

JPPIPA 9(12) (2023)

Jurnal Penelitian Pendidikan IPA

Journal of Research in Science Education



http://jppipa.unram.ac.id/index.php/jppipa/index

Analysis the Implementation of the Active Learning Learning Process in MTs Negeri Throughout Tanah Datar Regency

Lufri¹, Fira Verina^{1*}, Abdul Razak¹, Syamsurizal¹, Muhamad Sholichin¹

¹Biology Education Study Program, Faculty of Mathematics and Natural Sciences, Universitas Negeri Padang, Padang, Indonesia

Received: August 27, 2023 Revised: November 16, 2023 Accepted: December 20, 2023 Published: December 31, 2023

Corresponding Author: Fira Verina firaverina1996@gmail.com

DOI: 10.29303/jppipa.v9i12.5115

© 2023 The Authors. This open access article is distributed under a (CC-BY License) Abstract: The educational process aims to make students master science. Education is also very important in shaping the personality and behavior of students. The purpose of this study was to analyze the implementation of the active learning learning process in MTs Negeri throughout Tanah Datar Regency. This type of research is descriptive qualitative, the data analysis used is by scoring, presenting data and determining the frequency of implementing active learning for teachers and students of MTs Negeri in Tanah Datar District. The results of the analysis of the implementation of active learning with a percentage of 30% in the frequent category, 33.33% in the sometimes category and 6.67% in the never category. Where the average implementation of the active learning learning process for MTs Negeri teachers in Tanah Datar Regency is 87.96% which is included in the frequent category and means having good criteria. As for the results of the implementation of each variable such as the use of learning models by 82.5%, lesson planning by 93.3%, implementation of learning 87.2% implementation of evaluation 88.6% and obstacles in learning 69, 3% and the negative impact and positive impact of learning by 81.3%. Implementation of active learning by students gets the value of each variable such as learning planning with a percentage of 73.9% after that the implementation of learning is 83.2% learning evaluation is 90% obstacles in learning 53.9% % and positive and negative impacts of learning by 62%.

Keywords: Analysis; Active Learning; Learning strategies

Introduction

Education is a very important process for students. This is related to the process of increasing knowledge, because education can increase the knowledge and skills of students (Sholichin et al., 2022). Education is carried out through a process of interaction, both between educators and students, students and students, as well as students and their environment which can stimulate students to learn. Through the process of interaction, students' abilities will develop both mentally and intellectually (Effendi, 2016).

Education aims to make students smarter in mastering science by becoming mature and responsible individuals, this can be seen in students' self-change (Mulyani, 2013). Education is very important in the formation of personality and also individual behavior (Arif, 2015). In the learning process it contains individual

internal elements involving cognitive, affective (motivation and interest) and psychomotor elements, in this case the five senses where messages and impressions enter the cognitive system (Syarifah et al., 2017).

Learning is the main key in the educational process and the teacher has the main role. The teacher's role is to be responsible for planning and carrying out the learning process that provides stimulation to students so that they are enthusiastic about learning. In this understanding, it can be concluded that teachers and students are an inseparable part of a learning process (Yuniendel et al., 2022). Active student involvement in learning is the main key to learning. Activeness in learning is often a good predictor of learning outcomes students (Ahmadi & Prasetyo, 2005). The correct learning paradigm for teachers to practice is to provide conducive conditions for students to learn which allows

How to Cite:

Lufri, Verina, F., Razak, A., Syamsurizal, & Sholichin, M. (2023). Analysis the Implementation of the Active Learning Learning Process in MTs Negeri Throughout Tanah Datar Regency. *Jurnal Penelitian Pendidikan IPA*, 9(12), 11401–11406. https://doi.org/10.29303/jppipa.v9i12.5115

students to actively participate in learning activities (Applefield et al., 2000). In the implementation of learning, a teacher must always strive to develop creativity in teaching. Active and fun learning will certainly make learning memorable for students (Kamil & Jailani, 2018).

The way that can be used by teachers to make the learning process memorable and can improve learning is by using active learning strategies or active learning models. Active learning or active learning is a learning model that refers to learning objectives, involves students, uses art, movement and the five senses as well as steps and activities in learning (Kariadi & Suprapto, 2018). The use of the active learning model makes student-centered learning not teacher-centered. Another advantage of active learning is that it can cultivate students' attitudes to be able to think critically about the material being studied (Sumini, 2017).

Active learning that is carried out in learning is a learning that invites students to learn actively (Koldin et al., 2013). When students learn actively, it means that they dominate the learning activity, so that with this activity students actively use their brains, either to find main ideas, solve problems, or apply what they have just learned to a problem that exists in real life. In this way students will usually feel a more pleasant atmosphere so that learning outcomes can be maximized (Baharun, 2015).

Active learning provides opportunities for students to be able to actively learn through students and teachers in learning. Through active learning, students can actualize themselves actively during learning. The word active itself is a reflection for students to work hard, be independent, and be responsible (Fitriyah & Hayati, 2020; Yetti & Juniasih, 2016).

Seeing that students' abilities are the same in the learning process, and students are considered as subjects who have the same learning readiness, students have the same age group, the same knowledge, the speed of receiving the same learning material. In reality it is not like that, there are still many problems found in the field around the practice of implementing active learning strategies that have been implemented. Therefore the researcher is interested in analyzing the implementation of the active learning learning process at MTs Negeri Tanah Datar Regency.

Method

This research is quantitative descriptive. The population in this study were science teachers at state MTs in Tanah Datar regency. The sampling technique was carried out by purposive sampling. This research was conducted in 12 public MTs schools in Tanah Datar District. The number of samples in this study were 30 people. the instruments used to collect data were in the form of active learning implementation questionnaires, active learning implementation interview sheets. Analysis of the data used is by scoring, presenting data and determining the frequency of implementing active learning for teachers of State MTs in Tanah Datar District.

Result and Discussion

Teacher Questionnaire Results in the Application of the Active Learning Learning Process at MTs Negeri throughout Tanah Datar District

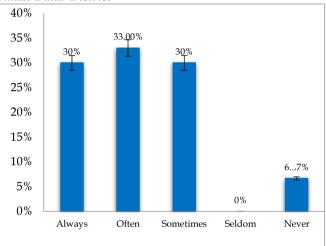


Figure 1. Graph of the distribution of the frequency of implementation of the active learning learning process by teachers of MTs Negeri throughout Tanah Datar Regency.

Based on Figure 1, it can be seen that teachers who are included in the classification have always applied the active learning learning process totaling 9 (nine) people with a percentage of 30%, teachers who are included in the frequent category are 10 (ten) people with a percentage of 33.33% and the category sometimes there are 9 (nine) people with a percentage of 30% and never 2 (two) people with a percentage of 6.67%. Where the average implementation of the active learning learning process for MTs Negeri teachers in Tanah Datar Regency is 87.96% which is included in the frequent category and means having good criteria.

Active learning is a learning process in which students get more opportunities to carry out learning activities than just receiving the lessons given (Utami, 2009). Active learning is intended to optimize the use of all the potential possessed by students, so that all students can achieve satisfactory learning outcomes according to their personal characteristics. In active learning, the teacher acts more as a facilitator than as an instructor.

Results of Active Learning Implementation Questionnaire in Each Variable

To get the results of the implementation of the active learning learning process according to the teacher used a questionnaire consisting of 6 sub-variables, each of which has an indicator in it with 36 statement items and 3 open answer choices.

Which has a range of 1 (one) for the minimum score and 5 (five) for the maximum score. The average score for the results of the implementation questionnaire was obtained through the total results of the questionnaire answers for all teachers and then divided by the total number of teachers, so that the average implementation of the active learning learning process by the teacher could be obtained.

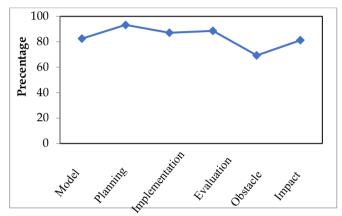


Figure 2. Graph of frequency distribution of active learning implementation by State MTs teachers in Tanah Datar Regency in each variable

We can see from Figure 2, there is each percentage of each indicator such as the use of learning models with a percentage of 82.5%, then learning planning is 93.3% implementation of learning 87.2% implementation of evaluation 88.6 % and obstacles in learning 69.3% and the negative and positive impacts of learning by 81.3%. The results of this study are in line with the opinion of Nufus et al. (2023), which states that the implementation of active learning is strongly influenced by the use of appropriate strategies, methods, approaches, learning resources and learning media.

Student Questionnaire Results in the Application of the Active Learning Learning Process in MTs Negeri throughout Tanah Datar District

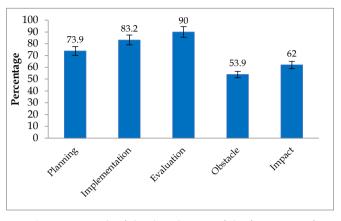


Figure 3. Graph of the distribution of the frequency of implementation of the active learning learning process by students of MTs Negeri throughout Tanah Datar Regency.

We can see from Figure 3, there is each percentage of each variable such as lesson planning with a percentage of 73.9% after that the implementation of learning is 83.2% learning evaluation is 90% obstacles in learning 53.9% % and the impact positive negative from learning by 62%. The application of active learning can make it easy for students to find various concepts learned, foster the ability to think, work, act scientifically and can improve and expand mastery of skills in the process of acquiring students' cognitive (Yuliati, 2021).

Active learning basically trying to strengthen and expedite the stimulus and response of students in learning, so that the learning process becomes fun, not boring for them. By providing active learning strategies to students, it can help their memory, so that they can achieve the expected learning objectives (Susanti, 2019). Opinion streng thened Cosner (2020) active learning is a process in which students engage in activities such as reading, writing, discussion, or problem solving that integrate analysis, synthesis, and classroom evaluation into the teaching and learning process. Active learning occurs when students are given the opportunity to participate more interactively with subject matter, not just to receive knowledge or material from the teacher.

Student Involvement in Active Learning Learning Process

Student involvement in Active Learning learning, of course the students are more involved than the teacher using lectures meaning that students become more active and learning becomes meaningful and more interesting for students (Hartikainen et al., 2019; Kember & Leung, 2005; Sivan et al., 2000). Students are actively involved according to their potential and abilities through teacher guidance. The involvement of students is more when compared to other learning. Generally 11403 students become active, all students are actively involved in the learning process. Students are directly involved Students really enjoy in learning, with an active learning learning process Involving students in learning with an active learning process is very important because we/students play a role in the question and answer process and presentations (Hošková-Mayerová & Rosická, 2015).

In an effort to increase the activity, interest and attention of students in the learning process is to condition students to be able to learn independently by sharing information with friends (Desmayenti, 2023). Actually, in learning students are very enthusiastic, because they get lessons that free them actively and independently. However, because each student's thinking ability is different, in each class there are students who are able to be actively involved, but there are also those who are less active but they still try together.

When the student learning process is very active, students are brave enough to express opinions. Students are enthusiastic and active in the learning process. Students are very dominating in learning with an active learning learning process. Active learning is learning that invites students to learn actively, when students learn actively, it means they dominate learning activities (Yadav et al., 2022) With this they actively use their brains, both to find main ideas from lecture material, solve problems, or apply what they just learned to a problem that exists in real life. With this active learning, students are invited to participate in all learning processes, not only mentally but also physically involved (Hisyam et al., 2008).

Based on the results of interviews with students where they said, Yes, I really participate when learning and also I am most active in face-to-face learning paying attention to the teacher in front or explaining the lesson and studying seriously paying attention to the teacher by listening well when the teacher explains learning, and seriously serious about learning. In this case students also have various characteristics in a class, where all students do not have the same background and knowledge so that each of them has a character. So that their learning process is also different. Here, through active learning, all students are encouraged to play a role in the learning process and that is an important role for a teacher to invite students to contribute to learning.

In an active learning strategy, each new subject matter must be linked to various previous knowledge and experiences (Zulhamdi et al., 2022). The new learning material is actively provided, the teacher needs to create an appropriate strategy so that students have high motivation to learn (Mulyasa, 2004). In the teaching and learning process a strategy is needed, whereby with this strategy students can be more active in class, and later can improve learning achievement, a teacher who acts as a facilitator must be good at choosing strategies that match the characteristics of their students. The application of active learning strategies is nothing new in learning theory. Because it is a logical consequence of the teaching and learning process in schools (Hoyles & Küchemann, 2002). There is almost no teaching and learning process going on without the activeness of student learning, some have a low level of activity, some have a high level of activity.

Teacher Obstacles in Implementing Active Learning in MTs Negeri throughout Tanah Datar District

Obstacles faced by teachers in the process of implementing active learning in schools are in the form of students who are less active during the learning process, limited time, inadequate facilities and infrastructure, the thinking power of each student is different.In addition to teachers, students also experience obstacles in the learning process, including students becoming less active, not concentrating, and when learning is done, students do not understand or have difficulty understanding learning material.

In general, the factors that influence student learning outcomes can be seen from several factors, such as internal factors that come from within the students themselves, external factors, namely factors that come from the environment around students, learning models used such as approaches, strategies, methods and techniques. learning, learning media and learning experiences of students (Yuwono et al., 2021; Zaman, 2019).

Conclusion

The results of the analysis of the implementation of active learning with a percentage of 30% in the frequent category, 33.33% in the sometimes category and 6.67% in the never category. Where the average implementation of the active learning learning process for MTs Negeri teachers in Tanah Datar Regency is 87.96% which is included in the frequent category and means having good criteria. As for the results of the implementation of each variable such as the use of learning models of 82.5%, learning planning of 93.3%, implementation of learning 87.2% implementation of evaluation 88.6% and obstacles in learning 69.3% as well as negative impacts and impacts positive from learning by 81.3%. Implementation of active learning by students gets the value of each variable such as learning planning with a percentage of 73.9%.

Acknowledgments

During the research, the author received a lot of support, guidance, direction and input from various parties. For this reason, on this occasion the author would like to thank the lecturers of the Biology Education Study Program, Faculty of Mathematics and Natural Sciences, Padang State University. To Mr. and Mrs. teachers of MTs Negeri Se Tanah Datar Regency who have given the opportunity and permission to carry out research.

Auhor Contribution

F. V: original draft preparation, results, discussion, methodology, conclusions; L, A. R, S and M. S: analysis, review, proofreading and editing. F. V, L, A. R, S and M. S; All authors have read and agreed to the published version the manuscript.

Funding

This research did not receive external funding.

Conflicts of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

References

- Ahmadi, A., & Prasetyo, J. (2005). *Teaching and Learning Strategies*. Bandung: Faithful Library.
- Applefield, J. M., Huber, R., & Moallem, M. (2000). Constructivism in theory and practice: Toward a better understanding. *The High School Journal*, 84(2), 35–53. Retrieved from https://www.jstor.org/stable/40364404
- Arif, M. (2015). Menciptakan Budaya Belajar Efektif Dalam Meningkatkan Mutu Pendidikan. Al Ta'dib: Jurnal Ilmu Pendidikan, 5(1). Retrieved from https://ejournal.unhasy.ac.id/index.php/altadib/article/view/47
- Baharun, H. (2015). Penerapan pembelajaran active learning untuk meningkatkan hasil belajar siswa di madrasah. *PEDAGOGIK: Jurnal Pendidikan*, 1(1). Retrieved from http://ejournal.unuja.ac.id/index.php/pedagogi k/article/download/14/14
- Cosner, S. (2020). A deeper look into next generation active learning designs for educational leader preparation. *Journal of Research on Leadership Education*, 15(3), 167–172. https://doi.org/10.1177/1942775120936301
- Desmayenti, D. (2023). Penerapan Model Active Learning Tipe Kontrak Belajar disertai Kuis di Akhir Pembelajaran pada Siswa Kelas X. IPK 3 MAN 2 Pesisir Selatan sebagai Upaya untuk Meningkatkan Aktifitas dan Hasil Belajar pada Mata Pelajaran PKN. *Journal on Education*, 6(1), 3746–3760.

https://doi.org/10.31004/joe.v6i1.3477

- Effendi, M. (2016). Integrasi pembelajaran active learning dan internet-based learning dalam meningkatkan keaktifan dan kreativitas belajar. *Nadwa: Jurnal Pendidikan Islam, 7*(2), 283–309. https://doi.org/10.21580/nw.2013.7.2.563
- Fitriyah, L. A., & Hayati, N. (2020). Analisis keterampilan menyusun RPP mahasiswa calon guru IPA menggunakan Active Learning. *LENSA* (*Lentera Sains*): Jurnal Pendidikan IPA, 10(2), 83–93. https://doi.org/10.24929/lensa.v10i2.117
- Hartikainen, S., Rintala, H., Pylväs, L., & Nokelainen, P. (2019). The concept of active learning and the measurement of learning outcomes: A review of research in engineering higher education. *Education Sciences*, 9(4), 276. https://doi.org/10.3390/educsci9040276
- Hisyam, Z., Munthe, B., & Aryani, S. A. (2008). Strategi pembelajaran aktif. In *Yogyakarta: Insan Mandiri*. Yogyakarta: Insan Mandiri.
- Hošková-Mayerová, Š., & Rosická, Z. (2015). E-learning pros and cons: active learning culture? *Procedia-Social and Behavioral Sciences*, 191, 958–962. https://doi.org/10.1016/j.sbspro.2015.04.702
- Hoyles, C., & Küchemann, D. (2002). Students' understandings of logical implication. *Educational Studies in Mathematics*, 51, 193–223. https://doi.org/10.1023/A:1023629608614
- Kamil, N., & Jailani, J. (2018). Peningkatan Rasa Percaya Diri Siswa Dalam Pembelajaran Matematika Melalui Active Learning Tipe Active Knowledge Sharing Dengan Pendekatan Saintifik. *Profesi Pendidikan Dasar*, 5(2), 155–166. Retrieved from https://journals.ums.ac.id/index.php/ppd/articl e/view/6845
- Kariadi, D., & Suprapto, W. (2018). Model pembelajaran active learning dengan strategi pengajuan pertanyaan untuk meningkatkan kualitas proses pembelajaran pkn. *Educatio*, *13*(1), 11–21. https://doi.org/10.29408/edc.v12i1.838
- Kember, D., & Leung, D. Y. P. (2005). The influence of active learning experiences on the development of graduate capabilities. *Studies in Higher Education*, 30(2), 155–170. https://doi.org/10.1080/03075070500043127
- Koldin, Halidjah, S., & Kartono. (2013). Peningkatan Motivasi Belajar Murid Kelas IV melalui Metode Eksperimen di Sekolah Dasar Negeri 04 Sadaniang. *Jurnal Pendidikan Dan Pembelajaran Khatulistiwa* (*JPPK*), 2(8).
 - https://doi.org/10.26418/jppk.v2i8.2796
- Mulyani, D. (2013). Hubungan kesiapan belajar siswa dengan prestasi belajar. *Konselor*, 2(1). https://doi.org/10.24036/0201321729-0-00
- Mulyasa, E. (2004). Competency-Based Curriculum.

Bandung: PT Juvenile Rosdakarya Publisher.

- Nufus, S., Ismayani, A., & Habibati, H. (2023). Analisis Pelaksanaan Pembelajaran Aktif Peserta Didik Kelas XI MAN 3 Banda Aceh. *Jurnal Ilmiah Mahasiswa Pendidikan Kimia*, 8(1). Retrieved from https://jim.usk.ac.id/pendidikankimia/article/view/16789
- Sholichin, M., Razak, A., Lufri, L., & Irdawati, I. (2022).
 Validitas dan Praktikalitas E-Modul Berbasis
 Mobile Learning Berbantuan 3D Page Flip
 Professional Pada Materi Ekologi dan Perubahan
 Lingkungan di Kelas X SMA. Jurnal Penelitian
 Pendidikan IPA, 8(6), 3034–3043.
 https://doi.org/10.29303/jppipa.v8i6.2467
- Sivan, A., Leung, R. W., Woon, C., & Kember, D. (2000). An implementation of active learning and its effect on the quality of student learning. *Innovations in Education and Teaching International*, 37(4), 381. Retrieved from https://shorturl.asia/JBoFQ
- Sumini, S. (2017). Upaya Meningkatkan Hasil Belajar Matematika Dengan Menggunakan Model Pembelajaran Student Teams Achievement Division. *Jurnal Global Edukasi*, 1(3), 447-451. Retrieved from https://jurnal.goretanpena.com/index.php/JGE/ article/view/44
- Susanti, E. (2019). Kemampuan Berpikir Kritis Siswa Sdn Margorejo VI Surabaya melalui Model Jigsaw. *Bioedusiana: Jurnal Pendidikan Biologi*, 4(1), 55–64. Retrieved from https://jurnal.unsil.ac.id/index.php/bioed/articl e/view/792
- Syarifah, H. A., Azizah, L. F., & Meita, N. M. (2017). Card Sort melalui Active Learning untuk Meningkatkan Keaktifan Siswa pada Pembelajaran IPA Terpadu. *Alpen: Jurnal Pendidikan Dasar,* 1(2). Retrieved from https://shorturl.asia/uqe2L
- Yadav, C. S., Pradhan, M. K., Gangadharan, S. M. P., Chaudhary, J. K., Singh, J., Khan, A. A., Haq, M. A., Alhussen, A., Wechtaisong, C., Imran, H., & others. (2022). Multi-Class Pixel Certainty Active Learning Model for Classification of Land Cover Classes Using Hyperspectral Imagery. *Electronics*, 11(17), 2799.

https://doi.org/10.3390/electronics11172799

Yetti, E., & Juniasih, I. (2016). Implementasi Model Pembelajaran Tari Pendidikan Untuk Meningkatkan Kecerdasan Kinestetik Anak Usia Metode Dini Melalui Pembelajaran Aktif (Pengembangan Model Di Taman Kanak-kanak Labschool Jakarta Pada Kelompok B). Jurnal Pendidikan Dini, 10(2), 385-400. Usia https://doi.org/10.21009/JPUD.102.11

Yuniendel, R. K., Trinova, Z., Wiyanti, V., Tamrin, M., &

others. (2022). Analisis strategi lightening the learning climate pada pembelajaran pendidikan agama islam. *Journal of Innovation Research and Knowledge*, 1(11), 1497–1504. https://doi.org/10.53625/jirk.v1i11.1974

- Yuwono, T., Rambu, Y., & Sumadji, S. (2021). Analysis of Student Errors In Solving Story Problems Based on Newman's Stage In Class VII. Journal of Education and Learning Mathematics Research (JELMaR), 2(1), 59–67. Retrieved from https://www.jelmar.wisnuwardhana.ac.id/index .php/jelmar/article/view/48
- Zaman, B. (2019). Moral Education of Street Children at PPAP Seroja Surakarta. *Edukasia Islamika: Jurnal Pendidikan Islam,* 4(1), 18–32. Retrieved from https://ejournal.uingusdur.ac.id/edukasiaislamika/article

/view/531

Zulhamdi, Z., Rahmatan, H., Artika, W., Pada, A. U. T., & Huda, I. (2022). The effect of applying blended learning strategies Flipped Classroom model on students' critical thinking skills. *Jurnal Penelitian Pendidikan IPA*, *8*(1), 86–93. https://doi.org/10.29303/jppipa.v8i1.1186