Utilizing Reflective Teaching and Text Models for Increasing Students' Participation and Achievement in Writing Class

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Abstract

Reflective Teaching approach has been addressed to give beneficial contribution to learning achievement and learning attitude. Studies on Reflective Teaching Approach assure teachers to utilize the approach in their teaching and process. Dealing with the above consideration, the purpose of the study was to explore the impact of the implementation of reflective teaching combined with the use of text models for fostering students' participation and achievement in writing. This study employed a mixed-method approach by incorporating qualitative and quantitative research. The study used observation and interviews with 20 English as a Foreign Language students to investigate the impact of practicing reflective teaching by the teacher on students' participation. Additionally, Pre and Post-tests were applied to reveal whether the use of text models applied by the teacher could increase student achievement in writing. The results indicated the significant impact of the use of reflective teaching combined with text models on both students' participation and achievement in writing. Therefore, the study recommends the utilization of reflective teaching combined with text models in writing courses.

Keywords: reflective teaching, text models, writing courses, students' participation, students' achievement

1. Introduction

English teaching in countries where English serves as a foreign language often boils down to stories of lack of success in the learning activity (Albashtawi & Al Bataineh, 2020; Dewaele & Dewaele, 2020; Elahi Shirvan et al., 2020). This bad story is related to the weak language contact of students in English, either in listening, speaking, writing, or reading. This condition also does not make it easy for teachers to start teaching and learning activities in class because boredom or even dislike with ongoing lessons is very easy to occur among students (Gao & Zhang, 2020; Getie, 2020).

Another problem that often arises in the process of learning to teach English in countries where English is not used in everyday conversation is the rarity of students speaking in English. This condition increases the intensity of exercise using the language learned. Experts agree that practicing using the language learned is one of the keys to the ability to use the language (Albashtawi & Al Bataineh, 2020; Cabrera et al., 2020). The infrequent use of the language learned is not only caused by students' laziness in practicing but also caused by the difficulty of finding sparring partners in practicing speaking. The role of sparring partners is also recognized by experts as very important to get used to communicating or conveying ideas in interactions carried out (Cendra & Sulindra, 2022; Hartono et al., 2022).

The difficulties experienced by teachers are not only related to students' inability or incomprehension of learning English as a foreign language but also mainly related to how to prepare the teaching process comprehensively, choose the right approach and learning method, and develop supporting learning materials and media (D'Isanto et al., 2022; Nordmann et al., 2022). On the other hand, students also have a bit of difficulty when, for example, learning the pronunciation of words correctly because of the rarity of English speakers who can be used as models. Other difficulties experienced by students revolve around how to develop vocabulary and use it in proper sentence construction, especially in speaking, reading, and writing (Cendra & Sulindra, 2022; Kara & Can, 2019).

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All of the difficulties discussed above are, of course, related to each other. The difficulty of a teacher teaching English as a foreign language has an impact on how he or she manages the class (Karataş & Tuncer, 2020; Zhang et al., 2020). The situation as it is in the narrowness of infrastructure, books, and other learning resources will inevitably have an impact on student participation in teaching and learning activities in the classroom. In turn, student learning achievement is also not as expected (Galatsopoulou et al., 2022; Hailikari et al., 2022; Patiño et al., 2023). This condition will be even worse if English is used as one of the pre-graduation requirements. In some countries where English is not used as a language of daily communication, English lesson is provided as a compulsory subject matter in stages from elementary education to college (Noh & Karim, 2021; Wang & Lin, 2021).

Dealing with its position as one of the compulsory subjects in schools, the English language subject has received more attention from policymakers in Education. Various efforts are made ranging from training or upgrading to improve teachers' competence to the application of the latest approaches or methods and material development. One that is often promoted is the use of reflective approaches by teachers (Aydoğmuş & Kurnaz, 2022; Buhagiar et al., 2023; Li et al., 2023). The reflective approach to learning is a method in which teachers and learners consider their experiences in depth and utilize them in the learning process. This approach promotes thinking processes based on self-reflection, past experiences, and future expectations, enabling learners to develop critical thinking, strengthen reasoning power, and streamlined abilities in the learning process (Gudeta, 2022; Li et al., 2023).

However, some studies tried to combine the use of a reflective approach with other things related to learning, such as the use of facilities, media, references, and examples of learning products (Almusharraf et al., 2022; Caswell, 2019). This merger aimed to obtain effective learning and student learning outcomes more optimally (Habte et al., 2021; Li et al., 2023; Moghaddam, 2019). Another purpose of combining a reflective approach with the use of learning media or other means is to increase the effectiveness of learning by providing space for students to be fully involved in the learning process and facilitating interaction between students to share experiences, support, and ideas (Xiaoya, 2022; Ypsilanti & Karras, 2023). In other words, innovative steps in reflective teaching could be done by teachers. These can include using technology in learning, such as audio learning, interactive multimedia, and Virtual Reality (VR) and Augmented Reality (AR); combining various learning methods, such as lectures, discussions, creative, and practical, and developing communication and collaborative skills as well as critical skills (Xiaoya, 2022; Ypsilanti & Karras, 2023). Thus, attempts to combine reflective approaches with other approaches or other learning aids have often been made (Li et al., 2023; Shugurova, 2020).

In the selection of learning aids so far there are no standard rules agreed by experts, except for the framework of how to choose learning aids (Vagg et al., 2020; von Kotzebue et al., 2022; Zhu et al., 2021). In other words, the teacher knows best what and how he chooses learning aids according to the situation and conditions of the class and students (Hamid et al., 2022; Martín-Luengo et al., 2023). In the context of teaching writing, learning aids can be in any form, even materials related to other language skills (DarGis et al., 2022; Gallup & Pearce, 2020). Some researchers reveal the effectiveness of using writing materials (written texts) as learning aids in teaching writing (Alnasser, 2022; W. Chen, 2022; Chuenchaichon, 2022). The written texts are used by the teacher as a writing model or a kind of author's guideline that students can adopt to produce their writing (Cui et al., 2021; Do, 2023; Ezza et al., 2019; Ghufron & Nurdianingsih, 2019). But in general, the use of text models was not combined with learning approaches or methods (Alnasser, 2022; W. Chen, 2022; Chuenchaichon, 2022; Clif Mims et al., 2009; Cui et al., 2021) so the research findings do not reveal the relationship between model texts and other factors that contribute to the success story of the teaching and learning process of writing (Ezza et al., 2019; Ghufron & Nurdianingsih, 2019; Haerazi et al., 2020). This research revealed how necessary it is to combine a reflective approach with text models in writing class in the context of learning English as a foreign language, not only to increase student participation but also to improve their learning outcomes. The study then attempted to investigate the effect of carrying out reflective instruction in incorporating the use of text models on increasing students' engagement and accomplishment in writing.

2. Method

The design of this study was a mixed method, that is a research design that combines quantitative and qualitative methods to obtain more comprehensive, valid, reliable, and objective data (Creswell, 2003; Guo, 2021). This design allows researchers to answer research questions gradually and in depth. This method is often used when researchers want to explain quantitative results with qualitative data or vice versa (Samiei & Ebadi, 2021; Soleimani, 2020). A total of 20 students of English as a foreign language were the subjects of this study. Their involvement in this research was not only as participants in ordinary learning but also line with the application of the reflective approach by the teacher. They also got the help of model texts to make it easier for them to do writing tasks given by the

teacher.

Students' participations were observed by employing a documentary or a non-participant observation technique, which provided an opportunity for researchers to gain an in-depth understanding through analysis and interpretation of the data before and during the application of a reflective approach combined with the provision of model texts. The observation worked in the 7 (seven) areas of student participation, those were delivering opinions, answering the teacher's or classmate's questions, asking questions, submitting a rebuttal, working on tasks, participating in classroom discussions, and following classroom rules.

Additionally, several interviews using semi-structured interviews were also conducted to listen to their opinions and perceptions of the learning patterns carried out by the teacher, such as the benefits of reflective practice, perception of reflection in leadership learning, teachers' engagement in reflective teaching and their acceptance of the steps taken by the teacher. The results of their learning in the form of written works were also assessed, both before they were treated and afterward. The assessment was analyzed statistically to obtain conclusions.

3. Results

3.1 The impact of Reflective Teaching on Students' Participation

The findings of qualitative approach of this study revealed the potential benefit of reflective teaching approach for the teacher to better increase his teaching quality. The documentary record of this study revealed that the teacher was more diverse in developing learning methods by carrying out at least four stages of reflective steps. First, he performed context recognition in the early stages by preparing himself for reflective learning by understanding the desired learning context and student competencies. Second, the teacher began to teach the learning material by presenting relevant experiences, examples, and practices. Third, he and the students evaluated the learning experience, identified flaws, and devised strategies to improve learning. At this point, the teacher encouraged students to participate in their learning and to take the necessary actions to improve their learning. The fourth, the teacher conducted the final stage to test the impression and effectiveness.

In regard to the interview, it was recorded that 80 % of students claimed to have good benefits from reflective practices that were performed by the teacher. They said that the stages of reflection made them refresh and got new learning circumstances which brought them into joyful learning. Additionally, 75 % of students expressed a good perception of reflection in leadership learning, especially in the teachers' engagement in reflective teaching. Moreover, 85 % of students expressed with joy their acceptance of the steps taken by the teacher to improve both their participation as well as their achievement.

Meanwhile, all of the observed indicators of student participation increased, although at different percentage levels. The results of the quantification of student participation showed an increase in terms of the average participation rate, which was from an average of 50% before treatment and increased to 76.42% after receiving treatment. The results of observation dealing with students' participation before and during the treatment can be seen in Table 1.

Table 1	l. Stud	ent Pa	rticipatior	ı Before ar	ıd Durin	g the	Treatment

Participation	Before	After
Delivering opinion	40 %	70 %
Answer question	55 %	70 %
Ask a question	45 %	80 %
Submit a rebuttal	40 %	65 %
Work on Tasks	65 %	95 %
Participate in discussions	50 %	75 %
Follow classroom rules	55 %	80 %
Mean	50 %	76.42%

3.2 The Impact of Reflective Teaching on Students' Learning Achievement

In terms of quantitative data, the statistical data showed an increase in students' learning ability from an average of 58.44 before receiving a combined treatment between reflective teaching and text models to an average of 85.57 after receiving treatment. The results of statistical calculations show that the data was normal due to Sig values≥ 0,05

(both pre-test and post-test). Because the data is normal, a Parametric statistical test (Paired Sample t-test) was carried out with the results of Sig values ≤ 0.05 which means there is a significant difference in post-test scores with pre-test scores. Judging from these differences, posttest scores are significantly better than pretest scores or increase significantly. The description of statistical calculation is presented in Table 2.

Table 2. Description of Statistical Calculation

		Statistic	Std. Error
PRETESOBS	Mean	50.00	3.450
	95% Confidence Interval for Lower Bound	41.56	
	Mean Upper Bound	58.44	
	5% Trimmed Mean	49.72	
	Median	50.00	
	Variance	83.333	
	Std. Deviation	9.129	
	Minimum	40	
	Maximum	65	
	Range	25	
	Interquartile Range	15	
	Skewness	.460	.794
	Kurtosis	528	1.587
POSTESTOBS	Mean	76.43	3.734
	95% Confidence Interval for Lower Bound	67.29	
	Mean Upper Bound	85.57	
	5% Trimmed Mean	76.03	
	Median	75.00	
	Variance	97.619	
	Std. Deviation	9.880	
	Minimum	65	
	Maximum	95	
	Range	30	
	Interquartile Range	10	
	Skewness	1.081	.794
	Kurtosis	1.444	1.587

The above table shows that the intervention done in the learning activity gave a positive effect on students' performance based on the indication of the significant difference on the average scores of the post-test compared with that of the pre-test. Additionally, students may have different levels of benefit across the group.

4. Discussion

The results of the study are in line with the findings of previous research which states that reflective teaching not only encourages teachers to improve their teaching and learning process in the classroom but also moves teachers to diversify methods (Aydoğmuş & Kurnaz, 2022; Oo & Habók, 2020). It also develops new learning materials, preserves for students, and finds effective learning processes to improve student achievement (Aydoğmuş & Kurnaz, 2022; Le Thanh Thao et al., 2023).

In several studies on the achievement of student learning achievement through reflective teaching, teacher activities are not only about reflecting on the stages of teaching carried out but also conducting studies on the carrying capacity of others in the teaching and learning process they do (Li et al., 2023; Liao, 2020). In this case, the study of subject matter, learning facilities, and other tools that determine or support student achievement should be considered (Xiaoya, 2022). Discussions on the use of facilities or tools used by teachers in the teaching and learning process can

also be communicated with students. This is great to do to invite more moderate participation from students (Y. A. Chen et al., 2019; Cherian et al., 2020).

Dealing with the utilization of infrastructure or devices, teachers could indeed make innovation in carrying out reflection. Innovation in learning reflection can be done in various ways, such as providing reflection themes, inviting students to provide feedback, and building a reflection process in the classroom. This is important to increase creativity and innovation in the learning process, as well as improve the way teachers teach in the classroom (Bay, 2020; Bevilacqua et al., 2021; Dadvand & Behzadpoor, 2020). In addition, innovation in reflection can also help teachers to understand the shortcomings and advantages of teaching, as well as know the wishes and complaints of students in the learning process (Moreno-Guerrero et al., 2020; Portuguez Castro & Gómez Zermeño, 2020). Thus, innovation in learning reflection is important to improve the quality of learning and teacher performance (Rincon-Flores et al., 2022).

Innovation in the teaching and learning process is not only the responsibility of the teacher, but the center of innovation is in the teacher (Wiziack & dos Santos, 2021; Wu et al., 2020). Thus students can be involved in the innovation process of learning and teaching activities. The process of involving students can be done randomly according to the willingness and ability of students to participate (Ullah et al., 2019). However, student participation in the innovation of the teaching and learning process can also be designed jointly between teachers and students. Collaboration in planning and designing innovations is recognized by experts as having superior usability compared to innovation activities dominated by teachers. In this case, student engagement is fostered during the classroom's activities to create a setting of student-centered learning in the writing class.

Student perceptions and assumptions of reflective teaching practices carried out by teachers certainly do not solely arise from student feelings but are also influenced by student experiences during the teaching and learning process with the teacher (Linton & Klinton, 2019; Nawi et al., 2019; Wati & Widiansyah, 2020). Therefore, building togetherness during classroom activities is very important for teachers to do in their reflective teaching activities.

Moreover, students' learning expectations and perceptions in the writing course were recorded to increase in terms of the average score before treatment compared to after receiving treatment. In general, it can be reported that students' perceptions of the use of reflective teaching combined with the use of model texts were positive. As many as 85% of students felt comfortable and peaceful in starting writing when the teacher facilitated with text models. While 80% of students stated that they did not feel a heavy writing learning load compared to before the treatment. Likewise, 75% of students claimed to be increasingly interested in writing lessons and 85% of them also admitted to being more enthusiastic in taking writing classes.

5. Conclusion

In conclusion, the study revealed the effectiveness of the utilization of reflective teaching integrated with text models for promoting students' engagement and learning success in writing. The study showed the need to go along the stages of reflective teaching with the teacher's creativity, material development, and learning aids. This result can be interpreted that the application of reflective teaching is more effective when combined with learning aids that are adapted to the learning context and students. The phenomenon revealed in this study shows that the application of reflective teaching combined with the use of text models in the teaching and learning process of writing can significantly increase student participation in the teaching and learning process and learning achievement of writing. Therefore, the researchers recommend that teachers, especially teachers who teach writing, combine the application of reflective teaching with learning aids, especially model texts because this method has been shown to significantly increase students' participation in the teaching and learning process of writing and the students' writing achievement. For future studies, text models incorporated with reflective teaching in writing course should be more various to raise better students' interest.

References

Albashtawi, A. H., & Al Bataineh, K. B. (2020). The effectiveness of google classroom among EFL students in Jordan: An innovative teaching and learning online platform. *International Journal of Emerging Technologies in Learning*, 15(11), 78-88. https://doi.org/10.3991/IJET.V15I11.12865

Almusharraf, A., Almusharraf, N., & Bailey, D. (2022). The Influence of Multilingualism and Professional Development Activities on Teacher Reflection Levels. *Sustainability (Switzerland)*, 14(18), 1-14. https://doi.org/10.3390/su141811504

- Alnasser, S. M. N. (2022). EFL Learners' Perceptions of Integrating Computer-Based Feedback into Writing Classrooms: Evidence From Saudi Arabia. *SAGE Open*, *12*(3). https://doi.org/10.1177/21582440221123021
- Aydoğmuş, M., & Kurnaz, A. (2022). Investigating the Effectiveness of Reflective Teaching Activities in Secondary English Classes. *Athens Journal of Education*, *9*(3), 487-506. https://doi.org/10.30958/aje.9-3-8
- Bay, D. N. (2020). Investigation of the relationship between self-efficacy belief and classroom management skills of preschool teachers with other variables. *International Electronic Journal of Elementary Education*, 12(4), 335-348. https://doi.org/10.26822/iejee.2020459463
- Bevilacqua, Z., Cothran, D. J., Rettke, D. J., Koceja, D. M., Nelson-Laird, T. F., & Kawata, K. (2021). Educator perspectives on concussion management in the college classroom: A grounded theory introduction to collegiate return-to-learn. *BMJ Open*, *11*(4), 1-11. https://doi.org/10.1136/bmjopen-2020-044487
- Buhagiar, R., Lu, A., Liu, S., Sahadevan, S., Schulz, L., Ghosh, J., & Yeoh, A. (2023). A pilot study to assess the impact of aboriginal and torres strait islander cultural humility webinars on australian medical school students. BMC Medical Education, 23(1), 1-7. https://doi.org/10.1186/s12909-023-04612-7
- Cabrera, A. F., Parra-González, M. E., Belmonte, J. L., & Segura-Robles, A. (2020). Educational potentials of flipped learning in intercultural education as a transversal resource in adolescents. *Religions*, 11(1). https://doi.org/10.3390/rel11010053
- Caswell, C. A. (2019). Courses for Second Language Teacher Education The Interdisciplinary Journal of Problem-based Learning SPECIAL ISSUE: UNPACKING THE ROLE OF ASSESSMENT IN PROBLEM- AND PROJECT-BASED LEARNING Recursive Reflective Reports: Embedded Assessment in PBL Courses. 13(2).
- Cendra, A. N., & Sulindra, E. (2022). Speaking Accuracy, Fluency, and Beyond: Indonesian Vocational Students' Voices. *LLT Journal: Journal on Language and Language Teaching*, 25(2), 379-394. https://doi.org/10.24071/llt.v25i2.4579
- Chen, W. (2022). Revisiting Proficiency Pairing in Collaborative Writing From an Equity Theory Perspective: Voices From High-Proficiency EFL Learners. *SAGE Open*, 12(2). https://doi.org/10.1177/21582440221087267
- Chen, Y. A., Li, R., & Hagedorn, L. S. (2019). Undergraduate international student enrollment forecasting model:

 An application of time series analysis. *Journal of International Students*, 9(1), 242-261. https://doi.org/10.32674/jis.v9i1.266
- Cherian, J., Jacob, J., Qureshi, R., & Gaikar, V. (2020). Relationship between entry grades and attrition trends in the context of higher education: Implication for open innovation of education policy. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), 1-17. https://doi.org/10.3390/joitmc6040199
- Chuenchaichon, Y. (2022). An Error Analysis of Written English Paragraphs at Lexical, Syntactic, and Paragraph Levels Made by Thai EFL Non-English Major Students. *3L: Language, Linguistics, Literature*, *28*(2), 96-108. https://doi.org/10.17576/3L-2022-2802-07
- Clif Mims, Drew Polly, & Michael Grant. (2009). Technology Integration in K-12. *The Foundations of Instructional Technology*, *August 2015*, 1-20.
- Creswell, J. (2003). creswell_Research Mthods_Qual_Quant Mixed Methods Approaches.pdf. In *Second Edition* (p. 137).
- Cui, Y., Schunn, C. D., Gai, X., Jiang, Y., & Wang, Z. (2021). Effects of Trained Peer vs. Teacher Feedback on EFL Students' Writing Performance, Self-Efficacy, and Internalization of Motivation. *Frontiers in Psychology*, 12(November), 1-10. https://doi.org/10.3389/fpsyg.2021.788474
- D'Isanto, T., Aliberti, S., Altavilla, G., Esposito, G., & D'Elia, F. (2022). Heuristic Learning as a Method for Improving Students' Teamwork Skills in Physical Education. *International Journal of Environmental Research and Public Health*, 19(19). https://doi.org/10.3390/ijerph191912596
- Dadvand, B., & Behzadpoor, F. (2020). Pedagogical knowledge in English language teaching: A lifelong-learning, complex-system perspective. *London Review of Education*, 18(1), 107-125. https://doi.org/10.18546/LRE.18.1.08
- DarĢis, R., Auziņa, I., Kaija, I., Levāne-Petrova, K., & Pokratniece, K. (2022). Corpus Based Self-Assessment Platform for Latvian Language Learners. *Baltic Journal of Modern Computing*, 10(3), 392-401. https://doi.org/10.22364/bjmc.2022.10.3.12

- Dewaele, J. M., & Dewaele, L. (2020). Are foreign language learners' enjoyment and anxiety specific to the teacher? An investigation into the dynamics of learners' classroom emotions. *Studies in Second Language Learning and Teaching*, 10(1), 45-65. https://doi.org/10.14746/ssllt.2020.10.1.3
- Do, H. M. (2023). Does Collaborative Prewriting Discussion Always Help? *L2 Journal*, *15*(1), 0-7. https://doi.org/10.5070/L215159933
- 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
- Ezza, E. S., Alhuqail, E., & Elhussain, S. (2019). Technology-based instructional intervention into an EFL writing classroom. *Cypriot Journal of Educational Sciences*, 14(4), 507-519. https://doi.org/10.18844/cjes.v11i4.3904
- Galatsopoulou, F., Kenterelidou, C., Kotsakis, R., & Matsiola, M. (2022). Examining Students' Perceptions towards Video-Based and Video-Assisted Active Learning Scenarios in Journalism and Communication Courses. *Education Sciences*, 12(2). https://doi.org/10.3390/educsci12020074
- Gallup, N., & Pearce, J. M. (2020). The economics of classroom 3-d printing of open-source digital designs of learning aids. *Designs*, 4(4), 1-24. https://doi.org/10.3390/designs4040050
- Gao, L. X., & Zhang, L. J. (2020). Teacher Learning in Difficult Times: Examining Foreign Language Teachers' Cognitions About Online Teaching to Tide Over COVID-19. *Frontiers in Psychology*, 11(September), 1-14. https://doi.org/10.3389/fpsyg.2020.549653
- Getie, A. S. (2020). Factors affecting the attitudes of students towards learning English as a foreign language. *Cogent Education*, 7(1). https://doi.org/10.1080/2331186X.2020.1738184
- Ghufron, M. A., & Nurdianingsih, F. (2019). Flipped teaching with call in EFL writing class: How does it work and affect learner autonomy? *European Journal of Educational Research*, 8(4), 983-997. https://doi.org/10.12973/eu-jer.8.4.983
- Gudeta, D. (2022). Professional development through reflective practice: The case of Addis Ababa secondary school EFL in-service teachers. *Cogent Education*, *9*(1). https://doi.org/10.1080/2331186X.2022.2030076
- Guo, Y. (2021). Exploring the Dynamic Interplay Between Foreign Language Enjoyment and Learner Engagement With Regard to EFL Achievement and Absenteeism: A Sequential Mixed Methods Study. *Frontiers in Psychology*, 12(October), 1-15. https://doi.org/10.3389/fpsyg.2021.766058
- Habte, A., Bishaw, A., & Lechissa, M. (2021). Beyond policy narratives: exploring the role of pedagogical beliefs in classroom practices of secondary school Civics and Ethical Education teachers. *Smart Learning Environments*, 8(1). https://doi.org/10.1186/s40561-021-00171-w
- Haerazi, Utama, I. M. P., & Hidayatullah, H. (2020). Mobile applications to improve english writing skills viewed from critical thinking ability for pre-service teachers. *International Journal of Interactive Mobile Technologies*, 14(7), 58-72. https://doi.org/10.3991/IJIM.V14I07.11900
- Hailikari, T., Virtanen, V., Vesalainen, M., & Postareff, L. (2022). Student perspectives on how different elements of constructive alignment support active learning. Active Learning in Higher Education, 23(3), 217-231. https://doi.org/10.1177/1469787421989160
- Hamid, R. I. A., Kiong, T. T., Abbas, L. N., Rusly, N. S. M., & Puad, F. N. A. (2022). Enhancing Grammar Competence of Vocational School Students through the Omygram Learning Chart. *Studies in English Language and Education*, 9(2), 685-704. https://doi.org/10.24815/siele.v9i2.23328
- Hartono, D., Basthomi, Y., Widiastuti, O., & Prastiyowati, S. (2022). The impacts of teacher's oral corrective feedback to students' psychological domain: a study on EFL speech production. *Cogent Education*, 9(1). https://doi.org/10.1080/2331186X.2022.2152619
- Kara, M., & Can, G. (2019). Master's students' perceptions and expectations of good tutors and advisors in distance education. *International Review of Research in Open and Distance Learning*, 20(2), 162-179. https://doi.org/10.19173/irrodl.v20i2.3674
- Karataş, T. Ö., & Tuncer, H. (2020). Sustaining language skills development of pre-service EFL teachers despite the COVID-19 interruption: A case of emergency distance education. *Sustainability (Switzerland)*, 12(19). https://doi.org/10.3390/su12198188

- Le Thanh Thao, Trut Thuy, P., Anh Thi, N., Hoang Yen, P., Thi Anh Thu, H., & Huong Tra, N. (2023). An insight into reflective teaching levels of Vietnamese EFL teachers in a premier language center. *Cogent Education*, 10(2). https://doi.org/10.1080/2331186X.2023.2243118
- Li, F., Mohammaddokht, F., Hosseini, H. M., & Fathi, J. (2023). Reflective teaching and academic optimism as correlates of work engagement among university instructors. *Heliyon*, 9(2), e13735. https://doi.org/10.1016/j.heliyon.2023.e13735
- Liao, W. (2020). Using Collaborative Video-Cued Narratives to Study Professional Learning: A Reflective Analysis. *International Journal of Qualitative Methods*, 19, 1-13. https://doi.org/10.1177/1609406920949335
- Linton, G., & Klinton, M. (2019). University entrepreneurship education: A design thinking approach to learning. *Journal of Innovation and Entrepreneurship*, 8(1), 1-11. https://doi.org/10.1186/s13731-018-0098-z
- Martín-Luengo, B., Hu, Z., Cadavid, S., & Luna, K. (2023). Do pictures influence memory and metamemory in Chinese vocabulary learning? Evidence from Russian and Colombian learners. *PLoS ONE*, 18(11 NOVEMBER), 1-23. https://doi.org/10.1371/journal.pone.0286824
- Moghaddam, R. G. (2019). Development of an instrument to measure EFL teachers' perceptions of reflective teaching. *Indonesian Journal of Applied Linguistics*, 9(1), 219-230. https://doi.org/10.17509/ijal.v9i1.12826
- Moreno-Guerrero, A. J., Rodríguez-Jiménez, C., Gómez-García, G., & Navas-Parejo, M. R. (2020). Educational innovation in higher education: Use of role playing and educational video in future teachers' training. *Sustainability (Switzerland)*, 12(6). https://doi.org/10.3390/su12062558
- Nawi, N. D., Phang, F. A., Mohd-Yusof, K., Rahman, N. F. A., Zakaria, Z. Y., Hassan, S. A. H. bin S., & Musa, A. N. (2019). Instilling low carbon awareness through technology-enhanced cooperative problem based learning. *International Journal of Emerging Technologies in Learning*, 14(24), 152-166. https://doi.org/10.3991/ijet.v14i24.12135
- Noh, S. C., & Karim, A. M. A. (2021). Design thinking mindset to enhance education 4.0 competitiveness in Malaysia. *International Journal of Evaluation and Research in Education*, 10(2), 494-501. https://doi.org/10.11591/ijere.v10i2.20988
- Nordmann, E., Clark, A., Spaeth, E., & MacKay, J. R. D. (2022). Lights, camera, active! appreciation of active learning predicts positive attitudes towards lecture capture. *Higher Education*, 83(3), 481-502. https://doi.org/10.1007/s10734-020-00674-4
- Oo, T. Z., & Habók, A. (2020). The development of a reflective teaching model for reading comprehension in English language teaching. *International Electronic Journal of Elementary Education*, 13(1), 127-138. https://doi.org/10.26822/iejee.2020.178
- Patiño, A., Ramírez-Montoya, M. S., & Buenestado-Fernández, M. (2023). Active learning and education 4.0 for complex thinking training: analysis of two case studies in open education. *Smart Learning Environments*, 10(1). https://doi.org/10.1186/s40561-023-00229-x
- Portuguez Castro, M., & Gómez Zermeño, M. G. (2020). Challenge based learning: Innovative pedagogy for sustainability through e-learning in higher education. *Sustainability (Switzerland)*, 12(10). https://doi.org/10.3390/SU12104063
- Rincon-Flores, E. G., Mena, J., & López-Camacho, E. (2022). Gamification as a Teaching Method to Improve Performance and Motivation in Tertiary Education during COVID-19: A Research Study from Mexico. *Education Sciences*, 12(1). https://doi.org/10.3390/educsci12010049
- Samiei, F., & Ebadi, S. (2021). Exploring EFL learners' inferential reading comprehension skills through a flipped classroom. Research and Practice in Technology Enhanced Learning, 16(1). https://doi.org/10.1186/s41039-021-00157-9
- Shugurova, O. (2020). Exploration of students' thoughts about their right to freedom of education: "Terrified to love this way of learning, its idea of being free." *Dialogic Pedagogy*, 8, SF50-SF58. https://doi.org/10.5195/DPJ.2020.345
- Soleimani, N. (2020). ELT teachers' epistemological beliefs and dominant teaching style: a mixed method research. Asian-Pacific Journal of Second and Foreign Language Education, 5(1). https://doi.org/10.1186/s40862-020-00094-y

- Ullah, Z., Lajis, A., Jamjoom, M., Altalhi, A. H., Shah, J., & Saleem, F. (2019). A rule-based method for cognitive competency assessment in computer programming using bloom's taxonomy. *IEEE Access*, 7, 64663-64675. https://doi.org/10.1109/ACCESS.2019.2916979
- Vagg, T., Balta, J. Y., Bolger, A., & Lone, M. (2020). Multimedia in Education: What do the Students Think? *Health Professions Education*, 6(3), 325-333. https://doi.org/10.1016/j.hpe.2020.04.011
- von Kotzebue, L., Zumbach, J., & Brandlmayr, A. (2022). Digital Escape Rooms as Game-Based Learning Environments: A Study in Sex Education. *Multimodal Technologies and Interaction*, 6(2). https://doi.org/10.3390/mti6020008
- Wang, W. T., & Lin, Y. L. (2021). Evaluating Factors Influencing Knowledge-Sharing Behavior of Students in Online Problem-Based Learning. *Frontiers in Psychology*, 12(June). https://doi.org/10.3389/fpsyg.2021.691755
- Wati, E. K., & Widiansyah, N. (2020). Design of learning media: Modeling & simulation of building thermal comfort optimization system in building physics course. *Jurnal Pendidikan IPA Indonesia*, 9(2), 257-266. https://doi.org/10.15294/jpii.v9i2.23504
- Wiziack, J. C., & dos Santos, V. M. P. D. (2021). Evaluating an integrated cognitive competencies model to enhance teachers' application of technology in large-scale educational contexts. *Heliyon*, 7(1). https://doi.org/10.1016/j.heliyon.2021.e05928
- Wu, D., Chen, J., Deng, W., Wei, Y., Luo, H., & Wei, Y. (2020). The Recognition of Teacher Behavior Based on Multimodal Information Fusion. *Mathematical Problems in Engineering*, 2020. https://doi.org/10.1155/2020/8269683
- Xiaoya, W. (2022). The Reflective Teaching Practice of Teachers Based on Optimal Teaching Quality. *International Journal of Emerging Technologies in Learning*, 17(15), 156-170. https://doi.org/10.3991/ijet.v17i15.33757
- Ypsilanti, A., & Karras, I. (2023). Reflecting on the Synergy Between Computer-Mediated Intercultural Communication and the Coronavirus Memory Archive: An Intrinsic Case Study. *SAGE Open*, *13*(2), 1-12. https://doi.org/10.1177/21582440231181298
- Zhang, H., Dai, Y., & Wang, Y. (2020). Motivation and second foreign language proficiency: The mediating role of foreign language enjoyment. *Sustainability (Switzerland)*, 12(4), 1-13. https://doi.org/10.3390/su12041302
- Zhu, J., Shi, X., & Zhang, S. (2021). Machine Learning-Based Grammar Error Detection Method in English Composition. *Scientific Programming*, 2021. https://doi.org/10.1155/2021/4213791

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Authors contributions

Prof. Achmad Hilal Madjdi and Dr. Muh. Syafei were responsible for study design and revising. Dr. Rismiyanto, Dr. Fitri Budi Suryani, and Dr. Ahdi Riyono were responsible for data collection. Dr. Atik Rokhayani was responsible for data analysis and interpretation. Dr. Richma Hidayati drafted the manuscript and Agung Dwi Nurcahyo revised it. All authors read and approved the final manuscript. All authors contributed equally to the study.

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