

Assessment Structuring in the Problem Based Learning Model in Sociology Learning at SMAN 1 Gurah

Dinda Putri Younita¹, Seli Septiana Pratiwi²

Program Studi Pendidikan Sosiologi, Fakultas Ilmu Sosial, Universitas Negeri Malang

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Abstract

Learning is a process in which a person's environment is intentionally arranged to enable individuals to engage in certain behaviors under specific conditions or to generate responses to specific situations. One learning model widely used to involve active student involvement is Problem Based Learning (PBL). Based on the results of data collection on learning patterns for sociology subjects at SMAN 1 Gurah, it was found that in learning practices there are still several problems, especially in terms of assessment. Therefore, this study was conducted to describe the process of preparing assessments by grade XI teachers in implementing the Problem Based Learning model at SMAN 1 Gurah and identify obstacles that arise along with strategies used to overcome them. By using observation, interview and documentation methods. The resulting data shows that the application of assessments in the PBL model at SMAN 1 Gurah has led to meaningful learning practices as stated by Ausubel, although it still requires strengthening in pedagogical communication and development of assessment literacy so that assessments can function optimally as a means of supporting learning and supporting the Pancasila student profile.

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Corresponding Author:

Dinda Putri Younita

Universitas Negeri Malang

Email: dinda.putri.2207516@students.um.ac.id

1. INTRODUCTION

Learning is the core of the educational process, emphasizing the interaction between educators and students to achieve specific goals. According to Mahesh (2020), learning is a process in which a person's environment is intentionally arranged to enable individuals to engage in specific behaviors under specific conditions or to generate responses to specific situations. Today, teachers are required to master various methods so that classroom learning can run effectively (Sitompul, 2022). One widely used learning model to actively engage students is Problem-Based Learning (PBL) (Sandi et al., 2024). This model places students at the center of learning (student-centered) and begins the learning process by presenting relevant and contextual problems or scenarios. According to Ahmar et al. (2020), through Problem-Based Learning, participants are guided to explore problems, analyze them, seek information, and develop solutions, both individually and in groups.

Based on data collection on sociology learning patterns at SMAN 1 Gurah, it was found that several problems remain in learning practices, particularly in terms of assessment. Teachers reported that the assessment methods used so far tend to be conventional and focused on written tests. Consequently, they are less able to measure critical thinking and problem-solving skills, which are at the core of the Problem-Based Learning model. Furthermore, teachers also believe that assessment instruments specifically designed to suit the characteristics of Problem-Based Learning are not yet available. Consequently, the

implementation of problem-based learning has not been optimal, as process aspects such as collaboration, discussion, and exploration of students' ideas are not fully measured. This situation highlights the urgent need to develop assessment instruments that align with PBL. This allows teachers to more comprehensively assess student development in terms of knowledge, skills, and attitudes.

Based on the preliminary data collected, it can be concluded that the Problem-Based Learning model is highly relevant for use in the learning process because it can improve students' critical thinking, problem-solving, and learning attitudes. Furthermore, assessments in Problem-Based Learning not only serve to assess final results but also serve as an important tool for measuring the learning process, including knowledge, attitudes, and skills. However, various problems have been encountered in its implementation, such as limited teacher understanding and student anxiety regarding the assessment process. So this research was conducted with the aim of describing the assessment preparation process by class XI teachers in implementing the Problem Based Learning model at SMAN 1 Gurah and identifying the obstacles faced and the strategies used to overcome them.

2. RESEARCH METHODS

This research was conducted at SMAN 1 Gurah, located at Jl. Balongsari No. 3, Gurah II, Gurah, Gurah District, Kediri Regency, East Java. SMAN 1 Gurah was chosen as the research location based on the consideration that the school is a place where Sociology teachers apply the Problem Based Learning learning model, thus meeting the research needs. This research uses a qualitative descriptive approach with the aim of gaining an in-depth understanding of the phenomena that occur.

Research Object

The object of research is the target to be achieved in order to obtain answers or solutions to the problems that occur. According to Creswell & Creswell (2018:186), in qualitative research, researchers identify the central phenomenon to be explored, namely the main concept, idea, or process to be understood. Based on the existing theoretical basis, the object of this research is the process of compiling assessment instruments in the Problem Based Learning (PBL) model in Sociology learning at SMAN 1 Gurah, which includes teacher strategies in designing assessments, the forms of assessment used, and challenges faced in their implementation.

Research Subjects

Participants in this study consisted of eleventh-grade Sociology teachers at SMAN 1 Gurah and eleventh-grade students who were participating in the Problem-Based Learning (PBL) model. Teachers were selected because they played a direct role in the design and implementation of PBL-based assessments, while students were selected because they experienced the implementation of these assessments directly in the classroom. Through purposive sampling, the researcher hoped to obtain rich and in-depth data regarding teachers' strategies in developing assessment instruments, the forms of assessment used, and the challenges faced in their implementation.

Data collection

The data collection techniques used in this study are as follows:

Observation

Observations in this study were conducted during Problem-Based Learning (PBL) Sociology learning activities in grade XI of SMAN 1 Gurah to determine how teachers design and implement assessments in learning, as well as how students participate in the process. All observations were recorded in field notes to obtain accurate and in-depth data and to strengthen findings from interviews and documentation.

Interview

In this study, interviews were conducted with Sociology teachers and 11th-grade students at SMAN 1 Gurah. The interviews aimed to obtain information about the process of developing Problem-Based Learning (PBL)-based assessment instruments, the strategies used by teachers, and the challenges faced during implementation. Interviews were recorded and transcribed using a pre-developed interview guide to ensure the data obtained was accurate, focused, and relevant to the research objectives.

Documentation

In this study, documentation was used to obtain data regarding the learning tools and assessment instruments developed by Sociology teachers at SMAN 1 Gurah. The collected documents included teaching modules, syllabi, and assessment instruments used in the implementation of the Problem-Based Learning model. Furthermore, the documentation also included relevant literature on educational assessment and problem-based learning to strengthen the research analysis.

Data Validation

Data validity is a procedure used to demonstrate the accuracy of findings and convince readers of the truth of research results. One method used is triangulation, which is comparing evidence from various data sources to strengthen a theme or finding. In this study, the researcher used source triangulation. Source triangulation was carried out by comparing data obtained from observations of the learning process, interviews with Sociology teachers and 11th grade students, and supporting documents in the form of teaching modules, syllabi, and assessment instruments prepared by the teacher. Through this method, the researcher cross-checked the data so that the information obtained was more valid, credible, and accountable. Validitas data merupakan prosedur yang digunakan untuk menunjukkan keakuratan temuan dan meyakinkan pembaca terhadap kebenaran hasil penelitian. Salah satu cara yang digunakan adalah triangulasi, yaitu membandingkan bukti dari berbagai sumber data untuk memperkuat suatu tema atau temuan.

Data analysis

The data analysis in this study used the interactive model from Miles and Huberman (1994) as explained by Creswell & Creswell (2018:316), which includes three main activities: data collection, data reduction, data presentation, and drawing conclusions. Data reduction was carried out by selecting and focusing on relevant data, data presentation was done in the form of descriptive descriptions so that patterns and themes were easily understood, while drawing conclusions was done continuously to ensure the accuracy of the research results.

3. RESEARCH RESULT AND DISCUSSION

3.1. Results and Discussion

Preparation of Problem Based Learning Assessment

Based on the research results, it was found that Sociology teachers at SMAN 1 Gurah had developed assessment instruments that align with the characteristics of the Problem-Based Learning (PBL) model. Teachers consistently included the PBL model in their teaching module identities to ensure alignment between the objectives, stages, and assessment strategies used. Learning outcomes were also broken down into indicators that focused on critical thinking, collaboration, and social problem-solving skills. Triangulation results indicated that the assessments developed included project assessments, observations of discussion activities, group presentations, and individual reflection. The implementation of this type of assessment demonstrates teachers' awareness that the learning process emphasizes not only the final outcome but also the students' thinking journeys as they investigate and solve social problems relevant to their lives.

The teaching and learning practices employed by sociology teachers at SMAN 1 Gurah reflect the concept of meaningful learning, as explained by Ausubel (2000:41-42), which states that learning becomes meaningful when new information is substantively and logically linked to students' existing knowledge. In this study, assessment serves as a bridge that helps students connect learned sociological concepts to real-life social phenomena. For example, when students are asked to analyze social problems around them, they not only explain the social phenomena but also connect them to relevant theories. This linking process shifts learning from rote learning to meaningful learning, as students construct meaning from the context of their own lives. These results align with research by Juraidah & Hartoyo (2022), which states that project-based assessment can foster students' critical and reflective thinking skills through contextual learning experiences.

The link between Problem-Based Learning assessment and Ausubel's theory is evident in the knowledge integration process known as subsumption. According to Ausubel (2000:44-47), subsumption is the process by which new knowledge is integrated into existing concepts within students' cognitive structures. In Sociology lessons at SMAN 1 Gurah, students learn new concepts through analyzing social problems and then adapting them to theories they already understand. Assessment activities like this demonstrate the subsumption process, as students don't simply receive information but assimilate new knowledge into their existing understanding. Teachers play an active role in providing feedback throughout this process to further organize students' understanding. This view is reinforced by Lavado-Anguera et al. (2024), who assert that authentic assessment in PBL must assess students' thinking processes and collaboration contextually, not just the final product..

Table 1. Problem Based Learning Assessment Preparation Process

| No | Stage | Description/Step |
|----|--------------------------------|---|
| 1 | Pre-Assessment Development | <ul style="list-style-type: none"> • The teacher determines the Problem-Based Learning (PBL) model in the module's identity. • Determines learning outcomes as indicators that focus on critical thinking, collaboration, and social problem solving. • Prepares an advance organizer explaining objectives, learning flow, and assessment criteria. • Determines characteristics and needs relevant to students as the assessment context. |
| 2 | Assessment Development Process | <ul style="list-style-type: none"> • Develops assessment instruments according to the PBL stages, including project assessments, discussion observations, group presentations, and individual reflections. • Connects learning indicators to authentic tasks that require the integration of theory and real-life social phenomena. |

| | | |
|---|-----------------------------|---|
| | | <ul style="list-style-type: none"> • Designs an assessment rubric to assess students' cognitive, affective, and social aspects. |
| 3 | Post-Assessment Development | <ul style="list-style-type: none"> • Delivering the assessment to students • Providing feedback during and after the assessment process to strengthen students' knowledge integration. • Reflecting on the assessment process to address deficiencies. • Evaluating the effectiveness of the assessment in fostering critical thinking, collaboration, and social problem-solving skills. |

The research results showed that some students understood the objectives and format of the assessment used, but some still lacked a clear understanding of the assessment criteria applied by the teacher. This situation indicates that the function of the advance organizer is not yet fully optimal. Ausubel (2000:148-151) defines an advance organizer as a conceptual tool provided before the start of learning to help students prepare cognitive structures so they can connect new knowledge with existing knowledge. In this case, the teacher's explanation of the objectives and criteria of the assessment should act as an advance organizer, guiding students in understanding the direction of the learning. This explanation was not fully conveyed, and some students had difficulty connecting the assessment tasks with the learning objectives, resulting in mechanistic learning. Research by Bryce & Blown (2023) emphasized the importance of an interactive and collaborative advance organizer so that students can understand the direction and meaning of the assessment process.

Based on the research findings, the assessment preparation by Sociology teachers at SMAN 1 Gurah reflected Ausubel's principles of meaningful learning. The assessment is designed to help students connect sociological concepts to real-life social experiences, facilitate the integration of new knowledge through the subsumption process, and foster readiness to learn through the application of advanced organizers. Although the function of the advanced organizers is not yet fully optimal, the assessment practices carried out have led to reflective, contextual, and meaningful learning. In line with Ausubel's view that stable cognitive structures form the foundation for subsequent learning, the PBL-based assessment implemented by Sociology teachers at SMAN 1 Gurah has played an important role as a means of building deeper and more sustainable knowledge for students.

Teachers' Constraints and Strategies in Developing Problem-Based Learning Assessments

Sociology teachers at SMAN 1 Gurah face challenges in developing and implementing Problem-Based Learning (PBL) assessments. Research shows that the most significant challenges relate to time constraints, differences in student abilities, and difficulties in adapting assessment rubrics to the characteristics of each group. This presents a challenge for teachers in maintaining a balance between administrative demands and the implementation of authentic assessments that assess students' thinking processes. Teachers also mentioned that supporting facilities, such as technology devices and learning media, are still limited, resulting in project-based and reflective assessments not being optimally implemented in every session.

The challenges experienced by teachers illustrate the difficulty of implementing authentic assessments, which require preparation in terms of planning, time, and technical skills. According to Wulan et al. (2024), the main obstacles teachers face in implementing authentic assessments in the Independent Curriculum are the high administrative burden

and limited time available to observe students' learning processes in depth. This aligns with the situation at SMAN 1 Gurah, where teachers must adjust their lesson schedules to accommodate the lengthy time allocated for investigating social issues. As a result, formative assessment processes such as reflection and feedback have not been comprehensively implemented for all students.

These obstacles arise not only from the teacher's perspective but also from the characteristics of the students as learning subjects. Research shows that some students still have difficulty understanding the assessment formats and criteria used by teachers. Students with strong critical thinking skills tend to grasp the learning context more quickly, while those with medium and low analytical skills require additional guidance to interpret it scientifically. Furthermore, students' levels of motivation and confidence in project-based assignments also vary. This significantly impacts the unequal participation during group discussions and individual reflection.

This situation indicates that some students have not yet fully adapted to the characteristics of PBL-based assessments, which require independence and reflective thinking skills. Teachers face challenges in guiding students to better prepare for assessment processes that assess thinking processes, not just final results. Based on these findings, teachers strive to strengthen student engagement through initial explanations of the assessment's objectives and stages, as well as providing concrete examples of project outcomes that align with the assessment criteria. This step aims to help students understand the direction of the assessment and raise their awareness of the importance of a reflective learning process.

Based on field findings, the challenges and strategies faced by Sociology teachers at SMAN 1 Gurah reflect the application of the principles of cognitive reorganization and reflective teaching proposed by Ausubel. Teachers not only face technical challenges but also adjust their understanding and practices based on real-life classroom experiences. Reflective efforts through the MGMP (Student Learning Group) and innovative, flexibility-based assessments demonstrate that teachers have progressed toward more meaningful and adaptive learning. Therefore, the development of PBL assessments at SMAN 1 Gurah serves not only as a means of assessing learning outcomes but also as a vehicle for teachers to continuously deepen their pedagogical understanding and strengthen their competencies in guiding students toward meaningful learning, in accordance with Ausubel's theory.

4. CONCLUSION

Based on research on the development of assessment instruments for the Problem-Based Learning (PBL) model in Sociology instruction at SMAN 1 Gurah, it can be concluded that Sociology teachers have attempted to apply the principles of meaningful learning in accordance with David Ausubel's cognitive theory. Teachers develop assessments by aligning each assessment indicator with the learning objectives and stages of PBL. The assessment formats used vary, including written tests, project assignments, presentations, and technology-based assessments. Assessments not only serve to measure learning outcomes but also serve as a means to assess critical thinking skills, collaboration, and student engagement in the social problem-solving process. These results indicate that the assessment development by Sociology teachers has led to the application of the principles of meaningful learning and cognitive reorganization, although it still requires strengthening in terms of pedagogical aspects and student readiness.

However, the implementation of PBL-based assessments has not been fully optimized. Most students do not clearly understand the assessment formats and criteria used by teachers, so the assessment's function as an advance organizer in building conceptual understanding has not been optimal. Teachers also face constraints such as time constraints, differences in student abilities, and a lack of technological facilities. Despite this, teachers

conduct self-evaluations and actively collaborate through MGMP activities, adapting assessments to the students' social contexts to make them more meaningful.

Overall, the implementation of PBL assessments at SMAN 1 Gurah has led to meaningful learning practices, as Ausubel noted. However, further strengthening of pedagogical communication and assessment literacy is needed to ensure assessments function optimally as a learning support tool and support the achievement of the Pancasila student profile.

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