

## Analysis of Teacher Pedagogic Competence in Compiling HOTS-Based Learning Tools

Dwi Murtopo, Winarno, Idam Ragil Widiyanto Atmojo

Universitas Sebelas Maret  
dwimurtopo@student.uns.ac.id

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### Article History

accepted 26/11/2023

approved 26/12/2023

published 26/1/2024

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### Abstract

*This study aims to: 1) determine the pedagogical competence of teachers in compiling HOTS-based learning tools; and 2) knowing the application of teacher pedagogic competence in compiling HOTS-based learning tools. The form and strategy of research used is qualitative research with a case study approach. Data collection techniques using the following methods: 1) interviews; 2) questionnaires; and 3) documentation. Data analysis techniques using the Miles & Huberman model. The results of the study concluded that: 1) teacher pedagogic competence in compiling HOTS-based learning tools has mostly run well in accordance with teacher competency standards; and 2) application in the field needs to be improved again so that teachers are consistent in compiling HOTS-based learning tools so that their pedagogic competence increases.*

**Keywords:** *Teacher pedagogic competence, learning tools, HOTS*

### Abstrak

Penelitian ini bertujuan untuk: 1) mengetahui kompetensi pedagogik guru dalam menyusun perangkat pembelajaran berbasis HOTS; dan 2) mengetahui penerapan kompetensi pedagogik guru dalam menyusun perangkat pembelajaran berbasis HOTS. Bentuk dan strategi penelitian yang digunakan adalah penelitian kualitatif dengan pendekatan studi kasus. Teknik pengumpulan data menggunakan metode sebagai berikut: 1) wawancara; 2) kuesioner; dan 3) dokumentasi. Teknik analisis data menggunakan model Miles & Huberman. Hasil penelitian menyimpulkan bahwa: 1) kompetensi pedagogik guru dalam menyusun perangkat pembelajaran berbasis HOTS sebagian besar telah berjalan dengan baik sesuai standar kompetensi guru; dan 2) penerapan di lapangan perlu ditingkatkan kembali agar guru konsisten dalam menyusun perangkat pembelajaran berbasis HOTS sehingga kompetensi pedagogiknya meningkat.

**Kata kunci:** *Kompetensi pedagogik guru, perangkat pembelajaran, HOTS*

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**Social, Humanities, and Education Studies (SHEs): Conference Series**

<https://jurnal.uns.ac.id/shes>

p-ISSN 2620-9284

e-ISSN 2620-9292



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## INTRODUCTION

Competence is the ability of a person to carry out his profession which is applied by thinking, behaving, socializing consistently and continuously (Mesutia & Mursita, 2018, p. 9). Teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating learners in early childhood education formal education pathways, primary education, and secondary education (Republic of Indonesia, 2005).

Education is used to prepare attitudes and behaviors in order to adapt to the environment and society, so one of the teacher's competencies is needed, namely pedagogic competence (Rifma, 2016) in (2021, 2021, p. 67). Competence in the pedagogic field should be mastered by teachers in order to do learning well, especially in an effort to understand the characteristics of students, manage learning and actualize various potentials of students (No et al., 2021, p. 268).

The demand for competency improvement makes every teacher in the education unit must compile complete and systematic learning tools and develop them. Some of the learning tools needed include: RPP, syllabus, LKS, Teacher Book (BG), Student Book (BS), and evaluation/assessment tools (Sitorus, 2019, p. 14; Tanjung & Nababan, 2018, p. 57).

The results of research by (Somayana, 2020) explain that improving student learning outcomes is largely determined by teacher competence and supported by effective learning and the role of parents. Research conducted by (Syufrianti & Gustina, 2020, pp. 389–390) It is explained that 39.1% of learning devices are still handwritten by teachers, so it seems that little is completed in each class. Another case is that there are learning tools by class teachers and subject teachers that have been bound, but obtained by copying from other teachers or other regions.

Other research by (Hamid, 2017, p. 277) The following problems are encountered: (1) low teacher competence in preparing lesson plans, especially syllabus and lesson plans; (2) the number of teachers who compile syllabus and lesson plans before teaching is still not optimal, only 60%; (3) in terms of quality, a good syllabus and lesson plan have only reached 30% of the syllabus and lesson plan made by teachers; (4) the difficulty of the principal in evaluating teacher performance; (5) the difficulty of the principal evaluating learning outcomes.

As a result of observations at SD Muhammadiyah Botok's Flagship Program, teachers have not implemented and improved pedagogic competence optimally in terms of design as evidenced by the careless preparation of Learning Implementation Plans (RPP). The lesson plan is only edited from the downloaded file for administrative requirements, not as a reference in learning.

21st century skills will be effective if pursued through educational channels. Curriculum changes made by the government, at the elementary and secondary school levels have been implemented the 2013 Curriculum with various improvements. The 2013 curriculum already has 21st century skills both in terms of content standards, process standards, and assessment standards (Redhana, 2019, p. 2240)

Changes in process and assessment standards in the 2013 Curriculum are directed at achieving 21st century competencies consisting of critical, creative, collaborative, and communicative thinking skills. These competencies are part of a higher-order thinking skills process known as HOTS (Higher Order Thinking Skill). Higher order thinking skills (HOTS) include the ability to solve problems (problem solving), critical thinking (critical thinking), creative thinking (creative thinking), the ability to argue (reasoning), and the ability to make decisions (decision making) (Widana, 2017) in (Rahmah, 2021, p. 45).

Research from (Deviana & Kusumaningtyas, 2019) There is a conclusion that teachers need thematic learning tools that use the 2013 curriculum including the level of thinking HOTS (Higher Order Thinking Skills) so that the implementation of learning

runs optimally. It is hoped that the implementation of learning in class is HOTS learning, so that the assessments and questions used also contain HOTS.

The formulation of the problem from the description above, among others: 1) how is the pedagogical competence of teachers in compiling HOTS-based learning tools?; and 2) how is the application of teacher pedagogic competence in developing HOTS-based learning tools?

The objectives of the research are based on the formulation of the problem, among others: 1) to determine the pedagogic competence of teachers in compiling HOTS-based learning tools; and 2) to determine the application of teacher pedagogic competence in compiling HOTS-based learning tools.

## METHOD

The form and strategy of research used is qualitative research with a case study approach at SD Muhammadiyah Botok Flagship Program. Case studies are used to determine real conditions in the field according to the research focus, namely teacher pedagogic competence in compiling HOTS-based learning tools.

The data in this study is based on sources that include: a) the place used as a data source, namely SD Muhammadiyah Program Unggul Botok; b) informants or research subjects, namely teachers at SD Muhammadiyah Botok Superior Program; and c) the document used as a resource in this study is the Learning Implementation Plan; Questionnaire Sheet; and Interview Sheet.

Data collection techniques in this study are as follows:

a. Interview

This activity was carried out to explore information about pedagogic competence by conducting interviews with grade II, III, V, and VI teachers, as well as deputy heads of curriculum and school principals.

b. Questionnaire

This activity was carried out to determine the application of teacher pedagogic competence by distributing questionnaires to grade II, III, V, and VI teachers, as well as deputy heads of curriculum and school principals.

c. Documentation

Documentation in the form of learning equipment files that have been compiled by teachers, photos during observation and research, questionnaire results distributed, and interview results to grade II, III, V, and VI teachers, as well as deputy heads of curriculum and school principals.

The data analysis technique used uses the Miles & Huberman model with the following stages: (Nur Latifah & Asep Supena, 2021, pp. 1177–1178):

a. Data Reduction Stage (*reduction*)

The stage in which to determine relevant, meaningful, and important data based on the research conducted and get the data that researchers need.

b. Data Presentation Stage (*display data*)

The stage in which the data obtained from the study is presented in the form of a brief description of a narrative nature (text).

c. Stage of Withdrawal of the Knot (*verification*)

The stage where researchers will draw or make conclusions by providing explanations of data collection activities through observation, interviews, and supported by documentation.

## RESULTS AND DISCUSSION

Research data were collected using structured interview techniques and questionnaires to find information about teachers' pedagogic competence in compiling HOTS-based learning tools. In addition to using structured interview techniques and

questionnaires, researchers use documentation as study material to determine the pedagogical competence of teachers in compiling HOTS-based learning tools.

The following is presented regarding data from research based on indicators of teacher competency standards, as follows:

a. Teachers can understand the principles in curriculum development

Teacher competence in understanding the principles of curriculum development can be seen from the following data:

1) Learning theories and principles in compiling HOTS-based educational learning tools for students

Pedagogic competence of teachers when compiling learning tools using learning theories and principles in accordance with guidelines from the government through the applicable curriculum accompanied by HOTS-based skill development. The results were based on interviews with Class II, III, V, VI teachers, as well as the Deputy Head of Curriculum and Principal at SD Muhammadiyah Botok's Flagship Program. The conclusion of respondents' answers can be seen from the interview data below:

Researcher: "Learning in the 2013 curriculum is different from before, according to you how are the learning theories and principles in compiling HOTS-based educational learning tools for students?"  
 Respondents: "When compiling learning tools for learning theories and principles according to government guidelines by developing HOTS-based skills"

Teacher pedagogic competence questionnaire data on aspects of understanding various learning theories and principles of HOTS-based educational learning in compiling learning tools reached 100% with the category of strongly agreeing with positive questionnaire statements.

2) Apply the principles of HOTS-based educational learning

Pedagogic competence of teachers in applying the principles of HOTS-based learning in SD Muhammadiyah Botok Flagship Program. The application of learning principles using a *scientific* approach in the 2013 curriculum is adjusted to *Higher Order Thinking Skills* (HOTS). In accordance with the results of interviews between researchers and respondents, as follows:

Researcher: "Learning in the 2013 curriculum is different from before, according to you how are the learning theories and principles in compiling HOTS-based learning tools for students?"  
 Conclusion Answer: "Applying learning theories and principles in compiling learning tools using a *scientific* approach in the 2013 curriculum that contains higher order thinking skills (HOTS)"

Questionnaire data on aspects of the application of HOTS-based educational learning principles contained negative statements, the results were 50% of respondents answered disagree and 50% answered strongly disagree.

b. Teachers can set the goals of five elementary / MI subjects

Teacher competence in determining the objectives of five elementary / MI subjects can be seen from the data, as follows:

1) Create learning objectives so that students master HOTS-based skills

Teachers in making learning objectives at SD Muhammadiyah Botok Flagship Program describe the indicators that have been set in accordance with ABCD elements, namely *Audience*, Behavior, Conditions, Degree. According to the interview, as follows:

Researcher: "Making learning tools have learning objectives from subjects, how do you make these learning objectives so that students master HOTS-based skills?"

Conclusion Answer: "Learning objectives are derived from indicators that have been determined according to ABCD elements, namely *Audience, Behavior, Conditions, Degree.*"

The questionnaire data on the aspect of making learning objectives so that students master HOTS-based skills contains positive statements, the results are 67% of respondents answered affirmatively and 33% of respondents answered strongly agree.

2) Implement HOTS-based learning objectives in the classroom

Teachers carry out learning in the classroom by making learning designs that are in accordance with HOTS-based learning objectives so that students can understand these skills. According to the interview, as follows:

Researcher: "Developing learning tools, how do you implement HOTS-based learning objectives in the classroom?"

Conclusion Answer: "The implementation is by making learning designs that are in accordance with HOTS-based learning objectives so that students can understand these skills"

Questionnaire data on the aspect of implementing learning objectives so that students master HOTS-based skills contains negative statements, the results are 67% of respondents answered disagree and 33% of respondents answered strongly disagree.

c. Teachers can determine the appropriate learning experience to achieve the goals of the five subjects

Teacher competence in determining the appropriate learning experience to achieve the objectives of the five subjects can be seen from the data, as follows:

1) Compiling HOTS-based teaching materials

Teachers compile HOTS-based learning tools adhering to the syllabus as a guideline as outlined in the form of RPP and its attachments (teaching materials and lkpd). According to the interview, as follows:

Researcher: "Teachers compile learning tools necessary to prepare HOTS-based teaching materials, how do you compile them?"

Conclusion Answer: "Teaching materials include learning tools that are integral in lesson plans, guidelines make them use the syllabus inserted with HOTS skills"

The questionnaire data on the aspect of compiling HOTS-based teaching materials contained positive statements, the results were 87% of respondents answered in the affirmative and 13% of respondents answered strongly in the affirmative.

2) HOTS-based learning media that suits the characteristics of students

Teachers compile HOTS-based learning tools adhering to the syllabus as a guideline as outlined in the form of RPP and its attachments (teaching materials and lkpd). According to the interview, as follows:

Researcher: "Teachers compile learning tools necessary to prepare HOTS-based teaching materials, how do you compile them?"

Conclusion Answer: "Teaching materials include learning tools that are integral in lesson plans, guidelines make them use the syllabus inserted with HOTS skills"

The questionnaire data on the aspect of compiling HOTS-based teaching materials contained positive statements, the results were 87% of respondents answered in the affirmative and 13% of respondents answered strongly in the affirmative.



### CONCLUSION

Based on the data from the above research, it can be concluded that:

- a. teacher pedagogic competence in compiling HOTS-based learning tools has mostly run well in accordance with teacher competency standards; and
- b. Application in the field needs to be improved again so that teachers are consistent in compiling HOTS-based learning tools so that their pedagogic competence increases

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