# Socialization of the Application of a Combination of Problem-Based Learning and Numbered Head Together Learning Models in Increasing Student Learning Motivation

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#### ABSTRACT

A learning model is a framework designed to help create an effective learning environment. Furthermore, learning motivation is an encouragement for students to be able to participate actively in the learning process. Socialization of the application of a combination of Problem-Based Learning (PBL) and Numbered Heads Together (NHT) learning models in increasing student learning motivation. This research method includes socialization and mentoring. Socialization delivers material related to PBL, NHT learning models, and student learning motivation. Mentoring is practiced, and further explanation is provided regarding applying PBL and NHT learning models to increase student learning motivation. The PBL and NHT learning models are effective learning models in encouraging student learning motivation. This increase in student learning motivation is caused by the structure of learning steps implemented in the PBL and NHT models. Each step in this model is designed to provide a meaningful learning experience, which consistently can increase student learning motivation. Thus, the systematic and sustainable application of the PBL and NHT models can significantly increase student learning motivation. Teachers are encouraged to use various learning models, including PBL and NHT, to increase students' learning motivation in the learning process. Teachers are expected always to apply appropriate learning models to achieve learning goals.

**Keywords**: Motivation, Numbered Head Together (NHT) Learning Model, Problem-Based Learning (PBL) Learning Model

#### PENDAHULUAN

A learning model is a conceptual framework that describes systematic procedures for organizing students' learning experiences to achieve learning goals. The role and objectives of the learning model show that learning models increase student learning activities (Cahya et al., 2023; Candrasari et al., 2023; Sari et al., 2024; Usman et al., 2021, 2023).

The Problem-Based Learning (PBL) model focuses on solving problems that are relevant to real life (Awati et al., 2024; Chueh & Kao, 2024; Sorntachoti & Buaraphan, 2024). The Numbered Head Together (NHT) model encourages cooperation and active participation (Almumen et al., 2023; Escajayanti & Setyaningsih, 2023; Sahida & Abdurahman, 2023). PBL and NHT are learning models that encourage students to learn to solve problems that are relevant to real life and carried out cooperatively.

Learning motivation is an internal and external drive that influences students' learning activities in achieving learning goals (Alfath et al., 2023; Gullu et al., 2018; Salikhova et al., 2019). This motivation involves psychological factors such as attention, relevance, confidence, and satisfaction (Alanoğlu et al., 2023; Li & Ren, 2018; Xiong et al., 2019). Students motivated

to learn will be more active in participating in the learning process. Furthermore, learning motivation can create a conducive and inspiring learning environment.

However, based on observations at Jember High School, it is known that students' learning motivation is not considered in the learning process. This can be seen from the learning process, which places more emphasis on just delivering the material. The learning process does not pay attention to how to increase students' interest and enthusiasm for learning. Furthermore, low student learning motivation can be seen from the number of students who are not active in the learning process, such as 1) students do not ask questions, 2) students are not actively involved in the discussion process, and 3) students tend to avoid challenging tasks. Apart from that, the learning process does not apply a learning model—unstructured process steps.

This service is essential because it is still rare to find service reports regarding combining PBL and NHT models to increase student learning motivation. Based on data collected from classes that implemented a combination of PBL and NHT, student learning motivation has increased significantly. Through this service, it is hoped that it can be conveyed how the PBL and NHT learning models can increase student motivation.

#### METODE PEIAKSANAAN

This research method includes two main stages: socialization and mentoring (Kurniawan et al., 2023). Socialization is an activity that aims to convey material regarding PBL and NHT learning models, as well as the importance of learning motivation. In this stage, teachers and students have explained the concept, benefits, and steps for implementing PBL and NHT. This outreach aims to explain how these two learning models can increase student engagement and motivate them to learn more. Mentoring is a follow-up activity that focuses on applying the PBL and NHT learning models in real situations in the classroom. Teachers are given direct guidance and support in implementing these two learning models. Mentoring activities include question-and-answer sessions and discussions, where teachers can ask questions, share experiences, and discuss challenges faced in implementation. This discussion aims to deepen teachers' understanding of implementing PBL and NHT and strategies for increasing student learning motivation. Through this assistance, it is hoped that teachers can feel more confident and competent in using the PBL and NHT learning models, as well as being able to create a learning environment that is more interactive and motivating for students.

#### HASIL KEGIATAN

The PBL and NHT learning models combine two learning models that aim to improve the quality of learning. The PBL learning model is a learning model that focuses on solving real problems (Candrasari et al., 2023; Indriyani et al., 2023; Mohd et al., 2009; Sari et al., 2024), where students are invited to think critically and analyze in solving problems relevant to their lives (Özgen & Pesen, 2010). Meanwhile, NHT is a cooperative learning model that encourages active participation and cooperation between students through a structured division of roles (Sahida & Abdurahman, 2023; Sri Puji Retno et al., 2021). By combining these two models, it is hoped that a learning atmosphere will be created that is interactive, fun, and capable of increasing student involvement and learning motivation.

The PBL and NHT learning models in increasing students' learning motivation involve several learning steps. This aligns with previous research that reports that learning models can increase student learning motivation (Jampel et al., 2018; Munawaroh, 2020; Munawaroh & Setyani, 2020; Mustami & Safitri, 2018). The steps of the PBL and NHT learning model are the stages of the learning model. The first stage in learning is orienting students to the problem, where the teacher introduces the issue that will be solved, provides learning information, conveys learning objectives, and motivates students to be actively involved. The second stage consists of organizing and numbering students into study groups, where each group member is assigned a number to facilitate cooperation and individual responsibility. Next, in the third stage, the teacher

presents information relevant to the problem, provides guiding questions, and organizes students to start learning and discussing. The fourth stage assists individual or group inquiry, where the teacher facilitates discussion to deepen understanding. In the fifth stage, students answer a given question or problem, develop a solution, and present the results of their work to the class. The sixth stage includes analysis, evaluation, and conclusion of the joint problem-solving process between teachers and students. Finally, the seventh stage is giving awards, where the teacher awards students and groups who have worked well to motivate them to continue to be active and participate in learning.

Based on data and observation results in the learning process, the PBL and NHT learning models can increase student learning motivation. This can be seen from 1) students who show high interest in the learning process, 2) students who are enthusiastic about discussing and actively participating in group activities, and 3) students who are interactive and collaborative in the learning process are outstanding. So, the PBL and NHT learning models can create a learning environment that is more supportive and motivates students to study more actively and effectively.



Figure 1. PBL and NHT Learning Model Socialization Activities

## **KESIMPULAN DAN SARAN**

The PBL and NHT learning models can increase student learning motivation. This cannot be separated from the learning steps of the learning model, which can encourage student learning activities. PBL and NHT learning models can provide new experiences in the learning process. Furthermore, in the learning process, teachers are expected always to pay attention to students' level of learning motivation. Teachers can also use other innovative learning models to increase student learning motivation.

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