HOTS-Based Learning Management in the Process of Improving Student Academic Quality in Inclusive Schools

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ABSTRACT

High order thinking skills or HOTS-based learning management is an activity that includes planning, organizing, implementing, and evaluating. This study aims to describe HOTS-based learning management in improving the Academic Quality of Students. The research method used in this research was qualitative with the case study method. The data collection process was carried out using observation and interview techniques conducted at SDN Sendangadi 2. Interviews were conducted with the principal and several upper-class teachers (grades 4, 5, and 6), and observations were made by observing the learning carried out by classroom teachers. This study indicates that the achievement of HOTS-based learning management is successful with the support of many parties, including teachers, students, principals, and the learning environment.

Keywords: HOTS-based learning, students' academic quality.

INTRODUCTION

Management, in general, can be applied in solving various problems in education. There are four management functions used in general: planning, organizing, actuating, and controlling. According to (Suryadi 2017), professional management can carry out management functions seriously, consistently, and sustainably in managing resources to achieve educational goals effectively and efficiently. Resources in education management are man, money, material, methods, machine, market, and minute. Management prioritizes customer satisfaction on its performance so that continuous evaluation and improvement are the most crucial part of the management function.

In schools, the principal holds the management organization, which includes various components in the implementation of education. One of the essential components in implementing education at the school level is learning management which is left to both classroom and subject teachers. Learning management functions to design, implement and evaluate the learning process. As the spearhead in learning activities, the teacher must be able to carry out learning management well. Quality learning starts from the selection of appropriate strategies, methods, and teaching aids in learning activities. Learning success is determined by learning outcomes (Cahyawati and Sholeh, 2020). The difficulty of teachers when doing classroom management is the characteristics of different students, such as student enthusiasm for learning and family conditions. It can interfere with student learning in class. So the teacher's role in classroom management is very influential on student learning outcomes.

Good learning management will produce high student learning outcomes. The HOTS concept implemented in learning management will certainly increase students' ability in the cognitive realm. Students will tend to be a generation that is responsive and critical in responding to learning difficulties and every delivery of learning material provided by the teacher. This attitude and thinking ability can be formed well if the teacher, the leading actor in education management, masters the HOTS concept well. Creative and innovative teachers are the key to the success of HOTS-based learning management.

HOTS-based learning requires the accuracy and skills of teachers to implement it, mainly if it is applied in inclusive schools that have students with special needs (Darma & Rusyidi, 2015). SD

Negeri Sendangadi 2 is a government-owned school with an inclusive-friendly program in the Mlati sub-district, Sleman Regency. This school has a group of 6 classes, and the number of students reaches 129 students.

Based on the preliminary study results, it is known that SD Negeri Sendangadi 2 the average score of students' national exam results from 2016 to 2020 was 219.13, with an average score of 73.04. The sharpest decline in grades occurred between 2017 and 2018, according to the head of Sendangadi 2 Elementary School; this happened because the national exam questions were beyond prediction. The national exam questions in 2018 had a high level of difficulty, causing students to find it challenging to answer. To overcome this, the principal makes a policy so that teachers carry out HOTS-based learning to help improve students' thinking skills to achieve optimal academic achievement.

Thinking ability

Thinking ability is an ability that students in learning must develop. The word 'thinking' is usually used to mean consciously goal-directed processes, such as remembering, forming concepts, planning what to do and say, imagining situations, reasoning, solving problems, considering opinions, making decisions and judgments, and generating new perspectives. . Controlling what we call the conscious mind may affect unconscious processes, some of which are internalized and automatic as a result of practice. This process also helps produce the desired product of thought.

'Skill' usually means 'skill,' 'practical ability or 'facility in doing something' (Oxford English Dictionary). The term refers to what must know and what must do to succeed in a task. The concept of 'skills' overlaps with 'ability,' but the term 'skills' is used more often to refer to specific performance areas than general ones. Having a skill implies that most performances are of a high standard and adapted to the requirements of a particular situation. On this basis, 'thinking skills' means expertise, practical abilities, or facilities in thought processes or processes(Learning and Skills Research Centre, 2004).

Thinking ability is an ability that students in learning must develop. Thinking is part of the cognitive domain, categorized by Anderson (2010) into six levels: knowledge, understanding, application, analysis, evaluation, and creation. This level shows the thinking skills from low (LOTS) to high order thinking skills (HOTS). Thinking skills consist of four levels, namely: memorizing (recall thinking), essential (basic thinking), critical (critical thinking), and creative (creative thinking) (Krulik & Rudnick, 1999). Presseisen suggests that higher-order thinking skills are divided into four categories: problem-solving, decision making, critical thinking, and creative thinking (Costa, 1985). Ennis (in Costa, 1985) divides the indicators of critical thinking skills into five groups, namely; a) provide straightforward explanations, b) build essential skills, c) conclude, d) make further explanations, and e) set strategies and tactics.

Higher Order Thinking Skills(HOTS) is a Ministry of Education and Culture program to improve the quality of education in Indonesia. Through the Directorate General of GTK, the Ministry of Education and Culture said that HOTS could be applied to all subject content in thematic learning. According to Abidin (2016:162), learning carried out on all knowledge must develop student skills, namely critical thinking skills, problem-solving skills, and creative thinking skills, so that students' motivation and learning outcomes can significantly increase. The purpose of implementing HOTS-based learning management is to stimulate students' abilities in higher-order thinking. The achievement of the goal, in this case, is that students can find solutions to any problems that arise in learning.

Learning Management

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implementation of education. One of the most critical components in implementing education at the school level is learning management which is left to teachers, classroom teachers, and subject teachers.

Learning management functions to design, implement and evaluate the learning process. As the spearhead in learning activities, the teacher must be able to carry out learning management well. Quality learning starts from the selection of appropriate strategies, methods, and teaching aids in learning activities. Learning success is determined by learning outcomes (Cahyawati and Sholeh, 2020). Meanwhile, the teacher's difficulties when conducting classroom management are the characteristics of different students, such as student enthusiasm for learning and family conditions. It can interfere with student learning in class. So the teacher's role in classroom management is very influential on student learning outcomes.

HOTS-Based Learning Management

HOTS-based learning management, which includes planning, organizing, implementing, and evaluating, can be carried out well if the principal, teachers, and students work together. The principal provides guidance and supervision for teachers in carrying out HOTS-based learning management because if the teacher experiences problems in its implementation. The leading actor in achieving HOTS-based learning management is the teacher, so that teachers are required to develop pedagogic competence and professional competence well. The target of HOTS-based learning management is students; in this case, students are expected to get high learning outcomes and be able to solve any difficulties and problems in learning activities.

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RESEARCH METHODS

This research is a qualitative type of research. The researcher chooses qualitative because the researcher intends to conduct a best practice analysis of HOTS-based learning management. The approach used in the case study method, namely research based on word descriptions of the research variables to be explored and analyzed. Data collection techniques in this study using observation, interviews, and documentation. Research data retrieval using interview techniques was carried out with the principal and several top-grade teachers (grade 4, 5, and 6) teachers and for the observation technique carried out by researchers, namely focusing on HOTS-based learning carried out by teachers in the classroom.

This research was conducted in SD Negeri Sendangadi 2, Tempel District, Sleman Regency. This elementary school is located at Tegalturi, Sendangadi, Mlati, Sleman, Yogyakarta. This research was carried out at SD Negeri Sendangadi 2, especially in implementing HOTS-based learning management in high grades, grades 4, 5, and 6. The research time was carried out in the even semester of the 2020/2021 academic year. Activities related to this research were carried out in January 2020. The implementation of the research was adjusted to the schedule that the school and researchers had made.

RESULTS AND DISCUSSION

Based on best practices research conducted by researchers in HOTS-based learning management, it was found that learning management has four stages of activities, namely: planning, organizing, implementing, and assessing. Learning planning is preparation in learning activities through several steps that have been prepared by the teacher in the lesson planning design (RPP). The interview results with Agnes Rina: "For the preparation of the RPP, I have adjusted the KD and curriculum based on HOTS so that later in learning, it can support effective learning activities and

improve student learning outcomes." The same statement was also conveyed by Mrs. Fathonah, a grade 6 teacher, who stated, "At school, we usually use the same lesson plans. Then the class teachers apply the format to the material for each class. The format has also been made so that our RPP refers to HOTS. Learning planning also dramatically determines the learning activities that the teacher will carry out. The selection of learning methods, learning strategies, and appropriate learning media will also greatly assist learning activities in the classroom.

Organizing activities are related to the resources owned by the school that teachers use to optimize learning management. There are three essential activities in organizing learning, namely: 1) there is a clear division of tasks, 2) the division of descriptions of activities based on the level of power and responsibility, and 3) grouping of tasks based on deliberation or mutual agreement. According to Agnes Rina, as a grade 4 teacher stated that: "Before I carry out learning activities, I will do a coordinated division of tasks in various aspects including things that support learning so that students can accept learning to the maximum." Added to the statement of Mr. Aris as a 5th-grade teacher, namely, "In organizing learning, in my class, I usually observe the characteristics of my students first, Ms. " The organization in question is not only the division of tasks between students but includes all available resources in the school. These resources cover many things, including the school environment, classroom, etc. "The organization in question is not only the division of tasks between students but includes all available resources in the school. These resources cover many things, including the school environment, classroom, etc. "The organization in question is not only the division of tasks between students but includes all available resources in the school. These resources cover many things, including the school environment, classroom, etc.

The implementation of learning activities generally consists of 3 stages: initial activities, core activities, and closing. The initial activity contains teacher activities in conditioning students, providing motivation, and doing apperception. The second activity is the core activity wherein students will be the main actors in learning according to the strategies and learning models used by the teacher. This stage will also help students form a critical attitude and solve problems. The last stage is closing; the closing activity contains a reflection of the learning activities that have been carried out and an assessment to measure and evaluate the learning activities that have been carried out.

Evaluation activity is the last activity in the stage of management function. Various weaknesses and strengths of the learning stages will be found in this stage, both internally and externally. This activity is essential to improve the deficiencies in learning so that the quality of learning can increase. In addition to improving, this evaluation can also be used as a basis for innovation in learning so that it is not monotonous and further increases student learning motivation.

HOTS-Free Learning Management Achievements in Improving Academic Quality Students based on the above management functions must also pay attention to several essential achievement aspects. The achievement of HOTS-based learning management must be seen as a whole, not only in terms of results, because learning activities are not just results but processes and results. SDN Sendangadi 2 is an inclusive-friendly school where there are several special needs students in the class so that if the achievement is only seen from the results, it is not practical.

Characteristics of Innovative and Effective Learning Management. In class management, there are several methods, including classical, group, and individual. As for actual figures in learning management, teachers must be able to recognize the characteristics of their students so that they can provide appropriate learning. Appropriate learning can be seen from the learning strategies given by the teacher. Learning will also be more meaningful if the teacher can provide learning experiences in the lives of students.

CONCLUSION

Based on data analysis and research findings, the researcher provides conclusion as follows:
1. The implementation of HoTS-based learning management at SDN Sendangadi 2 is included in the practical category. The planning, organization, implementation prove it, and assessment of learning that has been carried out.

2. Efforts to improve student learning outcomes through HOTS-based learning management so that it can be applied at all levels, both for lower grades (grades 1, 2, and 3) and for upper grades (grades 4, 5, and 6)
3. The achievement of learning success in the classroom must be seen from the entire product, not only from the learning outcomes but also the learning process.

REFERENCE

Abdullah, A., Mokhtar, M., Halim, N., Ali, D., Tahir, L., & Kohar, U. (2017). Mathematics Teachers Level of knowledge and Practice on The Implementation of Higher Order Thinking Skills(HOTS). EURASIA Journal of Mathematics Science and Technology Education, 13(1). doi:10.12973/EURASIA.2017.00601a

Abidin, Y. (2016). Revitalization of Learning Assessment in the Context of 21st Century Multiliterate Education. Bandung: PT Refika Aditama.

Adi, TL, Efendi, A., Nadya, H., & Budiyanto, C. (2017). The Influence of Learning Management Technology to Student's Learning Outcome. International Journal of Pedagogy and Teacher Education, 1(1). DOI:ISSN: 2502-4124

Alshorman, BA, & Bawaneh, AK (2018). Attitudes of Faculty Members and Students towards the Use of the Learning Management System in Teaching and Learning. The Turkish Online Journal of Educational Technology, 17(3).

Arifin, Z. (2017). Learning Evaluation. Bandung: PT Remaa Rosdakarya.

Arifin, Z. (2017, January). Developing Students' Critical Thinking Skills Instruments in 21st Century Mathematics Learning. Journal of Theorems (The Original Research of Mathematics), 1(2).

Ariyana, Y., Pudjiastuti, A., Bestary, R., & Zamroni. (2018). Learning Handbook Oriented on Higher Order Thinking Skills. Directorate General of Teachers and Education Personnel: Ministry of Education and Culture.

Asmani, JM (2009). 7 Fun and Professional Teacher Competencies. Yogyakarta: Power Books (IHDINA).

Cahyawati, R., & Sholeh, M. (2020). The Influence of Higher Order Thinking Skills (HOTS) and Class Management on Student Learning Outcomes at SMP Negeri 28 Surabaya. Journal of Educational Management Inspiration, Volume 08 Number 02.

Danim, S. (2011). Student Development. Bandung: Alphabeta.

Dunne, R. &. (1996). Effective Learning. Jakarta: PT Gramedia.

Elfeky, AI (2018). The Effect of Personal Learning Environments on Participants' Higher Order Thinking Skills and Satisfaction. Innovations in Education and Teaching International. doi:10.1080/14703297.2018.1534601

Fanani, A., & Kusmaharti, D. (2018). Development of HOTS (Higher Order Thinking Skill)-Based Learning in Elementary School Grade V. JPD: Journal of Basic Education, 2. doi:doi.org/10.21009/JPD.091.01

Fauth, B., Decristan, J., Rieser, S., Klieme, E., & Buttner, G. (2018). Exploring Teacher Popularity: Associations with Teacher Characteristics and Student Outcomes in Primary School. Social Psychology of Education. Retrieved from https://doi.org/10.1007/s11218-018-9462-x

Halili, TY (2015). Effective Teaching of Higher Order Thinking (HOT) in education. MODEL, 3(2), 41-47.

Hou, H.-t., Yu, T.-F., Chiang, F.-D., Lin, Y.-H., Chang, K.-E., & Kuo, C.-C. (2019). Development and Evaluation of Mindtool-Based Blogs to Promote Learners' Higher-Order Cognitive Thinking in Online Discussion: An Analysis of Learning Effects and Cognitive Process. Journal of Educational Computing Research. doi:10.1177/0735633119830735