



Students' Perception on Internet-Assisted Collaborative Learning in English Class at SMAN 12 Padang

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Abstract

Education in Indonesia has included 21st-century learning. This is stated in the curriculum, especially the 2013 curriculum. The features of twenty-first-century learning must be recognized, and the learning models utilized in the learning process must lead to the needs of twenty-first-century learning. Collaborative learning is one of the 21st-century learning models. The use of the internet technology is one of the collaborative learning model's implementation tools. The purpose of this study is to learn about students' perceptions on internet-assisted collaborative learning in English class. This study was done with 39 students from SMAN 12 Padang's XII IPA 4 class. The researchers selected the sample for this study using total sampling. The data in this study was assessed using descriptive research using a quantitative method. The questionnaire was employed as the study's research instrument. According to the findings, students had a highly positive perception of the internet-assisted collaborative learning model. The average mean of the questionnaire represented it (3,31). According to the findings of this study, an internet-assisted collaborative learning model helps students establish positive interdependence, develop responsibility and teamwork, improve communication skills, and become more confident and critical in their English learning.

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INTRODUCTION

Education in Indonesia currently integrates 21st-century learning. Learning for the 21st century involves teaching students how to communicate, collaborate, be creative, and innovate as well as how to think critically and solve problems. The needs of 21st-century learning must be met by the learning models that are employed, and the features of 21st-century learning must be acknowledged. Collaborative learning is one of the learning models used in 21st-century education. A learning strategy known as "collaborative learning" has students work together in small groups to accomplish learning goals (Gokhale, 1995).

Collaborative learning entails more than just a group of students working together, therefore not all group activities can be classified as collaborative learning. According to Woods and Chen (2010), who cited Johnsons (1994), there are five essential aspects to successful classroom collaboration, which are as follows: positive interdependence, individual responsibility, promotive interaction, social skill, and processing in groups.

Education is currently in the knowledge era, with extraordinarily fast development in teaching approaches. Language teachers are currently facing issues as information technologies and media develop. The internet is one of the technical developments that is rapidly growing today. According to Turner and Taylor (2000), the existing language acquisition paradigm enables the usage of this new technology. The Internet offers a broad range of original (generic) resources that might be attractive and encourage learner-centered activities. The use of the internet technology is one of the collaborative learning model's implementation tools. Students can access and explore more information and knowledge by themselves due to the advancement of internet technologies.

Several research has been done on collaborative learning. Destriana (2018) did a study to examine how students perceive FLA-utilization UKSW's of collaborative learning. This study discovered that employing a collaborative learning model assisted students in completing learning activities, which would benefit both students and lecturers. Furthermore, Rahayu et al (2021) conducted research on students' perceptions on using collaborative learning to improve their English-speaking skills. This study discovered that students' use of collaborative learning activities had positive results. Chen (2017) conducted a research study to learn more about how EFL college students perceive collaboration in the classroom. According to this study, students rapidly recognize that they can address problems as a group that they would not be able to solve individually. Students were impressed by their classmates. Throughout the classroom exercise, students collaborated and used successful ideas through peer evaluation and mentoring.

However, the previous studies focus on students' perception of collaborative learning. They did not discuss how the students perceive of internet-assisted collaborative learning in English class. As a results, the researcher wants to investigate students' perception of internet-assisted collaborative learning in English class at SMAN 12 Padang.

METHOD

In this study, the researcher used descriptive quantitative method. The population of this study was XII IPA 3 students at SMAN 12 Padang for the academic year 2022/2023. The sampling technique used in this research was total sampling. One class in total 39 students were taken because they had previously used collaborative learning with internet-assisted in learning English as the sample A questionnaire was used by the researcher to collect data on the students' perceptions about internet-assisted collaborative learning in English class. Woods and Chen (2010) based some of the questionnaire items on Johnson's (1994) hypothesis of five important factors to successful collaborative in the classroom: positive interdependence, individual accountability, promotive interaction, and group processing, and then the researcher

add one elements for internet, that is the efficiency and benefit of internet in collaborative learning. The questionnaire in this study used a Likert Scale with closed-ended questions. In this study, four Likert Scale scales were used: 1 (Strongly Disagree), 2 (Disagree), 3 (Agree), and 4 (Strongly Agree).

In this study, content validity was used to evaluate the items on the questionnaire. Dinovia Fannil Kher, S.Pd., M.Pd., a lecturer in the English Department at UNP, validated the content's validity. Furthermore, to assess the questionnaire's reliability, the researcher employed Cronbach's Alpha with the SPSS program version 25. According to Cronbach's Alpha.883, the questionnaire used in this study had high reliability.

The researchers formulated the questionnaire in the form of a Google form. The questionnaire was then given to the sample group. Students completed the questions in around 30 minutes. Following that, the participants completed the questionnaire. The researcher examined the data using a simple descriptive statistic, finding the frequencies, percentages, and mean score of the questionnaires.

Interpretation Table

No.	Category	Mean
1	Very positive	3.26 – 4
2	Positive	2.51 – 3.25
3	Negative	1.76 – 2.50
4	Very negative	1 – 1.75

RESULT AND DISCUSSION

Research Finding

In this study, data were collected from students who had participated in an internet-assisted collaborative learning model using a Google Form questionnaire. The students are grade XII IPA 3 SMAN 12 Padang in academic year of 2021/2022. There was a total of 39 participants. The questionnaire had 25 items about students' perceptions of internet-assisted collaborative learning in English class. The students had completed the questionnaire, and the researcher had double-checked the data. Finally, the researcher identified the percentages and mean category of each item.

Finding 1

The first is students' perception on positive interdependence in internet-assisted collaborative learning. There are 5 items on this questionnaire.

Table 1. Students' perception on positive interdependence in internet-assisted collaborative learning

Indicators	Items	N (%)				Mean	Category
		SD	D	A	SA		

Positive Interdependence	1	0 (0%)	3 (7,7%)	20 (51,3%)	16 (41%)	3,33	Very Positive
	2	0 (0%)	1 (2,6%)	23 (59%)	15 (38,5)	3,35	Very Positive
	3	0 (0%)	5 (12,8%)	21 (53,8%)	13 (33,3%)	3,20	Positive
	4	0 (0%)	3 (7,7%)	24 (61,5%)	12 (30,8%)	3,23	Positive
	5	0 (0%)	8 (20,5%)	20 (51,3%)	11 (28,2%)	3,08	Positive
Total Mean						3,23	Positive

Table 1 shows that students have positive perception of internet-assisted collaborative learning. This research indicated that students in internet-assisted collaborative learning model helped them when discussing in groups and answered the problems given correctly during the discussion to get deeper understanding. Students got better understanding in explaining material that they know to their group. They also preferred to study with internet-assisted collaborative learning rather than studying individually.

Finding 2

The second finding is students' perception on individual responsibility in internet-assisted collaborative learning. There are 2 items on this questionnaire.

Table 2. Students' perception on individual responsibility in internet-assisted collaborative learning.

Indicators	Statements	N (%)				Mean	Category
		SD	D	A	SA		
Individual Responsibility	6	0 (0%)	7 (17,9%)	20 (51,3%)	12 (30,8%)	3,13	Positive
	7	0 (0%)	4 (10,3%)	18 (46,2%)	17 (43,6%)	3,33	Very Positive

Total Mean	3,23	Positive
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Table 2 shows that students have positive perception of internet-assisted collaborative learning with the total mean is 3,23. Students have very good responsibility. Students always prepared themselves before contribute to the discussion and they always complete the task that their responsibility in study with internet-assisted collaborative learning.

Finding 3

The third finding is students’ perception on promotive interaction in internet-assisted collaborative learning. There are 8 items on this questionnaire.

Table 3. Students’ perception on promotive interaction in internet-assisted collaborative learning.

Indicator	Items	N (%)				Mean	Category
		SD	D	A	SA		
Promotive interaction	8	0 (0%)	4 (10,3%)	18 (46,2%)	17 (43,6%)	3,33	Very Positive
	9	0 (0%)	4 (10,3%)	16 (41%)	19 (48,7%)	3,38	Very Positive
	10	0 (0%)	2 (5,1%)	17 (43,6%)	20 (51,3%)	3,46	Very Positive
	11	0 (0%)	3 (7,7%)	24 (61,5%)	12 (30,8%)	3,23	Positive
	12	0 (0%)	4 (10,3%)	23 (59%)	12 (30,8%)	3,20	Positive
	13	0 (0%)	4 (10,3%)	19 (48,7%)	16 (41%)	3,31	Very Positive
	14	0 (0%)	5 (12,8%)	19 (48,7%)	15 (38,5%)	3,25	Positive
	15	0 (0%)	4 (10,3)	21 (53,8%)	14 (35,9%)	3,25	Positive
Total mean						3,30	Very Positive

Table 3 shows that students' have very positive perception of internet-assisted collaborative learning in promotive interaction with the total mean is 3,30. Students were more active to participate and encourage their friend to actively participate in group when study collaboratively with internet-assisted. Students also felt confident when study in collaborative learning model with internet-assisted. They would ask their teacher if their group facing the difficulty to solve the problem given. When discussing in group, students were happy to help each other and their group always solid when study in internet-assisted collaborative learning model.

Finding 4

The fourth finding is students' perception on social skill in internet-assisted collaborative learning. There are 3 items on this questionnaire.

Table 4. Students' perception on social skill in internet-assisted collaborative learning.

Indicators	Items	N (%)				Mean	Category
		SD	D	A	SA		
Social skill	16	0 (0%)	6 (15,4%)	15 (38,5%)	18 (46,2%)	3,31	Very Positive
	17	0 (0%)	1 (2,6%)	18 (46,2%)	20 (51,3%)	3,48	Very Positive
	18	0 (0%)	3 (7,7%)	27 (69,2%)	9 (23,1%)	3,15	Positive
Total Mean						3,31	Very Positive

Table 4 shows that students have very positive perception of internet-assisted collaborative learning in social skill. When study with internet-assisted collaborative learning, students felt that their communication skill had improved. They also behave well and polite during discussion in their group. Moreover, students more confident to express their idea when discussing in group

Finding 5

The sixth finding is students' perception on processing in group in internet-assisted collaborative learning. There are 3 items on this questionnaire.

Table 5. Students' perception on processing in group in internet-assisted collaborative learning.

Indicator	Items	N (%)				Mean	Category
		SD	D	A	SA		

Processing in Group	19	0 (0%)	3 (7,7%)	19 (48,7%)	17 (43,6%)	3,36	Very Positive
	20	0 (0%)	2 (5,1%)	22 (56,4%)	15 (38,5%)	3,33	Very Positive
	21	1 (2,6%)	3 (7,7%)	17 (43,6%)	18 (46,2%)	3,33	Very Positive
Total Mean						3,34	Very positive

Table 5 shows that students have very positive perception of internet-assisted collaborative learning in processing in group. The students agreed that the teacher was the best facilitator. Their teacher gave opportunity to ask question and explained the difficult material. Their teacher also monitored the discussion, evaluated, and gave important notes after study in collaborative learning model with internet-assisted.

Finding 6

The sixth finding is students’ perception on efficiency and benefit of internet in collaborative learning. There are 4 items on this questionnaire.

Table 6. Students’ perception on efficiency and benefit of internet in collaborative learning.

Indicator	Items	N (%)				Mean	Category
		SD	D	A	SA		
	22	0 (0%)	4 (10,3%)	13 (33,3%)	22 (56,4%)	3,46	Very Positive
	23	0 (0%)	0 (0%)	19 (48,7%)	20 (51,3%)	3,51	Very Positive
	24	0 (0%)	4 (10,3%)	13 (33,3%)	22 (56,4%)	3,46	Very positive
	25	0 (0%)	0 (0%)	19 (48,7%)	20 (51,3%)	3,51	Very positive

		(0%)	(0%)	(48,7%)	(51,3%)		
Total Mean						3,47	Very Positive

Table 6 shows that students have very positive perception of internet-assisted collaborative learning in efficiency and benefit of internet with total mean 3,47. The students felt that internet was very accessible and provided many sources of information. The internet had the good impact on the students. Students got better score when studying in collaborative learning model. In addition, internet helps students to exploring the material. Moreover, internet is the suitable learning tool for collaborative learning model.

Discussion

After collecting data from students in grade XII IPA 3 at SMA N 12 Padang, the research found that the students had relatively positive perceptions of the collaborative learning model with internet-assisted learning in English class. However, several people disagreed with some statements. The data's major findings were mainly positive.

According to the data, most students responded positively to the collaborative learning model with internet-assisted learning since this style of learning helps students collaborate better. Students can learn how to communicate meaning, thoughts, and help one another overcome learning difficulties if they use an internet-assisted collaborative learning model in class. Students demonstrate a positive interdependent attitude when adopting the collaborative learning model with online assistance. According to Kondo's (2010) research, collaborative learning generates a positive response and demonstrates benefits such as supporting one another, reducing individual workload, and inspiring students to participate in the activity.

Based on the questionnaire results, it was discovered that practically all students agree that the internet-assisted collaborative learning model assists students in increasing their promotional interactions. According to M. Laal and Laal (2011), collaborative learning is a learning model in which students work together to solve an issue, complete a task, or create a product. Students in the group determine and discover how they will handle a problem, activity, or product without direct direction from the teacher. As a result of the freedom given by collaborative learning, students are encouraged to actively participate in collaborative work. This will undoubtedly help pupils understand the things they are studying and can improve student self-confidence.

The students felt that their communication skills and ability to work in groups to learn English had improved. According to the data, most students agreed that their communication skills had improved while studying, although a few students disagreed that they behaved effectively and politely during conversations. Internet-assisted collaborative learning enhances communication skills and the ability to work in groups

to learn English. This is consistent with Johnsons' (1994) study, which found that social skills are one of the most important factors in successful classroom collaboration. Active participation in the collaborative learning model is expressed by the expression of ideas and information that are not explicitly communicated but rather come through collaborative activities and active conversation in understanding and implementing concepts and procedures (Camarero, Rodriguez, & Jose, 2012). Students may get a thorough understanding of group processes and dynamics, communication and leadership styles, critical thinking ability, problem-solving talents, and social skills (Cartney and Rouse, 2006).

The teacher's role as a facilitator (evaluating how well students collaborate with one another) in internet-assisted collaborative learning. The teacher shares orientation with students in a specific way in the collaborative learning model. Students are actively involved in creating learning objectives, planning tasks, and assessing learning goal success. The teacher participates in collaborative learning as well, acting as a mediator. In this situation, the teacher assists students in connecting new information with previous knowledge, assisting students in describing what to do when they encounter challenges, and assisting students in learning how to learn (learn how to learn) Panitz (1996).

According to the data collected, students stated that their teacher always gives them the opportunity to ask questions and explain difficult material, monitors and participates in group discussions to provide understanding, evaluates and provides important notes after the discussion when studying with collaborative learning models that use the internet. It will be determined how effective it is in internet-assisted collaborative learning by providing evaluations, comments, and marks on assignments or the outcomes of student group discussions.

According to the data collected, students responded that their teacher constantly provides them the opportunity to ask questions and share their experiences. The internet has been proved to be a valuable tool for collaborative learning by assisting students in developing creative thinking, sharing materials, and expertise in a virtual network (Schrader, 2015). Efficiency, also known as performance competence, is defined as the ability to do a task with the least amount of wasted time, money, and effort. The effectiveness of collaborative learning technologies varies from communication tools that enable synchronous and asynchronous text, audio, or video chat to online venues that encourage brainstorming, document editing and remote subject presentations.

CONCLUSION

Based on the research's findings and discussion, students' opinions of the collaborative learning model with internet-assisted were generally positive. The students believed that their learning process had been improved. Each student thinks they depend on one another in a positive way. To achieve their learning goals, they collaborate. On the other hand, students agreed that the collaborative learning model is very useful and preferred. Students agreed that this learning model imported their

positive interdependence, built the responsibility and teammate, their communication skills increased, they were more confident, and felt more critical.

The majority of students also agreed that they would understand the material better if the teacher utilized collaborative learning model. Therefore, using the internet to assist students in researching information and gathering media for tasks. Students agree that because it is widely available, offers a variety of knowledge sources, and effectively supports learning, the internet is an excellent tool for supporting collaborative learning methods. We may draw the conclusion that the internet-assisted collaborative learning model is extremely effective for teaching English.

REFERENCES

- Abdullah, R. B., Mamat, W. H. W., Zal, W. A., & Ibrahim, A. M. B. (2013). Teaching and learning problems of the Orang Asli education: Students' perspective. *Asian Social Science*, 9(12), 118.
- Alavi, M., Wheeler, B. C., & Valacich, J. S. (1995). Using IT to reengineer business education: An exploratory investigation of collaborative telelearning. *MIS quarterly*, 293-312.
- Arikunto, & Suharsimi. (1998). *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: PT. Rineka Cipta.
- Arikunto, S. 2005. *Prosedur Penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
- Arikunto, S. 2013. *Prosedur Penelitian Suatu Pendekatan Praktik*. Edisi Revisi. Jakarta: PT. Rineka Cipta.
- Armianti, S., & Sastramihardja, H. S. (2007). Collaborative Learning Framework. In *Seminar Nasional Aplikasi Teknologi Informasi (SNATI)*.
- Barkley, C., Cross, K. P., & Claire, H. (2015). *Major (2005). Collaborative learning techniques*.
- Blumberg, B., Cooper, D.R., & Schindler, P.S., (2005). *Business Research Methods*. Berkshire: McGraw Hill Education.
- Brinkworth, M. E., McIntyre, J., Juraschek, A. D., & Gehlbach, H. (2018). Teacher-student relationships: The positives and negatives of assessing both perspectives. *Journal of Applied Developmental Psychology*, 55, 24-38.

- Brown, R., & Renshaw, P. (2006). Positioning students as actors and authors: A chronotopic analysis of collaborative learning activities. *Mind, Culture, and Activity*, 13(3), 247-259.
- Camarero, C., Rodríguez, J., & San José, R. (2012). An exploratory study of online forums as a collaborative learning tool. *Online Information Review*.
- Cartney, P., & Rouse, A. (2006). The emotional impact of learning in small groups: highlighting the impact on student progression and retention. *Teaching in Higher education*, 11(1), 79-91.
- Chan, C. T., & Sher, W. (2014). Exploring AEC education through collaborative learning. *Engineering, Construction and Architectural Management*, 21(5), 532-550.
- Chan, C. T., & Sher, W. (2014). Exploring AEC education through collaborative learning. *Engineering, Construction and Architectural Management*, 21(5), 532-550.
- Colbeck, C. L., Cabrera, A. F., & Terenzini, P. T. (2001). Learning professional confidence: Linking teaching practices, students' self-perceptions, and gender. *The Review of Higher Education*, 24(2), 173-191.
- Colbeck, C. L., Campbell, S. E., & Bjorklund, S. A. (2000). Grouping in the dark: What college students learn from group projects. *The Journal of Higher Education*, 71(1), 60-83.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative research* (4th ed.). Boston, MA: Pearson.
- Drost, E. A. (2011). Validity and reliability in social science research. *Education Research and perspectives*, 38(1), 105-123.
- Gay, L. R. (2012). *Educational research : competencies for analysis and applications* (10th ed.). United States: Pearson.
- Gillies, R. M., Ashman, A. F., & Terwel, J. (2007). The teacher's role in implementing collaborative learning in the classroom: An introduction. *The teacher's role in implementing collaborative learning in the classroom*, 1.
- Goddard, Y. L., Miller, R., Larsen, R., Goddard, R., Madsen, J., & Schroeder, P. (2010). *Connecting Principal Leadership, Teacher Collaboration, and Student Achievement*. Online Submission.

- Gokhale, A. (1995). Collaborative learning enhances critical thinking. *Journal of Technology education*, 7(1).
- Guerlain, S., Lee, J., Kopischke, T., Romanko, T., Reutiman, P., & Nelson, S. (1999). Supporting collaborative field operations with personal information processing systems. *Mobile Networks and Applications*, 4(1), 37-48.
- Harmer, J. (2001). *The practice of English language teaching*. London/New York, 401-405.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British journal of applied science & technology*, 7(4), 396.
- Laal, M. (2013). Positive interdependence in collaborative learning. *Procedia-Social and Behavioral Sciences*, 93, 1433-1437.
- Larson, L. C., & Miller, T. N. (2011). 21st century skills: Prepare students for the future. *Kappa Delta Pi Record*, 47(3), 121-123.
- Maloney, E. (2007). What Web 2.0 can teach us about learning. *Chronicle of higher education*, 53(18), B26.
- McClough, A. C., & Rogelberg, S. G. (2003). Selection in teams: An exploration of the teamwork knowledge, skills, and ability test. *International Journal of Selection and Assessment*, 11(1), 56-66.
- McInnerney, J. M., & Roberts, T. S. (2009). Collaborative and cooperative Learning. In *Encyclopedia of Distance Learning, Second Edition* (pp. 319-326). IGI Global.
- Nachmias, R., & Shany, N. (2002). Learning in virtual courses and its relationship to thinking styles. *Journal of Educational Computing Research*, 27(3), 315-329.
- Nasir, M., & Kemristekdikti, M. M. (2018). Kebijakan Nasional Pendidikan Tinggi Indonesia Menghadapi Revolusi Industri 4.0. Slide Ppt, 2.
- Nelson, L. M. (1999). Collaborative problem solving. *Instructional design theories and models: A new paradigm of instructional theory*, 2(1999), 241-267.
- Primawanti, E. P., & Ali, H. (2022). Pengaruh Teknologi Informasi, Sistem Informasi Berbasis Web Dan Knowledge Management Terhadap Kinerja Karyawan (Literature Review Executive Support Sistem (Ess) for Business). *Jurnal Ekonomi Manajemen Sistem Informasi*, 3(3), 267-285.

- Purwaaktari, E. (2015). The Effect of Collaborative Learning Model on Problem Solving Ability of Mathematics and Social Attitude of V Students of SD Jarakan Sewon Bantul. *Journal of Educational Science Research*, 8(1), 95-111.
- Ralston, P. S., Tretter, T. R., & Brown, M. K. (2017). Implementing collaborative learning across the engineering curriculum. *Journal of the Scholarship of Teaching and Learning*, 17(3), 89-108.
- reswell, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Approaches (3rd Edition)*. United States of America.
<https://doi.org/10.2307/1523157>
- Rosli, R., Abdullah, M., Siregar, N. C., Hamid, N. S. A., Abdullah, S., Beng, G. K., ... & Bais, B. (2020). Student Awareness of Space Science: Rasch Model Analysis for Validity and Reliability. *World Journal of Education*, 10(3), 170-177.
- Saba, F. (2000). Research in distance education: A status report. *International Review of Research in Open and Distributed Learning*, 1(1), 1-9.
- Salam, S., Makina, T., & Bakar, N. (2013). The effectiveness of a web-based mobile-supported learning management system. *Mobile learning: Malaysian initiatives and research findings*. Malaysia: Centre for Academic Advancement, Universiti Kebangsaan Malaysia.
- Schwager, P. H., Byrd, T. A., & Turner, D. E. (2000). Information technology infrastructure capability's impact on firm financial performance: an exploratory study. *Journal of Computer Information Systems*, 40(4), 98-105.
- Shukor, N. B. A., Tasir, Z., van der Meijden, H. A. T., & Harun, J. (2014). Exploring students' knowledge construction strategies in computer-supported collaborative learning discussions using sequential analysis.
- Singhal, M. (1997). The Internet and foreign language education: Benefits and challenges. *The internet TESL journal*, 3(6), 107.
- Smith, T. E., Rama, P. S., & Helms, J. R. (2018). Teaching critical thinking in a GE class: A flipped model. *Thinking Skills and Creativity*, 28, 73–83.
- Stevens, R. J., & Slavin, R. E. (1995). The collaborative elementary school: Effects on students' achievement, attitudes, and social relations. *American educational research journal*, 32(2), 321-351.

- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung : Alfabeta, CV.
- Walliman, N. (2001) *Your Research Project: A Step by Step Guide for the First Time Researcher*. Sage, Thousand Oaks.
- Whitney, F. 1960. *The Element of Research*. New York: Prentice-Hall, Inc.
- Wiranto, R., & Slameto, S. (2021). Alumni satisfaction in terms of classroom infrastructure, lecturer professionalism, and curriculum. *Heliyon*, 7(6), e06679.
- Yazici, H. J. (2005). A study of collaborative learning style and team learning performance. *Education+ training*.