

## READING PROFICIENCY AND COGNITIVE READING STRATEGIES THROUGH ONLINE DYNAMIC ASSESSMENT (ODA) IN ENGLISH FOR ECONOMY

**Ahmad Imron**

*English Education Department, Post Graduate Program,  
Universitas Muhammadiyah Gresik, Indonesia*  
Email: kiki.imron70@gmail.com

**Khoirul Anwar**

*English Education Department, Post Graduate Program,  
Universitas Muhammadiyah Gresik, Indonesia*  
Email: khoirulanwar@umg.ac.id

APA Citation: Imron, A., & Anwar, K. (2024). Reading proficiency and cognitive reading strategies through online dynamic assessment (ODA) in english for economy. *English Review: Journal of English Education*, 12(3), 949-958. <https://doi.org/10.25134/erjee.v12i3.10370>

Received: 17-06-2024

Accepted: 22-08-2024

Published: 30-10-2024

**Abstract:** Dynamic Assessment (DA) can help EFL students use more cognitive reading skills, but its application in ESP learning is restricted. DA in ESP is an important research subject since reading comprehension is an essential skill for English for Specific Purposes (ESP) students. The purpose of this study is to look into the impact of online DA on reading ability and the usage of cognitive reading comprehension strategies among English for Economy learners. The study employs a quantitative experimental design and survey, with two groups of management students (30 in the experimental class and 30 in the control class) currently enrolled in the English for Economy program, which includes planned and scheduled online dynamic assessments. The study found that the Online Dynamic Assessment-supported ESP reading program significantly enhanced management students' reading abilities, as shown by the experimental group's higher posttest performance and significant t-test results (0.000). Furthermore, the study reveals students' proactive role in improving their comprehension and recall by detailing their cognitive reading strategies at various reading stages, including pre-reading anticipation and skimming, in-reading context-based inference, and post-reading categorization and content review.

**Keywords:** *Online-Dynamic Assessment, English for Economy.*

### INTRODUCTION

Challenges of ESP Reading and Technology  
The modern landscape of English for Specific Purposes (ESP) pedagogy, notably in terms of reading and technology integration, is shifting from Computer Assisted Language Learning (CALL) to Technology Enhanced Language Learning (TELL) (Alanazi & Alharbi, 2021; Sembel, 2018). This shift focuses on the incorporation of information and communication technologies (ICT) into language instruction (Aini et al., 2023; Enderwati et al., 2023; Fariha et al., 2023). The incorporation of technology into ESP training has developed as an important research area, with reading comprehension regarded as a critical skill for ESP students (Hernández Urrego, 2019; Schröder & Krüger, 2019).

Reading plays an important part in the ESP context, as it is required for students learning a second language (L2) (Mochizuki et al., 2019). Reading competency goes beyond simple word recognition to a deeper level of comprehension

that allows students to build mental representations of the texts they read, improving their learning experiences and promoting academic success (Kazemi et al., 2020). Reading skills are a powerful tool for learners, guiding them through their academic path. These abilities allow pupils to collect the necessary data for their academic assignments. As a result, the ability to read well and efficiently is critical to academic performance and overall well-being (Zeng et al., 2020). Reading is also a phase of textual communication (Hernández Urrego, 2019). This talent needs the use of a number of cognitive methods to achieve proper comprehension. These tactics enable readers to grasp, interpret, and comprehend the texts they read, making reading an essential aspect of daily life that aids in the acquisition and application of knowledge.

The reading process is a productive one in which pupils use metacognitive and cognitive skills to understand texts (Sa et al., 2021). Successful readers methodically regulate their

reading process, relying on cognitive and linguistic skills to anticipate, retain, and arrange textual content. They keep aware of potential problems, potential solutions, and the resources at their disposal.

Strategic readers, who understand the nature of issues and their solutions, rely on metacognitive and cognitive talents to learn (Amini et al., 2020). Cognitive techniques, which include learning, remembering, and analyzing and reflectively transferring thoughts, are critical for enhancing text reading.

Dynamic Assessment (DA) represents a pedagogical approach in language instruction that amalgamates teaching and evaluation (Dixon et al., 2023; Ritonga et al., 2022). DA assesses student responses within the assessment procedure, grounded in the theoretical framework of the Zone of Proximal Development (ZPD) (Norris et al., 2017). This methodology facilitates individuals in surpassing their independent performance through suitable mediation. DA takes into account the outcomes of interventions, instructing learners and examination participants on strategies for test success. The ultimate score in DA, reflecting the disparity between pre-test and post-test scores, promises a comprehensive evaluation (Salehi et al., 2024).

DA can aid students of English for Specific Purposes (ESP) and English as a Foreign Language (EFL) in the application of an increased number of cognitive reading strategies (Andujar, 2020). Cognitive strategies are indispensable mental processes for learning. This methodology enables learners to process meaning in the target language. In the context of reading, cognitive strategies have a direct correlation with the target language and the learner's world knowledge (Ebadi & Asakereh, 2017; Mustiah et al., 2024; Situngki et al., 2024). Cognitive methodologies in reading studies are bifurcated into bottom-up and top-down categories. The bottom-up model perceives reading as a decoding process, while the top-down model views it as a dynamic process. Effective reading necessitates readers to formulate assumptions and expectations about the content of the text. Schema theory influences the top-down approach, underscoring the significance of prior knowledge. The interaction between background information and text is crucial for efficient reading, with readers utilizing pre-reading information to construct text predictions (Ghahderijani et al., 2021; Yang & Qian, 2020).

Empirical evidence suggests that students who receive DA significantly outperform those who do

not. A majority of students in the DA group in General English learning exhibit a significant enhancement in their performance. This research carries wider implications. It endeavors to explore the effects of online DA on the utilization of cognitive reading comprehension strategies among Indonesian ESP students, specifically learners of English for Economy. This constitutes a critical area of research, given that reading comprehension is a fundamental skill for students of English for Specific Purposes (ESP)

Dynamic Assessment (DA), a strategy for education and evaluation based on individual adjustments, has the potential to alter these cognitive mechanisms (Poehner & Wang, 2021). DA attempts to improve student performance on the assessment itself. It is a process-oriented approach that combines learning and assessment, distinguished by its future orientation, interaction basis, and test-intervention-retest structure (Phillips, 2022; Tuluk & Yurdugul, 2020). The contact between instructors and students is critical in DA because it bridges the gap between existing and potential knowledge. DA is primarily applied through interactions between language educators and L2 learners. Despite substantial research on DA in the ESP setting, its effect on the cognitive reading techniques of Indonesian ESP students is largely unknown (Elahi Shirvan et al., 2020; Kazemi et al., 2020; Phillips, 2022; Tuluk & Yurdugul, 2020).

This study aims to investigate the impact of online DA on reading proficiency and the cognitive reading methods of Indonesian students studying English for Economy. The study also intends to collect learners' perspectives on the use of online DA in ESP classes. This investigation promises to provide useful insights into the use and efficacy of DA in improving reading comprehension among ESP students.

This research poses several important questions: (1) Does online DA impact on reading proficiency among English for Economy students? (2) What are the students' cognitive reading strategies towards the application of online DA in English for Economy classes?

These questions guide this research in helping to focus the investigation on the most relevant aspects of DA and reading comprehension strategies. The answers to these questions can provide valuable insights for educators and researchers in the field of ESP and language assessment.

## METHOD

This research employs a quantitative experimental design and survey methodology, integrating aspects of intervention and evaluation. The quantitative component is utilized to observe the impact of an experimental intervention on students of English for Economy, both pre and post the implementation of Dynamic Assessment, using testing instruments. Concurrently, the survey component, focusing on cognitive reading strategies, is employed to further comprehend this impact, either as a confirmation of findings or as an exploration of reasons for improvements and various learning attitude processes towards the execution procedures. Data for this survey is collected via a questionnaire on cognitive reading strategies.

The research sample is derived from two classes in the Management Study Program at Muhammadiyah University of Gresik (UMG), specifically class A and class B, each comprising 30 students. The research population encompasses all 300 Economics students. The research sample is selected based on the research objective, i.e., the class undergoing the English for Economy program in a planned and scheduled manner, possessing a pre-planned curriculum and syllabus for the English program, and having a minimum of 10 years of experience in English for Economy. The ESP program in this Management Study Program, controlled by the Language Center unit led by a program director at Muhammadiyah University of Gresik, exhibits the most homogeneous class character at the highest learning level in the Faculty of Economics. Therefore, this purposive and cluster sample selection satisfies the aspects of formality, representation, and legality.

The procedure for implementing the Dynamic Assessment intervention process is administered to the experimental class across fourteen meetings. For each meeting, a learning plan is formulated that outlines the Dynamic Assessment strategy process with online learning, encompassing three processes: pre-activity, while-activity, and post-activity. At the pre-activity stage, the instructor delivers learning input via an online platform, simultaneously ensuring students' readiness to participate in learning from both content and technical aspects. The while-activity stage contains core learning activities aimed at understanding and instilling cognitive competencies and English skills, particularly reading skills. The material, presented in alignment with the content theme tailored to

English for Economy, is delivered by maximizing the role of the pre-prepared online platform. Activities in this while-activity stage purely involve deepening the material with various activities such as presentations, focused discussions, debates, conferences, demonstrations, etc. The post-activity stage involves reinforcing the linguistic aspects being studied, with attention and focus given to understanding language functions and expressions. At this stage, students are trained to extract the essence of each Reading learning stage from both the content and language mastery aspects. This stage is also utilized to reflect on suboptimal aspects. Pre-tests and Post-tests, along with surveys about cognitive reading strategy towards the application of Dynamic Assessment, are administered in accordance with this research procedure. This research necessitates two types of instruments, namely tests (pre and post-tests) and questionnaires. The test refers to an English proficiency test, compiled by the UMG Language Institute, referencing the measurement of English proficiency for academic purposes (English for Academic Purposes) in the specific field of economics. The validity and reliability of the test are determined through a test trial prior to the intervention, with the level of validity subsequently analyzed using SPSS ( $r = .87$ ). The second instrument used in this study is a questionnaire on the use of cognitive strategies, developed by Bezci (Bezci, 1998). This questionnaire is divided into two parts. The first part is designed to collect background information about respondents, while the second part aims to examine respondents' use of cognitive reading strategies when they interact with texts. This questionnaire, comprising 17 Likert type items, is administered twice during the study. To confirm the reliability of this instrument, it is reviewed by a group of specialists in the field of English teaching and learning at the UMG Language Center unit. Furthermore, reliability is assessed quantitatively using Cronbach's alpha (average score .83), which yields adequate values, indicating a high level of reliability.

This research involves two types of data analysis. Firstly, quantitative data analysis using SPSS 26.0. This SPSS analysis employs the T-test to determine the impact of Dynamic Assessment application by testing the impact results (pre-test to post-test) significantly in each group, and then testing the difference between the two groups (post-test in two groups). The significance test uses a P-value of .5 percent. Secondly, questionnaire data analysis using Steps of

descriptive statistical analysis is required to support the proof of the level of significance of the application of Dynamic Assessment to the cognitive reading strategies of learners.

## RESULTS AND DISCUSSION

### *Results of reading test*

This part provides a detailed explanation of the findings, divided into four separate sections. Initially, it delves into the descriptive statistics results for both the control and experimental groups, offering a thorough overview of their performance. It then provides an overview of the descriptive statistics collected from the posttests administered to each group, offering light on their progress and learning outcomes. Finally, it discusses the comparative study of performance between the control and experimental groups, using a T-test for this purpose. This comprehensive analysis provides essential

insights into the efficacy of the program under consideration, providing to a better understanding of its impact and possibilities for future applications.

The descriptive analysis of the pretest and posttest in the control group of ESP reading for management students yields some intriguing findings (see table 1). The posttest results reveal a range of 16.00 points, with scores ranging from 56.00 to 72.00. The posttest score (mean) was 63.10, with a standard deviation of 3.80, indicating a considerable variation from the mean. In contrast, the pretest results had a smaller range of 5.00, with scores ranging from 55.00 to 60.00. The pretest average score was 58.87, which was lower than the posttest average. The pretest had a standard deviation of 1.43, indicating that the pretest results were closer to the mean than the posttest scores.

Table 1. *Results of descriptive statistics for pretest-posttest of control group*

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Posttest Control Group	30	16.00	56.00	72.00	63.1000	3.79973
Pretest Control Group	30	5.00	55.00	60.00	58.8667	1.43198
Valid N (listwise)	30					

Table 1 shows that the control group's scores improved from the pretest to the posttest, as indicated by the increase in mean score. The increased range and standard deviation in the posttest indicate a wider spread of scores, which could indicate that the test was able to better discern across students' talents. Both examinations had a legitimate list of 30 students.

Let's look at the fascinating results of the descriptive analysis of pretest and posttest scores in the experimental group of ESP reading for management students. Starting with the posttest, the scores showed a wide range, from 60.00 to

80.00. The average score was 70.57, which reflected the students' hard work and understanding. However, the standard deviation of 4.84 indicates a greater spread of results, reflecting a range of student performance levels. When we looked at the pretest, the scores were much closer together, ranging only 14.00 points between 56.00 and 70.00. The average pretest score was 59.83, lower than the posttest average, and the scores were more tightly bunched together, as demonstrated by the smaller standard deviation of 2.63 (see table 2).

Table 2. *Results of descriptive statistics for pretest-posttest of experimental group*

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Posttest Experimental group	30	20.00	60.00	80.00	70.5667	4.84009
Pretest experimental group	30	14.00	56.00	70.00	59.8333	2.62722
Valid N (listwise)	30					

In essence (in table 2), the experimental group showed a respectable increase in their scores from the pretest to the posttest, with the mean score providing clear evidence. The posttest's higher range and standard deviation indicate a broader variety of student abilities, which may represent the test's effectiveness in distinguishing between different levels of student competency. It's worth noting that these results are based on a legitimate student count of 30 for both tests.

Table 3 shows the entire results of the descriptive analysis on posttest scores for both the control and experimental groups in the ESP reading program for management students. These statistics provide a complete summary of the performance measures as well as helpful insights into the program's efficiency. The control group's scores showed a wide range of 16.00 points, from 56.00 to 72.00. The group's average score was 63.10, showing commendable performance.

However, the standard deviation of 3.80 indicates a substantial spread from the mean, implying a range of student performance levels. Switching gears to the experimental group, the scores were much more diverse, ranging from 60.00 to an

astonishing 80.00. The group's average score was a strong 70.57, outperforming the control group's mean. The standard deviation was 4.84, indicating a broader range of scores and a higher variance in the pupils' reading abilities.

Table 3. Results of descriptive statistics for control and experimental group in reading

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Control Group	30	16.00	56.00	72.00	63.1000	3.79973
Experimental group	30	20.00	60.00	80.00	70.5667	4.84009
Valid N (listwise)	30					

To summarize (in table 3), the experimental group performed better in the posttest, as indicated by the higher mean score. The higher range and standard deviation in the experimental group indicate a broader range of student abilities, which may represent the test's effectiveness in distinguishing between different levels of student competency. It's worth noting that these results are based on a legitimate student count of 30 for both tests.

Table 4 depicts the fascinating results of inferential statistics and what it reveals about the control and experimental groups in the ESP reading program for management students. First, we applied Levene's Test for Equality of Variances. This test determines whether the variances between the two groups are equal. Our F value was 1.882, with a significance level (p-value) of .175. This p-value is greater than 0.05, indicating that the variances of the two groups are

truly equal. Next, we used the t-test for Equality of Means with equal variances. The t-value was found to be -6.646 with 58 degrees of freedom. The two-tailed p-value was .000, suggesting a significant difference in the means of the control and experimental groups. The average difference was -7.467, with a standard error of 1.123. The 95% confidence interval for the difference varied from -9.716 to -5.218. In the case of uneven variances, the t-value stayed constant at -6.646, but the degrees of freedom increased to 54.906. The two-tailed p-value remained at .000, showing a significant difference in averages between the control and experimental groups. The mean difference, standard error difference, and 95% confidence interval for the difference were all the same as in the equal variances example (see table 4).

Table 4. Comparison results of independent samples test

	Levene's Test for Equality of Variances		t-test for Equality of Means		Sig. (2-tailed)	(2-Mean Difference)	Std. Error Difference	95% Confidence Interval of the Difference	
	F	Sig.	t	df				Lower	Upper
VAR Equal variances assumed	1.882	.175	-6.646	58	.000	-7.46667	1.12345	-9.71550	-5.21783
Equal variances not assumed			-6.646	54.906	.000	-7.46667	1.12345	-9.71820	-5.21513

To summarize (in table 4), whether we assume equal or unequal variances, the t-test findings show a significant difference between the control and experimental groups.

This shows that the ESP reading program had a considerable favorable impact on management students' reading ability. It demonstrates the program's effectiveness as well as the students' dedication.

#### Results of cognitive reading strategy

This section describes the results of the cognitive reading strategies employed in the ESP reading for management course, which utilized Online Dynamic Assessment. The cognitive techniques under consideration are classified into three parts of findings: before, during, and after reading. The overall results are shown in Table 5.

Table 5. *Results of cognitive reading strategy*

No	Items	N	M	SD
<b>Before Reading</b>				
1.	Read the title and predict the content.	60	3.022	0.903
2.	Examine illustrations/pictures to guess their relevance	60	3.530	1.812
3.	Skim the text first. then read it thoroughly	60	3.435	1.026
4.	Read the first line of each paragraph for understanding	60	3.032	1.503
5.	Reflect on prior knowledge about the topic	60	3.672	1.552
<b>While Reading</b>				
6.	Read without checking every unknown word.	60	3.842	1.525
7.	Use a dictionary for important unknown words.	60	3.523	1.827
8.	Guess word meanings from context.	60		
9.	Analyze grammar to understand unfamiliar words.	60	3.452	0.894
10.	Remember new words by associating with situations.	60	3.721	1.442
11.	Skip unknown words if overall understanding is possible.	60	2.453	1.371
12.	Reread sentences for better understanding.	60	3.238	1.911
<b>After Reading</b>				
13.	Classify words by meaning for memory.	60	3.475	0.142
14.	Classify words by grammar for memory	60	3.821	1.198
15.	Summarize main ideas in own words.	60	3.290	1.306
16.	Reread entire text if parts are unclear	60	3.704	1.207
17.	Reread entire text to remember key points.	60	3.632	1.780

This study focuses light on the cognitive reading processes that management students employ after taking an online dynamic assessment in the classroom. These tactics are employed before they begin reading. First, all 60 students read the title and tried to guess what the content would be. This strategy's average rating was 3.022, with a standard deviation of 0.903. This implies that students frequently try to predict what the text is about based on its title, which helps them focus when reading and comprehending the material. Next, each student evaluated any images or pictures to determine their relevance. This method received an average rating of 3.530, with a standard deviation of 1.812. This demonstrates how crucial visual aids are in the students' reading process because they assist them guess and understand what the text is about. Finally, the students implemented a few additional tactics. They all glanced the text first before reading it thoroughly. This method received an average rating of 3.435, with a standard deviation of 1.026. This shows that students prefer to gain a rough grasp of the text's content before delving into it. Every student reads the first line of each paragraph in order to understand it. This method received an average rating of 3.032, with a standard deviation of 1.503. This means that students frequently use the first line of each paragraph to help them understand the paragraph's major idea or theme. Finally, each student pondered on what they previously understood about the subject. This method received the highest average rating, 3.672, with a standard

deviation of 1.552. This demonstrates how students frequently use what they already know about the subject to help them grasp and interpret the material. Finally, our findings emphasize the many cognitive reading methods used by management students before they begin reading. They demonstrate that students take an active role in the reading process in order to increase their understanding.

The next section provides an in-depth exploration of the cognitive reading strategies that students employ during their reading process, after engaging in an online dynamic assessment in their classroom setting. The first technique is to read without examining each unknown word. This technique was employed by all 60 students, and the average rating was 3.842 with a standard deviation of 1.525. This implies that pupils frequently read through the material without pausing for each unfamiliar word. The pupils then employed the method of consulting a dictionary for crucial unknown words. This method had an average rating of 3.523 and a standard deviation of 1.827, showing that students frequently consult dictionaries when encountering significant words they are unfamiliar with. Another approach that all 60 students reported employing was estimating word meanings based on context. This demonstrates how vital context is for interpreting unknown terms. The students also evaluated grammar to better understand unfamiliar words, which received an average value of 3.452 with a standard deviation of 0.894. This shows that students frequently rely on their grammar skills to

determine the meaning of unfamiliar words. The fifth technique involves linking new words with situations. This method received an average rating of 3.721 with a standard deviation of 1.442, showing that students frequently use situational associations to recall new language. The sixth technique, skipping unknown words if overall understanding is achievable, with an average rating of 2.453 and a standard deviation of 1.371. This implies that students frequently overlook unfamiliar terms if they can still understand the broader content of the text. Finally, all students employed the approach of rereading sentences for greater comprehension, with an average rating of 3.238 and a standard deviation of 1.911. This suggests that students frequently repeat phrases to ensure that they completely understand the text. Finally, our findings illustrate the many cognitive reading methods that management students employ during their reading experience. They demonstrate that students take an active role in the reading process in order to increase their understanding.

The data also provides a full insight of the cognitive reading strategies that students employ during the post-reading process in an online dynamic evaluation. These strategies include classifying words by meaning for memory, which was used by all 60 students and had an average rating of 3.475; classifying words by grammar for memory, which was also universally adopted and had an average rating of 3.821; summarizing main ideas in own words, which all students used and had an average rating of 3.290; rereading the entire text if parts are unclear, which had an average rating of 3.704; and finally, rereading the entire text to remember. These findings demonstrate the variety of cognitive reading strategies used by students during their post-reading process in an online dynamic assessment, emphasizing their proactive participation in the reading process to improve comprehension and memory retention.

The study found that the experimental group improved significantly in the posttest, as shown by a higher average score. The higher range and standard deviation in the experimental group reflect a broader range of student abilities, which could indicate the test's usefulness in distinguishing different levels of student proficiency. Whether we assume equal or unequal variances, the t-test findings show a significant difference between the control and experimental groups. This suggests that the ESP reading program, provided via Online Dynamic

Assessment, has a significant favorable impact on the reading ability of management students.

The research also sheds light on the cognitive reading methods that management students use at various levels of reading after taking an online dynamic assessment. Before reading, students predict the content based on the title, evaluate images for relevance, skim the text, read the first line of each paragraph, and reflect on their past understanding of the topic. During the reading process, they do not stop for every unknown word; instead, they use a dictionary for critical unknown words, guess word meanings from context, analyze grammar, associate new words with situations, skip unknown words if overall understanding is possible, and reread sentences to improve comprehension. After reading, they classify words based on meaning and grammar to aid memory retention, describe main ideas in their own words, and reread the material if any parts are unclear or to recall crucial themes. These tactics, used by all 60 students, demonstrate the active role that students take in improving their comprehension and memory recall.

Dynamic Assessment (DA) is a colorful and interactive method that smoothly integrates teaching and evaluation activities (Ghahderijani et al., 2021; Momeni & Nushi, 2022; Sohrabi & Ahmadi Safa, 2020). It functions as a two-way mirror, reflecting not only a student's current talents but also their capacity to learn when given suitable instruction. This concept is based on Vygotsky's Zone of Proximal Development (ZPD), which is the difference between a learner's independent abilities and what they can accomplish with help (Mustiah et al., 2024; Yang & Qian, 2020).

DA excels in its capacity to forecast future performance, frequently beating traditional static measures (Ebadi & Asakereh, 2017; Situngki et al., 2024). It's like having a crystal ball that predicts a learner's future improvement. This is especially useful for children with developmental problems and learning issues. Furthermore, DA has demonstrated a substantial relationship with word reading metrics, particularly among younger children, showing its efficacy in literacy education (Andujar, 2020; Dixon et al., 2023). One of the distinguishing features of DA is the dynamic interaction it encourages between the instructor and the students, resulting in a continual cycle of learning and feedback.

However, all roses have thorns, and DA is no exception. Its application in an online setting is still in its early stages, and despite increased

interest, its use in real classrooms is limited (Kazemi et al., 2020; Ritonga et al., 2022). The one-on-one contacts required can be time-consuming, and there is presently no evidence to suggest that DA can dramatically alter the nature of children's intervention programs (Phillips, 2022; Tuluk & Yurdugul, 2020). Despite these challenges, DA remains a beacon of hope in the field of reading instruction, promising a brighter future for students (Poehner & Wang, 2021; Rezapour et al., 2023).

This study has made a significant addition to the field of English for Specific Purposes (ESP) by shedding light on the often-overlooked possibilities of Dynamic Assessment. It has been empirically established that DA is effective when developed and deployed in an online setting for ESP instruction. In contrast to prior research, which claimed that DA was best suited for novice learners (Derakhshan et al., 2020; Kazemi et al., 2020; Safdari & Fathi, 2020), this study calls that premise into question. It gives strong evidence that Online Dynamic Assessment can be an effective tool for adult learners in ESP, improving not only their reading skills but also supporting the development of cognitive processes (Estaji & Ameri, 2020; Silva Moreira et al., 2022). This groundbreaking discovery opens the door to new uses of DA, broadening its scope beyond typical classroom settings and rookie learners to include online learning and adult education in ESP. It emphasizes DA's adaptability and versatility, strengthening its position as a promising educational strategy in language education (Afshari et al., 2020; Ebadi & Bashir, 2021; Salinas-Navarro et al., 2024). This study, therefore, acts as a guiding light for future researches, urging them to investigate and utilize the untapped potential of Online Dynamic Assessment in other educational contexts.

## **CONCLUSION**

The study concludes that the experimental group performed significantly better on the posttest, as shown by an increased average score. The broader range and standard deviation in the experimental group indicate a diverse range of student abilities, implying that the exam may be useful in distinguishing between different levels of student competency. Whether equal or unequal variances are considered, the t-test findings show a significant difference between the control and experimental groups. This means that the ESP reading program, which is supported through Online Dynamic Assessment, has a significant

favorable impact on management students' reading ability.

Furthermore, the study exposes the cognitive reading methods used by management students at various phases of reading after an online dynamic evaluation. Prior to reading, students anticipate the content based on the title, evaluate visuals for relevance, skim the text, read the first line of each paragraph, and reflect on their prior knowledge of the subject. During the reading process, they do not stop at every unfamiliar word; instead, they consult a dictionary for critical unknown words, infer word meanings from context, examine grammar, associate new words with situations, skip unknown words if overall comprehension is possible, and reread sentences to improve understanding. After reading, they categorize words based on meaning and grammar to aid memory retention, articulate main concepts in their own words, and revisit the content if any areas are unclear or to reiterate key themes. These tactics, used by all 60 students, demonstrate the proactive role that students have in improving their comprehension and memory recall.

Future research should include increasing the sample size, doing longitudinal investigations, and replicating the study across multiple ESP domains. It is also essential to look at other contributing factors such as motivation and self-efficacy, conduct a qualitative analysis of cognitive reading strategies, and compare the efficiency of this method to others. Further research might tailor the program to different proficiency levels, look into the impact of individual tactics on understanding, and investigate integration with other language skills. These proposals seek to improve ESP teaching and learning results by expanding on current research and emphasizing student-centered approaches.

## **ACKNOWLEDGEMENT**

The authors would like to extend their profound gratitude to the Ministry of National Education for their substantial financial support of this research. The allocation of funds through the Master's Thesis Grant scheme for the year 2024 has been instrumental in the progression and success of our work.

## **REFERENCES**

- Afshari, H., Amirian, Z., & Tavakoli, M. (2020). Applying group dynamic assessment procedures to support EFL writing development: Learner achievement, learners' and teachers'



- perceptions. *Journal of Writing Research*, 11(3), 445–476. <https://doi.org/10.17239/JOWR-2020.11.03.02>
- Aini, J. N., Anwar, K., & Arifani, Y. (2023). Eustress, learning engagement, and workable strategies of dcblt in English for engineering. *English Review: Journal of English Education*, 11(3), 799–810. <https://doi.org/10.25134/erjee.v11i3.8838>
- Alanazi, S. A., & Alharbi, M. A. (2021). ESP courses for saudi nursing students: A mixed method study. *Asian ESP Journal*, 17(3.2), 108–127.
- Amini, M., Zahabi, A., Amini, D., & Hosseini, S. (2020). A review of reading strategies and models in learning and teaching of english as a foreign language. *Asian Journal of English Language and Pedagogy*, 8(2), 14–26. <https://ojs.upsi.edu.my/index.php/AJELP/article/view/3596>
- Andujar, A. (2020). Mobile-mediated dynamic assessment: A new perspective for second language development. *ReCALL*, 32(2), 178–194. <https://doi.org/10.1017/S0958344019000247>
- Bezi, E. Ö. (1998). *An investigation of the cognitive reading strategy needs of the freshman students at Hacettepe University*. <https://repository.bilkent.edu.tr/items/61a0c106-ea8a-48f3-8732-2abdbfc4df96>
- Derakhshan, A., Shakki, F., & Sarani, M. A. (2020). The effect of dynamic and non-dynamic assessment on the comprehension of iranian intermediate efl learners speech acts of apology and request. *Language Related Research*, 11(4), 605–637.
- Dixon, C., Oxley, E., Gellert, A. S., & Nash, H. (2023). Dynamic assessment as a predictor of reading development: a systematic review. *Reading and Writing*, 36(3), 673–698. <https://doi.org/10.1007/s11145-022-10312-3>
- Ebadi, S., & Asakereh, A. (2017). Developing EFL learners' speaking skills through dynamic assessment: A case of a beginner and an advanced learner. *Cogent Education*, 4(1). <https://doi.org/10.1080/2331186X.2017.1419796>
- Ebadi, S., & Bashir, S. (2021). An exploration into EFL learners' writing skills via mobile-based dynamic assessment. *Education and Information Technologies*, 26(2), 1995–2016. <https://doi.org/10.1007/s10639-020-10348-4>
- Elahi Shirvan, M., Taherian, T., & Yazdanmehr, E. (2020). The dynamics of foreign language enjoyment: An ecological momentary assessment. *Frontiers in Psychology*, 11(July), 1–14. <https://doi.org/10.3389/fpsyg.2020.01391>
- Enderwati, E., Anwar, K., & Maruf, N. (2023). Exploring the Challenges faced by teachers in teaching writing skills and how anchor charts can address them. *English Review: Journal of English Education*, 11(3), 629–640. <https://doi.org/10.25134/erjee.v11i3.8421>
- Estaji, M., & Ameri, A. F. (2020). Dynamic assessment and its impact on pre-intermediate and high-intermediate EFL learners' grammar achievement. *Cogent Education*, 7(1). <https://doi.org/10.1080/2331186X.2020.1740040>
- Fariha, N., Anwar, K., & Maruf, N. (2023). Exploring the correlation of sociolinguistic competence and speaking proficiency, and how learners perceived them. *English Review: Journal of English Education*, 11(3), 1001–1012. <https://doi.org/10.25134/erjee.v11i3.9083>
- Ghahderijani, B. H., Namaziandost, E., Tavakoli, M., Kumar, T., & Magizov, R. (2021). The comparative effect of group dynamic assessment (GDA) and computerized dynamic assessment (C-DA) on Iranian upper-intermediate EFL learners' speaking complexity, accuracy, and fluency (CAF). *Language Testing in Asia*, 11(1). <https://doi.org/10.1186/s40468-021-00144-3>
- Hernández Urrego, S. C. (2019). A virtual learning object (vlo) to promote reading strategies in an english for specific purposes Environment. *How*, 26(2), 106–122. <https://doi.org/10.19183/how.26.2.517>
- Kazemi, A., Bagheri, M. S., & Rassaei, E. (2020). Dynamic assessment in English classrooms: Fostering learners' reading comprehension and motivation. *Cogent Psychology*, 7(1). <https://doi.org/10.1080/23311908.2020.1788912>
- Mochizuki, T., Nishimori, T., Tsubakimoto, Mio, Oura, H., Sato, T., Johansson, H., Nakahara, J., & Yamauchi, Y. (2019). Development of software to support argumentative reading and writing by means of creating a graphic organizer from an electronic text. *Educational Technology Research and Development*, 67, 1197–1230. <https://doi.org/10.1007/s11423-019-09676-1>
- Momeni, A., & Nushi, M. (2022). Iranian EFL Teachers' beliefs about dynamic assessment: does context make a difference? *Language Related Research*, 13(3), 403–428. <https://doi.org/10.29252/LRR.13.3.15>
- Mustiah, M., Dayat, D., & Sadek, N. (2024). The impact of mobile-assisted hybrid dynamic assessment on arabic language leaners' reading comprehension performance. *Journal of Languages and Language Teaching*, 12(1), 524. <https://doi.org/10.33394/jollt.v12i1.9158>
- Norris, G., Griffith, G., & Norris, H. (2017). Risk assessment in youth justice: a child-centered approach to managing interventions. In W. Petherick & G. Sinnamon (Eds.), *The Psychology of Criminal and Antisocial Behavior* (pp. 211–231). Academic Press.

**Ahmad Imron & Khoirul Anwar**

*Reading proficiency and cognitive reading strategies through online dynamic assessment (ODA) in english for economy*

- <https://doi.org/https://doi.org/10.1016/B978-0-12-809287-3.00006-7>
- Phillips, J. (2022). A rapid sustainability dynamic assessment of the USA and China 1995–2018. *Environmental Monitoring and Assessment*, *194*(7). <https://doi.org/10.1007/s10661-022-10141-5>
- Poehner, M. E., & Wang, Z. (2021). Dynamic Assessment and second language development. *Language Teaching*, *54*(4), 472–490. <https://doi.org/10.1017/S0261444820000555>
- Rezapour, F., Science, E., & Education, E. (2023). *Impact of dynamic assessment ( DA ) on elementary students ' motivation*. *3*(4), 55–63.
- Ritonga, M., Farhangi, F., Ajanil, B., & Farid Khafaga, A. (2022). Interventionist vs. interactionist models of dynamic assessment (DA) in the EFL classroom: impacts on speaking accuracy and fluency (SAF), foreign language classroom anxiety (FLCA), and foreign language learning motivation (FLLM). *Language Testing in Asia*, *12*(1). <https://doi.org/10.1186/s40468-022-00195-0>
- Sa, H., Wardhono, A., Sa, H., & Gresik, M. (2021). *The effect of authentic problem – based learning in enhancing reading comprehension*. *585*, 84–94.
- Safdari, M., & Fathi, J. (2020). Investigating the role of dynamic assessment on speaking accuracy and fluency of pre-intermediate EFL learners. *Cogent Education*, *7*(1). <https://doi.org/10.1080/2331186X.2020.1818924>
- Salehi, H., Khoii, R., Rashtchi, M., & Arjmandnia, A. A. (2024). ADHD learners as victims or survivors in L2 learning contexts: a case of application of dynamic assessment to selective attention and reading comprehension ability. *Asian-Pacific Journal of Second and Foreign Language Education*, *9*(1). <https://doi.org/10.1186/s40862-023-00229-x>
- Salinas-Navarro, D. E., Vilalta-Perdomo, E., Michel-Villarreal, R., & Montesinos, L. (2024). Using generative artificial intelligence tools to explain and enhance experiential learning for authentic assessment. *Education Sciences*, *14*(1). <https://doi.org/10.3390/educsci14010083>
- Schröder, A., & Krüger, D. (2019). Social innovation as a driver for new educational practices: Modernising, repairing and transforming the education system. *Sustainability (Switzerland)*, *11*(4). <https://doi.org/10.3390/su11041070>
- Sembel, J. S. (2018). Developing learner-oriented english for nursing syllabus. *Nursing Current Jurnal Keperawatan*, *6*(1), 60. <https://doi.org/10.19166/nc.v6i1.1347>
- Silva Moreira, J., Ferreira, P. C., & Veiga Simão, A. M. (2022). Dynamic assessment of self-regulated learning in preschool. *Heliyon*, *8*(8). <https://doi.org/10.1016/j.heliyon.2022.e10035>
- Situngki, F. L., Gultom, S., & Simanjorang, M. (2024). *Literature study: Dynamic assessment in mathematics*. *1*(1).
- Sohrabi, S., & Ahmadi Safa, M. (2020). Group dynamic assessment and EFL learners' oral production, motivation, and classroom anxiety. *English Teaching and Learning*, *44*(4), 353–376. <https://doi.org/10.1007/s42321-020-00054-2>
- Tuluk, A., & Yurdugul, H. (2020). Design and development of a web based dynamic assessment system to increase students' learning effectiveness. *International Journal of Assessment Tools in Education*, *7*(4), 631–656. <https://doi.org/10.21449/ijate.730454>
- Yang, Y., & Qian, D. D. (2020). Promoting L2 English learners' reading proficiency through computerized dynamic assessment. *Computer Assisted Language Learning*, *33*(5–6), 628–652. <https://doi.org/10.1080/09588221.2019.1585882>
- Zeng, C., Li, S., Li, Q., Hu, J., & Hu, J. (2020). A survey on machine reading comprehension—tasks, evaluation metrics and benchmark datasets. *Applied Sciences (Switzerland)*, *10*(21), 1–57. <https://doi.org/10.3390/app10217640>