Development of HOTS Assessment Instruments Review Text Materials Based on The Local Wisdom of Batu Bara for Class VIII Students

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Abstract: This article summarizes the results of the development of the HOTS assessment instrument for reviewing text materials based on the local wisdom of Batubara for grade VIII students and their quality, which is packaged in electronic form. The development model is Research and Development (R&D) with 4D models (Four D Models) from Thiagarajan, namely define, design, develop, and disseminate. After going through the process of creating the HOTS assessment instrument, it was validated by material and design experts. The expert test concluded that the assessment instrument developed was valid with an average value of 89. This figure was categorized as feasible without revision. These results show that the resulting HOTS assessment instrument is "Very feasible and effective". So, it can be tested in class VIII MTs Swasta Baitussalam. The instruments used and reviewed in this review text material based on local wisdom of Batu Bara are (1) historical stories, (2) the Lanyau Batu Bara slave film made by YouTubers from Batu Bara, (3) Batu Bara Song, and (4) regional art, namely songket Batu Bara.

Keywords: HOTS Assessment Instrument, Review Text, Coal Local Wisdom

Introduction

The success of education, whose main goal is to improve human resources, is influenced by various factors. One of the factors that influences this success is the teacher's ability to conduct and utilize assessments, process evaluations, and learning outcomes. This ability is needed to determine whether or not the learning objectives that have been set in the curriculum have been achieved. In addition, this ability can also be used to improve or enhance the learning process that has been carried out by the teacher. In this regard, the government has provided guidelines, namely by issuing Permendiknas Number 16 of 2007 concerning Standards for Academic Qualification and Competency of Subject Teachers (including Indonesian Junior High School/MTs teachers) stating that the competence of subject teachers includes developing assessment instruments.

Educational assessment, according to Permendiknas Number 20 of 2007 concerning Educational Assessment Standards, is the process of collecting and processing information to determine the achievement of student learning outcomes. Assessment is not just collecting student data, but also processing it to get a picture of the process and learning outcomes of students. Assessment does not just give students questions and then finish, but the teacher must follow up for the sake of learning. To carry out the assessment, teachers need an assessment instrument in the form of questions to test cognitive, affective, and psychomotor abilities.

Assessment is a very important activity in learning language Indonesia. Assessment can provide constructive feedback for both teachers and students. The results of the assessment can also motivate students to perform better. Even assessment can affect learning behavior because students tend to direct their learning activities towards the estuary of the teacher's assessment.

The quality of the learning outcomes assessment instrument has a direct effect on the accuracy of the student's achievement status in learning outcomes. Therefore, the position of the learning outcomes assessment instrument is very strategic in making teacher and school decisions regarding the achievement of student learning outcomes, including higher-order thinking skills. The low level of higher-order thinking skills among students has attracted educators and researchers of Indonesian language education.

In addition, the results of a survey on student achievement conducted internationally show that the performance of Indonesian students is still far below the average. The scientific ability of Indonesian children is still considered to be in the low category. This was brought up through research every four years, which measures the ability of class VIII SMP/MTs students. The results of observations at the Baitussalam Private MTs for class VIII students showed that few students passed the KKM, and there were still many students whose scores were below the KKM.

Value	Number of	Percentage
	Students	
Below 50	3	18%
51 to 70	9	56%
70 and over	4	25%
	51 to 70	Below 50 3 51 to 70 9

Table 1.1. Indonesian Language Learning Results Review Text Materials Class VIII Students for the 2022/2023 Academic Year

The data above shows that there are still many students who have not reached the KKM that has been determined, namely 70. Of the 16 students, only 4 have reached the KKM limit, or about 25%. The rest have not yet reached the KKM. This indicates that there are difficulties experienced by students when learning.

One of the contributing factors, among others, is that students in Indonesia are not trained in solving contextual problems, demand reasoning, argumentation, and creativity in solving them, develop essays, and assess or review which questions are characteristic of Indonesian language questions. In addition, the questions in the 2013 curriculum Indonesian language package are still ordinary, not HOTS, and still monotonous without incorporating elements of local wisdom in Batubara. Not only that, at MTs Swasta Baitussalam Batu Bara, students are currently less able to express their thoughts in the written form of review text.

This is in line with (Hutahean, 2014), which states that, "in practice, we often see students' writing skills are still very lacking." One of the factors that makes students less able to write review texts is that they do not understand the structure of the text and the linguistic features in the review text. The questions that contain the demands of higher-order thinking are related to the cognitive domain of reasoning, which includes the ability to find conjectures, analysis, generalizations, connections, synthesis, non-routine problem solving, and justification or proof. Characteristics of HOTS revealed by Resnick (1987:3) include non-algorithmic, complex nature, multiple solutions (many solutions), involving variations in decision making and interpretation, application of multiple criteria (many criteria), and being effortful (requires a lot of effort). Conklin (2012:14) states the characteristics of HOTS as follows: "characteristics of higher-order thinking skills encompass both critical thinking and creative thinking." In other words, the characteristics of higher-order thinking skills include critical thinking and creative thinking.

Critical and creative thinking are two very basic human abilities because they can encourage a person to always look at every problem he faces critically and try to find answers creatively so that new things are better and useful for his life. Assessment instruments used by teachers to assess student learning outcomes in cognitive aspects are usually taken from various textbooks or collections of questions. Questions can be in the form of descriptions or multiple choice. The types of questions asked or the tasks given by the teacher greatly affect the development of students' thinking skills. The question or task is not only to focus students on the activity but also to explore their learning potential. Questions or assignments that trigger students to think analytically, evaluatively, and creatively can train students in higher-order thinking skills. The fact that occurs in schools means the questions tend to test more aspects of memory that do not train HOTS or higher-order thinking skills of students. In terms of several competency standards (SK) and basic competence (KD) in Indonesian language subjects, questions can be developed. HOTS.

Improving writing and higher-order thinking skills has become one of the priorities in Indonesian language lessons in schools. In training students to be skilled, teachers can do this by training questions with HOTS characteristics. To support this, it is impossible for the teacher to just move the material in the textbook but must look for other, more weighty references. The problem faced by teachers is the unavailability of an assessment instrument specifically designed to train HOTS, or students' higher-order thinking skills. In addition, there is no HOTS assessment instrument based on coal local wisdom, where we know that by inserting local wisdom into a text or instrument, it can preserve and introduce local culture to the younger generation so that the culture does not become extinct. In line with what Sumarmi and Amirudin (2014) stated, the function of local wisdom is as follows; First, as a marker of the identity of a community. Second, as an adhesive element (cohesive aspect) across citizens, religions, and beliefs. Third, local wisdom provides a sense of togetherness for a community. Fourth, changing the mindset and reciprocal relationships of individuals and groups by placing them on the common ground/culture they have. Fifth, encourage the building of togetherness, appreciation, as well as a common mechanism to ward off various possibilities that reduce, even destroy, communal solidarity, which is believed to originate and grow on common consciousness, from an integrated community. Thus, local wisdom is a characteristic that distinguishes one area from another, which has its own uniqueness and characteristics and makes the area different from the others.

By developing the HOTS assessment instrument for review text material based on the local wisdom of Batubara, we can make students think critically, evaluate a work, put their writing ideas into review texts, and can also preserve local culture. What do we know that the assessment instrument on review text material is given to SMP class VIII semester II students with the aim of providing writing skills and weighing and assessing existing works or other people's works such as films, short stories, poetry, novels, regional art works, etc. The review text itself is writing that weighs or evaluates a work compiled by other people. The term "reviewer" comes from the Dutch term "receinse". The equivalent in English is "review. According to the Ministry of Education and Culture (2014:147), a review text is a text produced by an analysis of various things. The analysis can take the form of books, novels, news reports, or fairy tales. The review text material based on local wisdom will be developed as an instrument for the HOTS assessment.

The form of the assessment instrument consists of test and non-test instruments. The form of the assessment instrument developed in this study used the form of a description test instrument. Tests in the form of descriptions can be used to measure HOTS or writing skills and higher order thinking. This is in accordance with the opinions of Brookhart (2010:33), Nitko & Brookhart (2011:223), Kubiszyn & Borich (2013:143), and Sumarna Surapranata (2007:137). The suggested approach to measuring higher-order thinking is to use context-dependent item sets or a set of questions consisting of an introduction followed by answer choices and context-dependent item sets or interpreting exercises.

Introductory materials for making HOTS test items for review text based on local wisdom of coal include using pictures, videos, regional artworks, and so on that require students to apply the taxonomy of educational goals and involve higher-level cognitive processes. Based on the problems above, it is necessary to develop a HOTS assessment instrument for reviewing text material based on local wisdom coal for class VIII students in the form of HOTS test questions in the form of descriptions of Indonesian language subjects for SMP/MTs Class VIII Semester 2. The HOTS assessment instrument developed aims to produce an instrument that is valid and reliable to measure the HOTS of students. This study has benefits, including: a valid and reliable HOTS assessment instrument can be used to measure students' HOTS, as a reference for developing HOTS assessment instruments on other Basic Competencies (KD), and can be used by students as practice questions in training HOTS.

Method

This research is part of Research and Development (R&D) research. The product developed is a HOTS assessment instrument for review text based on local wisdom of Batu Bara in the form of HOTS test questions in the form of descriptions. To obtain a development prototype, in this study, an adaptation of the 4D model (Four D Models) from Thiagarajan was made, namely to define, design, develop, and disseminate with slight adjustments according to the research context (Thiagarajan, 1974:5). This research development stage, namely the stage of seeing the potential and problems, the stage of gathering information and literature study, the product design stage, the design validation stage, the design revision stage, the development or producing stage of the product, The stage of seeing potential and problems can be seen after conducting a preliminary study in the form of observation and filling out a teacher needs questionnaire. The questionnaire was given to an Indonesian language teacher for class VIII at MTs Swasta Baitussalam. The information gathered during the information gathering stage is used as material to find a theoretical basis to strengthen a product so that it can be implemented optimally and determine the most appropriate steps in developing the product.

The product design stage begins with determining the purpose of the test that will be developed in this research. Then determine the KD according to the characteristics of the HOTS questions. KD is used to develop HOTS questions and incorporate elements of the local culture of Batu Bara into them. Next, arrange items based on KD and HOTS indicators by first making a grid that pays attention to KI, KD, material, stimulus, and HOTS abilities (analyze, evaluate, and create). In addition, the use of the test needs to be equipped with scoring guidelines. Test questions that are valid or suitable for use are measured based on assessments made by three validators to assess aspects of material content, learning evaluation design, and language in the questions. The data obtained for the validation test from the validator is in the form of quantitative data. The data was obtained using a Likert scale score. The data obtained for the validation test from the validator is in the form of quantitative data.

The results of the validation of the test instruments were further categorized according to the criteria for the results of the evaluation of the validity of the instrument. The results of the validation by the validator are then used to improve the items developed. The corrected questions were then made into a test instrument in the form of description questions that would be tested on class VIII MTs Swasta Baitussalam. The revisions made were minor revisions because, in accordance with the results of the validation test, the instrument was declared valid and allowed to be used but with minor revisions. These revisions include: After the stimulus, operational verbs (KKO) must be displayed by adjusting each competency indicator. The questions in the HOTS questions must be adjusted to the KKO, which is used to measure students' higher order thinking skills. The second revision of the design validator of learning evaluation experts is that questions should not start with the word "why" or other question words. Questions must be designed in such a way by displaying KKO to measure higher-order thinking skills, and these questions lead students to find answers by analyzing, synthesis, evaluating, or creating. The last revision of the learning evaluation expert design validator, namely the grid, is equipped with operational verbs. After validating the developed HOTS instrument, the instrument is declared valid but must be revised according to the validator's suggestions. suggestions from linguists, namely writing improvements that must be adapted to EYD, where the use of words is separated if they are followed by an adverb of time or place, and the word is joined if they are followed by a verb. Test instruments that have been assembled can then be tested.

Results and Discussion

This research is development research. The product developed is a HOTS assessment instrument for enrichment. This development consists of four steps. Based on the results of the preliminary study, the problems that exist in MTs are that there are no enrichment instruments that measure all high-level cognitive domains (synthesis, analysis, evaluation, and creation). The potential that can be developed from these MTs is that the HOTS test instrument for reviewing text material based on local wisdom Batu Bara measures all levels of high-level cognition to measure the dimensions of students' Indonesian knowledge in Class VIII. The stage of collecting information and studies to find the right model and theory used to develop the HOTS assessment instrument as an alternative instrument in the assessment used for enrichment. The model used is the 4D model (Four D Models) from Thiagarajan. Then find information to determine the criteria used to make a good instrument for assessment (Arikunto, 2009: 92).

The product design stage begins with determining the purpose of the test to be developed. The purpose of developing the test is to develop an alternative assessment instrument for the test instrument designed to measure students' higher order thinking skills, which is implemented on students who have learning outcomes above the KKM. The KD used to make the product are KD 3.11, 4.11, 3.12, and 4.12 K-13 revision 2016. The KD only measures the cognitive level of understanding (C2), so it needs to be changed to the cognitive level of creation (C6), then validated by experts. The value obtained from the KD validator is 89%. In accordance with the criteria, the test instrument is declared valid. The next stage is to develop indicators that have been derived from the KD that has been developed, and then assemble questions that are in accordance with the indicators and stimulus. The questions developed are in the form of 10 descriptive questions. After compiling the questions, a rubric is prepared that is used to score student test results. The rubric created is an analytic rubric to score description questions. The design validation stage was carried out by three experts, namely learning evaluation design experts, material experts, and linguists. The values obtained from the validator of the learning, material, and language evaluation design are listed in Table 2. The test instrument is declared valid (may be used with minor revisions).

Table 2.	Validity	Test V	alue

Expert Test	Score (%)	Category
Learning Evaluation Design	89,5	21
Material	90	Very Appropriate
Language	87,5	and Effective
Average Score	89	and the second second

The next stage is to make revisions in the form of improvements that have been suggested by learning evaluation experts, material experts, and linguists. The revisions made were minor revisions because, in accordance with the results of the validation test, the instrument was declared valid and allowed to be used, but with minor revisions. In essence, KD is the knowledge, attitudes, and skills that must be achieved by students to show that these students have mastered the standards that have been set in each educational unit. According to Suryawati (2013), KD is used as a benchmark for the extent to which students master a material. KD is first used to measure cognitive abilities, then used to develop indicators. The KD used to develop these indicators is used as a minimum standard of abilities possessed by students after learning.

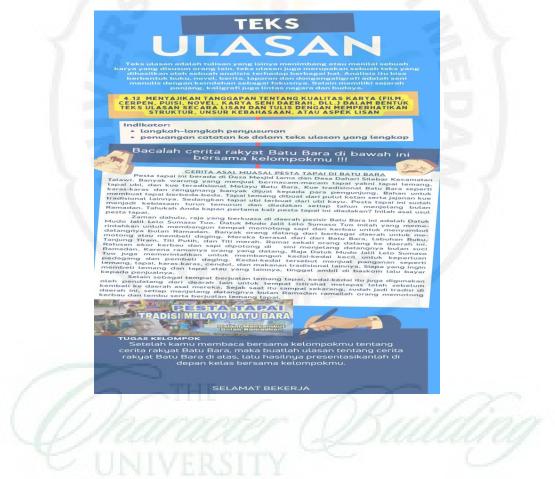
The KD used to develop the HOTS questions must also be in accordance with the characteristics of the HOTS questions. Setiawan (2014) said that the characteristics of the HOTS questions are questions to measure cognitive abilities based on contextual problems (real world or realistic contexts). The question is whether there is proof through the application of knowledge and skills in a real context but still integrated with learning. The KD used to develop the HOTS instrument in this development was taken from KD in grade VII curriculum 2013, which had been prepared by BSNP, but there was no KD that could be used to develop HOTS questions to the highest cognitive level because the cognitive level in KD had been compiled by BSNP only up to the level of analyzing (C4). So, in the development of this product, it is necessary to develop KD to the highest cognitive level, but the KD developed still adopts KD made by the National Education Standards Agency (BSNP). The KD used to develop the HOTS assessment instrument is KD 3.11, 4.11 with the reason that KD 3.12, 4.12 measures students' abilities in reviewing text material, where in that case, questions can be developed in contextual or real form and remain integrated in Sustainable learning (2015).

In KD 3.11 and 4.11, the ability achieved by students is only up to the second cognitive level, namely the ability to understand, so it is necessary to develop KD that can measure the ability of the highest cognitive level, the ability to create or (C6), but still adopt the material in KD 3.12, 4.12, In the development of this KD, KKO is adjusted to the cognitive level of creation that is right for use in KD, so that the KD cognitive level changes to the highest so that the KD can be used to develop indicators of HOTS questions. The KD, which has been developed from KD 3.11, 4.11,

3.12, and 4.12 BSNP design, is then validated by learning evaluation experts to find out whether the KD is appropriate and can be used to develop HOTS assessment instruments for reviewing text materials based on the local wisdom of Batu Bara.

Indicators for HOTS Test Instrument Development

The indicators used to develop the HOTS assessment instrument for this local wisdombased review text include stimuli in the form of films, songs, regional artworks, and folklore; KKO, which describes a high level of cognitive ability; and material to be achieved. The indicators on this HOTS question use Anderson and Krathworl's KKO (2001: 88), which are adjusted to the cognitive level and the dimensions of knowledge being measured. Based on the results of the validation of educational evaluation design experts, the HOTS question indicators that have been developed are in accordance with the revised Bloom's Taxonomy, which measures students' HOTS, namely the ability to analyze (C4), evaluate (C5), and create (C6). The stages carried out in the development of indicators are based on the KD that has been developed previously. The first is to determine what material is being measured and with a cognitive level that can measure the material. Then, after determining the material and cognitive level, they determine the appropriate stimulus used to develop the KD.



Picture 1: Development of the HOTS Assessment Instrument for review text based on local wisdom of Batu Bara

InstrumentLinks:<u>https://www.canva.com/design/DAFQfdXQ0iw/4sY3ukoNMiss7c8_MzIQHw/view?utm_content=DAFQfdXQ0iw&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton</u>

The characteristics of the HOTS assessment instrument for review text based on local wisdom that was developed

The HOTS assessment instrument developed has met the standards for assessment because the instrument has good reliability, validity, and distinguishing power, as stated by Ubaidillah (2016). Then the HOTS instrument designed for enrichment questions is in accordance with the characteristics of the HOTS questions. Where the HOTS questions developed are contextual questions and describe real (realistic) events but still relate to the learning concepts that have been studied in the form of problem solving, Widodo (2013). The test instrument is said to be fixed if all students in the class can answer the questions correctly and are able to write down their understanding in the form of a review text. This is in line with the opinion of Matondang (2009), who states that the instrument is said to be reliable if it is used several times to measure the same object, it will produce the same data.

Conclusion

Based on the results of the research and discussion, it can be concluded that: a HOTS assessment instrument has been developed for review text material based on local wisdom of Batu Bara according to the dimensions of the cognition process in the form of the ability to analyze, synthesize (C4), evaluate (C5), and create (C6), to measure the dimensions of students' knowledge of Indonesian, which is designed for enrichment test questions. The KD used to develop the HOTS instrument in Indonesian language learning in MTs is the KD adapted to the KD designed by the BSNP but at the cognitive levels of C4, C5, and C6. The KD that has been designed by BSNP cognitive level is still below C6. Then the KD must be developed by changing the KKO, which measures the cognitive level of creation (C6). The indicators used to develop the HOTS test instrument include a stimulus in the form of discourse, graphics, or images; KKO, which describes a high level of cognitive level; and material to be achieved. The indicators in this HOTS question use Anderson and Krathworl KKO, which are adjusted to the ability to analyze, synthesize, evaluate, and create on all dimensions of knowledge. The characteristics of the HOTS test instrument developed are contextual, and the instrument has high reliability, validity, and good discriminatory power. After going through the process of developing the HOTS assessment instrument, it was validated by material and design experts. The expert test concluded that the assessment instrument developed was valid with an average value of 89. This figure was categorized as feasible without revision. With these results, it is stated that the resulting HOTS assessment instrument is "very feasible and effective". So it can be tested in class VIII MTs Swasta Baitussalam.

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