

e-ISSN: 2808 - 5078 Volume. 5, No. 2, 2024



EVEN SEMESTER STUDENTS' PERCEPTION ON ENGLISH LANGUAGE LEARNING CONDUCTED ONLINE

Ika Erwita¹, Ertaniat Lase², Yaredi Waruwu³ ^{1, 2, 3}Universitas Nias, Jl. Yos Sudarso, Gunungsitoli, Indonesia Email: ertaniatlase@gmail.com

Article History

Received: 24-02-2024

Revision: 07-03-2024

Accepted: 09-03-2024

Published: 16-03-2024

Abstract. This research aims to gain in-depth insight into students' perception on online English learning. In the face of the digital age, online learning has become a major alternative in higher education. However, the understanding of how students assess this learning experience is still evolving. The type of research method used is quantitative research with a data collection model using a questionnaire, which was distributed to students through Google Forms to all participants of this study and the data was analyzed using descriptive statistics to get the percentage of students' perspectives. The results showed that, from the perceptions of students who became participants in this study, felt that online English language learning did not fully help the learning process to be more effective and preferred English language learning conducted face-to-face.

Keywords: Students, Perspective, English Language Learning, Online Learning

Abstrak. Penelitian ini bertujuan untuk mendapatkan wawasan yang mendalammengenai perspepsi mahasiswa terhadap pembelajaran bahasa Inggris secara online. Dalam menghadapi era digital, pembelajaran online telah menjadi alternatif utama dalam pendidikan tinggi. Namun, pemahaman tentang bagaimana mahasiswa menilai pengalaman belajar ini masih terus berkembang. Jenis metode penelitian yang digunakan adalah penelitian kuantitatif dengan model pengumpulan data menggunakan kuesioner, yang disebarkan kepada mahasiswa melalui Google Forms kepada seluruh partisipan penelitian ini dan data dianalisis menggunakan statistik deskriptif untuk mendapatkan persentase perspektif mahasiswa. Hasil penelitian menunjukkan bahwa, dari persepsi mahasiswa yang menjadi partisipant dalam penelitian ini, merasa bahwa pembelajaran bahasa inggris secara online tidak mmebantu sepenuhnya proses pembelajaran menjadi lebih efektif dan lebih menyukai pembelajaran bahasa inggris yang dilakukan secara tatap muka.

Kata Kunci: Siswa, Perspektif, Pembelajaran Bahasa Inggris, Belajar Online

How to Cite: Erwita, I., Lase, E., & Waruwu, Y. (2024). Even Semester Students' Perception on English Language Indo-MathEdu Learning Conducted Online. *Intellectuals* Journal, 5 (2),1496-1510. http://doi.org/10.54373/imeij.v5i2.890

INTRODUCTION

English is a universal language because it is used by most countries in the world as the main language. In addition, English is one of the important international languages to master or learn. The English language arose decades ago because of the phenomena known internationally as globalization. More individuals are learning to speak this language, and more people are relying on it to find a job or succeed in it (Agustin, 2015). Similarly, Handayani (2016) says that the usage of foreign languages, particularly English, has progressed from a luxury to a need in a variety of productive sectors. English has become significant across the world as a result of the globalization process; until recently, it was considered the worldwide language of business. In practice, it is the language of the modern world.

English language learning in the world of education is also very important. A good learning process is usually influenced by the process of implementing learning activities. Teaching and learning activities in today's digital era can not only be done face-to-face, but can be done online. Online learning is defined as "learning experiences in synchronous or asynchronous environments using different devices (e.g., mobile phones, laptops, etc.) with internet access. In these environments, students can be anywhere (independent) to learn and interact with instructors and other students" (Singh & Thurman, 2019). Online education turns education to be student-centered, where students take part in the learning process, and teachers work as supervisors and guides for students (Al-Salman et al., 2021). This study explores even semester students' perceptions of the process of learning English through online media. Understanding students' perceptions and experiences is crucial in measuring the effectiveness and acceptance of online English learning. Factors such as engagement, skill enhancement, challenges faced, and overall learning experience need to be scrutinized to ascertain the effectiveness of this mode of education. The stable internet is a major factor in the implementation of online classes, it will be able to provide a world-class education to anyone, anywhere, and anytime (Nguyen, 2015).

Furthermore, the interaction between students and teachers is implemented in the online context. The principle of teacher-to-student interactions are; providing online interaction and synchronous session, giving feedback in assessment and discussion session both formal and informal, giving an appropriate response to question and queries, setting learning objectives, giving guidance, and being organized (Dyment, J. et all., 2020), (Martin, F. and Bolliger, D. U. 2018), Tanis, C. J. (2020), (Watson, F. F., et all., 2017).

This study aims to identify the views, perceptions, and experiences of even semester students regarding online English learning. In teaching-learning activities, students' perceptions give positive impact on the quality of interaction and communication. It is indicated that if the individual has a good view of something or other people, it will also benefit him/herself. Perception can also be considered an individual's interpretation of something (Amir et al., 2020). Nambiar (2020) stated that online learning and classes are increasingly becoming part of the education system worldwide. Online channel has made education convenient and accessible by one and all. However, the current reality is that, online education is less effective than online classes. The students of online learning face several challenges due

to the struggle to complete adaptation to online courses and the lack of interaction between students and their tutors (Almahasees et al., 2021a).

Students' perspectives on online learning play an important role in the development of distance education, especially in the context of English language learning. Through their practical experience as online learners, students can provide a deep understanding of online learning platforms and methods. The information they provide regarding navigation, interactive features, content quality, and the challenges they face can help improve instructional design for more effective learning. By gaining these insights, educational institutions can improve the design of online learning platforms, tools or strategies to enhance the learning experience and better meet students' needs.

METHOD

The research method used in the research is quantitative method. Creswell (2014) states that quantitative research is an approach to test objective theories by testing the relationship between variables. The method used to collect and analyse data is the survey method. Survey research is defined as "the collection of information from a sample of individuals through their responses to questions" (Check & Schutt, 2012, p. 160). The participants in this study were even semester students of the English Language Education study programme at Nias University, who had carried out internship one with a total of 81 people. To achieve the research objectives, the researcher designed a questionnaire as the main instrument to collect data. Questionnaire is a series of questions asked to individuals to obtain statistically useful information about a given topic (Roopa & Rani, 2012).

The main source of data in this study was a questionnaire distributed to even semester students of the English Language Education study program at Nias University who had undertaken internship one. The context of this study was highly relevant to the participants chosen because of its focus on students' perceptions of online English language learning. As such, the participants are a group who have first-hand experience of learning English online and the data obtained from them will provide valuable insight into this issue. The data collection process in this study involved the use of a Likert scale-based questionnaire. Likert scale is applied as one of the most fundamental and frequently used psychometric tools in educational and social sciences research(Joshi et al., 2015). To calculate the Likert scale for the given data, researcher assigned values to each reponse category of questionnaire, namely Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5. The data collection process began with the distribution of questionnaires to respondent fourth-semester

students of the English Language Education study program at Nias University. Each questionnaire was carefully designed to cover questions relevant to the research topic, such as how they experienced learning English online.

After the data was collected, the data analysis process was carried out using descriptive statistics analysis. Descriptive statistics are used to summarize data in an organized manner by describing the relationship between variables in a sample or population (Kaur et al., 2018). Descriptive statistical analysis was used to identify common patterns in the data, such as students' perspectives on online English language learning. Furthermore, the researcher determined how students' perspectives on online English language learning, thus allowing the author to delve deeper into the aspects that influence this phenomenon. Therefore, this study used quantitative method. Data was collected using survey method with questionnaire as the main instrument to collect data from even semester students of English Education study program of Nias University, who had done internship one. Data analysis was carried out using descriptive statistics analysis to identify students' patterns and perspectives relating to online English language learning. This method was carefully chosen to ensure that the data obtained could provide an in-depth understanding of the research topic.

RESULTS

The research instrument used wherein the researcher provided 10 statements in Bahasa Indonesia to be responded by the participants in 5 options, among 81 persons, 37 students only who gave responses through the link of Google Form. The result showed some data as in following.

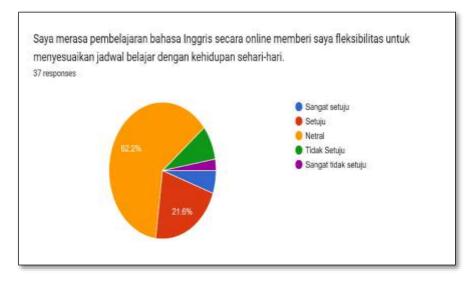


Figure 1. The flexibility of learning English online

The first statement regarding whether learning English online provides flexibility to adjust the study schedule with daily life. It can be seen that 62.2% (23 people) are neutral, 21.6% (8 people) agree, 8.1% (3 people) strongly agree, 5.4% (2 people) disagree and 2.7% (1 person) strongly disagree. The following table presents the results of the data calculation. Respondents are grouped by percentage, with categories and associated values reflecting the level of agreement or disagreement with the statements.

10	Table 1. The results of data calculations of the first statement								
Category	Value	Responses	Total	Mean	Median	Mode			
Strongly	1	1	1						
Disagree									
Disagree	2	2	4	3,27	2	2			
Neutral	3	23	69		3	3			
Agree	4	8	32						
Strongly Agree	5	2	15						

Table 1. The results of data calculations of the first statement

Most respondents gave neutral answers related to the statement that "I feel that online English learning gives me the flexibility to adjust my study schedule to my daily life.". This can be interpreted that most students do not have strong feelings either positive or negative regarding the above statement.



Figure 2. Prefer online learning because it can be done anywhere

The second statement regarding the reasons for liking online learning because they can learn anywhere. It can be seen that 59.5% (22 people) are neutral, 16.2% (6 people) agree, 2.7% (1 people) strongly agree, and 21.6% (8 people) disagree. The following table presents the results of these data calculations. Respondents are grouped by percentage, with associated categories and values reflecting the level of agreement or disagreement with the statements.

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	0	0			
Disagree						
Disagree	2	8	16	3	6	3
Neutral	3	22	66	3	0	3
Agree	4	6	24			
Strongly Agree	5	1	5			

Table 2. The results of data calculations of the second statement

Most respondents gave neutral answers related to the statement that "I prefer online learning because it allows me to learn anywhere". This can be interpreted that most students do not have strong feelings either positive or negative regarding the above statement.



Figure 3. Like English more than face-to-face

The third statement regarding the reason for liking online English learning over face-to-face classes is because I can learn at my own pace without pressure from classmates. It can be seen that 54.1% (20 people) were neutral, 2.7% (1 person) agree, 40.5% (15 people) disagreed and 2.7 (1 person) strongly disagree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Table 3. The results of data calculations of the third statement

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	1	1			
Disagree						
Disagree	2	15	50	2 100	1	3
Neutral	3	20	60	3,108	1	3
Agree	4	1	4			
Strongly Agree	5	0	0			

Most respondents gave neutral answers related to the statement that "I prefer online English learning over face-to-face classes because I can learn at my own pace without pressure

from classmates". This can be interpreted that most students do not have strong feelings either positive or negative regarding the above statement.

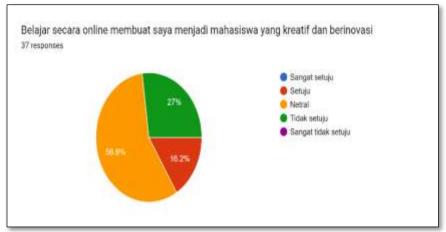


Figure 4. Learning online makes me a creative and innovative student

The fourth statement regarding the statement that learning online makes me a creative and innovative student. It can be seen that 56.8% (21 people) are neutral, 16.2% (6 people) agree and, 27% (10 people) disagree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	0	0			
Disagree						
Disagree	2	10	20	2.00		2
Neutral	3	21	63	2,89	6	3
Agree	4	6	24			
Strongly Agree	5	0	0			

Table 4. The results of data calculations of the third statement

Most respondents gave neutral answers related to the statement that "Learning online makes me a creative and innovative student". This can be interpreted that most students do not have strong feelings either positive or negative regarding the above statement.

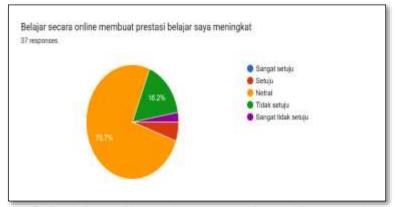


Figure 5. Studying online makes my learning achievement improve

The fifth statement regarding the statement that learning online makes learning achievement increase. It can be seen that 75.7% (28 people) are neutral, 5.4% (2 people) agree, 16.2% (6 people) disagree and 2.7% (1 person) strongly disagree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Table 5. The results of data calculations of the third statement

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	1	0			
Disagree						
Disagree	2	6	13	2.027		2
Neutral	3	28	84	2,837	6	2
Agree	4	2	8			
Strongly Agree	5	0	0			

Most respondents gave neutral answers related to the statement that "Learning online makes my learning achievement improve". This can be interpreted that most students do not have strong feelings either positive or negative regarding the above statement.

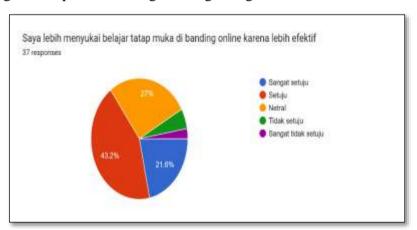


Figure 6. I prefer face-to-face learning over online because it is more effective

The sixth statement regarding the reason for preferring face-to-face learning over online because it is more effective. It can be seen that 27% (10 people) are neutral, 43.2% (16 people) agree, 2.7% (1 person) strongly agree, 5.4% (2 people) disagree and 21.6% (8 people) strongly disagree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	8	8			
Disagree						
Disagree	2	2	4	2 927	o	4
Neutral	3	10	30	2,837	8	4
Agree	4	16	64			
Strongly Agree	5	1	5			

Table 6. The results of data calculations of the third statement

Most respondents gave an agree answer related to the statement that "I prefer face-to-face learning over online because it is more effective".



Figure 7. I have difficulty in maintaining my level of motivation and concentration on online learning

The seventh statement regarding difficulties in maintaining motivation and concentration levels in online learning. It can be seen that 37.8% (14 people) are neutral, 51.4% (19 people) agree, 10.8% (4 people) strongly agree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Table 7. The results of data calculations of the third statement

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	0	0			
Disagree						
Disagree	2	0	0	2.720	4	4
Neutral	3	14	42	3,729	4	4
Agree	4	19	76			
Strongly Agree	5	4	20			

Most of the respondents gave an agree answer related to the statement that "I have difficulty in maintaining the level of motivation and concentration on online learning".



Figure 8. Online English learning feels less structured and organised compared to face-to-face classes

The eighth statement regarding Online English learning feels less structured and organised compared to face-to-face classes. It can be seen that 50% (18 people) were neutral, 41.7% (15 people) agree, 2.8% (1 person) strongly agree and 5.6% (2 people) disagreed. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	0	0			
Disagree						
Disagree	2	2	4	2.416	2	4
Neutral	3	18	54	3,416	2	4
Agree	4	15	60			
Strongly Agree	5	1	5	1		

Table 8. The results of data calculations of the third statement

Most respondents gave neutral answers in relation to the statement that "Online English learning feels less structured and organised than face-to-face classes".



Figure 9. When participating in online learning, I do not need to study because the lecturer will not pay attention to the students

The ninth statement regarding the assumption that following online learning, I do not need to study because the lecturer will not pay attention to students. It can be seen that 35.1% (13 people) are neutral, 8.1% (3 people) agree, 5.4% (2 people) strongly agree and 51.4% (19 people) disagree. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

T	able 9. The	results of data o	calculations	of the third s	tatement	
Category	Value	Responses	Total	Mean	Median	
1	1	0	0			Г

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	0	0			
Disagree						
Disagree	2	19	38	2 279	2	2
Neutral	3	13	39	2,378	2	3
Agree	4	3	12			
Strongly Agree	5	2	10	1		

Most respondents gave disagree answers related to the statement that "When participating in online learning, I do not need to study because the lecturer will not pay attention to students".



Figure 10. I find it difficult to seek help or clarification directly from the lecturer when I need it in online English learning

The tenth statement regarding the difficulty to seek help or clarification directly from the lecturer when I need it in online English learning. It can be seen that 37.8% (14 people) were neutral, 45.9% (17 people) agreed, 10.8% (4 people) strongly agreed, 2.7% (1 person) disagreed and 2.7% (1 person) strongly disagreed. The following table presents the results of these data calculations. Respondents are grouped by percentages, with associated categories and values reflecting their level of agreement or disagreement with the statements.

Category	Value	Responses	Total	Mean	Median	Mode
Strongly	1	1	1			
Disagree						
Disagree	2	1	2	2.50	4	4
Neutral	3	14	42	3,59	4	4
Agree	4	17	68			
Strongly Agree	5	4	20			

Table 10. The results of data calculations of the third statement

Most of the respondents gave an agree answer related to the statement that "I find it difficult to seek help or clarification directly from lecturers when I need it in online English learning".

DISCUSSION

In the first and second statements, the participants mostly chose neutral related to "statement I and II", this shows that there are still doubts of the participants in determining whether online learning provides flexibility and makes it possible to study anywhere, even there are still some who disagree in this regard. This may be due to internet access constraints, hardware and software limitations, and time restrictions in completing assignments or attending classes as well as students' independence and discipline. This is because not all students can manage their own time and stay focused in the absence of direct supervision from teachers or lecturers. Limited mastery of information technology is experienced by teachers and learners, which can be seen from teachers who are unable to use various online learning media. In addition, expensive technology devices are also a problem in the implementation of online learning. (Krisdiana et al., 2014; Maria Kristina Ota, Ana Maria Gadi Djou, 2021; Pakpahan & Fitriani, 2020).

Statement 3 shows that there are many participants who are neutral about the statement. this shows that there are still many who have difficulty making decisions, and some even disagree this may be caused by according to (Bullen, 2001, Beam, 1997) cited in the journal (Yazdi, 2012), including; 1) The lack of communication and direct interaction between educators and learners; 2) Business aspects become more highlighted than social and academic aspects; 3) Learning is more inclined to training than education; 4) Educators are required to be able to improve their ICT skills; 5) Lack of learning motivation in students; 6) Constrained internet access, there are some learners who find it difficult to get internet access where they live; 7) Lack of experts in the IT field; 8) Lack of knowledge and experience about computers in some learners and educators.

Statement 4 and 5, the participants gave a neutral response to the statement that online learning makes students creative, innovative and makes learning achievement increase. In this case, students are still not convinced that online learning helps them improve their learning ability. Whereas said by experts "During online learning students feel unprepared and feel that online learning makes them shocked because they are required to adapt to the current situation so that students feel frustrated and cannot concentrate during learning" (Rondonuwu, 2021). From statement 6 to 10 the author found that the participants felt that face-to-face learning is better than online learning. This is due to Face-to-face learning is the teaching ability of the teacher is very decisive, for example, mastery of the concept of subject matter and the learning environment (Akbar, J. Awal; 2016). So that the learning activities are in the form of a process of interaction between students, learning materials, teachers, and the environment that can be measured through media, methods, strategies, and approaches (Rusman; 2016: 21). So, faceto-face learning is a set of actions in a planned manner based on learning rules in the form of a process of interaction between students, learning materials, teachers, and the environment so that teachers are easier to evaluate student attitudes. Another theory also says that face-to-face lectures are learning assistance services provided to students directly. Face-to-face lectures aim to help bridge students in the learning process to broaden, deepen, and sharpen students' understanding of the courses they study (Agustina Sari, n.d.).

CONCLUSION

In conclusion, the analysis of participants' responses reflects a nuanced perspective on online learning, characterized by a sense of uncertainty and skepticism. While recognizing the flexibility of online learning, concerns remain regarding challenges such as internet access, technological limitations, and time management. Difficulties in decision-making are compounded by communication gaps and a perceived shift towards a business-orientated rather than an academically focused approach. In addition, neutral attitudes towards the potential benefits of online learning, including increased creativity and academic achievement, indicate a lack of conviction among participants. A clear preference for face-to-face learning emerged, emphasizing the important role of teacher competence and an interactive learning environment. Addressing these issues and adopting a balanced approach that combines the strengths of online and traditional learning modes is crucial to creating a more inclusive and effective educational experience.

RECOMMENDATIONS

We thank our fellow students who have participated in the making of this journal both in the implementation of research, making journals, and in financing. we also thank the lecturers who have encouraged and have participated in providing advice and direction during the making of this journal.

REFERENCES

- Agustina Sari, D. (n.d.). *Pembelajaran tatap muka dan daring terhadap perkuliahan mahasiswa teknik kimia*. https://doi.org/10.31219/osf.io/g3d6f
- Almahasees, Z., Mohsen, K., & Amin, M. O. (2021a). Faculties and Students' Perceptions of Online Learning During COVID-19. *Frontiers in Education*, 6. https://doi.org/10.3389/feduc.2021.638470
- Almahasees, Z., Mohsen, K., & Amin, M. O. (2021b). Faculties and Students' Perceptions of Online Learning During COVID-19. *Frontiers in Education*, 6. https://doi.org/10.3389/feduc.2021.638470
- Betari, B., Righo, A., & Putri, T. H. (n.d.). Dampak Pembelajaran Online Pada Mahasiswa Dimasa Pandemi Covid-19: Literature Review.
- Brant, J. M., Haas-Haseman, M. L., Wei, S. H., Wickham, R., & Ponto, J. (2015). *Understanding and Evaluating Survey Research*.
- Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems*, 49(1), 5–22. https://doi.org/10.1177/0047239520934018
- *Efektivitas_Pembelajaran_Online_Versus_Tatap_Muka.* (n.d.).
- Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015a). Likert Scale: Explored and Explained. British Journal of Applied Science & Technology, 7(4), 396–403. https://doi.org/10.9734/bjast/2015/14975
- Joshi, A., Kale, S., Chandel, S., & Pal, D. (2015b). Likert Scale: Explored and Explained. British Journal of Applied Science & Technology, 7(4), 396–403. https://doi.org/10.9734/bjast/2015/14975
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018a). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60. https://doi.org/10.4103/IJAM.IJAM_7_18
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018b). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60. https://doi.org/10.4103/IJAM.IJAM_7_18
- *Metodologipenelitiankuantitatifkualitatifdankombinasi (1).* (n.d.).
- Nyoman Serma Adi, N., Nyoman Oka, D., & Made Serma Wati, N. (2021). *Dampak Positif* dan Negatif Pembelajaran Jarak Jauh di Masa Pandemi COVID-19. 5. https://doi.org/10.23887/jipp.v5i2
- Roopa, S., & Rani, M. (2012a). Questionnaire Designing for a Survey. *The Journal of Indian Orthodontic Society*, 46, 273–277. https://doi.org/10.5005/jp-journals-10021-1104
- Roopa, S., & Rani, M. (2012b). Questionnaire Designing for a Survey. *The Journal of Indian Orthodontic Society*, 46, 273–277. https://doi.org/10.5005/jp-journals-10021-1104
- Sri Andayani, E. (2022). The Importance Of Learning And Knowing English In Higher Education In Indonesia. *Research and Development Journal Of Education*, 8(1), 372–379. https://doi.org/10.30998/rdje.v8i1.13315
- Stit, A., & Nusantara, P. (2019). Teori Perkembangan Bahasa. In *PENSA: Jurnal Pendidikan dan Ilmu Sosial* (Vol. 1, Issue 1). https://ejournal.stitpn.ac.id/index.php/pensa

- Yanti, D. (2021). Acitya: Journal of Teaching & Education Students' Perception On The Effect Of Online Learning During Covid 19. In *Acitya: Journal of Teaching & Education* (Vol. 3, Issue 2). http://journals.umkt.ac.id/index.php/acitya
- Yerusalem, M. R., Rochim, A. F., & Martono, K. T. (2015). Desain dan Implementasi Sistem Pembelajaran Jarak Jauh Di Program Studi Sistem Komputer. *Jurnal Teknologi Dan Sistem Komputer*, *3*(4), 481. https://doi.org/10.14710/jtsiskom.3.4.2015.481-492
- Zahro, I. (n.d.). Students' Perspective Of English Online Learning During Covid-19 Pandemic.