

Analysis of the Suitability of Summative Assessment Instruments with Learning Objectives in Geography at Madrasah Aliyah Piloting the Merdeka Curriculum in Purworejo Regency.

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Abstract

Inappropriate assessments have the potential to result in student learning outcomes that do not reflect their actual abilities. This study aims to describe the design of summative assessment instruments based on learning objectives in Geography phase E of the Merdeka Curriculum. This study is an evaluation research using the Countenance Stake Model. The approach chosen is a mixed method with a concurrent embedded design. Data collection techniques include document studies, questionnaires, and interviews. The research was conducted at MAN Purworejo and MA An-Nawawi Berjan Purworejo. The data sources in this study were geography teachers and madrasah administrators as primary data, and geography learning materials for phase E as secondary data. The instruments used were documentation, questionnaires, and interview guides. The validity of the instruments was tested based on expert judgment involving three lecturers with expertise in learning evaluation. This study employed source triangulation, data triangulation, and member checking to validate the data. Data analysis included document analysis, interview data analysis using the Miles & Huberman model, and congruence and contingency data analysis. The results of the study show that summative assessment planning is not yet fully integrated with learning objectives, especially in terms of competencies and instrument development.

Keywords: Summative Assessment, Learning Outcomes, Suitability, Learning Objectives



INTRODUCTION

One way to measure success in learning is through evaluation via assessment. Witarsa (2016, p. 337), Palomba and Banta (1999) "Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development." The Director General of Islamic Education (2022, p. 5) describes learning and assessment as inseparable and interrelated. Educators and students need to understand the expected competencies so that the entire learning process can be utilized to achieve specific competencies. In (Pratama et al., n.d., p. 4), one of the functions of evaluation is to measure success in order to assess the extent to which a program has been successfully implemented.

Assessment instruments are aligned with learning objectives and learning outcomes so that they can accurately measure the learning skills students need to master at each stage of their development. When conducting assessments, teachers must ensure that the instruments they use are consistent with the learning objectives and outcomes established by the government. If assessment instruments are designed inconsistently with the learning outcomes (CP) established by the government, they cannot be used to interpret the success of learning outcomes. When assessments are developed, their alignment with learning objectives must be verified (Sewagegn, 2020, p. 4045).

Inappropriate assessments may result in students' learning outcomes failing to reflect their true abilities. There are two main reasons for aligning assessments with learning objectives. First, alignment increases the likelihood that students will have the opportunity to acquire the knowledge and cognitive processes covered in the various assessments they will face. In a highly rigorous assessment system, if students are not given the opportunity to learn, this can have negative consequences for students, teachers, and school administrators. Alignment ensures that teachers provide students with sufficient opportunities to master the required material. Second, for most students, learning goals are shaped by assessments, particularly when assessments determine the grades students receive. Students' work is assessed as good, so they receive good grades. When assessments and learning objectives are aligned, these good grades are more likely to translate into effective learning. However, when learning objectives and assessments are not aligned, students are more likely to focus on learning what is being assessed rather than what the learning objectives intend (Juhrocin, 2023).

A preliminary survey conducted by researchers among three madrasah teachers under the Purworejo Regency Ministry of Religious Affairs revealed that these teachers lacked sufficient

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understanding of the skills required to develop assessment instruments. These teachers had limited access to resources and information for learning about assessments under the Merdeka Curriculum, unlike teachers under the Ministry of Education and Culture. Furthermore, the teachers did not conduct item analysis prior to administering assessments, so they were unable to determine whether the quality of the assessment instruments given to students was good or bad.

Evaluating the alignment of summative assessment instruments with learning objectives is crucial in the implementation of the Merdeka Curriculum, particularly in the subject of Geography. Assessment instruments developed by teachers should align with the learning outcomes (CP) established by the government, so that assessment results can truly be used to interpret the success of achieving learning objectives. If the instruments used do not align with the learning outcomes (CP), then the assessment results cannot accurately reflect learning achievement. Every assessment tool developed must be reviewed for its alignment with learning objectives to prevent a gap between what is measured and the competencies students are expected to achieve. This study focuses on evaluating this alignment, with the aim of providing a realistic picture of the quality of summative assessments used by teachers to support the implementation of the Merdeka Curriculum in madrasahs.

Numerous studies on learning assessment have been conducted, but few have focused on assessment in the subject of Geography. There are many models that can be used in the assessment process. Among the various assessment models is the Countenance Stake model, which encompasses planning, implementation, and outcomes—all of which are crucial components of the learning assessment process. The researcher will conduct a study analyzing the alignment between summative assessment instruments and learning objectives in the Geography subject at madrasahs piloting the Merdeka Curriculum in Purworejo Regency. This study aims to analyze the alignment between summative assessment instruments and learning objectives and learning outcomes.

Assessment is the process of collecting and analyzing information to understand students' learning needs, their progress, and their learning outcomes. Types of assessment based on their function include assessment as part of the learning process (assessment as learning), assessment used to support the learning process (assessment for learning), and assessment conducted at the end of the learning process (assessment of learning). Assessment as learning and assessment for learning function as formative assessments, while assessment of learning functions as a summative assessment (Sufyandi et al., 2021, p. 38). Evaluation can be formative or summative,



or both (Murphy et al., 2009, p. 456). This study examines summative assessment to assess student performance at the end of the learning process.

Summative assessments are generally conducted at the end of a program's pilot phase to demonstrate the program's achievement of its objectives during the implementation period. This process also evaluates how effective the program is—or whether it is ineffective—by examining the extent to which the target group has achieved the expected outcomes or benefits within the specified timeframe. Based on these results, the authorities must decide whether the program should be continued or not. Therefore, it is important to convey this information to decision-makers and planners at the highest levels, Scriven (1980, p. 150).

Learning outcomes in the Merdeka curriculum represent an effort to update the core competencies (KI) and basic competencies (KD) found in the previous curriculum. Learning outcomes are measured based on students' developmental stages, whereas in the KI and KD of the previous curriculum, assessments were conducted annually according to students' grade levels (Hamdi et al., 2022, p. 12). Learning outcomes (CP) are the learning abilities students must achieve at each stage. Learning outcomes represent the overall goals and the sufficient time required to achieve those goals (phases). CPs are acquired skills described in paragraph form that integrate knowledge, skills, and attitudes (Director General of Islamic Education, 2022). Some considerations that can be used when studying learning outcomes (CPs) include: what skills students need to possess to achieve the CPs by the end of a phase; key terms found in the CPs; aspects that are difficult to understand; and whether the targeted learning outcomes can already be taught.

According to Pitasari & Dwi Febriyanti (2023, p. 37), the formulation of learning objectives must be carried out in a planned manner and in accordance with applicable regulations so that learning activities are more focused. If the components of the learning objectives are not fully articulated, the learning process may lose its focus. In addition, learning objectives also serve as the basis for selecting the methods and media to be used by teachers.

Based on the above explanation, it is clear that the government has established learning outcomes (CP) as competency targets; however, these learning outcomes (CP) need to be broken down into concrete learning objectives that students can achieve in stages. The formulation of learning objectives involves alternatives such as structuring them based on contextual learning outcomes, analyzing "skills" and "content domains," or identifying connections between elements to create comprehensive objectives. Learning objectives must meet criteria related to the audience, behavior, conditions, and level; however, this approach may differ in the Merdeka



curriculum, where only competencies or behaviors and the scope of subject matter or conditions are required to formulate Learning Objectives (TP) based on Learning Outcomes (CP).

The steps in developing assessment instruments include determining the assessment objectives, analyzing learning outcomes and learning objectives, developing an instrument blueprint, selecting and developing instruments, evaluating and revising instruments, and adjusting the length of the instruments to align with the learning objectives.

The Countenance Stake model of evaluation emphasizes two key activities in evaluation: description and judgment. Fernandes (1984) in Fikri et al. (2019, p. 64), in line with Ibrahim (2018, p. 36), divides each stage into two parts: description and assessment. These two fundamental elements are further divided into three objects of study (Winaryati et al., 2021, p. 57): antecedents, transactions, and outcomes.

METHODOLOGY

This study is an evaluative research study using the Countenance Stake Model. It analyzes the following factors:

Table 1. Research Study Aspects

<i>Antecedents</i>	Alignment of instrument design with learning objectives and learning outcomes.
<i>Transaction</i>	The assessment process
<i>Outcomes</i>	Alignment of assessment results with learning objectives and learning outcomes

The chosen approach is a mixed-methods design with a concurrent embedded (unbalanced mixed) design. In this study, qualitative data serve as primary data and quantitative data as secondary data, both of which were collected simultaneously.

This study began with an identified problem or gap. After the problem was analyzed based on facts, a research question was formulated and broken down into several sub-questions. Once the problem formulation was complete, the researcher sought relevant theories to help clarify the issue. Next, qualitative and quantitative data were collected through document reviews, questionnaires, and interviews. The quantitative data obtained were processed using statistical formulas and categorized, while the qualitative data were analyzed using qualitative methods. The qualitative and quantitative data are then combined and compared to identify qualitative data that can support, expand upon, or even refute the quantitative data. This data is then discussed



further to clarify the research findings. The final step is to draw conclusions and make recommendations based on the research findings, with the number of conclusions corresponding to the number of research questions identified.

Data collection methods included document analysis, questionnaires, and interviews. This study was conducted at MAN Purworejo and MA An-Nawawi Berjan Purworejo. The data sources for this study were geography teachers and madrasah administrative staff as primary data, as well as Phase E geography teaching materials as secondary data. The instruments used were documentation, questionnaires, and interview guides. Instrument validity was tested based on expert judgment involving experts with expertise in the field of learning evaluation. This study used source triangulation, data triangulation, and member checking to verify data validity. Data analysis included document analysis and analysis of interview data using the Miles & Huberman model.

RESULT AND DISCUSSION

1. Designing Summative Assessment Instruments Based on Learning Objectives and Outcomes

a. Learning objectives are formulated based on learning outcomes related to competencies

Based on the analysis results, the learning outcomes for Geography contain ten operational verbs, which are divided into two categories: process elements and conceptual elements. Not all verbs used in the formulation of learning objectives are present or equivalent to the verbs identified in the learning outcomes, nor are all verbs in the learning outcomes fully represented in the learning objectives.

There are instances where KKO are used inconsistently and do not align with those listed in the learning outcomes. Although they are similar in meaning and cognitive level, this inconsistency can lead to confusion in assessing alignment with the taxonomy used (Anderson et al., 2001). This situation indicates a gap between the learning outcomes and the formulated learning objectives, both in terms of the diversity of KKO and their alignment with the elements within the learning outcomes. This gap can result in a suboptimal learning process, as students are directed solely toward achieving cognitive competencies without being given the opportunity to develop applied process skills.

Teachers' understanding of learning outcomes and the process of translating learning outcomes into learning objectives does not yet cover all aspects. The percentage of alignment in the formulation of learning objectives for process and conceptual elements—from the competency aspect—was 35%, categorized as “poorly aligned.” This finding aligns with research



conducted by Magdalena et al. (2023), which stated that teachers struggle with formulating learning objectives.

b. Learning objectives are formulated based on learning outcomes and include content aspects.

The average alignment of the learning objectives formulated by both teachers reached 87.5% and fell within the “highly aligned” criterion. This finding reinforces the importance of teachers’ understanding of the substance of learning outcomes as the foundation for developing effective learning objectives, in line with the view of Pitasari & Dwi Febriyanti (2023, p. 37), that if learning objectives are not formulated comprehensively and purposefully, instruction risks losing focus and effectiveness.

c. Summative Assessment Instruments Designed in Line with Learning Objectives

The research results indicate that the teachers have developed summative assessment instruments that include components of competency (behavior) and scope of material (condition), consistent with the initial steps for instrument development outlined in the theory. The instruments developed by both teachers have met the initial criteria for the development of summative assessment instruments.

The number of learning objectives measured in the summative assessment indicates that the alignment between learning objectives, item indicators, and competency levels has not yet been fully achieved. This is inconsistent with the stages in the ADDIE model (Nufus et al., 2024), particularly the design and development stages, during which an appropriate rubric should be developed and the instrument should be designed based on relevant competencies and indicators. Not all learning objectives are measured in the summative assessment instrument.

CONCLUSION

The alignment of learning objective formulation with learning outcomes in terms of competencies falls under the “less appropriate” criterion. The formulation of learning objectives in terms of competencies shows a level of alignment in the “less appropriate” category. The formulation of learning objectives in terms of content falls under the “highly appropriate” category, indicating a good understanding of the subject matter. However, the design of summative assessment instruments based on learning objectives falls under the “less appropriate” criterion. Teachers’ understanding of learning outcomes and the development of assessment instruments falls under the “fairly aligned” criterion, indicating that although teachers



understand the basic principles of assessment planning, their application is not yet optimal. The antecedent stage indicates that summative assessment planning has not yet been fully and effectively integrated with learning objectives, particularly regarding competency-based learning and the development of assessment instruments.

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