CONCEPTUAL ANALYSES ON STUDENTS ACTIVITY LEVELS IN THE LEARNING PROCESS ON THE COLLABORATIVE-BASED APPROACH

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

[1,2,3] English Education Department, Faculty of Teacher Training and Education Sciences

Indonesia Catholic University of Saint Paul Ruteng, Flores

ABSTRACT

Collaborative-based learning is an approach which enable students working together to solve a problem or complete task. Assessments are formative if they occur while learning is still in progress, when knowledge can still be added to or revised. Individually, these are both forms of active learning; in both, a student is actually doing something, engaged in learning, and not passively listening to a lecture. Together, collaborative learning and formative assessment can be a basis for active learning pedagogies and powerful instructional tools. Active learning is a learning model that is considered effective to increase the activeness of students in the learning process. One way to apply this learning model is to apply the collaborative learning method, where the perspective of this method is let the students actively involved in the learning process, especially by each personal contributions for group-peers.

Keywords: *students; learning process; collaborative approach*

INTRODUCTION

The era of globalization has brought many significant changes in various fields, including in the field of education. In the field of education, the impact of the era of globalization is felt. One of the changes that is quite noticeable is the use of advanced technology in learning. In addition, the education system has also undergone changes that are adapted to the times. With the changes in the system and the use of advanced technology in learning, it is hoped that students will become more actively involved in learning, have high learning motivation, be creative, and innovative.

Collaborative learning is well recognised as a pedagogical practice that promotes socialization and learning for students from kindergarten to college level and beyond. The term collaborative learning is used very broadly in this Special Issue and includes

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

cooperative learning, peer learning, and peer collaboration. These pedagogical approaches have been used successfully in both formal and informal settings in schools and the wider community to not only promote learning but also a greater understanding of others with diverse social, personal, and academic competencies (Gillies, 2022:ix).

Currently, Abdulaziz Almajed, et al., (2020) in their article "Collaborative Learning: Students' Perspectives on How Learning Happens" stated that professional education must adequately prepare graduates to practice in a continually changing context; for example, graduates will increasingly work in cross-disciplinary teams and with people from diverse backgrounds. Related to this topic, some other previous research (Plutino, 2017) emphasized that a common feature of collaborative-based learning (CBL) is to provide a range of resources that the students, working in groups on real-world problems, can access to obtain assistance with solving problems. Typical characteristics of CBL suggest introduction of computer supported collaborative learning environment. The most important knowledge sources in the environment are virtual textbooks, prepared by teachers, and knowledge trees that grow as a result of collaboration between all users. The tools used for communication in a group and the tools for facilitation and compensation together form virtual classroom that can be great extent help its users to overcome the obstacles that appear due to spatial and temporal separation.

Collaborative-based learning then support active learning in the classroom interaction.

In this case, the learning system is more focused on active learning to increase learning motivation and involvement of students in the learning process (Smith and Cardaciotto, 2011; Douk et al, 2016). According to Prince (2004), active learning is a learning model that emphasizes the involvement of students in the learning process. This learning model invites students to be involved in several activities that provide stimulation to think and provide responses to the information obtained (Malik and Janjua, 2011).

According to Prince (2004), active learning is also said to be a learning model that provides opportunities for students to carry out meaningful learning activities and invites students to think about what they are doing. This method is considered effective for increasing the activeness and quality of student learning. But in reality, active learning has not really been implemented in the classroom (Smith and Cardaciotto, 2011).

Although active learning is considered as an effective model to improve the quality of learning, in fact, traditional lecture techniques are still applied in the classroom. In contrast to active learning which emphasizes the involvement of students in the learning process, lecture techniques traditionally emphasize that the teacher has an important and large role in the learning process (Douk et al, 2016).

Meanwhile, students are objects of the learning process. This situation

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

will have an impact on a monotonous class because students just sit and listen to the teacher's explanation and cannot take an active role in the learning process. In addition, traditional lecturing techniques that consider teachers to have an important role in the learning process make students accustomed to relying on teachers and only doing what they are instructed to do (Machemer and Crawford, 2007). As a result, there is a lack of innovation, reflection, and thinking from students. Furthermore, Malik and Janjua (2012) said that students will lose focus and concentration after the lecture runs for 15-20 minutes which results in students tending to ignore the explanations given by the teacher in front of the class. This makes the learning process ineffective and students become passive.

Along with the times, traditional lectures that focus on the important role of teachers in the learning process and students as objects must be immediately replaced with lectures that can increase student activity in the learning process. One of the lecture methods that can increase student activity is collaborative learning, where the perspective of this method is that someone is said to be learning if that person is actively involved in the learning process (Nordentoft and Wistoft, 2012).

METHOD

This study adopted qualitative research methodologies that are suitable to deal with descriptive data, such as interview texts, fieldnotes, and other documents, and to analyse them contextually. The qualitative approach was appropriate for exploring student perceptions about participation in online cooperative learning classes using their writing as the data source. This paper uses a literature study method. The data is collected from various sources or written documents, especially the latest works related to online learning, both in terms of media, approaches, methods, strategies and technical management of online learning from experts and educational practitioners published in the form of books, accredited journals, as well as important writings, both policy documents and articles on digital-based education (Moleong, 2007).

A conceptual or systematic literature review is defined as an explicit, rigorous, comprehensive approach to reviewing and summarizing the current body of the published scholarly work on a specific research topic (Ramiro, 2017). This approach is different from the conventional literature review in which a narrative approach to qualitatively reviewing the literature is taken from a specific perspective. SLR features a comprehensive scope of sources, criterion-based on some recent studies which are randomly gathered by related selection search, a clear search strategy, rigorous and systematic appraisal, and a content analysis based qualitative summary (Fischer et al., 2017).

Sources of data related to the latest ideas and thoughts can be found in various literatures scattered on various websites (Elsevier, Sage,

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

google scholars, pdfdrive.com, online journals, seminars, conferences, etc.). The data analysis technique used a descriptive analytical study (Creswell, 2009). The author categorizes important themes in digital transformation-based learning systems and approaches and then conducts studies and analyzes by confronting various educational practices that have been and are currently taking place.

Qualitative data synthesis can be used to synthesize both qualitative and quantitative studies when studies are not sufficiently similar in a systematic review for which a meta-analysis is found to be appropriate (Mays et al., 2005). In order to synthesize findings from heterogeneous studies, a thematic analysis was performed. We decided to conduct a thematic synthesis due to a range of very different studies included in this systematic review. The findings presented under themes would help us answer the questions set at the beginning of the study as the result would be tallied as themes. Thematic analysis is an approach used in primary qualitative research for identifying, analysing, and reporting patterns (themes) across data. Thematic synthesis identifies the recurring themes from multiple studies, interprets and explains these themes, and draws conclusions in systematic reviews (Cruzes & Dyba, 2011). First, we undertook a preliminary synthesis to derive the broad themes inductively involving searching of studies, listing, and presenting results in tabular form. In qualitative research, identifying themes is one of the most

fundamental tasks for deriving findings. By themes, we mean constructs which are identified before, during, and after data collection. We outlined various techniques for discovering themes in the data including analysis of words word repetitions, and contextual key words, analysis of larger blocks of information, physical manipulation of texts using cut and sort and pawing procedures (Ryan & Bernard, 2000).

FINDING AND DISCUSSION

Collaborative learning approach is actually not a new thing. According to Bruffee (1999), collaborative learning has a long history. The history of collaborative learning began when in the 18th century Benjamin Franklin, who was young at that time, put forward his idea of a learning strategy called autonomous learning to promote informal learning. Autonomous learning is often referred to as student-centered learning, where the focus of the learning process is students (Masouleh and Jooneghani, 2012).

The current study reveals a considerable need for an integrated system of CL training programmes at both in-service and preservice levels in Indonesia. The findings indicate that the teachers in this study lacked conceptual understanding and knowledge of CL, which contributed to their difficulty in the implementation of CL. Their misconception of CL was caused by several factors (Karmina, et al., 2021). First, CL in-service training was typically delivered through short

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

professional development programmes and there was no follow up or continual development. Therefore, the teachers understood CL as a theoretical model only. Second, the teachers integrated their knowledge of CL with other similar student-centred ideas such as problem-based learning and conceptual teaching and learning during their professional development. While CL requires teachers to incorporate the five principles to work effectively, other student-centred approaches do not have the same emphasis. Third, partial knowledge of CL in conjunction with a prior understanding of student-centred teaching has led to CL that is more consistent with group work and social construction of knowledge rather than CL. Thus, providing teachers with continuous professional development on CL involving teachers employing CL with close mentoring is suggested as likely to yield a more high-quality implementation of CL (Karmina, et al., 2021).

Therefore, student-centered learning is defined as teacher-less learning or learning without a teacher. After Benjamin Franklin's learning strategies began to gain attention, there was continued interest in the influence of peers in the learning process. However, until the 1930s, attention to the influence of friends in the learning process began to disappear and reappeared in the 1960s (Rae et al, 2006).

Along with the times, the results of modern studies show the importance of peer-groups in the learning process (Rae et al, 2006).

The influence of friends and friendship in the learning process has a great impact on students, especially in terms of satisfaction. This is supported by Astin (in Rae et al, 2006) which states that student satisfaction in the learning process will increase if friendship is involved. Student show more rapid development and are willing to learn more about learning materials if they are more actively involved in the learning process by helping and exchanging ideas with their friends (Rae et al, 2006). Therefore, the learning process based on peer-groups is considered to be able to help students effectively develop themselves. Peer-group learning is based on the idea that one can think well if there is an interlocutor (Mann, 2005). That is, communication and interaction play an important role in the learning process. This rationale is what gave rise to the collaborative learning method which starts from a physiological view of the concept of learning where to learn, one must have a partner or friend. Collaborative learning is a learning method that allows students to interact and communicate with friends to help understand a topic.

With the progress of the times, communication and interaction today is not a big problem. Modern learning technology that is currently developing makes it easier for anyone to communicate and interact. Information dissemination is also better, not only to individuals but also to groups of individuals even though they are not in the same place. Therefore, currently collaborative learning can be done easily because it is not limited to

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

situations that require individuals to meet each other in the same place and at the same time.

The collaborative learning approach developed simultaneously with the emergence of social constructivist theory (Nordentoft and Wistoft, 2011). That is, this learning model emphasizes that the learning process is the construction of knowledge in a social context that encourages acculturation of individuals into a particular context. Or in other words, knowledge can be formed and built together. Collaborative learning provides opportunities for students to evaluate, improve, and add to the knowledge and information they have when they meet and interact with other people who have different thoughts. Learning with this method also allows students to work together in seeking an understanding of a topic.

Based on social constructivist theory, Dreier (1999) argues that learning and participation are two things that are closely related. Knowledge and learning can be formed from how far a person is involved with the situation in which he participates in it. In collaboration learning, the learning process is based on interactions that occur in individuals who participate in interactions. That is, this method assumes that the learning process is very dependent on the process of interaction and communication carried out by the parties in a learning group. So, someone is said to be doing the learning process if someone can participate and be actively involved in the process.

In essence, collaborative learning is a learning method where there are two or more people who interact and depend on each other and have the same goal (Marsh-Pirainen and Tainio, 2009). Smith & MacGregor (1992) say that collaborative learning is a learning method based on several assumptions, namely (1) A person is said to be learning if he is actively involved in learning a material; (2) In learning is very dependent on the context; (3) Basically every student has different backgrounds, such as different learning styles, different experiences, different traits, and different thoughts; (4) Learning is part of activities that are social in nature, in which the process requires interaction and communication to form understanding and meaning that can be accepted by all.

The four assumptions of collaborative learning indicate that by applying the learning method, students need to unite or combine the understanding they already have with something new they encounter to form a meaning related to the material. Furthermore, students are faced with a problem that must be solved in a context that is already known to the students. In solving these problems, students should be involved directly and actively. By applying collaborative learning that emphasizes interaction and communication with individuals in groups, teaching students to accept the differences that exist because these differences are sometimes needed to improve the quality of learning achievement and create new experiences for each student.

There are several characteristics of collaborative

learning proposed by Nelson (1999), namely: (1) In the learning process students are given the opportunity to be directly involved in the process of exchanging ideas and information on a topic; (2) The learning process provides opportunities for students to investigate further about a matter or topic and implement various ways or solutions to solve a problem; (3) Students are given the opportunity to make adjustments to the learning environment that can support the group learning process; (4) The learning process can be referred to as collaborative learning if it can provide sufficient time or opportunity, space, and also resources so that group learning can be carried out; (5) Many learning activities implement activities such as problem solving and project completion.

The characteristics put forward by Nelson explained that this collaborative learning supports the creation of student-centered learning-based learning, where this method can build student activity in the classroom because learning focuses on the role of students, not the teacher. This method not only helps students to actively find out more about a topic, but also gives them the opportunity to create their own atmosphere and environment that can support collaboration and discussion in groups so that it will help each of the students to build a deeper meaning.

In addition, students can also develop themselves better by helping them to think critically about a problem. With the implementation of collaborative learning, it will train students to respect each other and also between students and teachers and train to appreciate every contribution made by each individual.

Active learning is a learning model that emphasizes the involvement of students in the learning process (Prince, 2004). This learning model invites students to be involved in several activities in the learning process. Active learning is considered an effective method to help students become more actively involved in learning, have high learning motivation, be creative, and innovative. However, in reality, in the learning process, students become passive. This happens as a result of the learning process that still considers the teacher to have an important role and makes students only as objects.

The traditional learning process like this, likens students to an empty container that will later be filled because during the learning process they just silently listen to the lectures of the lecturer or instructor without being actively involved in it.

In the learning process, students need to be actively involved so that they can learn more and have a deeper understanding of a topic or material. This can be illustrated by looking at the learning process of a toddler. Toddlers can develop rapidly cognitively, linguistically, and motorically because they are always active to find out about new things they have never known. If a toddler is given an object, he will first see the object with his eyes, then he will hold the object and sometimes squeeze it to find out the texture of the object. In fact, toddlers sometimes put foreign objects in their mouths. By observing, touching, squeezing and

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

even feeling new objects, toddlers are faster in learning about something new.

In terms of speaking, toddlers will usually observe the movement of the lips of the person who is talking to him. After observing it, toddlers will try to imitate lip movements and keep trying until repeatedly. That is, if someone is actively involved in the learning process, then he will absorb knowledge more quickly and will have a deeper knowledge of a topic. This is because he has the opportunity to explore further about a topic so that he is able to build a meaning.

According to Rovio-Johansson and Lumsden (2012), collaborative learning is a social learning process that is usually implemented in universities in various ways, namely study groups, group discussions, team projects, and peer reviews. Universities have a big role in preparing students to compete in the world of work, where in today's world of work the competition is getting tougher. College graduates are required to think critically and creatively in solving problems based on the knowledge gained during their education.

In line with the role of universities, this learning is considered suitable to be implemented in the learning process in higher education because collaborative learning is considered not only as a learning method in the classroom, but collaborative learning is a teaching philosophy in which students work together for the same goal, exchange with each other. thoughts and opinions, decipher the meaning of a concept, and solve

problems together (Hron and Friedrich, 2003). Hron and Friedrich (2003) also suggest that the concept of collaborative learning also emphasizes social interaction where there are things that cannot be learned alone but can be done with the help of friends. By dividing students into smaller groups, it will increase their motivation and enthusiasm in pursuing and finding out more about a learning topic.

Some research results also state that collaborative learning is the right strategy to be implemented in higher education because it can help students to be more active in learning with and from their friends (Kienle, 2009). Collaborative learning allows students to exchange their information and knowledge with their friends. This method also allows students to apply the knowledge and information they have into society to solve various problems faced so as to increase the activity and motivation of students to continue to seek new information and knowledge.

In addition, collaborative learning provides opportunities for students to gain new experiences from social interactions that are built, where this interaction teaches that within a group there must be differences, disagreements, and problems that arise. This is indeed quite difficult for students to deal with, but it can also be a good lesson to prepare students for the world of work. Therefore, this method is the right way to be used to develop students' thinking by actively participating in the learning process.

There are several opinions about how to implement collaborative learning in the classroom to increase

student activity. One of them is proposed by Barkley. According to Barkley (2005), there are at least 3 steps to implementing collaborative learning in the classroom, namely: *First*, understanding on students' orientation. In such kind of the step, students are given sufficient time to get to know each other better, build trust, understand and accept differences, build communication and solidarity, and form rules that will apply so that collaborative learning can run well. The student orientation step is the first step as well as a way to break up awkwardness and tension between students. In addition, at this stage students are given the opportunity to jointly study and understand the policies and procedures of learning in groups, such as learning syllabus, group study contracts, and basic group rules.

Second, the is a need for students to involve in a group formation. In the collaborative learning method, group formation is carried out in various ways. This means that groups are formed randomly and undergo changes in order to achieve the objectives of this method, that is, each student or student performs social interactions, works together, and collaborates to complete tasks. There are three types of groups that can be formed, namely: (1) Informal, this type of group has a short time type and only holds one or several meetings; (2) Formal, this type of group is longer than the informal and continuous type for a project; (3) Basic, this type of group is formed during the learning process for one semester. The group size in an effective collaborative learning method usually amounts to two to six students. The number of members is adjusted to the type of group, the task given, and the duration of the task given. The determination of the number of members should not be too large so that each participant can play an active role, but also not too small to create diversity in the group. As for the determination of group members, it can be done by random selection, chosen by the teacher, or students can choose their own members according to their abilities and skills.

The third, giving value and evaluating; in the collaborative learning method, students can evaluate the results of their own work and the work of others. The role of the teacher in terms of evaluation is to be able to provide individual and group scores on work projects. Because in the collaborative learning method, learning is carried out jointly and not competitively, in assessing and evaluating teachers, one must be careful. Each member also has different abilities and ways of showing abilities. Therefore, teachers need to make a list of values that can cover all learning objectives and activities. In addition, the value of the course also takes into account the relative scales of each component of the activity. Gillies (2007) says that, there are several approaches to implementing collaborative learning methods in the classroom, namely: (1) Team projects, which can build social interactions, communities, challenging thoughts and opinions, relationships between group members, and virtual teamwork. ; (2) Small group work; (3) Peer review,

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

where each student assesses his group of friends in several aspects that are in accordance with learning competencies; (4) Debate team, is an exploratory learning that makes students have critical thinking, argumentation, and presentation skills; (5) Discussion, which can encourage active learning, interaction, and critical thinking on several alternative problem solving. (Gillies, 2007).

Collaborative-based learning aims to assist students in developing critical, creative and innovative thinking skills through the dynamics of learning that takes place inside and outside the classroom. With the process of learning interaction with peers, students can develop problem-solving skills, find solutions together and collaborate with their study partners in completing assignments given by the teacher, both personally and collectively in groups. In this context, the authentic role of a teacher in problem-based learning will appear in the responses of students who are actively involved in the learning process and are able to develop their knowledge and skills independently. In the process of this learning approach, students get a sense of comfort and confidence. Furthermore, this will be his capital to grow and develop in the learning process, namely always believing in his own abilities, being able to protect others, being able to work collaboratively and ultimately making students as independent learners.

CONCLUSION

A number of important benefits of problem-based learning (problem-based learning approach) are: first, there will be meaningful learning. That is, students can learn to solve a problem by applying the knowledge they have. In that process, learning becomes a concept application process and will give a deep meaning to the experience for students because they are dealing directly with situations where the concepts of knowledge they have can be applied. Second, problem-based learning integrates students' knowledge and skills simultaneously and applies them in relevant contexts. This means, what they do will be in accordance with the reality they face. Thus, the problems in the application of a concept they will find at once during the learning takes place. Third, this learning approach helps improve critical and creative thinking skills while at the same time fostering student enthusiasm and initiative in learning. Consequently, they will always be internally motivated to continue to develop interpersonal relationships in study groups and in cross-study discussions during learning.

Collaborative learning is a learning method that can be used especially by students in higher education to increase activeness in the learning process. This collaborative learning method is needed by students, especially students, to face the era of globalization. By implementing this method, students are given the opportunity to learn to work together, learn from each other, help each other, and progress together. In addition, with different backgrounds

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

and experiences, students are trained to respect each other and manage differences. If students are accustomed to working together in class and can appreciate the differences, it is hoped that they can interact well even though there are different mindsets and backgrounds from the people they meet. In addition, students are also expected to be able to face the demands of the current era of globalization. *

REFERENCES

Almajed, Abdulaziz, et al. (2020) "Collaborative Learning: Students' Perspectives on How Learning Happens." *Interactional Research Into Problem-Based Learning*, edited by Susan M. Bridges and Rintaro Imafuku, Purdue University Press, 2020, pp. 165–96. *JSTOR*, https://doi.org/10.2307/j.ctvs1g9g4.10. Accessed 21 May 2022.

Barkley E. F., Cross, K. P., & Major, C. H. 2005. *Collaborative learning techniques: A handbook for college faculty.* San Francisco: Jossey-Bass.

Bridges, Susan M., and Rintaro Imafuku, editors. 2020. "[SECTION II Introduction]." *Interactional Research Into Problem-Based Learning*, Purdue University Press, 2020, pp. 327–28. *JSTOR*, https://doi.org/10.2307/j.ctvs1g9g4.16. Accessed 21 May 2022.

Bruffee, K.A. (1999). *Collaborative Learning*, Second Edition. John Hopkins University Press, Baltimore & London.

Creswell, John W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (Third Edition). LA: Sage and available on: https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Cruzes, D. S., & Dyba, T. (2011, September). Recommended steps for thematic synthesis in software engineering. In 2011 International Symposium on Empirical Software Engineering and Measurement, 275-284. IEEE.

Daouk, Z., Bahous, R., & Bacha, N.N. (2016). Perceptions on the effectiveness of active learning strategies. *Journal of Applied Research in HigherEducation*, 8, 360 - 375.

Dreier, O. (1999). Personal trajectories of participa-tion across contexts of social practice.

Farrell, Thomas. 2022. "4 TESOL Teacher Education: Collaborative Learning". *TESOL Teacher Education: A Reflective Approach*, Edinburgh: Edinburgh University Press, 2022, pp. 63-87. https://doi.org/10.1515/9781474474443-007

Fischer, D., Stanszus, L., Geiger, S., Grossman, P., & Schrader, U.

(2017). Mindfulness and sustainable consumption: A systematic literature review of research approaches and findings. Journal of Cleaner Production, 162(17), 544-558.

Gillies, R.M. (2007). Cooperative *Learning: Integrating Theory and Practice.* Los Angeles: Sage Publications.

Hron, A. & Friedrich, H.F. (2003). A review of web-based collaborative learning: factors beyond technology. *Journal of Computer Assisted Learning,* 19 (1), 70–79.

Karmina, S.; Dyson, B.; Watson, P.W.S.J.; Philpot, R. 2021. *Teacher Implementation of Cooperative Learning in Indonesia: A Multiple Case Study.* Educ. Sci. 2021, 11, 218. https://doi.org/10.3390/educsci11050218

Kienle, A. (2009). Intertwining synchronous and asynchronous communication to support collabora- tive learning – system design and evaluation. *Education and Information Technologies,* 14, 55-79.

Machemer, P. & Crawford, P. (2007). "Student perceptions of active learning in a large cross-disciplinary classroom". *Journal Active Learning in Higher Education,* 8,

9-30.

Malik, S. & Janjua, F. (2011). Active lecturing: an effective pedagogic approach. *International Journal of Academic Research,* 3, 963-967. Mann, S. J. (2005). Alienation in the learning environment. *Studies in Higher Education,*30 (1), 43–55.

Marsh-Piirainen, A. & Tainio, L. (2009). Collaborative game-play as a site for participation and situated learning of a second language. *Scandinavian Journal of Educational Research,* 53, 167- 83.

Masouleh, N.M., & Jooneghani, R.B. (2012). Autonomous learning: A teacher-less learning. *Procedia-Socoal and Bahavioral Sciences.* 55, 835-842.

Mays, N., Pope, C., & Popay, J. (2005). Systematically reviewing qualitative and quantitative evidence to inform management and policy-making in the health field. Journal of Health Service Research and Policy, 10 (Suppl 1), 6–20.

Moleong, Lexy J. 2007. Metodelogi Penelitian Kualitatif. PT. Remaja Rosdakarya. Bandung

Nelson, L. M. 1999. Collaborative Problem Solving. In C. M. Reigeluth (Ed.), *Instructional-Design Theories and Models: A New Paradigm of Instructional Theory, 2,* 241-267. Mahwah, NJ: Lawrence Erlbaum.

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

Nordentoft, H.M., & Wistoft, K. (2012). Collaborative learning and competence development in school health nursing. *Health Education*, 112, 448-464. Doi: 10.1108/0965428121125345 2 *Outlines*, 1, 5-32.

Papageorgiou, Kyriaki and Kokshagina, Olga. 2022. "5 Style: From Individual and Independent to Team-Based and Collaborative Learning". *Envisioning the Future of Learning for Creativity, Innovation and Entrepreneurship*, Berlin, Boston: De Gruyter, 2022, pp. 47-55. https://doi.org/10.1515/978 3110752205-007

Plutino, Alessia. (2017). Teachers as awakeners: a collaborative approach in language learning and social media. In Álvarez-Mayo, Carmen; Gallagher-Brett, Angela; Michel, Franck (Eds), *Innovative language teaching and learning at university: enhancing employability* (pp. 115-125). Research-publishing.net. https://doi.org/10.14705/ rpnet.2017.innoconf2016.661

Prince, M. (2004). Does active learning work? A review of the research. *Journal of engineering Education,* 93 (3), 223-231.

Rae, J., Taylor, G., & Roberts, C. (2006). Collaboration learning: A connected community for learning and knowledge management. *Interactive Technology and Smart Education.* 3, 225-233.

Ramiro, S. (2017). SP0028 systematic literature review: Where to start. Annals of the Rheumatic Diseases, (76), 8.

Respati, Yudit Ayu (2018). "Collaborative Learning Dalam Upaya Peningkatan Keaktifan Mahasiswa Pada Proses Pembelajaran" published by *Jurnal Jurnal Efisiensi – Kajian Ilmu Administrasi*; Edisi Agustus 2018, Vol. XV No. 2, ISSN 1412-1131, e-ISSN 2528-5750, Hal. 15-23

Rovio-Johansson, A. & Lumsden, M. (2012). Collaborative production of pedagogical knowledge: enhancing students' learning. *Journal of Applied Research in Higher Education*, 4, 72-83.

Ryan, G. W., & Bernard, H. R. (2000). Techniques to identify themes in qualitative data. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (2nd ed., pp. 769-802). Thousand Oaks, CA: Sage Publications.9

Schettino, Carmel. 2020. "A Framework for Problem-Based Learning: Teaching Mathematics With a Relational Problem-Based Pedagogy." *Interactional Research Into Problem-Based Learning*, edited by Susan M. Bridges and Rintaro Imafuku, Purdue University Press, 2020, pp. 81–128. *JSTOR*,

Adrianus Nabung[1], Raymundus Beda[2], Maria Oxfordiana Witu Bule[3]

https://doi.org/10.2307/j.ctvs1g9g4.8. Accessed 21 May 2022.

Smith, C.V., & Cardaciotto, L. (2011). Is active learning like broccoli? Student perceptions of active learning in large lecture classes. *Journal of the Scholarship of Teaching and Learning,* 11 (1), 53- 61.