A Comprehensive Study on the Implementation of PETA PINTAR Model for Improved Teacher Engagement, Student Motivation, and Critical Thinking Skills in the Era of Society 5.0

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Abstrak

Temuan penelitian menunjukkan adanya peningkatan aktivitas guru yang cukup besar, hingga mencapai tingkat "Sangat Baik" melalui refleksi dan penyesuaian pendekatan pembelajaran. Kenaikan ini memberikan dampak positif terhadap motivasi belajar siswa yang ditunjukkan dengan nilai tertinggi pada kriteria "Sangat Tinggi". Keterlibatan siswa dalam kegiatan pembelajaran juga mencapai tingkat yang sangat aktif, hal ini menunjukkan bahwa penyesuaian metode pembelajaran memberikan dampak yang menguntungkan terhadap partisipasi siswa. Selain itu, penelitian ini menunjukkan perlunya kesadaran instruktur terhadap keterampilan mengajar di masa masyarakat 5.0. Pengetahuan ini memungkinkan guru untuk mengembangkan pembelajaran yang relevan dengan kebutuhan siswa saat ini, berkonsentrasi pada literasi kritis, pemecahan masalah, dan kemampuan berpikir mendalam. Penerapan model pembelajaran unik yang memadukan tiga jenis model menunjukkan keefektifannya dalam memberikan pembelajaran yang menarik, aktif, dan kreatif. Data tersebut menunjukkan bahwa pembelajaran inovatif dapat mendorong partisipasi siswa, meningkatkan motivasi belajar, dan mengembangkan keterampilan berpikir kritis. Secara keseluruhan, penelitian ini memberikan wawasan mendalam tentang pentingnya peran instruktur dan metode pembelajaran dalam meningkatkan kualitas pembelajaran di tingkat sekolah dasar. Penerapan model PETA PINTAR diakui sebagai strategi yang sangat baik dalam menyediakan lingkungan belajar yang responsif, menghadirkan pendekatan yang menarik, dan relevan dengan kebutuhan perkembangan siswa. Hasil penelitian ini mempunyai implikasi yang baik bagi penciptaan strategi pembelajaran di masa depan, khususnya dalam menghadapi dinamika pendidikan di era saat ini.

Kata kunci: Model PETA PINTAR, Pembelajaran Berbasis Masalah, Sekolah Dasar.

Abstract

The research findings demonstrated a considerable increase in teacher activity, which reached the "Excellent" level through reflection and adjustment of learning approaches. This

rise has a beneficial impact on student learning motivation, indicated by the highest score on the "Very High" criterion. Student involvement in learning activities also reached a very active level, demonstrating that adjustments in learning methods had a beneficial impact on student participation. In addition, this research shows the necessity of instructors' awareness of teaching skills in the period of society 5.0. This knowledge allows teachers to develop learning that is relevant to the needs of current students, concentrating on critical literacy, problem solving, and deep thinking abilities. The deployment of a unique learning model, which combines three types of models, reveals its effectiveness in providing engaging, active and creative learning. These data indicate that innovative learning can encourage student participation, boost learning motivation, and develop critical thinking skills. Overall, this research gives in-depth insight into the importance of the role of instructors and learning methods in increasing the quality of learning at the elementary school level. The implementation of the PETA PINTAR model is acknowledged as an excellent strategy for providing a learning environment that is responsive, presents an intriguing approach, and is relevant to students' developmental needs. The results of this research have favourable implications for the creation of learning strategies in the future, especially in tackling the dynamics of education in the current era.

Keywords: PETA PINTAR model, Problem Based Learning, Elementary School.

INTRODUCTION

As a result of the ever-increasing speed with which the times are progressing, it is necessary for individuals to possess high standards that must be satisfied; hence, there must be a growth in the quality of individual resources. Increasing the number of human resources is inextricably linked to the global community. education and learning. The world of global education is undergoing rapid development in the 21st century, which is stimulating changes that need to be balanced with education in our country. In order for this to be accomplished, it is necessary for a student to possess the fundamental skills that are currently referred to as the 6Cs (Critical Thinking, Collaboration, Communication, Creativity, Citizenship, Character) which are projected to be able to maintain pace with the world demand in the future. For this reason, students' skills need to be equipped to handle the challenges that exist in the 21st century. Due to the fact that pupils have been exposed to a great deal of change in recent years, it is imperative that skills relevant to the 21st century be taught at all levels of education, particularly in elementary schools. One of the most important factors that determines the overall quality of education is the instruction that is provided in elementary schools (SD) (Li et al., 2022).

Developing procedural abilities for examining the natural environment, solving issues, and making decisions is one of the goals of the scientific curriculum in elementary schools. Included in this objective is the development of students' skills and knowledge (Prayuda, Juliana, et al., 2023). asserts that the foundation of science education is the empowerment of students to construct their own capabilities, scientific work, and knowledge, which is helped by teachers who are oriented towards the aims of the science learning curriculum (Gerde, 2018).

The purpose of teaching pupils about natural sciences (Science) in elementary school is to guarantee that they are able to acquire knowledge and comprehension of natural science topics that are applicable to everyday life and may be utilised in a relevant manner. In essence, science has four key aspects, notably attitudes: curiosity about objects, natural occurrences, living organisms, as well as cause and effect correlations that give rise to new problems that can be answered through correct procedures; IPA is open ended; process: problem solving procedures through scientific methods; the scientific method comprises generating hypotheses, devising experiments or trials, evaluating, measuring, and drawing conclusions; product: in the form of facts, principles, theories and laws; & application: use of scientific procedures and science concepts in everyday life. These four essential parts of science should occur in learning science and literature (Austin, 2014).

The reality found in primary school is contradictory to ideal settings. In past scientific courses, many students had difficulties understanding the principles of teaching material, which resulted in underdeveloped critical abilities and low student interest in learning (Prayuda et al., 2022). As a result, pupils are not inspired to actively locate or seek for knowledge themselves, in accordance with the concept of the material. Judging from the first ideal conditions in science learning, the learning process should be able to develop an attitude of curiosity about objects, natural phenomena, living creatures, as well as cause and effect relationships that give rise to new problems that can be solved through correct procedures; IPA is open ended. However, in practice the learning process is still passive and dull because the teacher solely employs the lecture approach, so pupils have difficulties creating an attitude of curiosity in learning (Schmidt et al., 2018).

The second ideal criterion in science learning, the learning process should be able to generate problem-solving techniques or procedures through scientific approaches. However, in fact, throughout the learning process teachers do not employ experimental models or other problem solving processes in learning so that students cannot be actively involved in creating the learning process using scientific methods and knowledge received just through one source (Prayuda, Ginting, et al., 2023). The third ideal condition in the science learning process, the learning process should be able to create facts, principles, theories and laws. However, in fact the activity process that takes place in the instructor's class does not include students in building their knowledge so that pupils do not understand the learning supplied by the teacher. The fourth ideal requirement in the science learning process, the learning process should be able to develop the application of scientific methods and science concepts in everyday life (Theobald et al., 2020).

The activity process that takes place in the classroom is still one way from teacher to student, so that the teacher is dominant in carrying out the learning process and there are still students who do not really understand the material being taught and consider the material provided to be limited to knowledge. Therefore, pupils' knowledge and understanding of science learning is still stated to not be fully developed. Low student activity in science learning will have an impact on students' low knowledge both in terms of concepts and problem solving related to solving problems related to science learning so that it will have a large affect on student learning outcomes.

Thus, one possible answer to the problem above is to employ a combination of the PETA PINTAR learning model which is a combination of 3 learning models, namely Problem Bassed Learning, Experimental technique, and Team Games Tournament. A mixture of learning models that provides opportunities for students to uncover their own knowledge in science disciplines relating changes in the shape of objects, notably with a combination of models. The Problem Based Learning (PBL) learning model illustrates that in its implementation it can expose students to challenges to highlight collaborative learning and is an innovative learning. The emphasis in learning depends on student actions to solve problems by utilising the abilities of detecting, analyzing, generating and presenting learning products based on real experience.

The observations are presented to the class and evaluated by the teacher. The purpose of employing this strategy is for pupils to be able to seek for and find various answers or difficulties they confront by doing their own experiments. Also students can be instructed in natural methods of thinking. This is in keeping with what indicates that through experimenting students gain evidence of the truth of the theory of anything they are studying. Team Games Tournament (TGT) is a cooperative learning paradigm where small groups are established in courses consisting of three to five different students. With this heterogeneous group, students chat in their groups, study and work together on tasks set by the teacher. So that when there are group members who do not grasp the task given, other group members can help explain it. Team activities Tournament is a methodology used to balance scientific learning combined with group activities to improve students' interest in learning.

The purpose of this research is to describe teacher activities, analyze motivation, activities, and analyze critical thinking skills and learning outcomes for fifth grade elementary school students in implementing the PETA PINTAR (Problem Bassed Learning, Experimentation, and Team Games Tournament) learning model. This research was conducted to support previous research which stated that research using the Problem Bassed Learning, Experimentation, and Team Games Tournament models can increase motivation, activity, critical thinking skills and student learning outcomes in terms of Student Critical Thinking Skills in Science Subjects in

Elementary School" research results showed that the average increase in critical thinking skills. It claims that the use of experimental learning methods with the teacher helping each group to collect experimental data might improve student involvement in collecting experimental data. Research results show that critical thinking skills can be improved through PBL because the learning approach is based on authentic problems, and students are not only asked to understand a problem but also have to be able to work together to solve the problem, so as to stimulate students' abilities and skills, especially skills. critical thinking. This is also in line with the TGT learning model. Students will be given a tournament or competition after studying so that each group will be serious about engaging in the learning since they have aims that must be attained. includes group award activities, where the group that manages to obtain the best score will get a prize. Therefore, it makes pupils more driven to increase the quality of their learning in the next cycle.

Rapid advances need high standards and improvements in the quality of human resources. Education in the 21st century demands modification to stay pace with global advancements. Students need to be endowed with basic talents, such as 6C (Critical Thinking, Collaboration, Communication, Creativity, Citizenship, Character), to be ready to answer future difficulties. 21st century skills must be taught at all levels of education, especially in elementary schools, as a basis for rapid change. The importance of education in elementary schools (SD) in determining the quality of education reflects the aims of the science curriculum. The curriculum strives to improve students' process skills, including the ability to study the natural environment, solve issues and make decisions. However, the reality on the ground demonstrates a disparity with ideal conditions. Many students have difficulties understanding the principles of science material, impeding the development of crucial skills and student interest in learning (Hogan et al., 2015).

Understanding is less developed since teaching approaches are passive and uninteresting. Teachers prefer to employ the lecture style, making it harder for students to build interest and actively seek information. The learning approach also does not explore students' potential in solving problems utilising scientific methods. This leads in low student participation and knowledge of science subjects. As a solution, a combination of PETA PINTAR learning paradigms can be applied, which includes Problem Based Learning, Experimental techniques, and Team Games Tournaments. PBL delivers a collaborative learning experience through problem solving. The experimental method includes students in experiments to find answers to difficulties. Team Games Tournament provides cooperative learning through group games, improving student enthusiasm.

This research intends to characterise instructor actions, examine motivation, activities, critical thinking abilities, and student learning outcomes through the PETA PINTAR learning paradigm. It is envisaged that the research results can promote strengthening students' critical thinking skills in science courses in elementary schools. This research is useful in validating earlier findings which suggest that the adoption of the PETA PINTAR learning model can provide a good impact to motivation, activity, critical thinking abilities and student learning outcomes in science topics in elementary schools. The research focus on teacher activities provides insight into how this method is implemented in classroom environments.

Teacher activities in the PETA PINTAR model involve the utilisation of Problem Based Learning (PBL), experimental methodologies, and Team Games Tournament (TGT). PBL gives students with the opportunity to cooperate in authentic problem solving, motivating them to identify, analyze, create and present learning products based on real experiences. The experimental method involves students in experiments, monitoring the process, and writing down the outcomes of their experiments, providing direct experience in discovering answers to the difficulties they confront. Team Games Tournament (TGT) as a cooperate together in carrying out tasks set by the teacher. Diversity in groups provides opportunity to support each other and clarify topics to fellow group members, enhancing social interaction and critical thinking skills.

It is intended that this research will not only contribute to learning practices in primary schools, but can also form a basis for the development of more innovative and effective learning approaches. Through the SMART PETA method, it is believed that students can be more engaged, critically involved, and able to apply their knowledge in everyday life, in accordance with the aims of science learning in elementary schools. In the context of adopting the PETA PINTAR learning paradigm, attention to activity, motivation, critical thinking skills and student learning outcomes is the subject of research. Teacher actions in adopting Problem Based Learning (PBL) are seen to include students in authentic problem solving, fostering collaborative and inventive learning environments. Students are asked to not only learn topics, but also work together in teams to overcome the issues they meet.

The experimental approach as part of PETA PINTAR helps students not only grasp the theory but also show the correctness of the theory through experiments. Observation exercises, recording data, and sharing information with the class give students with the opportunity to enhance their critical thinking skills. Students become more active in the learning process and have responsibility for grasping the topics they receive. Team Games Tournament (TGT) brings a competitive component to cooperative learning. Having tournaments or competitions amongst groups gives added motivation for students to actively participate and attain the best results. Rewards for the group with the best score can also raise students' drive to improve the quality of their learning in each learning cycle.

Thus, using the PINTAR PETA approach, it is envisaged that significant changes might occur in science instruction in elementary classrooms. It is envisaged that more active student activities, continued motivation, and the development of superior critical thinking skills can provide more optimal learning results. By continuing to analyse and refine the application of this model, the potential to increase the quality of science instruction in primary schools will become more accessible and achievable.

METHOD

Based on the description of the problem to be solved, the researcher employed the classroom action research (PTK) approach. The methodological design of this research comprises of four steps, namely Planning, Implementation, Observation, and Reflection. This classroom action research was conducted in an elementary school (SD) and involved 18 class IV students. The timeframe of the study includes six meetings over three weeks. The main research issue is teacher activity in adopting the SMART PETA model, while the elements studied include boosting students' enthusiasm, activity and critical thinking skills. Several parties were involved in this research, including the researcher who also acted as a teacher, the fourth grade homeroom teacher as an observer, and all fourth grade elementary school pupils.

Data gathering was carried out through observation and interview methodologies. Observations are used to describe activities and analyze improvements using observation sheets. Interviews were undertaken to obtain data through direct questions and replies regarding the learning system with observers. Qualitative data was acquired through observations of teacher activities, student activities, critical thinking skills, and learning motivation. Quantitative data was acquired using group and individual written tests. Data analysis was conducted out utilising descriptive analysis approaches and explained through tables, graphs and percentage interpretation. The assessment group is divided into five criteria with indicators of success, where teacher activity is assessed with a score range of 39-48 as a very good criterion, student learning motivation is assessed with a score range of 12-16 as a very high criterion, student activity is assessed with a score range of 35-44 as a very active criterion, and students' critical thinking skills are assessed with a score range of 12-16 as a very skilled criterion.

In the Planning stage, this classroom action research explains the implementation plan for the SMART PETA model, sets targets, and determines actions to boost teacher engagement, learning motivation, student activity, and student critical thinking abilities. The research implementation involved six meetings held over three weeks in class IV primary school. Observations of teacher activities were carried out to describe the processes followed in adopting the PETA PINTAR model. The use of observation sheets helps measure increases in teacher activity throughout implementation. Meanwhile, interviews with instructors, researchers as teachers, and class IV homeroom teachers operate as the key data sources in generating a thorough picture of the learning system.

Qualitative data gained from observations involves study of teacher actions, student activities, critical thinking skills, and learning motivation. Meanwhile, quantitative data was acquired from the outcomes of written tests carried out in groups and individually. The findings of this test are then utilised as a basis for analyzing the progress of pupils' critical thinking skills. In data analysis, the assessment criteria were separated into five groups with certain score ranges for each criterion. These characteristics include instructor activity, student learning motivation, student activity, and student critical thinking skills. It is believed that the findings of the data analysis would provide a thorough picture of the success of adopting the PETA PINTAR model in increasing the quality of scientific learning in fourth grade elementary school.

RESULT AND DISCUSSION

The outcomes of research data from four meetings on teacher activities utilising the SMART PETA model in grade IV elementary school indicated considerable improvements at each meeting. These advances are the product of thorough learning plans established by teachers, which always reflect past learning experiences. Trend analysis demonstrates an increase in teacher participation from meeting I to meeting VI, with an increase in scores surpassing very good criterion at each meeting. The teacher's initial attempt is to reflect after each learning session. The reflection results revealed an increase in score of 46, attaining very good criterion. These results are in line with the success markers developed by researchers. This reflection is defined as the teacher's critical thought process on the learning experience, enabling them discover mistakes and find solutions. Research also reveals that personal reflection not only enhances the quality of teacher instruction but also has a favourable impact on student learning outcomes.

The teacher's second endeavour is to examine students' learning styles by watching during the learning process. Knowing student learning styles is considered significant since it can improve student learning results. These efforts reinforce the premise that teachers who

understand students' learning styles may manage learning successfully, utilising techniques that suit students' requirements. The teacher's third attempt is to guide and become a facilitator during the learning process, especially in experimental tasks. The teacher's position as a guide and facilitator is considered as a significant aspect in providing effective learning environments. Teachers are responsible for guiding pupils, increasing comprehension of students' potential, and managing the class properly.

The teacher's fourth attempt is to master teaching abilities in the period of society 5.0. In this environment, teachers are expected to continue to update their knowledge, attitudes and abilities so that they remain relevant with current advances. Understanding that children not only require fundamental reading but also critical, creative, communicative and collaborative thinking abilities is a priority in increasing the quality of learning. The final endeavour is to construct a unique learning model by integrating three types of models. The results revealed remarkable progress in six meetings. Fun and innovative learning can boost student activity, in agreement with ideas that emphasize the need for innovation in tactics, methods, models and learning mediums.

Research also reveals that increasing teacher involvement is influenced by selecting appropriate learning models that suit student needs. Choosing the correct learning approach has a huge impact on overall learning achievement. Through trend analysis, teacher involvement in implementing learning by adopting the PETA PINTAR model (Problem Based Learning, Experimental Method, and Team Games Tournament) in science disciplines witnessed a considerable increase from meeting I to meeting VI. This development can be reached owing to ongoing work and reflection after each meeting.

The teacher's initial endeavour is to reflect on learning activities using the SMART PETA approach. The results of this reflection demonstrate that the score obtained by the teacher reached 46, which is included in the "Very Good" criterion in accordance with the success markers specified by the researcher. This reflection can be regarded as a process of critical thinking regarding learning experiences, helping teachers discover faults, and identify solutions to problems that develop. The teacher's second endeavour is to examine students' learning styles through observation during the learning process. Knowing student learning styles is considered a key step, because this insight can improve student learning results. By recognising students' learning styles, teachers may manage learning successfully, employing approaches that are appropriate and relevant to students' requirements.

The teacher's third attempt is to lead and become a facilitator during the learning process, especially when pupils carry out experiments. Teachers not only work as transmitters of information, but also as guides and facilitators to assist pupils grasp their potential. The multifunctional role of the instructor is considered very crucial in providing successful learning environments. The teacher's fourth attempt is to master teaching abilities in the period of society 5.0. In this day, instructors need to continue to enhance their knowledge, attitudes and skills so that they remain relevant to the demands of the times. Teachers must be able to realise that other from fundamental reading, children also require critical, creative, communicative and collaborative thinking skills to compete in modern society.

The teacher's final attempt is to construct an original learning model by merging three sorts of models. The results demonstrated considerable improvement throughout six encounters. Fun and inventive learning models can create an active learning environment, making it easier to absorb the information, and improve student enthusiasm. In conclusion, this research illustrates that increasing teacher activity in implementing the PETA PINTAR model is driven by a series of efforts, starting from reflection, understanding student learning styles, the role as guide and facilitator, understanding teaching skills in the modern era, to creating innovative learning models. All these efforts illustrate that the quality of educators, the role of teachers, and innovation in learning have a substantial impact on the success of student learning.

In the context of this research, the relationship between variables may be recognised through the influence of improving teacher activities utilising the PETA PINTAR model on other characteristics, such as raising student learning motivation, student activity, and student critical thinking skills. First of all, the increase in teacher activity noticed through the implementation of the PETA PINTAR model has had a favourable impact on student learning motivation. The instructor's reflection on learning generates a good atmosphere, where pupils feel the presence of a teacher who cares and is committed to the learning process. Thus, activeness and positive contact between professors and students can be a driving factor to boost student learning motivation.

Then, the teacher's efforts in leading and being a facilitator during the learning process can affect student activities. Through experiments and learning activities that actively include students, an environment is created that fosters student participation. Increased student engagement can be ascribed to increased knowledge of learning material and direct involvement in the learning process. Meanwhile, knowing students' learning styles is also related to developing activity and critical thinking skills. By changing learning approaches according to students' learning styles, teachers can help students develop their critical thinking skills. The learning styles that are studied and implemented in learning might be the basis for establishing effective teaching strategies.

Furthermore, instructors' attempts to learn teaching skills in the era of society 5.0 also have an impact on student learning outcomes. Teachers' understanding of students' needs and advancements in the current day can help in designing relevant learning techniques, spark creativity, and present challenges in accordance with developments in technology and information. Finally, establishing new learning models by integrating three types of models can produce a favourable association between instructor activity, learning motivation, student activity, and critical thinking skills. An intriguing and novel learning model can be a stimulus for students to actively participate in learning, enhance learning motivation, and develop critical thinking skills.

Thus, the overall interaction between variables in this research promotes positive dynamics in the learning process, where increasing instructor participation is crucial in inspiring students, boosting student activity, and developing critical thinking abilities.

Based on the findings presented before, numerous inferences can be reached that are relevant to the research aims. First, the continuous adoption of the PETA PINTAR learning paradigm (Problem Based Learning, Experimental Method, and Team Games Tournament) in science learning in fourth grade elementary school is possible to boost teacher engagement greatly. In each meeting, the teacher succeeded in reflecting and making adjustments to learning methods, establishing a positive and dynamic learning atmosphere.

Second, increased instructor activity has a favourable impact on student learning motivation. Teacher reflection, knowing student learning styles, and employing suitable approaches help to creating a learning atmosphere that stimulates students to actively participate and grasp the topic better. Third, the teacher's efforts as a guide and facilitator during the learning process have an impact on raising student involvement. Involving students in experiments and interactive learning activities can boost student participation, making learning more relevant and effective.

Fourth, instructors' awareness of teaching skills in the era of society 5.0 helps produce learning that is relevant to the needs of modern students. Teachers' awareness of the necessity of comprehending changes in technology and information helps provide learning that is entertaining and in accordance with the demands of the times. Fifth, a unique learning model that blends three types of models gives positive outcomes. Creating an energetic, creative and engaging learning environment helps boost student engagement, learning motivation and critical thinking skills.

In the debate, these findings contribute to the awareness that the role of teachers and learning methods have a big impact on the learning process and student learning outcomes. This research also reveals that instructor reflection, recognising student learning styles, and adapting learning techniques to the evolution of society 5.0 can be the key to successful learning. Overall, this research reveals that constantly increasing instructor involvement has a favourable affect on learning motivation, student activity, and student critical thinking skills. Therefore, the adoption of the SMART PETA model in learning in fourth grade elementary school can be an effective choice for increasing the quality of learning and student learning results.

CONCLUSION

In the context of this research, the implementation of the PETA PINTAR learning model (Problem Based Learning, Experimental Method, and Team Games Tournament) in fourth grade elementary school has produced significant findings related to increasing teacher activity and its impact on learning motivation, student activity, and student critical thinking skills. This research demonstrates that strengthening instructor activities through reflection and adjustments to learning approaches promotes a dynamic and happy learning environment. Each meeting experienced a considerable improvement, reflecting the dedication of teachers in developing themselves and reacting to student needs.

The first apparent finding was the increase in pupils' learning motivation. The teacher's reflection on learning using the PETA PINTAR model offered great results, receiving the highest mark with the criteria "Very Good". This suggests that students are responding positively to more interactions and more meaningful learning. Teachers' activeness in knowing students' learning styles has been proven to be significant,

emphasising the premise that understanding students' individuality is the key to generating effective learning.

Second, increased instructor activity is closely connected with increasing student activity. By being an active guide and facilitator during the learning process, teachers are able to encourage student engagement in experiments and interactive activities. As a result, student involvement reached a very active level, indicating that learning approaches that involve students directly can promote more enjoyable learning. The third finding underscores the relevance of instructors' grasp of teaching skills in the period of society 5.0. Teachers that have this understanding are able to develop learning that is relevant to the demands of modern pupils. The concentration on critical literacy, problem solving, and deep thinking abilities indicates instructors' grasp of technological and information advances.

Finally, the implementation of an innovative learning model that integrates three types of models has a positive impact on student activity, learning motivation and critical thinking skills. The results suggest that innovative and engaging learning can establish a pleasant learning atmosphere, boost student participation, and foster the development of critical thinking abilities. Overall, the findings of this research provide an in-depth assessment of the function of instructors and learning methods in increasing the quality of learning at the primary school level. The application of the PETA PINTAR model was selected as an effective choice for creating a learning environment that is energetic, innovative and in line with the expectations of the times. This result makes a significant addition to the understanding and development of education in the ever-changing modern day.

REFERENCES

- Austin, O. O. (2014). PERCEIVED IMPACT OF CLASSROOM MANAGEMENT ON EFFECTIVE TEACHING: A STUDY OF FIVE SCHOOLS IN EDUCATION DISTRICT 11, LAGOS STATE, NIGERIA. In *European Scientific Journal August* (Vol. 10, Issue 22).
- Gerde, H. K. (2018). Early Childhood Educators' Self-Efficacy in Science, Math, and Literacy Instruction and Science Practice in the Classroom. *Early Education and Development*, 29(1), 70–90. https://doi.org/10.1080/10409289.2017.1360127
- Hogan, M. J., Dwyer, C. P., Harney, O. M., Noone, C., & Conway, R. J. (2015). Metacognitive skill development and applied systems science: A framework of metacognitive skills, self-regulatory functions and real-world applications. *Intelligent Systems Reference Library*, *76*, 75–106. https://doi.org/10.1007/978-3-319-11062-2_4
- Li, J. T., Arizmendi, G. D., & Swanson, H. L. (2022). The influence of teachers' math instructional practices on English learners' reading comprehension and math problem-solving performance in Spanish and English. *Https://Doi.Org/10.1080/13670050.2022.2068346*, *25*(10), 3614–3630. https://doi.org/10.1080/13670050.2022.2068346
- Prayuda, M. S., Ginting, Y. A., Afrilia, D., & Dharma, W. (2023). THE The Effect of Extensive Reading Strategy on Students' Reading Comprehension at Smp Dharma Wanita In

The Academic Year Of 2023/2024. *Journal of English Language Learning*, 7(2), 421–431. https://www.ejournal.unma.ac.id/index.php/jell/article/view/6581

- Prayuda, M. S., Juliana, J., Ambarwati, N. F., Ginting, F. Y. A., & Gultom, C. R. (2023). Students' Writing Error in Parts of Speech: A Case Study of EFL Students. *Jurnal Educatio FKIP UNMA*, 9(2), 659–665. https://doi.org/10.31949/EDUCATIO.V9I2.4419
- Prayuda, M. S., Silalahi, T. S. M., & Almanda, F. Y. (2022). TRANSLATION OF THEMATIC STRUCTURE OF DESCRIPTIVE TEXT FROM INDONESIAN INTO ENGLISH. *Pendidikan Bahasa Indonesia Dan Sastra (Pendistra)*, 148–151. http://ejournal.ust.ac.id/index.php/PENDISTRA/article/view/2365
- Schmidt, J. A., Rosenberg, J. M., & Beymer, P. N. (2018). A person-in-context approach to student engagement in science: Examining learning activities and choice. *Journal of Research in Science Teaching*, 55(1), 19–43. https://doi.org/10.1002/TEA.21409
- Theobald, E. J., Hill, M. J., Tran, E., Agrawal, S., Nicole Arroyo, E., Behling, S., Chambwe, N., Cintrón, D. L., Cooper, J. D., Dunster, G., Grummer, J. A., Hennessey, K., Hsiao, J., Iranon, N., Jones, L., Jordt, H., Keller, M., Lacey, M. E., Littlefield, C. E., ...
 Freeman, S. (2020). Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. *Proceedings of the National Academy of Sciences of the United States of America*, *117*(12), 6476–6483.https://doi.org/10.1073/PNAS.1916903117/SUPPL_FILE/PNAS.1916903117.S APP.PDF