

## Applying Quizziz in Online English Learning: How It Improves Intrinsic Motivation

Predyasmara, Hesmatantya, Hamsia  
Aisha Tallita Ramadhan Predyasmara  
Universitas Muhammadiyah Surabaya, Indonesia  
aishatallita@gmail.com

Vega Hesmatantya\*  
Universitas Muhammadiyah Surabaya, Indonesia  
vegahesmatantya@um-surabaya.ac.id  
\* *corresponding author*

Waode Hamsia  
Universitas Muhammadiyah Surabaya, Indonesia  
waodehamsia@um-surabaya.ac.id

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### Highlights

Applying Quizziz for online English lessons is able to improve students' intrinsic motivation.

**ABSTRACT:** This research aims to investigate the potential of Quizziz live lessons to increase students' intrinsic motivation in learning English and find out how students respond to the use of Quizziz in teaching English during Covid 19. The researcher used Classroom Action Research (CAR) as the research design. The researcher analyzed qualitative and quantitative data, which came from observation, questionnaires, and interviews conducted in the last cycle to know the improvement of students' intrinsic motivation and responses. This study showed that Quizziz live lessons can increase students' intrinsic motivation in learning English. This was proven by the mean score acquired from the student's intrinsic motivation inventory questionnaire, which was 3.28 in the pre-cycle. This score improved to 3.63 in cycle 1 and even higher in cycle 2, which is 4.60. The qualitative data, based on finding the students' responses to Quizzes, showed that most students were interested in and enjoyed learning English through the Quizziz platform. Quizziz platform is improving students' intrinsic motivation in learning English online classes in the Pandemic Era.

**Keywords:** Quizziz, Classroom Action Research, Intrinsic Motivation, Pandemic Era.

### Introduction

In this era of globalization, technology is a part of the progress of the times. Technology can be applied in various ways aspects of life. No exception in terms of education; technology proves has entry to education is the renewal of learning. Implementing the 2013 curriculum in various institutions from elementary to high school proves that teachers must use technology in student learning activities. Technology has modernized the teaching-learning environment.

In early 2020, International Public Health Emergency (PHEIC) has declaimed that COVID-19 affected around 64,000 cases in China so far, and that number it is growing (Teräs et al., 2020) The spread of the coronavirus disease (COVID-19) has affected all elements of global citizenship, including Indonesian society and the academic community within it. COVID-19 has been declared a world pandemic, referring to the WHO decision (McGowan

et al., 2020). This pandemic caused the degradation of every sector, especially in the educational system.

The issues in the field of education still include learning activities. Online education thus seems to be one approach to solving this problem. However, a home quarantine that has been established for over a year could lead to an increase in students who are more inclined to be worried and disturbed, which results in poor study habits. (Baber, 2020)

In this situation, the quarantine period will affect students' motivation in the activity of learning, especially in this pandemic era. Having stated those issues, the teacher ought to discover a suitable teaching technique for teaching English in this pandemic era. (Jehad et al., 2020) The use of game-based learning appears as the best exercise to make students interested, especially when the material is being reviewed, since it allows students to think critically.

Motivation is essential in the teaching and learning processes. According to Elliot (McDonough, 2003), a person's needs, wishes, and actions rely on motivation. In their study, this idea is emphasized by (Tohidi & Jabbari, 2012) that motivation, in this case, education, influences how students behave towards certain subjects and learn. Therefore, motivation in education may increase energy, attempt, creativity, perseverance in learning, improve cognitive development, know every consequence, and eventually, perform better. Internal motivation objectives and competency have significant influence on job engagement, according to gamification research, Muntean in (Munawir & Hasbi, 2021)

According to the observation done in the SMP Muhammadiyah 2 Surabaya, the researcher found the problem in the VII Grade. Derived from the personal communication (June 3<sup>rd</sup>, 2021) with the English teacher at SMP Muhammadiyah 2 Surabaya followed by the finding from the student's responses in the pre-cycle, it shows that the students lack the motivation to learn English during a pandemic. It was confirmed that the teacher rarely implemented video conferences and interactive lessons during online learning in the pandemic era. Therefore, students felt lazy and became inactive. The outcome from the questionnaire of students' responses in the pre-cycle shows that the average score is 65.6%, which is included in the appropriate category.

According to the identification of the problems above, the root of problems in learning English in online classes can be found as follows: (1) the teacher rarely implemented video conferences and interactive lessons during online learning in the pandemic era. (2) Students feel tired and unmotivated since they worry about online learning opportunities during the pandemic. Therefore, this research is declared successful if the average results of questionnaires show an increase in motivation to learn English in a suitable category based on Qualification of Students' Motivation Questionnaire Results (Arikunto, 2015).

On an Android or laptop, there is a gaming application called Quizizz. It is a tool that enables visual display by students during class instruction. Information given graphically, such as pictures, diagrams, charts, timelines, and other displays, is preferred for visual learning. Compared to the written or spoken word, the Quizizz application effectively teaches English in the classroom. Therefore, it is necessary to examine the application of media Quizizz live lesson on English subjects to help increase the intrinsic motivation of class VII C SMP Muhammadiyah 2 Surabaya. Essentially, this article investigates the potential of Quizizz live lesson to increase students' intrinsic motivation in learning English and students' response

towards using Quizizz in teaching English during Covid19. Referring to those studies that illustrate the situation and the gap in online learning implementation, this study aims at (1) investigating the potential of Quizizz live lesson to increase students' intrinsic motivation in learning English and (2) find out how students' response towards the use of Quizizz in teaching English during Covid19.

Online learning is a teaching-learning process that takes place over the Internet using various devices such as laptops, smartphones, and computers. (Fry, 2001) defines online learning as the development of learning material for education using the internet and technologies. Online learning is driven by technology, and it depends on internet facilities. (Adedoyin & Soykan, 2020) states that educational institution and telecommunication industries have a high opportunity to collaborate, such as minimizing the price of internet data subscriptions or even making it free and accessible to every student and educator as their social responsibility. Quizizz is an educational application that provides multiplayer classroom activity that allows every student to learn with their computer, Smartphone, and Tablets. This tool provides students' answer pace that will be appeared on each student's screen; they are available to answer questions and review their answers together. Using Quizizz as a media of teaching and learning strategies is favourable. It helps students enhance their learning effort, learning motivation, activities contribution, and academic achievement.

A particular study defined that student engagement and academic success in social studies classes on natural resources are improved by using Quizizz educational game media. The educational game Quizizz can help students understand social studies concepts about natural resources while increasing their interest in the subject and academic success (Pratama, 2021). It was emphasized by another study, The Covid-19 Pandemic's impact on second language learners' intrinsic motivation to use digital learning platforms was explored by (Ali, 2022). Through the use of several digital learning platforms, this study has demonstrated that students were motivated to accomplish the assigned tasks. Other study from (Asmara et al., 2022) revealed that quizizz is impactful to help students to boost their reading comprehension.

Motivation is defined as an important portion that every individual possesses. This, will lead people to gain achievement on goals and produce better results. According to Emda, A. (2018), The success of the teaching and learning process is influenced by student learning motivation. Students learning motivation can be classified into two places according to self-determination theory (SDT), which are intrinsic motivation and extrinsic motivation. (Legault, 2020) stated that intrinsic motivation is a natural human will. People will actively do the things they find interesting or enjoyable. The Intrinsic Motivation Inventory (IMI) is a multidimensional measurement device that assesses participants' subjective experiences related to target activity in laboratory experiments. It has been used in several experiments related to intrinsic motivation and self-regulation (Reynolds, 2006). Intrinsic motivation comes from inside the individuals, while extrinsic motivation occurs in student behavior. Extrinsic motivation will remain active if it receives some reward or to duck a punishment (Dörnyei, 1994). It could be argued that extrinsic motivation encourages the learner to participate in learning activities such as homework, assignments, or doing something to earn

a good grade. According to (Legault, 2020), extrinsic motivation can come from money or other rewards. Then, A child's natural tendencies to be energetic, curious, playful, open to learning, and exploratory mean that they don't need additional rewards to participate in the things they find enjoyable. Because people have intrinsic motivation, a child's willingness to learn is crucial to his or her cognitive growth (Ryan & Deci, 2000).

## Methods

Classroom Action Research can be seen as a collective-self-reflective inquiry to improve the rationality and fairness of the participant's social or educational practices (Khasinah, 2013). Educators, students, chairpersons, and parents are examples of the participants. Action research has been utilized in school-based educational plan advancement, school development projects and frameworks arranging, and strategy improvement in the educational field (Altrichter et al., 2002). In addition, Action research is becoming into a tool for educational transformation because of how strongly it is centered on the person. Its small size, contextualization, localization, and focus on identifying, creating, or observing improvements to practice are some of teacher action research's most advantageous features, Wallace in (Nasrollahi et al., 2012)

This Classroom Action Research was held for the Eight grade students of Muhammadiyah 2 Surabayain the academic year of 2020/2021. This study was conducted in class VIIIIC, the eighth grade divided into two classes. In this class, there were 28 females and 30 males in total. However, only 20 students involved consisted of 13 males and 7 females.

The data sources were gained as follows: (1) Data from the English language teacher of Eight grade students in the form of a teacher's observation sheet, which was used to record the teacher's accuracy in using the Quizizz platform. (2) Data from the students, including students' observation sheet and questionnaire.

The data were analyzed by using quantitative and qualitative descriptive methods. Qualitative descriptive analysis was used to examine the observational data. While teacher observation is used to determine how well the teacher uses the Quizizz platform, student observation data is utilized to measure the growth in student engagement in learning.

The questionnaire takes from the sixth Indicators of IMI (Intrinsic Motivation Inventory) by (Reynolds, 2006). Descriptive statistics analyzed the data to see the students' intrinsic motivation through the Quizizz platform in learning English and paired sample T-test to compare different variables. To determine the difference in the mean of the two paired groups. Then, the interview is conducted to find the responses towards using Quizizz in teaching English. It is analyzed qualitatively.

This research is declared successful if the average results of the Intrinsic Motivation Inventory(IMI) Questionnaire show that the increase in motivation to learn English in a good categorybased on Qualification of Students' Motivation Questionnaire Results (Arikunto, 2015)., whichmeans the average percentage reaches 70% on IMI Questionnaire sheet. Those criteria mean termination of the research cycle, and the research is declared successful.

*Table 1.*  
*Qualification of Students' Motivation Questionnaire Results*

Score Percentages	Categories
80% - 100%	Very Good
70% - 80%	<b>Good</b>
50% - 60%	Fair
30% - 40%	Low
0% - 30%	Very Low

## Results And Discussion

The research findings were explained in the context of the exact settings surrounding teaching and learning activities conducted online at SMP Muhammadiyah 2 Surabaya utilizing the Quizizz platform. From June 4 to June 25, 2021, the researcher performed this survey over four weeks with 20 students from class VIIC as participants. The researcher employed pre-cycle, cycle 1, and cycle 2 to generate the data. Each cycle's accomplishment was then discussed.

### Result of Quizizz live lesson to increase students' intrinsic motivation in learning English.

The results of students' Intrinsic Motivation using the Quizizz platform in learning English are shown in Tables 2-4. The Indicator of the questionnaire was taken from the Intrinsic Motivation Inventory (IMI) used by (Reynolds, 2006), in which the sixth subscale relates to intrinsic motivation: interest/enjoyment, perceived competence, effort, value/usefulness, felt pressure and tension, and perceived choice. The Pre-Cycle of the Intrinsic Motivation Inventory questionnaire is shown in Table 2.

*Table 2*  
*IMI Questionnaire of Pre-cycle*

	N	Minimum	Maximum	Mean	Std. Deviation
Interest Enjoyment	20	1	5	3.43	.487
Perceived Competence	20	1	5	3.63	.559
Pressure Tension	20	5	1	2.78	.850
Effort Importance	20	1	5	3.05	.887
Perceived Choice	20	1	5	3.18	.616
Value Usefulness	20	1	5	3.63	.559
Valid N (listwise)	20				.
Total Pre-Cycle				28	.323

Based on the **Table 2 IMI Questionnaire of Pre-cycle**. In the subscales of Interest/Enjoyment, the student's average score was 3.43. It indicates students are quite interested in learning English during covid 19. In the subscales of perceived competence, the student's average score was 3.63. It describes students' quiet understanding of the competence of the material given. Students felt they were skilled in learning English and could learn the material well.

In the subscales of Effort and Importance, the student's average score was 3.05. students simply have the value of effort and taste in learning English. Students tried hard to learn English, especially during a pandemic. In the subscales of tension and pressure, the student's average score was 2.78. During pandemic periods, some students experienced pressure to learn English.. In the subscales of perceived tension, the students' average score was 3.18. it showed that students did this activity because they wanted to. In the subscales of value usefulness, the student's average score was 3.63. which means they thought that learning English was beneficial to them.

It can be observed from the pre-cycle students' intrinsic motivation, which has an average percentage of 65.6% and goes into the right group. However, success indicators include that students may attain an average score of 70% according to their intrinsic motivation. The researcher and the teacher will use the Quizziz platform to perform the first cycle. Table 3 Cycle 1 shows that learning English improved before and after using the Quizziz app.

*Table 3.  
 Students' IMI Questionnaire in Cycle I*

	N	Mini mum	Maxi mum	Me an	Std. Deviation
Interest Enjoyment	20	1	5	3.54	.306
Perceived Competence	20	1	5	3.52	.333
Effort Importance	20	1	5	3.53	.413
Pressure Tension	20	5	1	4.60	.476
Perceived Choice	20	1	5	3.55	.510
Value Usefulness	20	1	5	3.28	.343
Valid N (listwise)	20				
T otal				7 3.6	

Based on the total score, it can be concluded from the students' intrinsic motivation in the first cycle with an average of 73.4% (3.67), which is included in the good category.

Table 4.  
 Paired Samples T - Test Cycle I

		Mean	Std. Deviation	Std. Error Mean	Paired Differences		t	df	Sig. (2-tailed)
					Lower	Upper			
air1	Cycle 1								
	Cycle 2	.387	.350	.078	-.551	-.223	4.941	9	.001

Based on paired sample t-test in **table 4**, there was a significant difference in the scores for the pre-cycle Questionnaire and Questionnaire from Cycle 0.05. it can be concluded that there is a statistically significant difference between the mean pre-cycle Questionnaire and the Questionnaire from cycle 1

Table 5.  
 Paired Samples Statistics of Intrinsic Motivation Inventory (IMI) Pre- Cycle and Cycle I

		Mean	N	Std. Deviation	Std. Error Mean
air1	Pre-Cycle	3.28	20	.323	.072
	Cycle I	3.67	20	.215	.048

Table 5 Paired Samples Statistics of Intrinsic Motivation Inventory (IMI) Pre-Cycle and Cycle I concluded that the mean for the pre-cycle is 3.28, and the mean for cycle I is 3.67. It can be concluded that there was an improvement in learning English before and after using the Quizziz application.

Table 6.  
 Students' IMI Questionnaire Cycle 2

	N	Minimum	Maximum	Mean	Std. Deviation
Interest Enjoyment	20	1	5	4.65	.250
Perceived Competence	20	1	5	4.60	.278
Effort Importance	20	1	5	4.58	.406
Pressure Tension	20	1	5	4.61	.328
Perceived Choice	20	1	5	4.55	.510
Value Usefulness	20	1	5	4.60	.393
Valid N (listwise)	20			4.60	

Based on the entirety, it can be concluded from the students' intrinsic motivation in the second cycle with an average of 90% (4.60), which included the very good category

Table 7.  
*Paired Samples T-Test Cycle 2*

	Mean	Std. Deviation	Std. d. Error Mean	Paired Differences		t	Sig. (2-tailed)
				Lower	Upper		
air1 Cycle I – CycleII	.935	.289	.065	1.070	.800	14.484	.9

Based on the paired sample t-test in the Table 7 Paired Samples T-Test Cycle 2, there was a significant difference in the scores for pre-cycle Questionnaire I and Cycle 2. Based on the Sig. (2-Tailed), it showed that the value is less than 0.05. it can be concluded that there is a statistically significant difference between the mean Questionnaire cycle I and the Questionnaire from cycle 2.

Table 8.  
*Paired Samples Statistics of Intrinsic Motivation Inventory (IMI) Questionnaire of Cycle 2*

	Mean	N	Std. Deviation	Std. Error Mean
Pai Cycle I	3.67	20	.215	.048
r 1 Cycle II	4.60	20	.207	.046

Table 8 Paired Samples Statistics of Intrinsic Motivation Inventory (IMI) Questionnaire of Cycle I and cycle II shows that the mean for the cycle I is 3.67 and the mean for cycle II is 4.60. It can be concluded that there was an improvement in learning English before and after using the Quizziz application.

Based on finding the potential of Quizziz live lesson to increase students' intrinsic motivation, it shows the enhancement of teacher and students' activity during the teaching-learning process. The data could be seen from students' Intrinsic Motivation Inventory (IMI) questionnaire of cycle II. Indicators of success of students' Intrinsic Motivation Inventory (IMI) Questionnaire qualification of the average score is 70%, while in the second cycle, the average score of student's IMI questionnaire was 4.60 (90%). It can be concluded that Quizziz live lesson's potential to increase students' intrinsic motivation in learning English.

### The students' responses toward the implementation of Quizziz

The result of students' responses towards learning English in the pandemic Era through

Quizziz wereshown by delivering the Interview in the last meeting. Based on the result of the interview with three students of the 8C class, conclusions can be drawn as follows:

The following responses provide information on the first question regarding Quizziz's efficacy as a teaching tool for students to understand English learning. Student 1 states the opinion by saying "yes, I feel more understand after the teacher started using Quizziz, especially there is a game and score for questions and answer session." The statement is also supported by student 2 by asserting "I think so, because Quizziz includes ranking that makes me more focused, I don't want to lose to my friends." Then, student 3 reveals that "Maybe yes, I become understand about the previous material after using Quizziz, myfriends are all excited so I am as well because it is exciting."

As a result of their comments, it is clear that using Quizziz to enhance online learning in the pandemic era may aid students in understanding English.

Students' opinions on whether utilizing Quizziz to learn English is tedious or uninteresting were presented to the bellow responses. Student 1 asserts "No, using Quizziz is very fun, especially after we get an explanation from the teacher. I don't feel sleepy during the explanation because I need to reach the first place in the Quiz." Meanwhile student 2 states "I don't feel bored, especially because the type of question is always different. There is a right or wrong question, multiple choice, and check box. Learning in my house is fun as well as in the school." Then, student 3 explain "I think no because it is the first time Mr. Dadang uses Quizziz as learning media in the pandemic era. I think the game in Quizziz is so exciting, especially when someone gets to the first-place students will be noisy which is very fun."

Derived from the responses on the interview, It can be concluded that learning English using Quizziz is not boring nor exhausting.

The next question related to learning English in the pandemic era become easier by using Quizziz. Their responses are as follows, student 1 expresses "I think Quizziz is easy and I enjoy it a lot." Meanwhile student 2 states "It is quite complicated for me but it is still very fun." Then, student 3 asserts "It is easy to use, I can simply access it. I just need to click on the link given by the teacher and write my name then enter the room."

According to student feedback, learning English with Quizziz is seen as being simple. The answers of students toward question whether using Quizziz make them feel motivated in learning English. Their responses are seen as follows: Student 1 expresses "of course, I feel excited even when the class has not already started yet because I don't want to lose to my friends". Meanwhile, student 2 emphasise "Yes, I feel more motivated and excited in learning English when using Quizziz". Then, student 3 expresses "I'm not really sure, but I feel more comfortable and enjoy the class when the teacher is using Quizziz".

Derived from those responses, it can be said that using Quizziz as learning media can make students feel motivated to learn English.

Lastly, students' responses toward question whether they feel excited in using Quizziz while learning English in the pandemic era. Their answers are as follows:

1. "Yes, English has become my favourite subject in school since we use Quizziz in class. I really want to active during the class and compete with my friends." (Student 1)
2. "Seeing my friends excited makes me feel excited too, I don't want to lose. Using

Quizziz during learning English is very exciting and fun.” (Student 2)

3. “I don’t really think so, I don’t feel lazy but I’m not super excited about that. I just enjoy the lesson.” (Student 3)

It may be said that employing Quizziz as a teaching tool during the pandemic age makes students appreciate the lesson. The information above demonstrates that the students have positively responded to the use of Quizziz.

### **Discussion**

This research was conducted to find out the improvement of students’ intrinsic motivation in the pandemic era by using Quizziz platform. The result showed that Quizziz was effective or could be used in teaching English in the pandemic era. The finding showed the enhancement of students’ response which was obtained from the results of the questionnaire. The students’ average percentage score of pre-cycle was 65.5%. After given treatment, which is Quizziz, the average percentage score of cycle I was up to 74%. The researcher continued the treatment to cycle II which denoted significant increase with the average percentage score of student’s responses was 90%.

Moreover, based on finding the potential of Quizziz live lesson to increase students’ intrinsic motivation, it showed the enhancement of teacher and students’ activity during teaching learning process. The data could be seen from observation sheet indicating that the students were actively involved and paid attention to the subject taught by the teacher. The students were also excited in doing the task given by using Quizziz and creating the supportive situation during teaching learning process. The result of the Quizziz test could be seen from the findings that showed us the enhancement of students’ score, which could be shown from the results of the percentage of Quizziz’s score in each cycle. The students’ mean score of cycle I was 73%.

Then the researcher continued to cycle II with the mean score of student’s score was 88%. Indicators of success can be achieved when the students’ responses are able to reach an average score of 70%, while the second cycle got an average of 88%. Thus, it can be concluded that using Quizziz can improve student’s intrinsic motivation.

The result of the research is in line with statement from (Bakia et al., 2012) which emphasize that due of the accessibility of the information and teaching during the pandemic, online learning has gained popularity. This condition is observed in the results of interviews, which demonstrate a favorable reaction to the use of Quizziz.

### **Conclusion**

Quizziz was useful in teaching English. It could be seen from the findings that showed the increasing of students’ Intrinsic Motivation Inventory (IMI) questionnaire average percentage score. The students’ percentage of pre-cycle was 65.5%. After implementation of Quizziz, the percentage of cycle I was 74%. Then the researcher continued to cycle II with the percentage of cycle II was 90%. that there is a statistically significant difference between the mean of each cycle. This was considered a good improvement of the students’ intrinsic motivation towards using Quizziz as a media in teaching-learning activities.

Lastly, employing Quizziz in English instruction and learning might encourage students to increase their intrinsic motivation throughout the pandemic period.

## References

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*, 0(0), 1–13. <https://doi.org/10.1080/10494820.2020.1813180>
- Ali, Z. (2022). Investigating the Intrinsic Motivation among Second Language Learners in Using Digital Learning Platforms during the Covid-19 Pandemic. *Arab World English Journal*, 2, 437–452. <https://doi.org/10.24093/awej/covid2.29>
- Altrichter, H., Kemmis, S., McTaggart, R., & Zuber-Skerritt, O. (2002). The concept of action research. *The Learning Organization*, 9(3), 125–131. <https://doi.org/10.1108/09696470210428840>
- Asmara, C. H., Muhammad, R. N., & Almubarakah, Q. (2022). Effect of Online Learning Using Quizizz Application to Improve English Reading Skills of Higher Education Students. *JELLT (Journal of English Language and Language Teaching)*, 6(1), 17–29. <https://doi.org/10.36597/jellt.v6i1.11964>
- Baber, H. (2020). Determinants of students' perceived learning outcome and satisfaction in online learning during the pandemic of COVID19. *Journal of Education and E-Learning Research*, 7(3), 285–292. <https://doi.org/10.20448/JOURNAL.509.2020.73.285.292>
- Bakia, M., Shear, L., Toyama, Y., & Lasseret, A. (2012). *Understanding the Implications of Online Learning for Educational Productivity Center for Technology in Learning SRI International*. <http://www.ed.gov/technology>
- Dörnyei, Z. (1994). Motivation and Motivating in the Foreign Language Classroom. *The Modern Language Journal*, 78(3), 273–284. <https://doi.org/10.1111/j.1540-4781.1994.tb02042.x>
- Fry, K. (2001). E-learning markets and providers: Some issues and prospects. *Education + Training*, 43, 233–239. <https://doi.org/10.1108/EUM0000000005484>
- Jehad, A., Raja, M., Elham, H., Haifa, B. I., & Hussam, N. F. (2020). Students' Perceptions of E-learning platforms (Moodle, Microsoft Teams and Zoom platforms) in The University of Jordan Education and its Relation to self-study and Academic Achievement During COVID-19 pandemic. *Advanced Research & Studies Journal*, 11(5), 21–33.
- Khasinah, S. (2013). การวิจัยในชั้นเรียน : แนวคิดที่นำไปสู่การปฏิบัติได้จริง = Classroom action research. *Jurnal Pionir*, 1(1), 30–40.
- Legault, L. (2020). Encyclopedia of Personality and Individual Differences. *Encyclopedia of Personality and Individual Differences*, June. <https://doi.org/10.1007/978-3-319-28099-8>
- McDonough, S. (2003). Teaching and Researching Motivation. In *ELT Journal* (Vol. 57, Issue 3). <https://doi.org/10.1093/elt/57.3.308-a>
- McGowan, M. L., Norris, A. H., & Bessett, D. (2020). Care Churn — Why Keeping Clinic Doors Open Isn't Enough to Ensure Access to Abortion. *New England Journal of Medicine*, 383(6), 508–510. <https://doi.org/10.1056/nejmp2013466>
- Munawir, A., & Hasbi, N. P. (2021). The Effect of Using Quizizz To EFL Students' Engagement and Learning Outcome. *English Review: Journal of English Education*, 10(1), 297–308. <https://doi.org/10.25134/erjee.v10i1.5412>
- Nasrollahi, M. A., Krish, P., & Noor, N. M. (2012). Action Research in Language Learning. *Procedia - Social and Behavioral Sciences*, 47(January 2015), 1874–1879. <https://doi.org/10.1016/j.sbspro.2012.06.916>
- Pratama, R. Y. (2021). Utilization of Quizizz Educational Game Media to Increase Learning

- Interest and Achievement. *Indonesian Journal Of Educational Research and Review*, 4(2), 307. <https://doi.org/10.23887/ijerr.v4i2.30690>
- Reynolds, J. L. (2006). Measuring intrinsic motivations. *Handbook of Research on Electronic Surveys and Measurements, Imi*, 170–173. <https://doi.org/10.4018/978-1-59140-792-8.ch018>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, 25(1), 54–67. <https://doi.org/10.1006/CEPS.1999.1020>
- Teräs, M., Suoranta, J., Teräs, H., & Curcher, M. (2020). Post-Covid-19 Education and Education Technology ‘Solutionism’: a Seller’s Market. *Postdigital Science and Education*, 2(3), 863–878. <https://doi.org/10.1007/s42438-020-00164-x>
- Tohidi, H., & Jabbari, M. M. (2012). The effects of motivation in education. *Procedia - Social and Behavioral Sciences*, 31(2011), 820–824. <https://doi.org/10.1016/j.sbspro.2011.12.148>

