



## **IMPLEMENTING AUTHENTIC ASSESSMENT FOR ASSESSING HIGHER ORDER THINKING SKILL (HOTS) IN CURRICULUM 2013**

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Article Info	ABSTRACT
<b>Article History:</b>	
<b>Enter:</b> August 01, 2023	This review of the literature investigates the implementation of authentic assessment methods to effectively assess Higher Order Thinking Skills (HOTS) in the context of Curriculum 2013 (K-13). As emphasis on fostering students' critical thinking, problem-solving, and creativity increases, the need for reliable and valid assessment techniques has become of the highest level. The research investigates an extensive number of scientific articles, research papers, and educational resources published between 2013 and 2023. This paper examines, through a systematic review, authentic assessment strategies that have been used to evaluate HOTS in the K-13 education system. The review demonstrates the potential advantages of authentic assessment for enhancing students' cognitive abilities, motivation, and knowledge application in real-world settings. In addition, it discusses the difficulties and effects of integrating authentic assessment into the curriculum. This literature review seeks to assist educators, policymakers, and curriculum developers in designing effective assessment practices that correspond with the transforming educational context while supporting the development of learners' critical thinking skills.
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### **PENDAHULUAN**

The 2013 curriculum (K-13) is the curriculum that applies in the Indonesian Education System. This curriculum is a permanent curriculum implemented by the government to replace the 2006 Curriculum (which is often referred to as the Education Unit Level Curriculum) which has been in effect for approximately 6 years. Attitudes and behavior (moral) are very important aspects of assessment in the 2013 curriculum (K-13). If one of the students has a bad attitude, then the whole value is considered less. There are four aspects of assessment in K-13, namely skills (KI-4); Knowledge (KI-3); Social (KI-2); and Spiritual (KI-1). In the k13 assessment it relates to the HOTS (Higher order thinking skill) assessment. HOTS assessment becomes a concept in k-13.

Higher order thinking skill (HOTS) is the concept of the education that develop in era 21st century. This concept used by the government to reach the aim that prepare human resource for facing the industrial revolution. HOTS is the destination achieved by the approaches, the process, and the methods. HOTS is the process that requires students to develop the ideas in ways and give them new meanings and implication. This concept guided the students to think creatively and think critically. The students will be independently to complete the criteria based on the assessment that build by the government. This model as a method for transferring knowledge, critical thinking, and problem solving. HOTS not just a question model, but also includes a model learning, teaching model must include ability think, while the assessment model of HOTS is requires students not to be familiar with the questions or assignments which are given (Sofyan, 2019).

Changes to the standard content elements in the 2013 curriculum make teachers all this time using traditional assessment must change the assessment that is be an authentic evaluation based on the

demands of the curriculum. In Permendikbud No. 66 of 2013 concerning Assessment Standards. According to Wiggins (1998), assessments are authentic if they test the learner's knowledge and skills in real-world situations, promote doing a task rather than reciting memorized content, and give students the opportunity to rehearse, obtain feedback on, and strengthen performances and products. It is stated that authentic assessment is an assessment that is carried out systematically comprehensive to assess starting from the input (input), process, and output (output). The term authentic is synonymous with genuine, real, valid, or reliable. Authentic means the actual situation, namely ability or skill owned by students. For example, students are given project assignments to see the competence of students in applying the knowledge they have students in everyday life or the real world.

This study is the literature review that provide the previous research that related to the teacher for assessing the HOTS using authentic assessment. The aims of this paper are to explore the implementing authentic assessment in order to assess the HOTS using authentic assessment in K-13.

### **Curriculum 2013**

To organize a quality education system in order to form competitive human resources, the 2006 Curriculum (K-2006) has been refined to become the 2013 Curriculum (K-2013). The improvement of this curriculum is contained in Permendikbud No. 160 of 2014 concerning Implementation of K-2006 and K-2013. This curriculum improvement has been linked to intelligent predictions about the present and trends that might occur in 21st century life. The trend in the future requires a variety of skills, including life and career skills, learning and innovation skills, and information technology and media skills (Sofyan, 2019). The 2013 Curriculum was designed to enhance the previous curriculum, KBK and KTSP, which still separated courses for the formation of attitudes, skills, and knowledge. While the 2013 curriculum focuses on the development of attitudes, skills, and knowledge, the three areas of assessment in each topic are obtained. Competency standards in both KBK and KTSP were generated from content standards that were developed based on course objectives (SKL of courses) and are detailed on standard competences and fundamental competences. Whereas in the 2013 curriculum, graduate competency standards are derived from needs. Then, the standards' content is obtained from SKL via its Core competences, which are used for all subjects. Finally, it can be argued that the 2013 Curriculum is being used to improve our education and make it more relevant to the needs. According to government rule No. 17 of 2010, the objective of education is to lay the groundwork for the development of pupils' human potentials, which are: (1) Faith and fear of the lord of mighty one, noble, and noble; (2) Knowledgeable, skilled, critical, creative, and innovative; (3) Healthy, independent, and confident; and (4) Tolerant, socially sensitive, democratic, and responsible.

According to Educational Assessment Standards (2013), assessment in elementary and secondary schools was conducted by teachers, schools, the government, and/or independent institutions. Assessment rubrics were a very successful tool for both teachers and students to look for and achieve the desired results (Khan & Azim, 2012). According to it, the use of evaluation instruments has an impact on learning outcomes (Damayanti et al., 2017). Teachers were required to completely examine the student's knowledge, skill, and attitude during the learning process. Kurniasih (2014) argues that authentic assessment is an evaluation held completely to rate input, process, and output of learning connected to students' knowledge, attitude, and skill.

### **Higher Order Thinking Skill (HOTS)**

HOTS (Higher order thinking) was originally suggested by Susan M Brookhart, a writer, and Associate Professor at Dusquance University, in her book 'How to Assess Higher-order Thinking Skills in Your Classroom' (2010). This approach is defined by him as a method for knowledge transfer, critical thinking, and problem solving. HOTS is more than just a question model; it is also a teaching model. The teaching model must contain thinking skills, examples, idea application, and be adaptable to the

various needs of pupils. HOTS also has an assessment mechanism that needs students to be unfamiliar with the questions or assignments. This is done so that children have a solid foundation for using higher-order thinking skills. According to Vui (Kurniati, 2014: 62), high order thinking skills occur when a person associates new information with information already stored in his memory and associates it, as well as rearranges and develops this information, to achieve a goal or find a solution to a difficult-to-solve situation. The main goal of high order thinking skills is to improve students' higher level thinking skills, particularly those related to the ability to think critically in receiving various types of information, think creatively in solving a problem using the knowledge they have, and make decisions in situations that are complex (Saputra, 2016:91-92). The following are the qualities or characteristics of HOTS, according to Resnick (in Ayuningtyas & Rahaju, 2017).

1. Higher-order thinking is non-algorithmic, which means that the outcome is not totally predictable. Higher-order thinking is non-algorithmic, which indicates that the course of action cannot be totally predetermined (must be formulated in advance).
2. Higher-order thinking is more complicated. Higher-order thinking is frequently intricate or complex.
3. High-level thinking frequently produces several options, each having costs and advantages, rather than one. High-level thinking frequently yields several answers, each with advantages and cons, rather than separate solutions.
4. Higher-order thinking is characterized by sophisticated judgments and interpretations. Higher-order thinking necessitates a variety of judgments and interpretations.
5. Higher-order thinking necessitates effort. The level of elaboration and judgment necessary necessitates a significant amount of mental effort. Higher-level thinking takes a lot of effort. The level of elaboration and judgment necessary necessitates a significant amount of mental effort.

### **Authentic Assessment**

According to Nurhadi (2004: 172), authentic assessment is the process by which a teacher gathers information about student developments and learning requests using various techniques that can reveal, prove, or show precisely that learning objectives have been truly mastered and achieved. Authentic assessment is another word for real tasks that students must do in order to produce knowledge and reproduce information. In the 2013 curriculum, authentic evaluation is centered on knowledge through output evaluation to be ability-based through process evaluation, portfolio, and output evaluation as a whole and thoroughly. Mulyasa, Mulyasa (2013: 66). The terminology for accurate evaluation is varied. In ordinary use, the term "authentic assessment" has several synonyms. Some refer to it as an alternate judgment (alternative judgment) since it is employed as an alternative to the judgment convention. Because it is used to measure student performance in doing meaningful tasks (assignments), authentic assessment is frequently contrasted to performance-based assessment (performance-based assessment) or performance assessment (performance assessment). Furthermore, authentic assessment is synonymous with direct assessment since authentic assessment gives more direct proof of the application of students' abilities and knowledge, according to Asrul et al (2014: 30-40).

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## METHOD

The research design is designated as a Literature Review. Literature research or review is research that critically examines or reviews knowledge, ideas, or findings contained in a body of academic-oriented literature (academic-oriented literature), as well as formulates his theoretical and methodological contributions to specific topics. Cooper, 2010. The essence of this research is descriptive analysis, which means periodically parsing the data that has been acquired and then providing insight and explanation so that the reader may grasp it.

## RESULT AND DISCUSSION

The Guidelines Systematic Literature Review allows the concept of authentic assessment and higher order thinking skills (HOTS) to be studied and clearly identified. The qualities of authentic assessment and its role in assessment are the topic of research in articles and other resources such as journals, books, and so on. The goal of this literature review is to determine how much authentic assessment and HOTS have in common and whether they are appropriate for testing higher-order thinking skills. The more comprehensive review of HOTS-related articles and studies focuses on the idea and the extent to which it may be quantified through the design of an appropriate item. The notion of authentic assessments outlined in earlier studies and papers allows for the identification of authentic assessment characteristics. Table 1 offers a summary produced from the literature review based on many researchers' definitions of authentic evaluations.

Table 1. Previous Research in Implementing Authentic Assessment

Study / Research	Context	Students' Role	Scoring
(Rima Agustina et al., 2018)	/		/
(Damayanti et al., 2017)	/	/	/
(Atmarizon et al., 2020)	/	/	/
(Kurniawan et al., 2020)	/	/	/
(Ningsih & Wahyumiani, 2020)	/	/	/
(Putri et al., 2021)	/		/
(Fitriani, 2017)	/		/
(Muthohharoh et al., 2020)	/	/	/

Based on the table 1, we can conclude that Authentic assessment has a lot to do with the use of HOTS, in which the characteristics and characteristics of HOTS match the authentic assessment used in the 2013 curriculum. In table 1, the context of authentic assessment is in accordance with previous research which, according to Rima (2018) During the learning process, the teacher conducted authentic evaluations that included three components of assessment: attitudes, knowledge, and abilities. However, many challenges remain in the process of adopting authentic assessment, especially the multiple assessment formats that must be created by the teacher with limited time available, causing the instructor to be less than ideal in carrying out authentic assessment. Authentic assessment based on the context and the scoring from the teacher is clear enough. While Putri et al. (2021) said English teachers

in this study used authentic assessment in their learning lesson, even though they were using online learning. Teachers conduct authentic assessment as part of their instructional plans, such as teacher observation, performance, portfolio, project, and peer-evaluation. Furthermore, the teachers employed authentic assessment to evaluate students' language skills and analyze students' attitudes toward learning lessons. However, due to several difficulties, the English teachers did not use all sorts of authentic assessment as part of their lesson plans. So that, we can conclude that average teacher already uses authentic assessment which is from the previous research. While implementing authentic assessment some research not enough in respond from the students' because one of the problems is use online learning, so that teacher cannot face the assessment of attitude student.

In other words, utilizing HOTS included in the 2013 curriculum, it is envisaged that there would be a paradigm shift in the implementation of learning. Learning that was once centered on the teacher (teacher centered) became student centered (student centric). Teachers are required to be more creative and original in their topic presentation. Among the numerous parts of educational resources, the 2013 curriculum combined with the HOTS application approach in the learning process offers a substantial contribution to realizing the process of growing students' potential quality.

Based on the literature study, the intersection of authentic assessments and elements to evaluate higher-order thinking skills (HOTS) is discovered. Different cognitive levels for an item inspire pupils to employ HOTS. It meets with authentic evaluations that require complex tasks in terms of cognitive level. Different types of assessment assignments result in different responses from students, requiring integrated score. Students should also be able to master a variety of abilities and information through multiple steps of cognitive tests for an object. Items consisting of stimulus items that are commonly used will engage students' thinking on a variety of cognitive levels, resulting in encouraging HOTS. Real-life situations and new contexts should be used in item development to measure HOTS. Both characteristics are available in authentic assessments. Authentic assessment is essentially a thorough assessment of the several tasks that are appropriate and can measure multiple constructs. HOTS elements are a subset of authentic assessments. This indicates that the two concepts in this study share certain qualities or aspects. In other words, the common qualities of authentic evaluations and HOTS can be recognized based on the literature research. As a result, authentic assessment has a significant potential for measuring higher-order thinking skills.

## RECOMMENDATION

Based on the research above, the writer recommends to use authentic assessment in evaluate student is cognitive, affective, and conative. Authentic assessment makes students more active and creative. It is necessary to continue to enhance teachers' abilities or to grow in applying the authentic assessment when constructing a valid assessment instrument HOTS in schools and maximizing it. Using authentic assessment to improve HOTS, as specified in the 2013 curriculum.

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