ISSN:3026-0442

Proceedings of the 1st International Conference on Education, Science Technology And Health (ICONESTH 2023 Universitas Bina Bangsa Getsempena, Dec 12-14, 2023, Banda Aceh, Indonesia

TEACHER ACTIVITIES IN LEARNING THROUGH THE TPACK-BASED PAIKEM GEMBROT METHOD AT SD NEGERI 14 BANDA ACEH

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ABSTRACT

Teacher activity requires abilities, skills, creativity, innovation and intellectual intelligence that a teacher must have. Education goal of national has the broadest possible meaning, namely achieving quality education and teaching using learning methods that have meaning and students' learning interests. The learning method that can be implemented in the RI 4.0 era is the PAIKEM GEMBROT method (Active, Innovative, Creative, Effective, Fun, Joyful and High-Weight Learning). Teacher activity in learning that involves students in the implementation of learning requires active and creative thinking by students. The PAIKEM GEMBROT method through TPACK is implemented in elementary school learning to increase students' understanding in the active learning process, teachers are required to be innovative, creative and produce fun learning and provide a happy and meaningful educational atmosphere. This descriptive qualitative research provides information about teachers' activeness in learning through the TPACK-based PAIKEM GEMBROT method to maximize learning well and in a targeted manner according to learning outcomes. Based on the results of interviews and observations at SD Negeri 14 Banda Aceh with outreach activities carried out to provide direction for teachers to improve the quality of learning using the TPACK-based PAIKEM GEMBROT method, producing active, creative, fun and meaningful technology-based learning that can improve student pedagogy. through the implementation of learning content that includes teaching and improving students' ability to reason.

Keywords: *Activities, PAIKEM GEMBROT, TPACK.*

INTRODUCTION

Education is a conscious effort carried out systematically in creating an atmosphere for the teaching and learning process so that students can develop their potential to the maximum. In the era of globalization, education is faced with increasingly complex and dynamic challenges. Student are required to have more competence than just theoretically based knowledge and need to have skills, creativity, innovation and intellectual intelligence. In the learning process, teachers have the ability to create an atmosphere in the students' environment and create active and meaningful learning. The goal of national education has the broadest meaning of achieving quality education and teaching using learning methods that have meaning and students' interest in learning. One of the learning methods that can be implemented in the R4.0 era is the PAIKEM GEMBROT method (Active, Innovative, Creative, Effective, Fun, Happy and Highlighted Learning). Papers should be written in English, clearly describe the background of the subject, the author(s)' work, including the methods used, and concluding discussion on the importance of the work.

TPACK stands for technology pedagogy content knowledge. TPACK is knowledge about the importance of integration between technology and pedagogy in content development in the world of education, (Santos and Castro 2021). TPACK is able to provide new direction for educators on how to apply technology in learning, so that learning activities can run effectively and efficiently (Kihoza et al. 2016). Technology, Pedagogy and Content and knowledge These three components cannot be separated from each other. How could it not be, the presence of technology is expected to be able to collaborate with the teacher's pedagogical realm to produce effective learning content for students (Rosenberg and Koehler 2015).

1. Pedagogical Knowladge (PK)

PK contains knowledge that teachers must master in learning, for example teaching methods, classroom management, planning learning, assessing student activities.

2. Content Knowledge (CK)

CK is related to the substance of the material that teachers must master in learning. An educator's mastery of the material will influence students' understanding of the material being taught.

3. Technology Knowledge (TK)

TK is knowledge about the importance of integrating technology in learning. Technology can be used in the communication process, processing student data, and supporting teacher productivity.

4. Pedagogical Content Knowladge (PCK)

PCK focus more on the learning process that the teacher will later choose on the material being taught, focuses on selecting teaching methods, learning plans, and learning support facilities.

5. Technological Content Knowledge (TCK)

TCK is knowledge about the influence of technology on a scientific discipline. This means how much influence technology has on the development of a scientific discipline.

6. Tecnological Pedagogical Knowledge (TPK)

TPK is knowledge that contains the relationship between technology and the learning process. Teachers can understand the advantages and disadvantages of technology in learning and then use it as evaluation material.

TPACK is an integration between three components, namely technology, pedagogy, and learning content. In this era of technological sophistication, teachers are required to be proficient in integrating the three. Many learning support platforms (e-learning) have emerged, one of which is video-based learning. Every teacher must be able to prioritize learning models that are in line with the conditions of their students. Currently, students are close to technology.

One lesson that can utilize TPACK is the Biology material "Digestive System". An example of TPACK in Biology "Digestive System" is as follows.

PK aspect: the teacher uses the presentation method in class and the students are divided into several groups.

Figure: 1: Discusion by Learning

CK aspect: the teacher gives assignments to each group of learning examples, namely: identifying the digestive organs and their functions and displaying them in the form of Adobe Flash. Kindergarten aspect: students are asked to make presentations via a laptop connected to a projector screen.

The teacher's activeness in learning is seen from the synergy between the paikem gembrot method through TPACK.

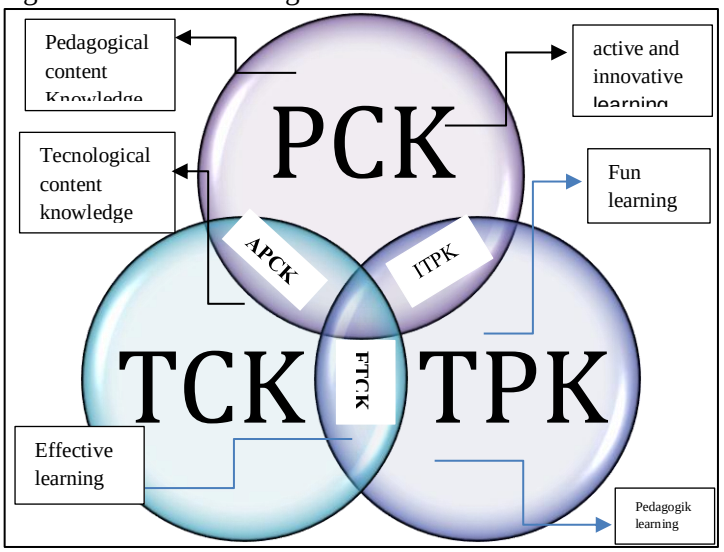

Figure: 2: Concept TPACK in Learning

Active learning is a learning activity that involves students in carrying out learning, namely thinking actively and creatively in learning (Mahmudah and Fauzia 2022). Innovative learning is learning that is packaged by students with the encouragement of new ideas which are the product of learning how to learn to carry out learning steps, so as to obtain progress in learning outcomes (Sari, Amelia, et al. 2019). Creative learning is a method that can build students' initial knowledge of a topic/problem concept and encourage students to search for answers independently or in groups so as to produce something new, creative and accountable (Mayang Sari et al. 2022). Effective learning can be said to be effective if the basic competencies implemented have been achieved. Fun learning is learning that students can enjoy (Sari, Surjono, and Muhtadi 2019). Students feel safe, comfortable and cool (Mardhatillah et al. 2019). Effective learning must be carried out with a happy heart and learning is said to be meaningful if all targets in the curriculum are achieved well (Fauzi et al. 2019). Based on the description above, it can be concluded that PAIKEM GEMBROT is a learning approach that aims to encourage students to be more active in the teaching and learning process (Agustina et al. 2023).

Technological Pedagogical and Content Knowledge (TPACK) is a form of knowledge needed by a teacher in the form of interactions between content, pedagogy and technology which is then applied according to the context so that the learning process achieves maximum results. Pedagogical Content Knowledge (PCK) was first introduced by Shulman in 1986, which was then

added to technological elements by Koehler and Mishra in 2006 to become Technological Pedagogical and Content Knowledge (TPACK). Using technology to teach material can make difficult material or concepts easy to understand and can overcome, help, and improve problems faced by teachers and students (Mayang, 2021). TPACK provides teachers with an understanding of how technology can be used and utilized to develop new methods or methods, creating effective teaching. as illustrated in the PAIKEM GEMROT learning method (Mardhatillah, Sari, and Sugiharto 2023).

The teacher's activeness in implementing the PAIKEM GEMBROT method is one of the determining factors for the success of this method in the learning process. Teachers who actively apply this method will be able to create a learning environment that motivates students to be active and creative in the learning process combined with technology and content as innovative learning infrastructure (Pamuk et al. 2015). teachers integrate elements of innovation in learning, so that students can develop critical and creative thinking skills in solving technology-based problems (Kihoza et al. 2016). Teacher activity in the PAIKEM GEMBROT method requires a deep understanding of the principles and strategies contained in it. Educational institutions and the government facilitate teachers in developing competencies to be able to apply technology-based methods so that teachers and students work together to improve the quality of student learning (Bahador, Othman, and Saidon 2018).

The aim of this research is to determine Teacher Activeness in Learning Based on the PAIKEM GEMBROT Method (Active, Creative, Innovative, Effective, Fun, Exciting and Highlighted Learning) through TPACK at SD Negeri 14 Banda Aceh.

METHODS

This research uses a qualitative approach with descriptive research type. Sugiyono (2018:14), said "Qualitative research methods are often also called naturalistic research methods because the research is carried out in natural conditions (natural settings)". Based on the opinion above, it can be interpreted that descriptive qualitative research is research that is carried out naturally or simply and is equipped with descriptive and reliable data.

The type of this research is descriptive. According to I Made Sudarma Adiputra (2021:44) descriptive research is research that aims to describe existing phenomena, namely natural phenomena or man-made phenomena, or that is used to analyze or describe the results of the subject but is not intended to provide wider implications. The researcher took a type of descriptive research in accordance with the research objectives, namely Teacher Activeness in Learning Based on the PAIKEM GEMBROT method (Active Innovative

Creative Effective, Happy and High-Stakes Learning) through TPACK at SD Negeri 14 Banda Aceh.

RESULTS AND DISCUSSION

Research conducted at SD Negeri 14 Banda Aceh has been carried out. To find out the teacher's activeness in learning based on the PAIKEM GEMBROT learning method through TPACK, the researcher made observations, the following are the results of the observations:

Based on the research results, teachers at SD Negeri 14 Banda Aceh have implemented learning based on the PAIKEM GEMBROT method through Knowladge Technology (TK). Elementary teachers design learning plans that integrate the PAIKEM GEMBROT concept through technology and content (TC) well and also choose learning materials that are relevant and in accordance with the curriculum. Apart from that, teachers in elementary schools also plan assignments for students based on the TPACK concept. These assignments are designed to encourage students to think critically. Teachers in elementary schools organize various interactive and participatory learning activities, such as group discussions, educational games and experiments that encourage students to be actively involved in the learning process. Communication between teachers and students in elementary schools is also very effective. The teacher listens to students' questions carefully and provides clear explanations. Teachers at this elementary school have strong skills to motivate students to learn with enthusiasm. By implementing the PAIKEM GEMBROT method in synergy with TCK (Technological Content Knowledge), teachers in elementary schools have created more interactive and meaningful learning for students.

Figure: 3: Learning By Teknological Knowledge

from the words of a class IV teacher, in the learning process he was able to develop learning materials that were in accordance with the PAIKEM GEMBROT method through the content carried out in the lesson. In this effort, teachers rely on understanding the PAIKEM GEMBROT concept through TPACK but by utilizing various content-based learning media. In the material

development process, the teacher actively uses learning media that is in accordance with the PAIKEM GEMBROT concept through TPACK and utilizes learning props such as learning videos, animations, images and audio. Every learning media created is well designed, taking into account student characteristics and learning objectives. This ensures that the learning media is not only interesting, but also effective in supporting student understanding. Teachers at the elementary school also evaluate the effectiveness of the learning materials they apply in the learning process. With the ability to develop quality learning materials and create effective media, teachers at this elementary school have created interactive learning, this not only increases students' understanding, but also motivates students to learn enthusiastically.

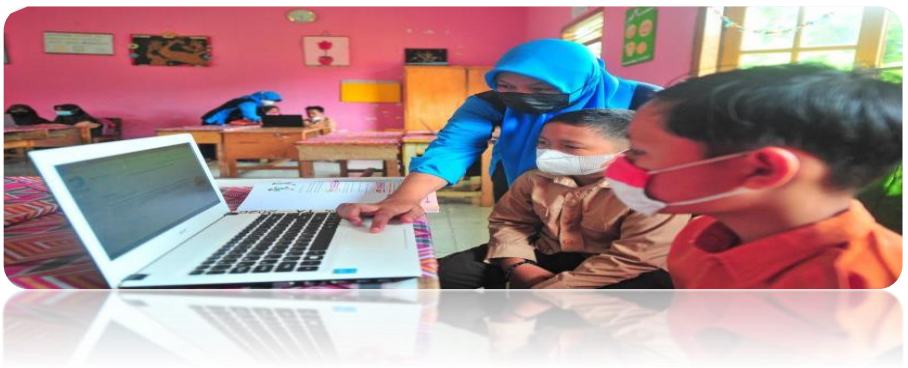

Figure: 4: Active learning Base Tecnological.

Figure: 5: PAIKEM GEMBROT Method Extension Activities

This activity is very useful for the teacher council, so that in the future teachers will be able to create active and interesting learning. With teachers who are active and involved, students can be more motivated and enthusiastic about learning and can also help improve student learning outcomes. Apart from that,

the PAIKEM GEMBROT method makes learning material easier for students to understand.

Figure: 6: Presentation of the PAIKEM GEMBROT method by TPACK

PAIKEM GEMBROT one of its main goals is to improve teacher pedagogy and improve the quality of learning in schools. The PAIKEM GEMBROT method has the potential to make learning more active, innovative, creative, effective, fun and meaningful. Teachers can develop better skills in designing relevant and effective learning. Teachers are expected to be able to apply the PAIKEM GEMBROT method to create a more interactive, interesting and effective learning environment and teachers can increase their professionalism to face the challenges of modern learning and adapt to changes in education in society 5.0.

Examples of implementing the PAIKEM GEMBROT method by TPACK in learning can be explained in the following information:

Figure **7**. Active learning

Basically, children have the following characteristics: curiosity and imagination. Village children, city children, rich people's children, poor people's children, Indonesian children, or non-Indonesian children as long as

they are born normally have these two characteristics. These two characteristics are the basic capital for developing critical and creative attitudes or thinking. Students come from varied family environments and have different abilities. In PAIKEM (Active, Innovative, Effective and Fun Learning) through TPACK individual differences need to be taken into account and must be reflected in learning activities.

CONCLUSION

Elementary teachers design learning plans that integrate the PAIKEM GEMBROT concept through technology and content (TC) well and choose learning materials that are relevant and in accordance with the curriculum. Apart from that, teachers in elementary schools also plan assignments for students based on the TPACK concept.

TPACK provides teachers with an understanding of how technology can be used and utilized to develop new methods or methods, thereby creating effective teaching. as illustrated. Students are required to have more competence than just theory-based knowledge and need to have skills, creativity, innovation and intellectual intelligence. In the learning process, teachers have the ability to create an atmosphere in the students' environment and create active and meaningful learning. The goal of national education has the broadest possible meaning, namely achieving quality education and teaching by using learning methods that have meaning and students' learning interests. One of the learning methods that can be applied in the R4.0 era is the PAIKEM GEMBROT method (Active, Innovative, Creative, Effective, Fun, Happy and Excellent Learning), technology is expected to be able to collaborate with the realm of teacher pedagogy. to produce effective learning content for students. Communication between teachers and students in elementary schools is also very effective. The teacher listens to students' questions carefully and provides clear explanations. Teachers at this elementary school have strong skills to motivate students to learn with enthusiasm. By implementing the PAIKEM GEMBROT method in synergy with TCK (Technological Content Knowledge), teachers in elementary schools have created more interactive and meaningful learning for students.

ACKNOWLEDGEMENT

Thanks are expressed to the supporters who have completed the research entitled, "TEACHER ACTIVITIES IN LEARNING THROUGH THE TPACK-BASED PAIKEM GEMBROT METHOD IN SD NEGERI 14 BANDA ACEH", this activity was carried out in support of the Tridharma of higher education lecturers, all participation and motivation as well as all support from the University and School of SD Negeri 14 Banda Aceh.

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