

Students' Perception on the Implementation of English Hybrid Classes in Islamic University and National University in Indonesia

Gigih Ariastuti Purwandari^{1✉}, Eka Dyah Puspita Sari¹, Indah Puspitasari¹

¹Faculty of Humanities, Universitas Jenderal Soedirman

Jl. dr. Soeparno Utara No. 1 Grendeng Purwokerto, Banyumas 53122, Indonesia

✉gigih.purwandari@unsoed.ac.id

Received 2 August 2022, Accepted 5 November 2022, Published 14 December 2022

Abstract: Various virtual learning environments have been implemented during the emergence of the Covid-19 pandemic. Hybrid learning is a virtual learning environment in which half of the students attend the class physically while others join virtually. This model was adopted by students in two different universities in Central Java, namely Jenderal Soedirman University (Unsoed) and State Islamic University of Prof. K.H. Saifuddin Zuhri (UIN Saizu) Purwokerto. The purpose of this study is to investigate the students' perceptions of hybrid learning in two different universities as well as to find out the challenges during the implementation of hybrid learning. There were 88 participants taken as subjects from both universities. This study was a qualitative method that used observation and questionnaires to collect data from participants. The result shows that the students have positive perceptions during hybrid learning that could affect their performance. The positive perception was hybrid classes provided flexible time, upgraded technology mastery, and built social interaction with others. Moreover, this study also found some obstacles such as technical issues and students' surroundings or environment that have been affecting their performance.

Keywords: students' perception; hybrid classes; higher education; Covid-19.

A. Introduction

The Covid-19 outbreak has altered how lecturers and students perform their duties (Sintema, 2020). As education progresses from in-person to online, both lecturers and students are given new assignments. Conducting virtual classrooms requires a lot of technology use and digital literacy from both students and lecturers, which can be problematic at first. The virtual classrooms transformed into hybrid classes as the number of instances of this outbreak per day diminished. In hybrid classrooms, the characteristics of conventional classes are combined with digital literacy which makes the most of information and communication technology (ICT). Information and Communication Technology (ICT) has suddenly become the lifeblood of education. All lecturers and students have no choice, yet they prefer to incorporate

the new teaching and learning method (hybrid) into their teaching and learning activities.

The implementation of hybrid learning in the classroom was so challenging for some parts because the lecturers have to make sure that they can help individuals develop and also acquire the ability. [Murray \(2013\)](#) stated that as hybrid forms emerge and evolve, their effectiveness is explored and compared with modes at both ends of the delivery method continuum. Moreover, the lecturers must be responsible to prepare the hybrid learning facilities such as internet connection, gadgets, and other electronic media.

Electronic media will continue to be utilized in education, especially in the age of pandemics. The learning objective is accomplished by leveraging a variety of electronic media. Online education is one of them. Electronic learning, or e-learning, bears characteristics of learning management systems (LMS). LMS is a terminology adopted by the Ministry of Education and Culture to designate an integrated online learning management system ([Kemendikbud, 2020](#)). The learning activities include account registration and management, material mastery, task completion, monitoring of the result of the study, involvement in the discussion forum, consultation, and assessment. Hobbs (2005), in ([Mahoney & Cameron, 2008](#)), also defines LMS as "a management software package enabling the delivery of learning content, resources, and activities and also handles the associated administration tasks". From the two definitions given, it can be concluded that an e-learning or Learning Management System (LMS) is a system built to facilitate learning activity by providing various activities to meet the learning outcome.

Carliner, in [Harris \(2004\)](#) defines online learning as "In the online lesson, the computer displays material in response to a learner's request. The computer prompts the learner for more information and presents appropriate material based on the learner's response. Stern (2018), ([in Rakhmania, 2020](#)) stated that online learning is just a form of 'distance learning', the umbrella term for any distance learning that takes place rather than conventional classroom learning. It offers the scope of online learning, divides online learning into two main areas, learning, and technology. Benson also defines online learning as "access to learning experiences via the use of some technology" ([Benson, 2002](#)). From the definitions, we might therefore say that online learning is a learning activity that gives many benefits to students with the use of technology. [Kessler \(2018\)](#) mentions some advantages of conducting online learning as follows: convenience, enhanced learning, levelling of the playing field, interaction, innovative teaching, improved administration, savings, maximizing physical resources, and outreach. Regarding some benefits mentioned above, it is beneficial to conduct online learning, not only for students' ease and convenience but also for improving teachers' innovation in teaching to make the learning process fun and enjoyable.

Pandemic conditions urge schools and universities to find a way to help students learn better. Online learning is proven to be beneficial and fruitful in this pandemic

condition, but not all students/learners are in the same condition. Conducting online learning creates various constraints in learning, such as the geographical condition which causes unstable connection and lower students' comprehension of the material and students' economic background which causes envious of the possession of a smartphone or laptop to join the class.

Hybrid/blended learning comes up as an alternative in the learning process to deal with various problems in online learning. Hubbard (2013), (in Nashir & Laili, 2021), defines hybrid/blended learning as a combination of conventional direct meeting and integration of technology in e-learning form so its implementation must be directly proportional to the strategies used by lecturers and students. According to Kerres (2010), hybrid/blended learning arrangements combine technology-based learning with face-to-face learning and have become quite popular in different contexts. Hybrid learning emphasizes the needs of the traditional learning process and the importance of redesigning the learning model by integrating it with technology. Brown (2005) defined blended learning as teaching and learning that are delivered, supported, and enhanced through the use of digital technologies and media. It may encompass face-to-face, distance, and mixed mode or blended delivery models. Regarding the definition given, it can be concluded that hybrid/blended learning makes the most of conventional (face-to-face) learning and the development of technology by using LMS. This way can create new learning experiences for students, so it is expected to increase students' motivation in learning activities in pandemic conditions.

The biggest challenges of hybrid learning are infrastructure, student-centered learning, design, and interaction (Juwita & Purwoko, 2022). Before conducting hybrid learning, the institution must follow three important considerations. First is facilities and infrastructure. These tools connect lecturers and students in different locations simultaneously. The facilities and infrastructure of hybrid learning must be standardized. The position of the tools can be adjusted depending on the students' and lecturers' needs. Besides the classroom setting, lecturers must be proficient in operating the tools.

The second consideration in designing hybrid learning is to create a student-centered learning situation. Lecturers should design a lesson plan which focuses on students-centered activities such as presentations, group discussion, project-based learning, case-based learning and others.

The third consideration in designing hybrid learning is to build interaction between lecturers and students. It can be an interaction between students or an interaction between lecturer and students. Building a good interaction between lecturers and students is very challenging because lecturers should be focused on two different students' locations at home and in the classroom. These three important points; infrastructure, students' centered learning and interaction are going to shape students' perception in the implementation of Hybrid learning.

There are some studies conducted previously regarding this topic. The first study was conducted by (Prihadi et al., 2021) with the article entitled "The Challenges of Application of the Hybrid Learning Model in Geography Learning during the Covid-19 Pandemic". This study focused on the challenges faced by lecturers in implementing hybrid/blended learning. The result of this study showed that hybrid/blended learning can meet the objective of the class and can achieve students' spatial citizenship skill mastery.

The second study was "Blended Learning Method Within Indonesian Higher Education Institutions" by (Zainuddin & Keumala, 2018). Zamzami and Keumala explored the potential development of a hybrid/blended learning model. The study concluded that students gained various learning experiences through hybrid/blended learning because they learn through face-to-face interaction in the classroom and are supported by various learning media.

Thamrin et. al. (2022) also conducted a study on this topic entitled "The Effectiveness of the Hybrid Learning Materials with the Application of Problem Based Learning Model (Hybrid-PBL) to Improve Learning Outcomes during the Covid-19 Pandemic". This study was conducted to measure the effectiveness of hybrid/blended learning materials with the problem-based learning (PBL) model in the learning activity. The result highlighted the application of hybrid/blended learning with problem-based learning. It was proven to be effective and fruitful to improve learning outcomes.

From all previous studies, it can be seen that they share the same focus, i.e., the implementation and challenges in hybrid/blended learning. None of the previous studies put its focus on the students. Instead, students are the most important component in the teaching-learning process. Hence, the writers come up with this study entitled "Students' Perception in the Implementation of Hybrid Classes" which puts students and their perceptions as the main focus of the study.

The results of a deeper analysis of the hybrid learning model applied during the Covid-19 pandemic can be used as a consideration for future policymaking. Because we admit that the Covid-19 pandemic ends soon. Education always requires innovation to make learning easier for students and to ensure that education is accessible to all.

B. Method

The method used in this research was a descriptive quantitative method which aimed to know the students' perception of the implementation of hybrid classes. The data collection used were observation and a questionnaire. Observations were made during hybrid classes to gather information from several people about a particular topic or issue. Questionnaires were open-ended and close-ended questionnaires that consisted of 15 questions. The questionnaires were spread to students using Google Form. The population was 88 students from two different universities in Central Java, namely Jenderal Soedirman University (Unsoed) and State Islamic University of Prof. K.H. Saifuddin Zuhri (UIN Saizu) Purwokerto. The number of respondents in this study

was chosen by using random sampling techniques. Random sampling technique was used to maintain the objectives of the research because all the subjects had been exposed to hybrid classes. The data were obtained by using Google Form by analyzing respondents' feedback to know their perspectives on the implementation of hybrid classes.

Narrative analysis was used as the data analysis process. It was chosen because this research narrated students' perceptions of the implementation of hybrid classes. The result of the questionnaires was analyzed and narrated to draw a brief explanation of the students' perceptions.

The data validity technique used is the triangulation technique. The triangulation technique is a technique for checking the validity of the data that uses something other than the main data for checking purposes or as a comparison against the main data. Patton (1999), (in Carter, 2014), confirmed that triangulation refers to the use of multiple methods or data sources in qualitative research to develop a comprehensive understanding of phenomena. Triangulation also has been viewed as a qualitative research strategy to test validity through the convergence of information from different sources.

Satori & Komariah (2013) said that there are three types of triangulations, namely technical triangulation, source triangulation and theoretical triangulation. In this study, the author uses a data source triangulation technique. The data source triangulation technique is carried out by conducting in-depth interviews so that students' perceptions of hybrid learning can be known. Interviews were conducted using video calls by asking three questions which include.

Table 1. List of questions in the interview process

No	List of questions
1	What are the facilities used for hybrid learning?
2	What is the existing infrastructure for hybrid learning?
3	How are hybrid learning activities in the classroom? Does the lecturer invite student participation?
4	Do lecturers apply students' centered learning methods such as discussions, presentations, project-based learning, and case-based learning?
5	How is the interaction between lecturers and students during the hybrid class?
6	How is the interaction between students during class learning?

Table 1 is the list of questions in the interview process. The respondent in interview was 20 % of the total respondents, they were 16 students who joined the interview process. This source of data was used to check and compare the result of the main data.

C. Result and Discussion

This research put its focuses on investigating students' perceptions of hybrid learning. The challenges during the implementation of hybrid learning were also this

research's purpose. There were 88 students from two universities in Purwokerto, namely Jenderal Soedirman University (Unsoed) and State Islamic University of Profesor Kiai Haji Saifuddin Zuhri (UIN Saizu) Purwokerto, worked as the subject. The questionnaire was one way of collecting the data in this research. The questionnaire used a four-point Likert Scale and was linked with intermediate agreement answer options (scale 4 = strongly agree, scale 3 = agree, scale 2 = disagree, and scale 1 = strongly disagree). The result of the questionnaire showed that learning English through hybrid classes gave a positive impact on the students. Most of the students or 83% of the total respondents agreed that hybrid class was a precise method implemented during the Covid-19 pandemic. It comprised 51 students or 58% strongly agreed and 22 students or 25% of the total respondents (88 students) who agreed with the positive impact of hybrid learning. It might happen because students felt that hybrid classes give them the freedom to learn during pandemic conditions. It seemed like hybrid classes gave students access to all materials and activities in the teaching-learning process when lecturers and students faced some constraints to deal with pandemic conditions. Meanwhile, about 15.9% or 14 respondents disagreed and 5.7% or 5 respondents strongly disagreed. It might happen that this group of students faced many difficulties during the teaching-learning process, such as signal connection and proper utilities for hybrid classes.

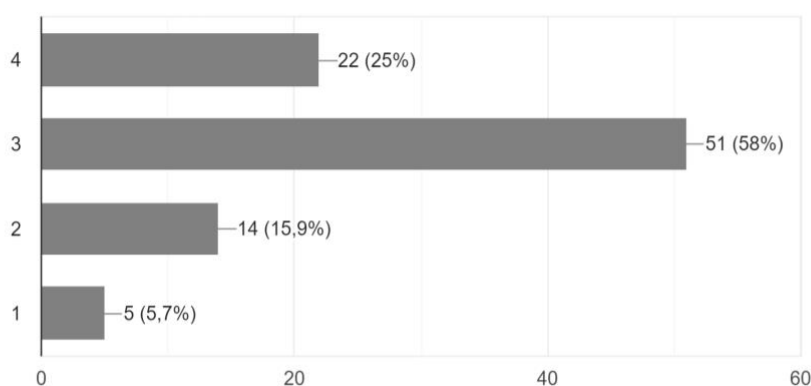


Figure 1. Analysis of students' perception of the implementation of hybrid classes

Figure 1 is the analysis of students' perception n the implementation of hybrid classes . The result of the analysis came into some discussions. The concept of hybrid learning that combines in-person and remote learning simultaneously can provide some positive vibes to the students, both in the use of facilities and infrastructure, application of students' centered learning methods, and classroom interaction in the hybrid class.

1. Students' perception of the use of facilities and infrastructure in the hybrid class.

Based on the data taken by questionnaire and interview, many considerations need to be taken while implementing hybrid classes. The first is the availability of facilities to support the hybrid classes. Consider the availability of technology, particularly the internet. The hybrid class has to include software programs or other gadgets like headsets or microphones, a laptop, and a monitor so that everyone can share the same screen. The ease of having access to the internet during class greatly benefited the students. They got free internet from the government to support hybrid learning. Second, hybrid class often requires not only the use of technology but also many editing applications, for instance, Canva, Stencil, Design bold, etc, and social media such as Instagram, Twitter, Telegram, etc including the features. Instagram, for example, has some interesting features used to practice English mastery. Reels or IGTV can be the appropriate space for uploading students speaking assignments. Students were asked to upload a video about a certain topic on Reels or IGTV. Inevitably, a student must be a well-equipped person that possesses the expertise in using these applications.

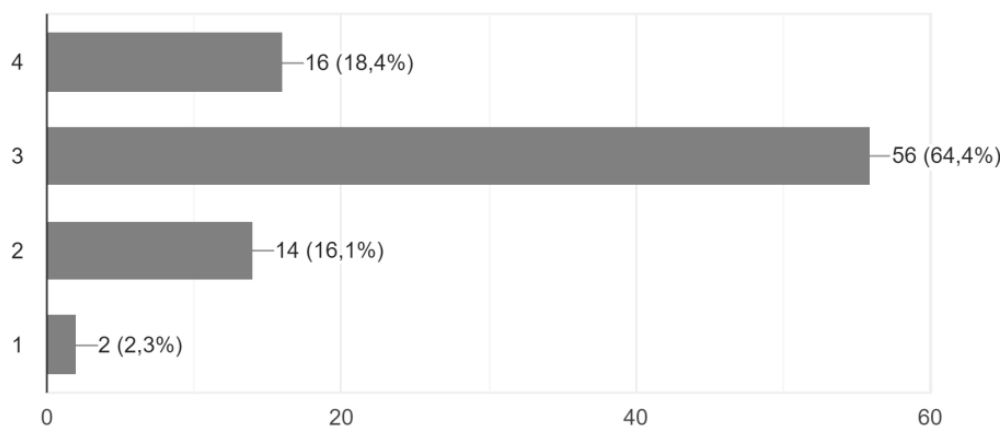


Figure 2. Analysis of students' accessibility in hybrid classes

Based on the data in Figure 2, 72 respondents or 83% of the total respondents concurred about the easiness of accessibility in hybrid classes. It was composed of 16 respondents (18.4%) who strongly agreed, and 56 respondents (64.4%) who agreed with the statement. Moreover, there are learning management systems (LMS) developed in some universities in Purwokerto. The systems are well-developed as the media access English materials or resources in various formats. The content of English materials certainly must be provided well to support the learning process. According to [Boelens et al. \(2017\)](#), content is the most important part of the development of a hybrid learning model since it can be used as a reference and given an impact on the learning process. It must be well structured and attractive to the students. [Estelami \(2012\)](#) stated that student satisfaction is found to be affected by the course content, student-teacher communications, the use of effective learning tools, and the instructor for both classes, conventional and hybrid classes.

2. Students' perception of the application of students' centered learning methods in the hybrid class

The implementation of the hybrid classes model was naturally student-centered to give more opportunities to influence the way learning happens. Hybrid classes provided the students with a platform to share their opinion and listen to what they share. By implementing hybrid classes, students were given the option to share their thoughts which also triggered the students to contribute to a more productive conversation, especially for those who did not feel comfortable speaking up in front of the class. Moreover, the students are accustomed to contributing during the discussion in an online setting (Gradel, 2010). When students were typing a comment in a discussion forum, they learned a different style of delivering opinions and ideas. This experience built their motivation to be more active during class. Hybrid learning reinforces students' participation and interaction in the class. In a hybrid class, students must be active learners. This class emphasizes volunteering, working with groups, and taking initiative more than in conventional classes. For example, the students were asked to demonstrate ideas and concepts about certain topics in English. Besides, it triggered their participation and interaction with others in different ways, they are also accustomed to speaking English fluently. Regarding the effectiveness of hybrid learning, Kudryashova et al., in Prihadi (2022) stated that the implementation of a hybrid learning model can help gain knowledge and skill effectively. Hybrid classes give more time for self-study, leading students to better and improved performance (Alfiras, 2021). Muthuprasad (2021) also stated that hybrid learning offers students the opportunity to study at their own pace and time of their convenience.

3. Students' perception of lecturers and students' interaction in hybrid class

Students stated that presenting the course in hybrid learning made it easy to follow and enhanced their learning. As today's generation is tech-savvy, their familiarity with smart devices and technology makes it easy for them to adopt hybrid classes (Alfiras, 2021). The hybrid learning activities increased interaction and were well-framed to the objectives and duration of the learning process. Anderson (2003) claimed that interaction (or its derivative term interactivity) serves a variety of functions in the educational transaction. Students got many experiences to learn anytime, anywhere, and also it can help the students to manage their time better. They got more flexible time to study than when studying by a conventional method. Both students and the lecturers will gain a new experience in the learning process based on the existing situation. For example, online teaching can be recorded so it can be accessed easily by the students later on. About 82.8 % of respondents got easy access to the material or resources in the hybrid class. In addition, students tend to be more active and responsible for learning. They were forced to be disciplined when they got assignments. They had to finish and submit their assignment suitable to the time limitation. From the result, we concluded that students show interest in online activity forums, and teachers also endorsed blended learning techniques. Based on Gironzetti's research (2020) on learners' perceptions found that students appreciate technology-

integrated online activities because such activities boost their interest and enhance their skills.

4. Some obstacles during hybrid class

Even though hybrid learning gave a good impact on most students, there were also some obstacles in the implementation. There 18.4 % of total respondents had problems with technical issues. In addition, dependence on technology sometimes interrupts or negatively impacts the learning process because of technical problems such as connectivity issues and software glitches, etc. (Syynimaa, 2018). The emergence of technical issues may arise in many problems. For example, students who lived in remote areas had difficulties connecting to a live stream or had problems with their devices. It was very critical to the learning process since this condition did not only disrupt himself, but also the learning of other students. Lecturers also found it a problem since they needed to ensure all students joined the class fully. Dissatisfiers such as technology and Internet access may also exhibit elements of a satisfier in the learning and mastery of computer skills. It appears that many elements of the hybrid course delivery are not autonomous and may subsume and support each other (Jackson, 2008). Another possible problem was the students' surroundings or environment. This problem affected the students gaining the information completely during hybrid class. The concept of a hybrid class was not fully understood by students' families and surroundings. Consequently, students who join hybrid classes are often disrupted by noise from outside and other hardly conducive atmospheres of learning. It needs a big effort to focus on the learning process without distraction. Students' families and surroundings did not fully understand the concept of hybrid classes. The two obstacles faced by students could lead the learning process in a hybrid class in a bad way since the objective and outcome of the teaching-learning process could not achieve in a maximum way.

D. Conclusion

A hybrid class is an appropriate choice for the education system during pandemics. This learning model succeeds in creating students to play an active role in class participation. In a hybrid class, students become the center of their learning process. Lecturers function as a facilitator during the teaching-learning process. The students learn many good aspects during the process, such as providing flexible time, upgraded technology mastery, and building social interaction with others. However, some problems appeared in the hybrid class. Technical issues and students' surroundings or environment were obstacles during the implementation of this learning model. The two obstacles can affect students' comprehension of the material and teaching-learning process in general. Potentially, open and truthful comments were prompted by the usage of the Internet to collect responses. Future researchers should take student performance and success into account, even if in the present study we concentrated on students' perceptions. The learning of students who completed

technology-enhanced courses (either online or hybrid offerings) could be compared to that of students who completed traditional courses.

References

- Alfiras, M., Nagi, M., Bojiah, J., & Serwani, M. (2021). Students' Perceptions of Hybrid Classes in the Context of Gulf University: An Analytical Study. *Journal of Hunan University Natural Sciences*, 48(5), 180–188. <http://jonuns.com/index.php/journal/article/view/588>
- Anderson, T. (2003a). Getting the Mix Right Again: An Updated and theoretical rationale for interaction. *International Review of Research in Open and Distance Learning*, 4(2). <https://doi.org/10.19173/irrodl.v4i2.149>
- Benson, A. D. (2002). Using Online Learning To Meet Workforce Demand: A Case Study of Stakeholder Influence. *Quarterly Review of Distance Education*, 3(4), 443–452. <https://eric.ed.gov/?id=EJ663220>
- Boelens, R., Wever, B. D., & Voet, M. (2017). Four Key Challenges to the Design of Blended Learning: A Systematic Literature Review. *Educational Research Review*, 22, 1–18. <https://doi.org/10.1016/j.edurev.2017.06.001>
- Brown, A., & Voltz, B. (2005). Elements of Effective E-Learning Design. *The International Review of Research in Open and Distance Learning*, 6(1), 1–10. <https://doi.org/10.19173/irrodl.v6i1.217>
- Carter, N., Bryant-Lukosius, D., Dicenso, A., Blythe, J., & Neville, A. J. (2014). The Use of Triangulation in Qualitative Research. *Oncology Nursing Forum*, 41(5), 545–547. <https://pubmed.ncbi.nlm.nih.gov/25158659/>
- Estelami, H. (2012,). An Exploratory Study of the Drivers of Student Satisfaction and Learning Experience in hybrid-online and purely online marketing courses. *Marketing Education Review*, 22(2), 143–155. <https://www.tandfonline.com/doi/abs/10.2753/MER1052-8008220204>
- Gironzetti, E., Lacorte M., & Munozbasols J. (2020). Teacher Perceptions and Student Interaction in Online and Hybrid University Language Learning Courses. In: *Current Perspectives in Language Teaching and Learning in Multicultural Contexts*. Thomson Reuters Aranzadi.
- Gradel, K., & Edson, A. J. (2010-2011). Cooperative learning: Smart pedagogy and Tools for Online and Hybrid Courses. *Journal of Educational Technology Systems*, 39(2), 193-212. <https://journals.sagepub.com/doi/10.2190/ET.39.2.i>
- Harris, P. R. (2004). An Overview of Online Learning (2nd ed.). *European Business Review*, 16(4), 430–430. <https://doi.org/10.1108/09555340410561723>
- Juwita, R., & Purwoko, L. F. (2022). Design and Implementation of Hybrid Learning. *International Journal of Educational Dynamics*, 4(2), 14–23. <https://doi.org/10.24036/ijeds.v4i2.340>
- Kerres, M., & Witt, C. (2003). A Didactical Framework for the Design of Blended

- Learning Arrangements. *Journal of Educational Media*, 28(2-3), 101–113. <https://doi.org/10.1080/1358165032000165653>
- Kessler, G. (2018). Introduction to Teaching and Technology. *The TESOL Encyclopedia of English Language Teaching*, 1–2. <https://doi.org/10.1002/9781118784235.eeltv06b>
- Kemendikbud. (2020). *Surat Edaran Sekretaris Jenderal Kemendikbud Nomor 15 Tahun 2020 Tentang Pedoman Penyelenggaraan Belajar Dari Rumah Dalam Masa Darurat Penyebaran Corona Virus Disease (Covid-19)*.
- Mahoney, K., & Cameron, L. (2008). An Introduction To Learning Management Systems. *Reading in Education and Technology: Proceeding of ICICTE 2008*, 8, 314–323.
- Jackson, Mary Jo & M. Helms. (2008). Student Perceptions of Hybrid Courses: Measuring and Interpreting Quality. *The Journal of Education for Business*, 84(1), 7-12. <https://doi.org/10.3200/JOEB.84.1.7-12>.
- Murray, M., Pérez, J., Geist, D., & Hedrick, A. (2013). Student Interaction with Content in Online and Hybrid Courses: Leading Horses to the Proverbial Water. *Proceedings of the Informing Science and Information Technology Education Conference*, 1, 99–115. <https://digitalcommons.kennesaw.edu/facpubs/3437/>
- Muthuprasad, T., S. Aiswarya, K.S. Aditya, Girish K. Jha. (2020). Students' Perception Preference for Online Education in India during COVID-19 Pandemic. *Social Humanities & Humanities Open*, 3. <https://doi.org/10.1016/j.ssaho.2020.100101>
- Nashir, M., & Laili, R. N. (2021). Hybrid Learning as an Effective Learning Solution on Intensive English Program in the New Normal Era. *IDEAS: Journal of Language Teaching and Learning, Linguistics and Literature*, 9(2), 220–232. <http://dx.doi.org/10.24256/ideas.v9i2.2253>
- Prihadi, S., Sajidan, S., Siswandari, S., & Sugiyanto, S. (2021). The Challenges of Application of The Hybrid Learning Model in Geography Learning During The Covid-19 Pandemic. *GeoEco*, 8(1), 1. <https://doi.org/10.20961/ge.v8i1.52205>
- Rakhmanina, L., Martina, F., Halolo, F. B., Syafryadin, S., & Noermanzah, N. (2020). Students' Perception on Online English Learning during Covid-19 Pandemic Era. *Jurnal Penelitian Pendidikan Bahasa Indonesia, Daerah dan Asing*, 3(2), 428–439 . <https://ojs.stkippgri-lubuklinggau.ac.id/index.php/SIBISA/article/view/1150>
- Satori, D. & Komariah, A. (2013). *Metodologi Penelitian Kualitatif*. Alfabeta.
- Sintema, E. J. (2020). Effect of COVID-19 on the Performance of Grade 12 Students: Implications for STEM Education. *Eurasia Journal of Mathematics, Science and Technology Education*, 16, 1-6. <https://doi.org/10.29333/ejmste/7893>
- Syynimaa, N. (2018). Teaching on Hybrid Courses: Insights from Commercial Online ICT-Training. *Proceedings of the 10th International Conference on Computer Supported Education*, 253–258. <https://doi.org/10.5220/0006701302530258>
- Thamrin, T., Hutasuhut, S., Aditia, R., & Putri, F. R. (2022). The Effectiveness of the Hybrid Learning Materials with the Application of Problem Based Learning Model (Hybryd-PBL) to Improve Learning Outcomes during the COVID-19 Pandemic. *IJORER: International Journal of Recent Educational Research*, 3 (1), 124–134.

<https://doi.org/10.46245/ijorer.v3i1.178>

Zainuddin, Z., & C. M. Keumala. (2018). Blended Learning Method Within Indonesian Higher Education Institutions. *Jurnal Pendidikan Humaniora*, 6(2), 69–77.
<http://journal.um.ac.id/index.php/jph/article/view/10604>