

Evaluation of the Implementation of Assessment in Higher Order Thinking Skills Oriented Learning 2013 Curriculum in Elementary Schools

Rike Nur Rizki¹, Ali Mustadi², Muhammad Nur Wangid³

¹ Universitas Negeri Yogyakarta, Yogyakarta, Indonesia; rikenur24@gmail.com

² Universitas Negeri Yogyakarta, Yogyakarta, Indonesia; ali_mustadi@uny.ac.id

³ Universitas Negeri Yogyakarta, Yogyakarta, Indonesia; m_nurwangid@uny.ac.id

ARTICLE INFO

Keywords:

Evaluation
Higher Order Thinking Skills (HOTS);
Elementary Schools

Article history:

Received 2021-08-03

Revised 2022-04-04

Accepted 2022-09-17

ABSTRACT

This research is evaluation research that aims to evaluate the effectiveness of the implementation of assessment in HOTS-oriented learning in learning in elementary schools in Depok DIY. The evaluation model used is the Stake Countenance Models evaluation model. Data collection was carried out using questionnaires, interviews and observation. The results of this study conclude that HOTS-oriented appraisal has not been fully achieved very well both from the appraisal planning, implementation of the appraisal, and management of HOTS-oriented appraisal results (1) for the implementation of the HOTS appraisal in the 2013 curriculum categorized as less good (2%); (2) the category is quite good (16%); (3) good category (68%); (4) very good category (14%). The results showed that not all components were said to be very good. Based on the quantitative analysis conducted, it is known that implementing the HOTS-oriented assessment on aspects of planning, implementation, and management of results is in a good category and must be increased to the outstanding category.

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Corresponding Author:

Rike Nur Rizki

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia; rikenur24@gmail.com

1. INTRODUCTION

The results of research conducted by PISA in 2018 showed that Indonesia was classified as low because it was ranked 74th out of 79 countries evaluated. Based on these data, it is necessary to change the learning system so that Indonesian students' ability is expected to increase. The Ministry of Education and Culture (Kemendikbud) made improvements to the content standards and assessment standards of the 2013 curriculum. As for improvements in the realm of 2013 curriculum assessment standards, the government adopted international assessment models in the form of an assessment based on Higher Order Thinking Skills (HOTS). Students who can reach the HOTS level can develop their ability to apply the knowledge they have acquired creatively and critically so that, in the end they will be able to produce an opinion or thought that could solve problems (Raphi &

Sutaryadi, 2018). The government hopes that the improvement in the assessment standards will be able to produce students who can be highly competitive in the international arena.

The implementation of HOTS in the 2013 curriculum is expected to change views on the implementation of the learning process, which was initially teacher-centred to student-centred (Chandra, F. E., Siskawati, F. S., & Lutfiah, 2019). The purpose of student-centred learning is for students to develop into individuals who are highly motivated, have the ability to learn independently, and are responsible for always developing their knowledge and attitudes and skills (Fathurrohman, 2015). This opinion was also expressed by (Zubaidah, 2016). The learning process that uses a student-centred approach makes the learning process provides interest and potential for students. High Order Thinking Skills is the ability to relate, manipulate, and change the knowledge and experience already possessed critically and creatively in making decisions to solve problems in new situations (Dinni, 2018).

The learning process is related to assessment. One of the assessments in the learning process is the assessment of learning outcomes (Suhady et al., 2020). If the learning process is HOTS-oriented, but the assessment is not adjusted to HOTS-oriented learning, the results will not be optimal and will not be in line with expectations or educational goals. Assessment in HOTS-oriented learning must have an appropriate assessment; namely, the suitability of questions with indicators and assessment criteria must be in accordance with the three domains in the 2013 curriculum. The 2013 curriculum is an educational process that emphasizes student abilities with a wider scope, namely the ability of cognitive, affective domains, and psychomotor (Setiadi, 2016).

Assessment instruments, namely HOTS-oriented questions, are questions that require students to improve their skills in higher-order thinking so that students are trained to solve a problem and create better quality in students. HOTS Learning in Elementary School Age Children provides alternative choices in the learning process in order to optimize students' potential and abilities (Hendriawan & Usmaedi, 2019). The HOTS assessment model requires students not to be familiar with the questions or assignments given. This is so that students have sufficient prior knowledge to use higher-order thinking skills (Sofyan, 2019). Thus, the teacher must develop HOTS-oriented questions well and apply them in the forgiven class (Pratiwi et al., 2017). HOTS is an ability that students must have in 21st-century learning (Farisi, 2016). This ability can be owned by students when trained in learning. Teachers can use various HOTS questions to practice students' abilities. HOTS questions in addition to improving the quality of the questions, also improve students' ability to solve problems. Students must be able to understand, analyze, categorize, manipulate, create new ways creatively and apply them in finding solutions to new problems so that students have the ability to solve a problem (Riadi & Retnawati, 2014).

To improve their critical, logical, reflective, metacognitive, and creative thinking abilities, students should look for and answer problems of the HOTS kind, which require them to think at a higher level and entail a reasoning process (Suryapuspitarini et al., 2018). The goal of creating HOTS questions is to help students practice and perfect their capacity to think in a more divergent (spread) rather than a more narrow way (centred). The purpose of teaching kids to engage in divergent thinking is to provide them with the skills they'll need to find creative answers to complex issues. Obviously, a tool familiar to elementary school pupils is required for the measurement of HOTS.

High Order Thinking Skills (HOTS) are the ability to think at a higher level that needs more complicated thinking activities and the ability to find answers or solutions to numerous things in order for the thinking process to solve an issue (Budsankom et al., 2015). In the context of learning, the purpose of HOTS as a critical thinking process is to develop pupils who can think rationally (reasonably), reflectively, and autonomously (Ginting et al., 2021). Meaningful learning, one of which is that pupils are able to think at higher levels, particularly in terms of problem-solving, as a result of diverse learning activities (Deviana & Kusumaningtyas, 2019). Higher Order Thinking Skills (HOTS)-based learning is learning that focuses students' higher-level cognitive abilities. Education's primary objective is to improve human resources. The success of human resources is determined by a number

of elements, one of which is the capacity of teachers to administer and utilize assessments, process evaluations, and learning outcomes.

The skill of teachers in learning activities is necessary for determining whether or not the curriculum's learning objectives have been met (Budiman & Jailani, 2014). Teachers, school principals, and other education implementers may also conduct curriculum evaluations to determine how pupils are progressing, instructional materials, and methodologies and approaches used in learning activities (Uran, 2018). The ability to assess and evaluate the learning process is a pedagogical competency that teachers must possess. The purpose of assessment or evaluation is to identify whether or not the learning objectives have been attained (Fitrianti, 2018). Article 1 of the Regulation of the Minister of Education and Culture of the Republic of Indonesia Number 23 of 2016 concerning Assessment Standards (Minister of Education and Culture of the Republic of Indonesia, 2016) defines assessment as the process of collecting and analyzing information to measure student achievement of learning outcomes. The student learning outcomes provide teachers with information regarding the success of the learning process. Consequently, learning outcomes are unquestionably crucial, and teachers require instruments to collect information in the form of data, especially instruments for assessing learning outcomes. Teachers must undertake an evaluation of these three categories to characterize students' overall success in learning (Riscaputantri & Wening, 2018).

Several studies that have been carried out related to this research include the research on HOTS-Based Problem Preparation Strategies in Elementary Mathematics Learning. The study explains that one of the changes in Indonesia's current education assessment system is the implementation of HOTS (Higher Order Thinking Skill) based assessments. The application of HOTS-based assessment aims to make the learning process, especially mathematics, encourage students to develop creative thinking skills (Rohim, 2019). Another study was conducted by Erna Yayuk, regarding the ability of teachers to implement learning and assessing HOTS in 4th-grade students of Indonesian schools in Bangkok, Thailand. The results of this study found that there were still some teachers who still needed updating of knowledge, especially the 2013 curriculum. In the learning process, most of the questions made by teachers were still at the C1 C3 level, and (4) students' ability to think critically and analytically was very lacking. Based on the analysis of the problem, the research objective is to analyze and describe the ability of teachers to implement HOTS learning and assessment (Yayuk et al., 2019). Research on the HOTS assessment was also carried out by Eka Fitriani that in the Assessment process, especially in social studies subjects, the HOTS (High Order Thinking Skill) assessment instrument was not presented in the form of HOTS practice questions as one of the references in the assessment process in class, then the assessment process carried out so far used are only in the form of questions and answers, fortopolio sheets, multiple choice (Eka Fitriani, 2019). In contrast to these studies, this research was conducted at an elementary school in the district of Depok, Special Region of Yogyakarta. This study is an evaluation study that aims to evaluate the effectiveness of the implementation of assessment in HOTS-oriented learning in learning in elementary schools. This study covers the overall ability of teachers to carry out HOTS-based assessments. While these studies are more specifically evaluating the assessment of one subject only.

2. METHODS

This study uses a type of program evaluation research with a Mix-Method Quantitative and Qualitative approach which is focused on knowing the implementation of the 2013 curriculum-oriented Higher Order Thinking Skills (HOTS) learning assessment in elementary schools in the Depok DIY sub-district by using the provisions or policies of the Minister of Education and Culture No. 22 of 2016 to evaluate Anderson & Krathwhl's theory learning process to evaluate students' HOTS ability.

Stake Countenance Model is employed as the evaluation model. This methodology emphasizes two primary aspects: describing and evaluating. Through the evaluation stages, the following are obtained: (1) Antecedent stage, namely a description of an authentic assessment plan oriented to High

Order Thinking Skills (HOTS) in the 2013 curriculum, which includes teachers' understanding of HOTS in the 2013 curriculum; (2) Process stage (transaction), namely a description of the implementation of an authentic assessment oriented to High Order Thinking Skills (HOTS) in the 2013 curriculum; and (3) The outcome of the assessment.

This research was conducted in public and private elementary schools in Depok Sleman DIY with a population of elementary school teachers in Depok Sleman DIY in implementing Higher Order Thinking Skills (HOTS)-oriented assessments in the 2013 curriculum. The total population is 652 teachers with an error rate of 5%. The number should be The sample in this study was 227 teachers. However, due to the consideration of teachers in each school, only 15 schools were taken from a total of 49 schools and 2 teachers (low class and high class) so the number of samples in this study was 30 samples.

The instrument used in this study was conducted using a questionnaire, interview and observation method. The sampling technique used Random Sampling and Stratified Cluster Random Sampling with the following considerations: (1) Public Elementary School Teachers and Private Elementary School Teachers, (2) Low-Grade Teachers and Teachers with high grade.

3. FINDINGS AND DISCUSSION

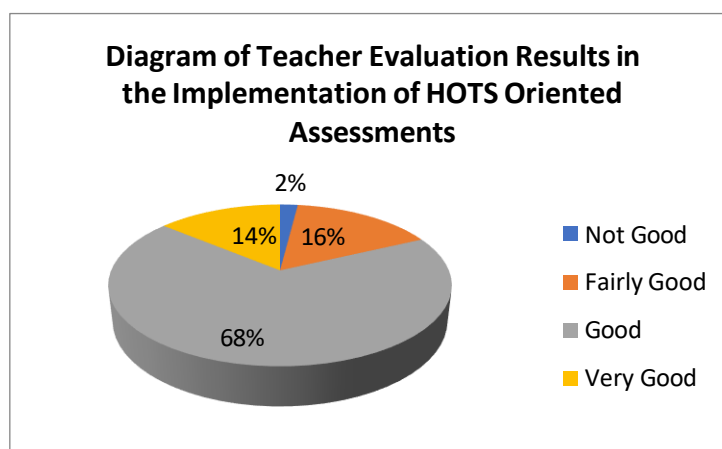
The results of the HOTS-based assessment are management of authentic assessment results by measuring the suitability of the HOTS evaluation with the learning process using HOTS in the implementation of the 2013 curriculum. The criteria for learning completeness for knowledge are set with a mean score of 2.67 (B-). Mastery learning for skills is determined with an optimum achievement of 2.67 (B-). Complete learning for attitude (KD on KI-1 and KI-2) with predicate B (minimum 2.85).

Tabel 1. The results of the questionnaire data related to the implementation of the HOTS-based assessment

No	Criteria	Number	Percentage
1	Not Good	16	2 %
2	Fairly Good	154	16 %
3	Good	657	68 %
4	Very Good	133	14 %
	SUM	960	100 %

The results of the questionnaire data on the implementation of the HOTS-based assessment with conditions in the poor category as much as 2%, conditions in the fairly good category as much as 16%, conditions in the good category as many as 68%, and conditions in the very good category (14%). The description of the teacher's condition data in the form of a pie chart is as follows:

Diagram 1. The results of the evaluation of the implementation of the HOTS-based assessment.



Preliminary research observations on the evaluation methods utilized by elementary school instructors at both the lower and upper grade levels. The educator provided the researcher with a set of questions, and the researcher applied Bloom's Taxonomy to the data. Examining the use of operational verbs that allude to recollecting, comprehending, and using after conducting an initial direct analysis (Low Order Thinking Skills). When it comes to the analysis and evaluation of Higher Order Thinking Skills, only a select few operational verbs are available.

In addition to analyzing the questions, he also conducted interviews with several teachers. As for the results of the interview (a) the teacher is still not able to optimally carry out HOTS-based assessments (b) there are still some students who still have difficulty answering HOTS questions (c) the teacher is still not maximal in making HOTS questions.

The results showed that the implementation of the HOTS-oriented assessment had not been fully achieved very well from the teacher's understanding, the suitability of the lesson plans, and the suitability of the questions with the HOTS-oriented indicators. Research shows that not all components meet the standards. The results of the study can be concluded that the HOTS-based assessment is still not categorized as very good.

4. CONCLUSION

Based on the results of questionnaires, interviews and observations, it can be concluded that the implementation of the HOTS-based assessment in elementary schools in Depok District has been carried out but the results have not been maximized in accordance with Permendikbud 2013. This study only looks at how the evaluation is carried out by teachers. The results showed that not all components were said to be very good. Based on the quantitative analysis conducted, it is known that the implementation of the HOTS-oriented assessment on aspects of planning, implementation, and management of results is in a good category and must be increased to the very good category. There needs to be socialization by the government so that all teachers understand HOTS and can implement learning as well as evaluate HOTS in elementary schools in accordance with Permendikbud 2013. For the future, it is to be able to work together and socialize understanding of the implementation of HOTS-based learning and evaluation.

REFERENCES

- Budiman, A., & Jailani, J. (2014). Pengembangan Instrumen Asesmen Higher Order Thinking Skill (Hots) Pada Mata Pelajaran Matematika Smp Kelas VIII SEMESTER 1. *Jurnal Riset Pendidikan Matematika*, 1(2), 139. <https://doi.org/10.21831/jrpm.v1i2.2671>
- Chandra, F. E., Siskawati, F. S., & Lutfiah, H. (2019). Pentingnya meningkatkan HOTS dan AQ siswa guna mempersiapkan siswa menghadapi era revolusi industri 4.0 bagi guru SMKS Al-Akhyar Wonokusumo Bondowoso. *Jurnal Pengamas*, 2(2), 95–103.
- Deviana, T., & Kusumaningtyas, D. I. (2019). Analisis Kebutuhan Penyusunan Perangkat Pembelajaran Tematik Berbasis HOTS (Higher of Order Thinking Skills) pada Kurikulum 2013 di SD Muhammadiyah 05 Batu. *Edumaspul: Jurnal Pendidikan*, 3(2), 64–74. <https://doi.org/10.33487/edumaspul.v3i2.141>
- Dinni, H. N. (2018). HOTS (High Order Thinking Skills) dan Kaitannya dengan Kemampuan Literasi Matematika. *Prisma*, 1, 170–176.
- Eka Fitriani. (2013). Skripsi Pengembangan Instrument Assessment Hots (High Order Thinking Skill) Pada Mata Pelajaran Ips Terintegrasi Nilai-Nilai Pembangunan Karakter Kelas V Sd/Mi Di Bandar Lampung. *Pengembangan Instrumen*, 6(3), 12–16.
- Fathurrohman, M. (2015). *Model-model Pembelajaran Inovatif : Alternatif Desain Pembelajaran yang Menyenangkan*. //library.fmipa.uny.ac.id/opac/index.php?p=show_detail&id=7721&keywords=
- Fitrianti, L. (2018). Prinsip Kontinuitas dalam Evaluasi Proses Pembelajaran. *Jurnal Pendidikan*, 10(1), 89–102. <http://journal.staihubbulwathan.id/index.php/alishlah/article/view/68>
- Ginting, P., Hasnah, Y., Hasibuan, S. H., & Batubara, I. H. (2021). Evaluating Cognitive Level of Final Semester Examination Questions Based on Bloom's Revised Taxonomy. *AL-ISHLAH: Jurnal Pendidikan*, 13(1), 186–195. <https://doi.org/10.35445/alishlah.v13i1.385>
- Hanoum, R. N. (2014). MENGEMBANGKAN KETERAMPILAN BERPIKIR TINGKAT TINGGI MAHASISWA MELALUI MEDIA SOSIAL. *EDUTECH*, 13(3), 400. <https://doi.org/10.17509/edutech.v13i3.3093>
- Hendriawan, D., & Usmaedi. (2019). Penerapan pembelajaran higher order thinking skills (hots) di sekolah dasar. *Jurnal Pendidikan Dasar Setiabudhi*, 2(2), 72–86. <https://stkipsetiabudhi.ejournal.id/jpd>
- Khoerunnisa, S., Mulyati, Y., & ... (2019). Evaluasi Pembelajaran: Perencanaan Pengembangan Alat Evaluasi Menyimak Berancangan Model Higher Order Thinking Skills *Internasional Riksa Bahasa*, 107–114. <http://proceedings.upi.edu/index.php/riksabahasa/article/view/859>
- Mohammad, F. (2016). Developing the 21st-century social studies skills through technology integration. *Turkish Online Journal of Distance Education*, 17(1), 16–30. <https://doi.org/10.17718/tojde.47374>
- Pratiwi, P. H. (2017). Pengembangan Modul Mata Kuliah Penilaian Pembelajaran Sosiologi Berorientasi Hots (Higher Order Thinking Skills). *Jurnal Cakrawala Pendidikan*, 36(2), 201–209. <https://doi.org/10.21831/cp.v36i2.13123>
- Prayoonsri, B., Tatsirin, S., Suntorapot, D., & Jariya, C. (2015). Factors affecting higher order thinking skills of students: A meta-analytic structural equation modeling study. *Educational Research and Reviews*, 10(19), 2639–2652. <https://doi.org/10.5897/err2015.2371>
- Rapih, S., & Sutaryadi, S. (2018). Perpektif guru sekolah dasar terhadap Higher Order Tinking Skills (HOTS): pemahaman, penerapan dan hambatan. *Premiere Educandum : Jurnal Pendidikan Dasar Dan Pembelajaran*, 8(1), 78. <https://doi.org/10.25273/pe.v8i1.2560>
- Riadi, A., Pendidikan, H. R.-P. J., & 2014, undefined. (n.d.). Pengembangan perangkat pembelajaran untuk meningkatkan HOTS pada kompetensi bangun ruang sisi datar. *Scholar.archive.org*. Retrieved December 31, 2021, from <https://scholar.archive.org/work/pvkxxenydng4deu2iax66inmae/access/wayback/https://journal.uny.ac.id/index.php/pythagoras/article/viewFile/9074/pdf>

- Riscaputantri, A., & Wening, S. (2018). Pengembangan instrumen penilaian afektif siswa kelas IV sekolah dasar di Kabupaten Klaten. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 22(2), 231–242. <https://doi.org/10.21831/pep.v22i2.16885>
- Rohim, D. C. (2019). Strategi Penyusunan Soal Berbasis HOTS pada Pembelajaran Matematika SD. *Briliant: Jurnal Riset Dan Konseptual*, 4(4), 436. <https://doi.org/10.28926/briliant.v4i4.374>
- Setiadi, H. (2016). Pelaksanaan penilaian pada Kurikulum 2013. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 20(2), 166–178. <https://doi.org/10.21831/pep.v20i2.7173>
- Sofyan, F. A. (2019). Implementasi Hots Pada Kurikulum 2013. *Inventa*, 3(1), 1–9. <https://doi.org/10.36456/inventa.3.1.a1803>
- Sucipto, S. (2017). Pengembangan Ketrampilan Berpikir Tingkat Tinggi dengan Menggunakan Strategi Metakognitif Model Pembelajaran Problem Based Learning. *Jurnal Pendidikan (Teori Dan Praktik)*, 2(1), 77. <https://doi.org/10.26740/jp.v2n1.p77-85>
- Suhady, W., Roza, Y., & Maimunah, M. (2020). Pengembangan Soal untuk Mengukur Higher Order Thinking Skill (HOTS) Siswa. *Jurnal Gantang*, 5(2), 143–150. <https://doi.org/10.31629/jg.v5i2.2518>
- Suryapuspitarini, B. K., Wardono, & Kartono. (2018). Analisis Soal-Soal Matematika Tipe Higher Order Thinking Skill (HOTS) pada Kurikulum 2013 untuk Mendukung Kemampuan Literasi Siswa. *Prisma, Prosiding Seminar Nasional Matematika*, 1, 876–884. <https://journal.unnes.ac.id/sju/index.php/prisma/article/view/20393>
- Uran, L. L. (2018). Evaluasi implementasi KTSP dan Kurikulum 2013 pada SMK se-Kabupaten Belu, Nusa Tenggara Timur. *Jurnal Penelitian Dan Evaluasi Pendidikan*, 22(1), 1–11. <https://doi.org/10.21831/pep.v22i1.13309>
- Yayuk, E., Deviana, T., & Sulistyani, N. (2019). Implementasi Pembelajaran Dan Penilaian Hots Pada Siswa Kelas 4 Sekolah Indonesia Bangkok Thailand. *JINoP (Jurnal Inovasi Pembelajaran)*, 5(2), 107. <https://doi.org/10.22219/jinop.v5i2.7106>
- Yuriza, P. E., Adisyahputra, A., & Sigit, D. V. (2018). Correlation between higher-order thinking skills and level of intelligence with scientific literacy on junior high school students. *Biosfer*, 11(1), 13–21. <https://doi.org/10.21009/biosferjpb.11-1.2>
- Zubaidah, S. (2016). *Keterampilan abad ke-21: Keterampilan... - Google Cendekia*. (n.d.). Retrieved April 28, 2021, from https://scholar.google.com/scholar?hl=id&as_sdt=0%2C5&q=Zubaidah%2C+S.+%282016%29.+Keterampilan+abad+ke-21%3A+Keterampilan+yang+diajarkan+melalui+pembelajaran.+In+Seminar+Nasional+Pendidikan+dengan+Tema+%E2%80%9Cisu-strategis+pembelajaran+MIPA+Abad+21%2C+21%2810%29.&btnG=

