Study of Indonesian EFL Learners

Andri Suherman

Language Centre, Universitas Mataram  
Jl. Pendidikan No.37, Dasan Agung Baru, Kec.  
Selaparang, Kota Mataram, Nusa Tenggara Bar. 83125,  
Indonesia  
andrisuherman123@gmail.com\*  
\*corresponding author

**Received:**  
6 Maret 2020

**Revised:**  
13 April 2020

**Accepted:**  
20 July 2020

**Published:**  
11 October 2020

### Abstract

This research article aimed to analyze the effects of Dynamic Assessment (DA) on EFL learners' reading comprehension. The participants in this case study were five Indonesian tertiary-level EFL learners. It investigated whether mediation in DA improve the learners reading comprehension performances and analyzed the extent to which mediation in DA benefit learning. The research methods used were pre-test, mediation, and post-test. The findings revealed two main points. First, the result of the post-test showed an overall improvement for all five students. As indicated by the effect size (0.96) and the result of paired samples t-test ( $p$ -value = 0.0028), it can be concluded that the effect of DA on the participants' reading skill performance was highly significant. Second, mediation in DA appeared to benefit learning with different characteristics in each student. The implications of this study were to provide practical insight to EFL teachers into how mediation can be developed to improve learners' reading skills and to inform EFL teachers with some suggestions to carry out mediations to benefit learning.

### Keywords

Dynamic assessment, Reading comprehension, EFL Learners

### Introduction

Over the past few decades, assessment has been functioning as a tool to gather information regarding learners' level of knowledge (Bailey, 1996; Davies & Elder, 2008). Feuerstein, Rand, & Hoffman (1981) called this as 'static assessment' because of the nature in evaluating learners' development or what they have already learned. However, several linguists reacted to this type of assessment by articulating their arguments. For example, Thorndike (2015) stated that the goal of students' assessment contradicted with the ways students were assessed. He then mentioned the learning test concept. In this case, some learning



has to be embedded within the test. Students should be provided with some feedback on their answers to the questions asked in the test. Meanwhile, Poehner (2008) claimed that static assessment was frustrating for some language teachers because it was deemed as an evaluation system that differed from the goals of teaching. Furthermore, Grigorenko & Sternberg (1998) argued that the traditional psychometric in static assessment was supported by perceptions of student performance stability and the distribution of student capabilities. The test results were assumed to be the indicator of students' real level of knowledge. Consequently, the test results were considered invalid when the students' responses contradicted such perceptions. Grigorenko and Sternberg then proposed a new approach of assessment by arguing that it would be more valuable to test student's capacity to learn something new rather than to test student's ability to show the knowledge they have acquired. Supported by Kozulin & Garb (2002), Grigorenko and Sternberg proposed Dynamic Assessment (DA hereafter) to replace static assessment. In this case, DA is a learning assessment that focused on student development by creating the collaboration between teacher (served as mediator) and learners with the primary goals of discovering learners' problems and offering relevant solutions.

The essential element of DA is particularly providing effective mediations. Haywood & Lidz (2006) argued that rather than being a third neutral third party, teachers were expected to find ways for learners to move to the next level of development. Unlike static assessment, which primarily focused on evaluating learner's responses without providing them with feedback to move ahead, DA was essentially a tool that teachers can use to help learners improve their skills and knowledge. Unlike score-oriented assessment, DA enabled teachers and learners to collaborate to accomplish tasks. Lidz & Elliott (2000) stated that teachers should strive to identify learners' potential and to analyze what learners are capable of doing rather than discovering how learners came to be what they are. Thus, many DA proponents tend to assess learner's potentials more than their test scores. Align with this, Feuerstein, Rand, & Rynders (1988) claimed that human beings, including ESL/EFL learners, are not a fixed system, but rather their learning development mainly depended on teacher instructions and guidance. Therefore, Leung (2007) mentioned that teachers should pay attention not only to the quality of their guidance but also to the support for learners to adapt and change in the process of their learning development. Nonetheless, although DA has been applied to promote learners' development, Leung (2007) highlighted that it had not been thoroughly examined in the area of L2 assessment studies. The main element of DA was grounded in two central concepts called Zone Proximal Development (ZPD) and Mediated Learning Experience (MLE). The following section is a literature review that will elaborate these two concepts, ZPD and MLE. After that, findings and discussion are presented, followed by a conclusion that includes limitations and implications of the present study.

In his sociocultural theory, Vygotskiĭ & Cole (1978) mentioned DA was mainly based on the concept of ZPD with the assumption that one's abilities were not fixed, but rather flexible. He further stated that the effective learning environment for learners was a meaningful interaction. As such, the progress



which learners achieved through cooperation with a more competent person was a more practical tool to see learners' capabilities. Thus, Vygotsky emphasized the importance of social interaction in the process of learners' internalization. He also mentioned that the more competent person was responsible for providing constructed mediations to the learners. In this case, the more competent person could be the teacher or the peers. Furthermore, in his sociocultural theory, Vygotsky argued that individuals might also develop higher forms of consciousness through the engagement in interactions mediated by others. This engagement emphasized the primary role of social interaction in helping children developed their thinking. Align with this argument, Werstch (1979) argued that adults also need external help. For example, when asked to complete an arithmetic operation, an adult may use a pencil to calculate the result. Therefore, if the concept of ZPD was seriously taken, the implication was that guidance should be provided to the learners so as to see what they are actually capable of.

MLE was firstly proposed by Feuerstein, Rand, and Rynders (1998). They argued that human cognitive abilities developed while interacting with adults. As such, adults served as mediators who mediate the world to them. In the MLE construct, the main element is mediation. With regard to this point, Feuerstein et al. distinguished how learners developed in non-mediated and mediated environments. In a non-mediated learning environment, learners learned through a trial-and-error model, which was quite similar with the stimulus-response concept of the behaviourist paradigm. Feuerstein et al. argued that this non-mediated environment did not help learners to construct meaning. Consequently, the learners could not make connections with the world when they are on their own. On the contrary, in a mediated learning environment, adults or more competent people could help learners by extending their attention and developing their cognitive functions needed to perform tasks. Furthermore, it enabled adults or more competent people to analyze how the learners responded. They subsequently could modify the mediations based on the learners' needs. Because of the assistance of these effective mediations, the learners' ability will possibly be better, including their reading skill comprehension.

The implementation of DA of reading skill uses the method of response-to-instruction to complement SA (static assessment) of reading skills. This method enables the mediator to design an appropriate intervention based on learners' responses to feedback given during the mediation sessions. Carney & Cioffi (1990) mentioned three main characteristics when using DA to identify learners' reading abilities; (1) DA is a process-oriented, not product-oriented, (2) the process of DA involves a response to intervention, not simply recording of existing reading skill, (3) DA enables the mediator to diagnose the learners' patterns of response, rather than indicating the learners' response by using indices. The procedure of DA involves several stages. First, the mediator analyzes the reading tasks. Second, the mediator determines what learners need to do. Third, the mediator adapts the tasks to help learners achieve success. Compared to SA, the main benefit of DA of reading abilities is the information gained during the response-to-instruction process tells the mediator how learners perform if ineffective conditions are addressed.



Previous researches that investigated DA of reading abilities were mostly in the context of special education (Hamilton, 1983); Spreen, 1982; (Wilson, 1967). Although these studies used different methods, they recognized that SA often failed to provide teachers with the information needed to help learners in a constructive manner. The implementation of DA of reading abilities is not common in the context of ESL/EFL. In other words, few studies have dealt with this topic. One of them is the study by Kozulin and Grab (2002), which was conducted in an Israeli secondary school. They explored whether DA could provide the mediator with information regarding learners' grammatical competition and reading comprehension. In the context of Taiwanese learners, the study by Teo (2012) investigated whether the effects of DA on EFL reading skills differed between intermediate-low and intermediate-high learners. Meanwhile, the study by Naeini & Duvall (2012) examined the effects of DA in the context of Iranian EFL-tertiary learners. They analyzed whether the effects of DA on learners' reading skills were different in four reading comprehension sub-skills.

Although the studies mentioned above explored the effects of DA on learners' reading skills, there have not been studies investigating the implementation of DA and its effects on learners' reading skills in the context of Indonesian tertiary-level EFL learners. Therefore, the present study aimed at filling the gap by investigating whether DA affects learners' reading comprehension, and the extent to which DA benefit learning.

The following two research questions are addressed as to fill in the gap regarding the effects of DA on learners reading comprehension:

1. Does Dynamic Assessment (DA) affect learners' reading comprehension?
2. To what extent does Dynamic Assessment (DA) benefit learning?

## **Method**

### ***Research Setting***

Five undergraduate English major students (2 male and 5 female) participated in the present study, labelled as S1, S2, S3, S4, and S5. They were third-year enrolling students in "Reading 3" course at English Education department, Hamzanwadi University (Indonesia). Their age range was between 18 and 21 years old. Their English language proficiency ranged from low-intermediate to upper-intermediate (average TOEFL-ITP score 500-550).

### ***Instruments***

Two instruments were employed in the present study. The first one was pre-test and post-test. The pre-test was made up of 10 short reading passages derived from previous TOEFL reading tests, and the post-test was different from the pre-test but was the same type. It was made up of 10 short reading passages derived from previous TOEFL reading tests. Since the reading passages used in both pre-test and post-test were adopted from the TOEFL reading tests, it was believed that the validity and reliability were highly acceptable. The second instrument was a mediation session. Native language (Bahasa Indonesia) was used during the mediation session so as to facilitate natural communication.



### **Research Procedure**

The study was six-week-long. At week 1, the pre-test was carried out to assess students' current reading skill level. From week 2 to week 5, the mediation session was carried out. The researchers served as mediators, met with each participated student one day each week outside the class time. It was carried out to discuss the result of student pre-test. In this case, the researchers mostly focused on the questions which were incorrectly answered by the student. This mediation process was conducted to provide students with relevant interventions for enhancing their reading skill. At week 6, the post-test was carried out to assess students' reading skill upon receiving mediation at the previous weeks.

### **Data Analysis**

The data were quantitatively and qualitatively analyzed. For both pre-test and post-test, quantitative analysis was conducted by employing one-way ANOVA. Meanwhile, data gained in the mediation stage was qualitatively analyzed.

### **Findings and Discussions**

#### ***Does Dynamic Assessment (DA) affect learners' reading comprehension?***

The following table shows the result of pre-test and post-test each participant obtained.

Table 1. The results of students' pre and post-test

Students	Pre-test scores	Post-test scores	Post-test score minus pre-test score (difference)
S1	20	27	7
S2	13	25	12
S3	20	34	14
S4	20	32	12
S5	26	32	6

Table 2. Descriptive statistics of pre-test and post-test

	Mean	N	Std. Deviation	Std. Error Mean
Pre Test	19.80	5	4.60	2.06
Post Test	30.00	5	3.81	1.70



Table 3. Paired samples t-test of pre-test and post-test results

	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pair 1 PreTest- PostTest	10.20	3.49	1.56	5.86	14.54	6.5299	4	0.0028

The data gained from ANOVA above revealed that the significance value is less than .05. This result indicated that there was a significant difference between the pre-test and post-test reading scores,  $t(4) = 6.5299$ ,  $p = 0.0028$ . The participants scored significantly higher on the post-test reading comprehension test ( $M = 30.00$ ,  $SD = 3.81$ ) than the pre-test reading comprehension test ( $M = 19.80$ ,  $SD = 4.60$ ). In other words, the DA on the reading comprehension test in this study was proved to be helpful.

To determine the significance of statistics differences, the effect size was also calculated. Mitchell (2002) claimed that when the size effect is larger than 0.80, it concludes that it is a large effect. The result of effect size in this study was 0.96. Because the effect size was greater than 0.80, it indicated that it was a large effect. In other words, from the quantitative data analysis, the effect of DA on the participants' reading skill performance was highly significant.

### *To what extent does Dynamic Assessment (DA) benefit learning?*

Based on the data gained during the mediation process, it was found that DA benefited learning in three main points.

#### *1. Implicit and Explicit Feedback.*

Both types of feedback, implicit and explicit, provided by the mediator during the mediation process, appeared to benefit learning. The excerpt below showed the interaction between the mediator (researcher) and the student (S2).

#### **Excerpt 1.**

- (1) R: Alright, the first question is asking the main idea. Can you guess what the main idea is?
- (2) S2: I think the answer is (B), spiders are natural-born fighters.
- (3) R: (The answer is incorrect. Thus, he helped S2 by telling the keywords). Do you know the meaning of the words *silk*, *ropes*, *rubber*, *cohabitate*, and *manufacture*?
- (4) S2: I only know the meaning of *manufacture*. Is that like production?
- (5) R: You're right! (He then explained S2 the meaning of the other words). Now you already have known the meaning of these words. Let's now look at the strategy of how to find the main idea. (He explained S2 the





common place where the main idea located). Now, I want you to read the text again. What do you think the author is trying to say about spider silk related to the main idea? (He offered implicit feedback by directly asking what the author said about spider silk)

- (6) S2: Well, I think that spider silk is one of the commodities. But, we don't know what the author was thinking about the characteristics of spider silk.
- (7) R: Good. Now, look at the third sentence. There is a word which compares spider silk with steel. What is it? (He provided explicit feedback by pointing out the specific part).
- (8) S2: Stronger.
- (9) R: Excellent! Now, look at the fourth sentence. What material is spider silk compared with?
- (10) S2: Rubber.
- (11) R: Okay. How is spider silk compared to rubber? Look at the next sentence.
- (12) S2: It is stretchier than rubber.
- (13) R: Great. Now, can you guess what the main idea is?
- (14) S2: The author is focusing on the strength of spider silk. And I think the main idea is (C), spider silk is an amazing fibre.
- (11) Right. You got it!

The excerpt above illustrated how implicit feedback was provided in line 5. In this case, implicit feedback was necessarily given in the first mediated session. Noticing S2 only gave incomplete main idea; the researcher began offering explicit feedback by directing S2 to the specific part in the passage. The explicit feedback was kept provide, as shown in line 9 and line 11 until S2 accomplished the task.

## 2. Learning Strategy

The mediation process provided an opportunity for the mediator to recognize students' difficulty and to analyze students' process of thinking. The excerpt below showed the interaction between the mediator (researcher) and the student (S5).

### Excerpt 2.

- (1) R: This question is asking the synonym. Can you guess what the answer is?
- (2) S5: Hmmm. I think (D), in a brief way.
- (3) R: Well, have a look at. When you replace the word with your answer, you have to make sure the meaning of the sentence stays the same.
- (4) S5: I know. But, many difficult words here. I don't understand. Words meaning is stressful.



- (5) R: I see. (She began to recognize the students' problem). What do you do when you face difficult words?
- (6) S5: I just guessed the meaning.
- (7) R: Good! The first thing you have to do is identifying its part of speech, whether it is a noun, verb, adjective, or pronoun. (She began to offer a solution). Let's see. What part of speech of the word "vividly" do you think?
- (8) S5: Must be a verb. Ooopss, sorry. I mean, adverb.
- (9) R: How do you know?
- (10) S5: From the ending "ly". If a word is ended by "ly", it must be an adverb.
- (11) R: Good job. But keep in mind, not all adverbs have suffix "ly". The second step you must do is identifying the word part.
- (12) S5: Okay. The word "vividly" contains the word part *viv-*, which means life, I think.
- (13) R: Excellent.
- (14) S5: So can you guess the answer, then?
- (15) R: I think (C), in a lifelike way. Right?
- (16) S5: Right. You got it.

The excerpt above illustrated how a strategy was provided in line 7 and line 11. In this case, a strategy was necessarily offered when student articulated his problem. Knowing S5 faced a problem regarding the word meaning, the researcher began offering a strategy by checking S5's analysis. The subsequent strategy was then provided, as shown in line 11 until the student accomplished the task.

### 3. Learning Motivation

During the mediation process, a participant showed limited effort on exploring his reading skill. The excerpt below showed the interaction between the mediator (researcher) and the student (S5).

#### Excerpt 3.

- (1) R: What do you think the answer to this question?
- (2) S5: I think (A), about 15,000.
- (3) R: Why do you choose (A)?
- (4) S5: Well, I am just guessing.
- (6) R: Why guessing? Try to find the right answer. This one is a quite easy question.
- (7) S5: Hmmm. The passage is very long, and it contains many difficult words.





- (8) R: I know, but try to make an effort for such an easy question. It is very important for preparing you for the final exam.
- (9) S5: Okay. What do I have to do to quickly find the answer?
- (10) R: Identify the keywords in the question. For this, the keywords are grey whales, swim, and Vancouver Island.
- (11) S5: I see. I know the meaning of these keywords.
- (12) R: Good. The next step is locating the place where the keywords are.
- (13) S5: Let me see. Hmmm. They're in paragraph two.
- (14) R: Great. Now, you can do the scanning technique by reading paragraph two carefully to find the answer.
- (15) S5: (He reads the text carefully for a while). I know, the answer is (B) 20,000-25,000.
- (16) R: Good job. See what I mean? Try a little. Don't just guess. I know you can do it.
- (17) S5: Thank you, Sir.

The excerpt above indicated student learning motivation was increased during the mediation process. As shown in line 6 and line 8, the mediator began to motivate the student. After that, the mediator provided strategies to help the student, as shown in line 10, line 12, and line 14.

The present study aimed to explore the effects of Dynamic Assessment (DA) on reading skill performance in the context of Indonesian tertiary EFL learners. The results of the study revealed that the effect of DA was highly significant. It could be seen from the differences between students' reading score on pre-test and post-test. The calculation of effect size also showed that it was a large effect. This finding was similar to Ajideh & Nourdad (2012). In their study, they found that the experimental group scored higher in their post-test than the control group upon receiving mediation in DA. In addition, in the context of Iranian students, the study by Naeini and Duvall (2012) found that the ten participants showed overall progress in four sub-skills of reading comprehension after receiving mediation in DA.

With regards to the benefits of DA, the present study found three different advantages. The first one related to implicit and explicit feedback. The strategy of providing feedback was firstly begun by offering implicit feedback at the early stage. Implicit feedback required a high level of cognitive skill, such as asking what the author is trying to say. Meanwhile, explicit feedback required a lower level of cognitive skill, such as asking a specific part. Aljaafreh & Lantof (1994) argued that implicit feedback played an important role in expanding learners' ZPD (Zone of Proximal Development). In excerpt 1, it could be clearly seen that implicit feedback was provided at the beginning to challenge the student. Explicit feedback was then provided when the student was unable to give an expected answer. In sum, both implicit and explicit feedback provided in DA appeared to benefit learning.



The second benefit of DA was related to learning strategy. In excerpt 2, the mediator provided the student with a strategy to accomplish the task. The strategy of offering a solution began upon recognizing the main student problem. This finding was similar to that of Naeini and Duvall (2012). Upon receiving initial mediation in DA, a participated student began to use what he already knew to figure out the meaning of unknown words. In the present study, the mediator firstly tried to recognize the student's problem. When she perceived the student's problem was related to word meaning, she began to offer a solution so as to the student could complete the task. In sum, learning strategy as a solution for student problem that was provided in the mediation process appeared to benefit learning.

The third benefit of DA was regarding learning motivation. In other words, DA seemed to increase students learning motivation, as shown in expert 3. The issue of learning motivation was raised by Ortega (2013), in her book *Understanding Second Language Acquisition*. She mentioned five orientations for learning a language by L2 learners. One of them was related to instrumental. As such, a learner learns a language for certain purposes, such as pursuing a higher level of education or getting a better job. In expert 3, the mediator encouraged S5 to accomplish the task for examination preparation. The learning purpose was then able to motivate S5 to complete the task.

## Conclusion

The present study aimed to investigate the effects of Dynamic Assessment (DA) on EFL learners' reading comprehension. Five Indonesian tertiary-level EFL learners participated. The purposes of the study were to find out whether mediation in DA improves the learners reading comprehension performances, and explored the extent to which mediation in DA benefited learning.

The findings revealed two main points. First, all five participants scored higher in their post-test result. As indicated by the effect size (0.96) and the result of paired samples t-test ( $p$ -value = 0.0028), it can be assumed that the effect of DA on the participants' reading skill performance was highly significant. The second finding revealed that mediation in DA appeared to benefit learning with different characteristics in each student. Based on the data gained during the mediation process, there are three beneficial effects of DA on the current study; (1) implicit and explicit feedback in DA can facilitate student learning, (2), DA provides students with learning strategies, and (3) DA can enhance student learning motivation.

Several limitations occurred in this study, such as a small sample of data and a small number of participants. Future research may apply the same methods on a larger scale, or in different educational contexts. Despite these limitations, several implications can be clearly seen. For example, this study provided practical insight to EFL teachers into how mediation can be developed to improve learners' reading skill. Besides, it informed EFL teachers with some suggestions to carry out mediations to benefit learning.



## References

- Ajideh, P., & Nourdad, N. (2012). The Effect of Dynamic Assessment on EFL Reading Comprehension in Different Proficiency Levels. *Language Testing in Asia*, 2(4), 101–122. <https://doi.org/10.1186/2229-0443-2-4-101>
- Aljaafreh, A., & Lantof, J. P. (1994). Negative Feedback as Regulation and Second Language Learning in the Zone of Proximal Development. *The Modern Language Journal*, 78(4), 465–483. <https://doi.org/10.1111/j.1540-4781.1994.tb02064.x>
- Bailey, K. M. (1996). Working for washback: A review of the washback concept in language testing. *Language Testing*, 13(3), 257–279. <https://doi.org/10.1177/026553229601300303>
- Carney, J. J. . C. G. (1990). Extending Traditional Diagnosis: The Dynamic Assessment of Reading Abilities. *Reading Psychology*, 11(3), 177–192. Retrieved from <https://eric.ed.gov/?id=EJ413057>
- Davies, A., & Elder, C. (2008). The Handbook of Applied Linguistics. *The Handbook of Applied Linguistics*, 1–866. <https://doi.org/10.1002/9780470757000>
- Feuerstein, R., Rand, Y., & Hoffman, M. B. (1981). The dynamic assessment of retarded performers: The learning potential assessment device, theory, instruments and techniques. *International Journal of Rehabilitation Research*, 4(3), 465–466.
- Feuerstein, R., Rand, Y., & Rynders, J. E. (1988). *Don't accept me as I am : helping "retarded" people to excel*. Plenum Press.
- Grigorenko, E. L., & Sternberg, R. J. (1998). Dynamic Testing. *Psychological Bulletin*, 124(1), 75–111. <https://doi.org/10.1037/0033-2909.124.1.75>
- Hamilton, J. L. (1983). Measuring response to instruction as an assessment paradigm. *Advances in Learning & Behavioral Disabilities*, 111–133. Retrieved from <https://psycnet.apa.org/record/1983-13723-001>
- Haywood, H. C., & Lidz, C. S. (2006). Dynamic assessment in practice: Clinical and educational applications. In *Dynamic Assessment in Practice: Clinical and Educational Applications*. <https://doi.org/10.1017/CBO9780511607516>
- Kozulin, A., & Garb, E. (2002). Dynamic assessment of EFL text comprehension. *School Psychology International*, 23(1), 112–127. <https://doi.org/10.1177/0143034302023001733>
- Leung, C. (2007). Dynamic Assessment: Assessment for and as Teaching? . *Language Assessment Quarterly*, 4(3), 257–278. <https://doi.org/10.1080/15434300701481127>
- Lidz, C. S., & Elliott, J. (2000). *Dynamic assessment : prevailing models and*



*applications. JAI.*

Naeini, J., & Duvall, E. (2012). Dynamic Assessment and the Impact on English Language Learners' Reading Comprehension Performance. *Language Testing in Asia*, 2(2). <https://doi.org/10.1186/2229-0443-2-2-22>

Ortega, L. (n.d.). *Understanding : second language acquisition*. Routledge.

Poehner, E. M. (2008). Dynamic Assessment: A Vygotskian Approach to Understanding and Promoting L2 Development. In Springer Science (Ed.), *Development*.

Thorndike, E. (2015). *Introduction to the theory of mental and social measurements (classic reprint)*. FORGOTTEN Books.

Vygotskiĭ, L. S. (Lev S., & Cole, M. (1978). *Mind in society : the development of higher psychological processes*.

Werstch, J. V. (1979). From social interaction to higher psychological processes: A clarification and application of Vygotsky's theory. *Human Development*, Vol. 22, pp. 1–22.

Wilson, R. (1967). *Diagnostic and remedial reading for classroom and clinic*. Columbus Ohio: Charles E. Merrill Books.

