Looking into the Role of Dynamic Assessment in English Grammar Mastery of Indonesian EFL Learners

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Abstract. Dynamic Assessment (DA) is known as an alternative assessment through which learners are helped to enhance performance beyond their current ability. Although the concept of DA has been widely introduced by experts, the it is still rarely put in practice by many educators, in particular, in the Indonesia context. The present study aims to investigate the implementation of DA approach in intermediate grammar class. To this end, eighty-five Indonesian EFL university students who took Functional Grammar Course from the English Education study program participated in this study. The participants belonged to experiment and control groups with each consisting of 42 and 43 students respectively. The data were collected through pretest and posttest. The findings revealed that DA had an impact on the students' grammar mastery, as suggested by the significant increase of post-test scores compared to pre-test ones among the experiment class and by the significant difference between the post test scores of the experimental and control classes, in favour of the experimental one. Accordingly, the findings highlighted the need for language teachers' attention to DA as an alternative to other assessment methods.

Keywords: dynamic assessment · grammar mastery · EFL classroom

1 Introduction

English grammar is one of the essential components for students in learning English. Mastering English grammar allows students to increase their English skills, such as writing, listening, speaking, and reading. However, learning English grammar is difficult for many students. It needs an 'understanding of abstract concepts and complicated application in daily communication [1]. Moreover, English grammar is very challenging for EFL learners since they use English as a foreign language and do not use English naturally for daily communication [2]. Therefore, EFL grammar still becomes an issue in learning English.

Researchers have investigated the challenges and difficulties faced by EFL students in learning grammar, [3]-[5]. For instance, Larsen-Freeman [4] asserted that the problems faced by students in learning grammar are in terms of linguistics, semantics, and pragmatics. Meanwhile, Graus and Coppen [3] also investigated students' difficulties

in English grammar. The results showed that the factors for learning English grammar are grammar features, pedagogical arrangement; teacher quality; and learner characteristics. For this reason, language teachers need to resolve or find an innovative way to develop students' English grammar skills. One of the alternative ways for helping language teachers in monitoring and giving students an assistance to improve their English grammar competency is through assessment. Identification of learning effectiveness is carried out through the approach of student activities and teacher activities [3].

In a higher education context, language teachers or lecturers assess students during the teaching and learning process. With the systematic assessment, language teachers will know the level of students' achievements, and it also informs what challenging aspects students face during language learning [6]. Its aim is to assist language teachers in knowing students' learning progress and the results of students' learning and to support the learning process in becoming more meaningful [7]. Assessment is a systematic and sustainable process to gain much information related to students learning outcomes, and it increases teaching and learning effectiveness [8]. In other words, assessment is crucial in language learning because its results can determine students' future performance. From a technical point of view, assessment is usually carried out using traditional or alternative techniques [9]. Traditional assessment techniques use a written test technique (paper and pencil test). For instance, a test using multiple choice and a test with de-scription answers. However, traditional assessments can only measure students' cognitive abilities, so the results of traditional assessments cannot measure students' overall abilities and are more product-oriented. Therefore, alternative assessment exists as an assessment that can inform overall student results and complement traditional assessments. Alternative assessments lead to performance tests where the non-test techniques are attitude, product, project, portfolio, and self-assessment. If alternative assessments are applied, teachers will get information about the overall level of students' abilities because students can maximize their ability performance when the test is carried out.

Furthermore, most Indonesian lecturers tend to use traditional assessments as a standard method to assess students' skills [10]. Meanwhile, it is assumed that students who have low scores in learning outcomes as the results of traditional assessments have low competency to overcome their learning difficulties. Therefore, after doing traditional assessments, students who face difficulties during tests have to repeat the test without knowing how to solve it [10]. From that explanation before, implementing alternative assessment is an appropriate decision for language teachers to assist students in improving their competency.

Dynamic assessment (DA) is one of the alternative assessments that has recently received much attention in language assessment and science education [11]–[4]. This assessment aims to provide mediation or direction to students during the assessment process so that educators can make assessments or measurements at that time [5]. Therefore, in the dynamic assessment, a significant interaction aims to investigate the problems that arise during the assessment. Another main objective is assessing or measuring student learning outcomes with the interaction process [6]. It means that it helps students to maximize their abilities on ongoing assessment.

Furthermore, dynamic assessment has gained recognition as an appropriate alternative assessment in learning. It is because it focuses on solving problems in the classroom

during tests or exams. Then, it encourages students to be more active, provides opportunities for students to ask educators about the difficulties encountered through instruction directly, and conducts assessments in that time [7]. The two-way interactive relationship between teachers and students is well established in dynamic assessments [8]. In addition, dynamic assessment emphasizes the improvement process rather than the product of the student's current level of ability [7, 9]. In other words, dynamic From a technical point of view, assessment is usually carried out using traditional or alternative techniques [9]. Traditional assessment techniques use a written test technique (paper and pencil test). For instance, a test using multiple choice and a test with de-scription answers. However, traditional assessments can only measure students' cognitive abilities, so the results of traditional assessments cannot measure students' overall abilities and are more product-oriented. Therefore, alternative assessment exists as an assessment that can inform overall student results and complement traditional assessments. Alternative assessments lead to performance tests where the non-test techniques are attitude, product, project, portfolio, and self-assessment. If alternative assessments are applied, teachers will get information about the overall level of students' abilities because students can maximize their ability performance when the test is carried out.

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students where the lecturer is the mediator and the students are the test takers. It means that direction or guidance occurs in the process of interaction between the mediator and the test takers. The same thing was also conveyed by Safa and Baheshti [11] that interactionists prioritize the interaction process between the mediator and the test taker where the mediator measures the current level of the test taker's ability. In other words, this approach does not focus on the quantity of ability of students' learning progress.

Meanwhile, the interventionist approach is the opposite of the interactionist approach. Interventionists emphasize the quantification or speed of learning before and after the intervention [11]. The interventionist approach applies the mediation method using standard administrative procedures. It creates a form of guideline to produce results that can assess or measure student performance for future tests. This approach tries to provide valid evidence regarding student progress by quantifying their performance where the results are useful for future tests [11, 12].

The results of previous studies on dynamic assessment in the overseas context of EFL showed consistant results on students' grammar skills. For example, Jafary et al. [13] investigated the effect of dynamic assessment on syntactic development applied to Iranian EFL students preparing for the college level. The study results showed a significant improvement in subjects in the experimental group who received mediation in dynamic assessments than subjects in the control group who only received deductive instruction on grammar learning for 12 sessions. Majdedin et al. [14] also conducted the same research. This study showed that the improvement in students' scores of English grammar skills (relative pronouns) occurred after applying dynamic assessment mediation. Another study was also conducted by Mohammadimoghadam [15]. This research focused on the effect of dynamic assessment mediation on English grammar learning (Question tag) applied to beginner level EFL students. The results of this study indicated a significant difference in students' knowledge in learning after implementing a dynamic assessment intervention. From the results of previous studies, it can be inferred that dynamic assessment have a positive influence on students' English grammar skill.

However, implementing DA in the Indonesian classroom contexts remains uncommon practice (Fahmi et al., 2020). Therefore, applying DA to EFL learners in Indonesia will give new insights into language learning environments. For this reason, this present study investigated how the dynamic assessment influenced EFL university students' English grammar mastery in the Indonesian context. This study focused on to what extent DA could enhance English Education students' grammar mastery in English grammar classes.

2   Research Methods

The present study used a quasi-experimental study [16]. It involved 85 EFL students majoring English Education in a state university in East Java, Indonesia. Those students were divided into two groups: control and experimental. There are 43 EFL students in the control group and 42 EFL students in the experimental group. Subsequently, to ensure that the students were at the same level of grammar mastery, the researchers conducted an independent t-test at pre-test session. The experimental group was taught grammar materials using DA approach while the control one was taught using conventional approach for seven weeks. Following the intervention, the two groups were given a post

test and the results of the tests were analysed using paired samples-test and independent samples t-test. To ensure the validity of the test, the instrument was checked for content validity through expert review, with revisions being done based on the feedback. The instrument also has high internal consistency measured by Cronbach's alpha, as suggested by the alpha value of 0.83.

3   Results and Discussion

This present study examined whether there was any significant difference or not in the learners' grammar performance before and after being given an intervention of DA-based grammar teaching. The data of the present study were analysed using t-tests aided with statistical analysis software. Firstly, an independent t-test was run to check whether the grammar mastery of both control (M = 60.42; SD = 14.29) and experimental groups (M = 61.07; SD = 11.11) was relatively the same or not. The results showed that based on the results of pre-test scores of both experimental and control group were not significantly different, t (83) = .235, p = 0.81, with the very small effect size of .0007 (see Table 1). Meaning that both of group had little difference in their initial ability in grammar mastery prior to the beginning of the study.

After giving the treatment for experimental group, the researcher administered a posttest to know the students' score after the treatment. Table 2 shows the results of the posttest for both control and experimental group. It shows that the experimental group has a higher mean score (M: 86.78; SD = 7.13) compared to the control group (M: 77.93; SD = 15.24). Based on the students' mean scores of the posttest, it reveals that there was a significant difference between the experimental and control in terms of students' skill of grammar mastery after they had treatment, t (83) = 3.41, p = 0.001 (see Table 2 = Table 5). The magnitude of effect size was also large, eta squared = 1.2.

Additionally, the paired sample t-test was run for finding out the effectiveness of the treatment. The students' scores of pre-test and post-test for the paired sample t-test were tabulated and analysed. The results of the paired sample t-test are shown in Table 4. It can be clearly seen that there was a significant improvement comparing pre-test and post-test scores of the experimental group, t (41) = −.13.38, p = 0.00. The effect size as suggested by the eta squared was also 0.81 which is moderate. Based on the p value it indicates that the treatment was effective to improve students' grammar mastery in the experimental group.

Moreover, to give more evidence on which group had high improvement, the researcher conducted the independent sample t-test comparing the post-tests scores of experimental and control groups. The results of the independent sample t-test for control and experimental group are presented in Table 5. It shows that the post-test scores of the experimental group (M = 86.78; SD = 7.13) was significantly different from those of control group (M = 77.93; SD = 1.24), in favour of the experimental one, t(83) = 3.41, 0.001. The eta squared was 0.12, indicating a moderate effect size. Regarding the p value and effect size, it confirms that the experimental group had high improvement, which means that dynamic assessment can increase students' grammar mastery.

The results of this study support the results of previous studies by Jafary [13], Majdedin [14], and Mohammadimoghadam [15]. The results of their study demonstrated

that dynamic assessment gave significant improvement to the students' grammar. Furthermore, the finding of this present study is in line with some previous studies with the same research focus, e.g. [17, 18]. For instance, Abbasi and Fatemi's [17] study examined the effect of dynamic assessment on English tenses in Iranian EFL learners. The results showed that the learners who had treatment had better performance in the acquisition of English tenses and had positive attitudes toward implementing the dynamic assessment approach. Similarly, Sharafi and Sardareh's [19] and Daneshfar [18] also conducted studies in students' grammar skills. The findings of those studies convinced that the dynamic assessment approach had a considerable impact on EFL learners at elementary and secondary school in terms of grammar mastery skill. It refers that exposing dynamic assessment approach to the students assisted them in understanding the problem and improving their performance during test time compared to those who were not [20, 21]. It can be emphasized that dynamic assessment approach influenced students' mastery of grammar knowledge.

In the current study, the students had dynamic assessment intervention from the lecturer, and it gave them opportunities to negotiate and clarify their constraints during assessment time, which helped them solve their problems. This supports the role of dynamic assessment approach. It allows the students to correct and revise their current performance directly, which increases their willingness to complete their current task [22]. Besides, during the intervention, the lecturer provided various mediations, like prompting, guiding and modeling to the students, which engaged them to actively solve their difficulties in the current task. Thus, by the results of this study, it can be concluded that dynamic assessment approach effectively supports the students' grammar mastery performance.

4   Conclusion

This present study aimed to examine the effect of dynamic assessment on Indonesian EFL learners' grammar mastery. Based on the findings, it indicated that there was a significant effect of the grammar-based DA approach on the experimental group, meaning that the students who received dynamic assessment mediations got beneficial influence. For example, they have opportunities to check and revise their task, and they understand what problem they face in assessment time. In other words, the current study's findings convinces that dynamic assessment positively impacted the development of students' grammar mastery.

The findings of the current study have important implication for developing the assessments method in English language classroom in Indonesia contexts. Additionally, it is beneficial for the English teachers to make the best use of the dynamic assessment approach in assessment time to gain greater learning performance from the students.

References

1. Y. Ding, R. De Liu, C. A. McBride, C. H. Fan, L. Xu, and J. Wang, "Pinyin and English Invented Spelling in Chinese-Speaking Students Who Speak English as a Second Language," *J. Psycholinguist. Res.*, vol. 47, no. 5, pp. 1163–1187, Oct. 2018, https://doi.org/10.1007/S10 936-018-9585-4/TABLES/9.

2. S. Darus and K. Subramaniam, "Error analysis of the written English essays of secondary school students in Malaysia: A case study," *Eur. J. Soc. Sci.*, vol. 8, no. 3, pp. 483–495, 2009.

3. I. Rifani, "Pengaruh Model Pembelajaran Learning Cycle dan Model Pembelajaran Search, Solve, Create, and Share Terhadap Pemahaman Konsep-Konsep Geografi," *J. Geogr. Gea*, vol. 13, no. 1, 2013.

4. M. E. Poehner, *Dynamic assessment: A Vygotskian approach to understanding and promoting L2 development*, vol. 9. Springer Science & Business Media, 2008.

5. C. Van der Veen, M. Dobber, and B. van Oers, "Implementing dynamic assessment of vocabulary development as a trialogical learning process: A practice of teacher support in primary education schools," *Lang. Assess. Q.*, vol. 13, no. 4, pp. 329–340, 2016.

6. S. A. Gilani, N. F. B. M. Ismail, R. R. B. M. Kassim, J. Yawen, and M. Dan, "A Comprehensive Analysis of Research on Dynamic Assessment in EFL Speaking Context," *AJELP Asian J. English Lang. Pedagog.*, vol. 9, no. 1, pp. 65–79, 2021.

7. A. Kazemi, M. S. Bagheri, and E. Rassaei, "Dynamic assessment in English classrooms: Fostering learners' reading comprehension and motivation," *Cogent Psychol.*, vol. 7, no. 1, p. 1788912, 2020.

8. S. Ebadi, H. Weisi, H. Monkaresi, and K. Bahramlou, "Exploring lexical inferencing as a vocabulary acquisition strategy through computerized dynamic assessment and static assessment," *Comput. Assist. Lang. Learn.*, vol. 31, no. 7, pp. 790–817, 2018.

9. M. E. Poehner, "Dynamic assessment: Fairness through the prism of mediation," *Assess. Educ. Princ. Policy Pract.*, vol. 18, no. 2, pp. 99–112, 2011.

10. J. P. Lantolf and M. E. Poehner, "Dynamic assessment of L2 development: Bringing the past into the future.," *J. Appl. Linguist.*, vol. 1, no. 1, 2004.

11. M. Ahmadi Safa and S. Beheshti, "Interactionist and interventionist group dynamic assessment (GDA) and EFL learners' listening comprehension development," *Iran. J. Lang. Teach. Res.*, vol. 6, no. 3 (Special Issue), pp. 37–56, 2018.

12. N. Sadek, "Dynamic assessment (DA): Promoting writing proficiency through assessment," *Int. J. Biling. Multiling. Teach. English*, vol. 3, no. 02, pp. 59–70, 2015.

13. M. R. Jafary, N. Nordin, and R. Mohajeri, "The Effect of Dynamic versus Static Assessment on Syntactic Development of Iranian College Preparatory EFL Learners.," *English Lang. Teach.*, vol. 5, no. 7, pp. 149–157, 2012.

14. M. Majdedin, A. Nabizadeh, and A. Taghinejad, "Investigating learners' grammatical English relative pronouns through the interactionist model of dynamic assessment based on a sandwich format," *Int. J. Lang. Learn. Appl. Linguist. World*, vol. 9, no. 1, pp. 57–66, 2015.

15. M. Mohammadimoghadam, "Effects of mediation on an EFL learner's grammar development: A case study of an EFL beginner student," *Procedia-Social Behav. Sci.*, vol. 192, pp. 101–106, 2015.

16. J. W. Creswell and V. L. P. Clark, *Designing and conducting mixed methods research.* Sage publications, 2017.

17. A. Abbasi and M. A. Fatemi, "On the effect of dynamic assessment on Iranian pre-intermediate EFL learners' acquisition of English tenses," *Int. J. Lang. Learn. Appl. Linguist. World*, vol. 8, no. 4, pp. 222–236, 2015.

18. S. Daneshfar, S. H. Aliasin, and A. Hashemi, "The Effect of Dynamic Assessment on Grammar Achievement of Iranian Third Grade Secondary School EFL Learners.," *Theory Pract. Lang. Stud.*, vol. 8, no. 3, 2018.

19. M. Sharafi and S. A. Sardareh, "The effect of dynamic assessment on elementary EFL students' L2 grammar learning," *J. Appl. Linguist. Lang. Res.*, vol. 3, no. 3, pp. 102–120, 2016.
20. H. Khoshsima, A. Saed, and M. Mortazavi, "The impact of interactionist dynamic assessment on explanation writing ability of intermediate EFL learners," *Int. J. Lang. Linguist.*, vol. 4, no. 5, p. 183, 2016.
21. L. A. Mauludin, "Dynamic assessment to improve students' summary writing skill in an ESP class," *South. African Linguist. Appl. Lang. Stud.*, vol. 36, no. 4, pp. 355–364, 2018.
22. F. Azarian, N. Nourdad, and N. Nouri, "The effect of dynamic assessment on elementary EFL learners' overall language attainment," *Theory Pract. Lang. Stud.*, vol. 6, no. 1, p. 203, 2016.