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Implementation of the Ethnopedagogical Approach in Science Learning in Indonesia

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ABSTRACT

The ethnopedagogical approach is an ethnic-based approach to learning so that local wisdom values are increasingly embedded in students, including in science learning. Unfortunately, the implementation of the ethnopedagogical approach in science learning has not been analyzed in depth so researchers are encouraged to conduct research on the implementation of the ethnopedagogical approach in science learning in Indonesia. The aim of this research is to determine the practice of the ethnopedagogical approach in science learning in Indonesia. This research method is a literature study, data collection techniques are carried out by collecting various documents related to research. Then, the collected data is analyzed in depth. The results of the research show that the steps that educators or prospective educators need to take in implementing the ethnopedagogical approach after having the intention and understanding of the ethnopedagogical approach are, preparing teaching materials that have been integrated with the ethnopedagogical learning approach, choosing learning media that is appropriate to science learning based on the ethnopedagogical approach , preparing learning plans or teaching modules, implementing learning, reflecting and evaluating to find out learning strategies that need to be carried out in ethnopedagogy-based learning in the next period.

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INTRODUCTION

Education is one of the efforts made by a country to improve the quality of the young generation (Charina, Kurnia, Mulyana, & Mizuno, 2022)both in spiritual, social, intellectual and moral aspects so that the next generation of the nation created can compete in the national and even international realm with the quality they have (Suyadi, Nuryana, Sutrisno, & Baidi, 2022). This is in line with the goals of national education as stated in Law No. 20 of 2003 Article 3 concerning the National Education System which states that the goal of national education is to develop the various potentials possessed by students so as to create graduates who are not only intellectually intelligent but also moral. , social, spiritual and physical. Achieving this educational goal can be achieved by implementing interactive, innovative and creative learning so that learning becomes meaningful and applicable (Romadlon Junaidi, 2020). One way that can be used to achieve learning goals is to apply a learning approach.

The learning approach is a point of view used in carrying out the teaching and learning process (Flesca, Mandaglio, Scala, & Tagarelli, 2024; Tang, 2023) where the point of view used is based on views regarding the occurrence of a process which has the general nature of accommodating, inspiring, strengthening and underlying use. methods in learning with certain theoretical coverage. The use of learning methods should be adapted to the characteristics of the material and students so that the learning carried out can be meaningful and give a strong impression to students so that the knowledge they have becomes more applicable. So far, the implementation of the learning approach carried out in schools has been quite good, but it has not led to integration with the local culture around the students so that the existing culture tends to be abandoned by students, such as polite Javanese language culture, religious culture, and so on. . This situation of course cannot be ignored because by not preserving culture on a massive scale it will erode the knowledge of students as the nation's generation regarding their culture. In fact, Indonesia is a country rich in culture, with more than 250 cultures (Susanti, 2023).

Preserving local culture can be done by using local culture around the educational environment as an approach to learning, including in science learning, where the approach of integrating culture into learning which will also influence the use of methods and strategies in learning is called the ethnopedagogy (Safina, 2014; Sugara & Sugito, 2022). The ethnopedagogical approach is a learning approach that continues to develop over time. Ethnopedagogy is closely related to multicultural education which has the view that

highlighting local wisdom and the diversity of ethnic commodities is an important thing that can be used as knowledge to shape lifestyles, social experiences, individual and group identities because ethnopedagogy is a learning approach that originates from a culture. tribe where the implementation uses a transformation or change taken in the form of content, perspective, process and contextual (Fahmi, 2016). The aim of ethnopedagogy is to achieve reconciliation between cultural elements which is carried out by modifying both so that education can make a positive contribution to the preservation of local culture and the formation of positive character in students (Andayani, Anwar, & Savalas, 2022). Therefore, implementing an ethnopedagogical approach in learning is important, including in science learning.

Science learning or science learning is learning that is carried out with the aim that students can gain a variety of experiences directly so that students can understand the concepts of knowledge they already have and put them into practice in everyday life (Huang, Huss, North, Williams, & Boyd-Devine, 2023; Wicaksono & Korom, 2023). Learning Natural Sciences is learning that is close to nature so the aim of this learning is to provide the initial foundation for students to have a scientific attitude (Eija et al., 2024) because in learning Natural Sciences students will experience learning that is carried out systematically so that they can master a variety of knowledge in the form of facts, concepts, principles, discoveries and the formation of scientific attitudes.

Studies regarding ethnopedagogical approaches have actually been carried out by several researchers, including research conducted by Purniadi Putra in 2017 regarding ethnopedagogical approaches in elementary/MI science learning (Putra, 2017), research conducted by Yayuk Andayani, Yunita Arian Sani Anwar, and Then Rudiyat Telly Savalas in 2022 regarding the socialization of learning with an ethnopedagogical approach to teachers in Pujut sub-district, Central Lombok (Andayani et al., 2022), research conducted by Diah Susanti in 2023 regarding Development of Ethno-pedagogy Oriented Science Teaching Materials for Primary Pre-Service Teacher Competencies (Susanti, 2023), and so on. However, studies regarding the implementation of the ethnopedagogical approach in science learning in Indonesia have not been carried out, thus encouraging researchers to conduct research with the title "Implementation of the Ethnopedagogical Approach in Science Learning in Indonesia". The aim of this research is to determine the practice of the ethnopedagogical appr oach in science learning in Indonesia.

RESEARCH METHOD

This research was carried out as a literature study type of research so that the data collection technique was carried out by collecting various documents related to the research focus. The data that has been collected is then analyzed in depth so that reliable research results can be identified.

RESULT AND DISCUSSION

The implementation of the ethnopedagogical approach cannot be separated from the role of teachers as the driving force of learning in educational institutions (Aryabkina, 2015)(Uzakbaeva & Zholdasbekova, 2015). For this reason, before implementing the ethnopedagogical approach, educators or prospective educators must first understand the ethnopedagogical approach and the objectives of its implementation so that in implementing the ethnopedagogical approach in learning can achieve the desired goals. Knowledge about the ethnopedagogical approach can be obtained through training or reading books or reading sources that are related to the ethnopedagogical approach (Andayani et al., 2022). After having an understanding of the ethnopedagogical approach, there are several Steps that need to be taken as an effort to implement an ethnopedagogical approach in science learning are:

First, have the intention to integrate ethnopedagogy in science learning. It is important to know that teaching is not just a job but also a human calling and heart to provide various best efforts in the learning process so as to form the quality of a cultured young generation (Susanti, 2023). With a strong intention to integrate an ethnopedagogical approach in science learning, educators or prospective educators already have the main and initial provisions for implementing an ethnopedagogical approach. The intention is in the heart, where the intention of whether or not to integrate an ethnopedagogical approach in science learning can be seen through activities in daily life.

There are several factors that influence the lack of intention of educators or prospective educators in integrating the ethnopedagogical approach in science learning, namely, prospective educators or educators do not receive ethnopedagogical approach courses during their studies, there are limited resources at their disposal, inadequate educational facilities, lack of training or seminars regarding ethnopedagogical education, and so on (Susanti, 2023). This means that the variety of experience possessed by prospective educators or educators is still minimal in terms of improving teaching skills and utilizing the methodology used in learning, encouraging the lack of creativity of educators in

implementing learning so that the learning carried out tends to be conventional and boring. In fact, teachers have a demand to get to know their students better, not only at an external level, but also to understand their character. This aims to ensure that educators can provide the best learning for each student according to their characteristics.

This is similar to research conducted by Susanti in 2023, where her research stated that teaching experience before becoming an educator is quite important to generate learning motivation and creativity in prospective educators when they later become educators so that the learning delivered is fun and meaningful learning.

Second, the availability of science teaching materials oriented towards an ethnopedagogical approach for educators. Teaching materials are an important component in learning, with teaching materials they can help educators in providing learning to students systematically (Putra, 2017). Therefore, an ethnopedagogical approach requires natural science or science teaching materials that are based on an ethnopedagogical approach. Teaching materials provide benefits as a form of educational preparation in planning the future, especially through learning based on local wisdom so that educators can adapt quickly to changes in approaches to learning.

It is important to know that science teaching materials that are integrated with an ethnopedagogical approach already exist, therefore in the learning process educators need to create learning plans or teaching modules that are used as guidelines for implementing learning in the classroom so that the desired goals can be achieved effectively and efficiently. The teaching modules that are prepared must be integrated with the local culture around them, for example the character of the community which is religious, friendly, and so on. This integration can be included in learning practices or during the learning process so that students can understand the culture around them and preserve it well.

Third, choose appropriate learning media with material that is integrated with local culture. Learning media is one of the important things that can help students understand the various materials presented by educators (Putra, 2017). Through understanding the material, the knowledge that will be used can be implemented on a massive scale. Therefore, in determining learning media, educators must analyze it carefully by adjusting it to the learning objectives, the character of the students and the character of the material so that the media used can help achieve the goals effectively and efficiently.

Fourth, implementing the teaching model, namely by carrying out learning according to the plan that has been prepared (Putra, 2017). The implementation of learning should be

adjusted to the design so that the time used can be appropriate. For this reason, in carrying out learning, the ability to carry out class management is needed so that the class being managed can run according to the plan that has been prepared.

Fifth, reflection and evaluation. Reflection and evaluation are important things that must be done in order to find out whether or not the learning objectives that have been implemented have been achieved. Reflection can be done by asking students questions regarding the learning that has been carried out. Then an evaluation is carried out to review the implementation of the learning that has been carried out, analyze whether or not the learning objectives have been achieved and design learning for the next period so that the next learning carried out will be better, where local wisdom will truly be known by students and be properly preserved.

Through the various implementation steps above, it is hoped that the objectives of learning Natural Sciences at each level of education can be achieved, because of course the objectives of learning Natural Sciences in Elementary Schools, Middle Schools and High Schools are different. The following is an example of the objectives of implementing Natural Sciences learning at Dasa/Madrasah Ibtidaiyah Schools, namely (Putra, 2017):

1. Gain confidence in the existence of the Almighty God based on the existence, beauty and order of His natural creation
2. Expand understanding of Natural Science and its benefits in everyday life.
3. Increase curiosity, positive attitudes and awareness about various things that are interrelated with nature.
4. Encourage the development of process skills in conducting investigations into the natural environment, looking for various solutions to problems that occur and making good decisions.
5. Increase your love for nature so you can appreciate nature consciously.
6. Gain understanding to continue education at a higher level

Knowing the objectives of the subject is something that every educator must know because it is through these objectives that educators will formulate the best learning steps so that quality students can be created and the learning objectives as stated in Law No. 20 of 2003 concerning the National Education System can be effectively achieved. and efficient.

The various objectives of learning Natural Sciences above can be integrated with the culture that exists in the community where the culture that will be integrated in learning Natural Sciences certainly varies from one place to another, for example integrating Sambas

Malay culture in learning Natural Sciences then wisdom The locale that can be used is trust and egalitarian (Putra, 2017). This is because the level of trust, which in this case is related to the attitude of religiosity of the Sambas Malay ethnic community, is also very strong in that there are no boundaries in communicating with anyone, meaning that everyone has an equal level and is tolerant of one another.

These various things can be integrated into natural science learning with an ethnopedagogical approach, for example in material related to the environment, so learning can be done outside the classroom by utilizing various cultural characteristics that exist around educational institutions, for example observing the uniqueness of the surrounding community by playing and learning. By applying an ethnopedagogical approach, it can encourage the establishment of a close relationship between students and the culture of the existing community because students learn while gaining direct experience so that the impressions obtained become stronger. Therefore, the implementation of the ethnopedagogical approach still needs to be developed and disseminated to form a strong character of the nation's children with a national identity.

CONCLUSION

Learning Natural Sciences or science is learning that is close to nature. Learning Natural Sciences can also encourage students to have critical and systematic thinking so they can apply the knowledge they have learned in everyday life. Implementation of learning that is not accompanied by culture-based learning can erode and eliminate cultural values or local wisdom in the surrounding area, therefore implementing natural science learning with an ethnopedagogical approach is important so that students not only gain knowledge in scientific material. Natural knowledge can also understand the culture they have and which they must preserve in their daily lives.

The implementation of the ethnopedagogical approach is actually not much different from other learning approaches, it's just that the ethnopedagogical approach is an approach that integrates local wisdom values in learning. The steps that educators or prospective educators need to take in implementing the ethnopedagogical approach after having the intention and understanding of the ethnopedagogical approach are, preparing teaching materials that have been integrated with the ethnopedagogical learning approach, choosing learning media that is suitable for science learning based on the ethnopedagogical approach, preparing a learning plan or teaching modules, learning implementation, reflection and

evaluation to find out learning strategies that need to be carried out in ethnopedagogy-based learning in the next period. The researcher hopes that the results of this research can contribute ideas to educators and prospective educators in improving their abilities in the ethnopedagogical learning approach and can become a reference for researchers in conducting subsequent research.

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