

PROBLEM BASED AUTHENTIC ASSESSMENT MODEL IN INDONESIAN LEARNING: STUDY IN GENERAL HIGH SCHOOL PADANG LAWAS UTARA, INDONESIA

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Abstract

Purpose of the study: The purpose of the study is to describe the results of the development of authentic problem-based assessment models in learning Indonesian in high school. This development uses the Plomp model which has stages, preliminary research, prototyping, and evaluation. The product developed is a problem-based authentic assessment model book and a teacher's manual. Both books were tested for validity, practicality, and effectiveness well.

Methodology: The development of this research follows the preliminary, prototype and evaluation research stages. The three steps are carried out selectively. The validity of the model is obtained from an expert judgment of the problem based authentic assessment model book and the problem based authentic assessment handbook. The trial was conducted in class XI of high school to see the practicality and effectiveness of the model book and the guidebook.

Main Findings: The development of this authentic problem-based assessment model has produced model books and manuals for Indonesian language teachers in high schools. The results of this study indicate that (1) the problem-based authentic assessment model is very valid, (2) the problem-based authentic assessment model is very practical, and (3) the problem-based authentic assessment model is very effective in learning Indonesian.

Applications of this study: Teachers can more easily assess the process and learning outcomes in learning Indonesian. The problem-based authentic assessment model can be used in language skills (listening, speaking, reading and writing). The teacher can develop appropriate assessment instruments used to assess students' knowledge, attitudes, and psychomotor. The grades obtained are not only numerical but in the form of student work.

Novelty/Originality of this study: This authentic problem-based assessment model presents problems in the form of text or questions to be answered by students. Assessment instruments are presented to teachers to assess students' attitudes, cognitive, and psychomotor. The teacher can judge according to the student's ability to answer the questions given. Furthermore, to assess student and psychomotor attitudes, teachers can use portfolio and project instruments.

Keywords: Development, Authentic Assessment, Problem, Indonesian Language, General High School, Student.

INTRODUCTION

The most dominant aspect of improving the quality of learning is the quality of the competence of Indonesian language teachers. According to [Tiryaki \(2017\)](#), language teacher competencies should be in line with the development of technology and information. Therefore, language teachers should use models, approaches, techniques, strategies to teach students to be able to learn languages well. [Khorasgani & Khanehgir \(2017\)](#) teachers must improve the creation and create effective learning. Language learning should pay attention to the language teacher's perspective and the development of language teacher freedom as educators [Arici, et al. \(2017\)](#) improving the quality of Indonesian language learning, teachers should use language-learning strategies consisting of learning strategies, communication strategies, and social strategies.

[Lowenberg Ball & Forzani, \(2009\)](#) learning strategies are related to mental activities, while communication strategies are based on solving communication problems. Social strategies are the same as effective strategies and this strategy can develop social interactions [Kavanoz, 2017](#). The development of learning consists of four elemental compositions, namely the relationship between the teacher and students, the atmosphere of decision, school facilities and services, and the school department [Satinem and Juwita, 2017](#).

Regarding the quality of language teacher competencies, the Indonesian language learning process has been regulated in the 2013 curriculum. The 2013 curriculum has three domains, namely attitudes, knowledge, and skills in classroom learning. For core competencies and basic competencies, Indonesian language subjects in Curriculum 2013 already have all three domains. The attitude domain consists of accepting, implementing, appreciating, living, and practicing. The domain of knowledge consists of remembering, understanding, applying, analyzing, evaluating, and creating. The domain of skills consists of interpreting, producing, editing, abstracting, and converting.

In connection with the three domains above, problems were found in the field when implementing the 2013 Curriculum for Indonesian language subjects. The problem with the domain of attitudes, knowledge, and skills is that the teacher is still confused with the three domains for Indonesian language subjects. Also, they experience confusion when compiling devices and implementing Indonesian language learning based on the 2013 Curriculum. The teacher's confusion in

compiling learning tools and implementing learning should not be left out, because it can cause the effectiveness of the learning process not to be achieved ([Kucukaydin and Sagir, 2017](#)).

Relating to the objectives of the 2013 Curriculum which emphasizes the aspects of the inquiry. Students are directed to find the substance or content themselves from the material being studied. The steps of the activity are formulating problems in any subject, observing or making observations, analyzing and presenting results in writing, reports, charts, tables, and other works, and communicating or presenting the work to readers, classmates, teachers, or other audiences. Besides, inquiry learning emphasizes search and discovery through a systematic process of thinking. Knowledge is not some facts the results of remembering, but the results of the process of finding itself.

In the 2013 Curriculum, the discovery aspect (inquiry) of meaning is highly prioritized in reading texts in terms of substance and text elements. Through discovery, students can understand, analyze, and interpret meanings according to their abilities. Another problem is that the teacher handbook from the Ministry of Education and Culture is poorly understood by the teacher in implementing it. Also, the teacher is still oriented towards the cognitive aspects of students which results in the effective and skill aspects not being achieved.

The product developed in this study was the inquiry language (inquiry) model in Indonesian. The research product is an inquiry learning model book. This model book is worth using after being validated and tested at school. The model specifications developed to consist of learning syntax which aims to develop students' thinking to find during the learning process. The principle of reaction that facilitates learning materials, provides guidance and responds to students during the learning process. The social system is referred to as relating teachers to students, students with students, the underlying rules. The support system serves as a handle or guideline for the teacher in the learning process, while the student book includes the steps of the learning process for students that are following the components of inquiry learning.

LITERATURE REVIEW

Science theory reveals that prospective humans have begun to study when millions of sperm struggle to find ovum in the uterus. Millions of sperm look for the ovum, many of which fall in the middle of the road, only one or two reach the ovum and conception occurs ([Celikoz and Erdogan, 2017](#)). Learning is a permanent change in behavior or ability in a certain way, as a result of practice or experience. States that learning is a process in which behavior is generated or changed through training or experience ([Sagir and Aslan, 2017](#)).

Knowledge is the learning result from the individual which accumulated become an organization's knowledge. Individual knowledge is all unique, therefore the combination of individual knowledge in the organization will produce a different organization knowledge ([Jatnika, 2019](#)). [Owusu \(2016\)](#) mention that the behavior of interchange knowledge is affected by some factors, such as social ties or pattern and frequency of interaction with others, a shared language which unites people, trust, the norm for sharing, group identification, perceived cost, perceived rewards, self-efficacy, and expectations of reciprocity.

A process of one's mental activity in interacting with their environment to produce positive behavioral changes both changes in aspects of knowledge, attitudes, and skills in learning there will be positive behavioral changes in aspects of attitudes, knowledge, and skills. States that learning is a change in behavior. Behavioral changes are functionally related to changes in the environment or conditions. Davies states that the principles of learning, namely (1) whatever things are learned by students, then he must learn it for himself. No one can do these learning activities for him, (2) each student learns according to his own pace (speed) and for each age group, there are variations in the speed of learning, (3) a student learns more when each step is immediately reinforced, (4) full mastery of each step of learning, allowing students to learn more meaningfully, (5) if the student is given the responsibility to learn on his own, then he is more motivated to learn, and he will learn and remember better ([Iru and Arihi, 2012](#)).

Factors that influence learning outcomes include internal factors and external factors. Internal factors affecting learning outcomes include (1) physiological factors, and (2) psychological factors ([Gredler, 2011](#)). First, physiological factors. In general physiological conditions, such as good health, not tired and tired, not physically disabled and so on. This can affect students in receiving subject matter. Second, psychological factors. Every individual, in this case, the students have different psychological conditions, of course, this also influences the learning outcomes. Some psychological factors include intelligence (IQ), attention, interests, talents, motives, motivation, cognitive, and reasoning power of students.

Learning models are conceptual frameworks that describe systematic procedures in organizing learning experiences to achieve specific learning goals and serve as guidelines for learning designers and instructors in planning learning activities ([Kose and Guclu, 2017](#)). The learning model aims to help students obtain information, ideas, skills, values, ways of thinking, and teach ways to learn. Even the most important long-term results of the learning model are improving students' ability to learn more easily and effectively in the future, both for mastering the knowledge and skills needed to achieve proficiency ([Joyce, et al., 2016](#)).

[Joyce et al \(2016\)](#) state that helping students learn how to learn, forming students responsible for learning and separating, and helping students gain new knowledge, skills, and understanding. The details of the learning model have generally clarified the learning model has the characteristics of (a) having logical theoretical rationales compiled by the creators or developers; (b) have a rationale for what and how students learn (learning objectives to be achieved).

Teacher behavior in learning so that the model can be implemented successfully; and (c) the learning environment needed so that the learning objectives can be achieved. If the teacher wants to make the learning model must have a systematic procedure, there must be a specific learning environment, it must have a measure of success and the need for student interaction with their environment. Student interaction with the environment can be interpreted as the interaction between students and other students and the interaction between students and teachers. Learning environment for learning purposes so that it can be achieved properly. The model in the context of learning is a planning pattern that can be used in the learning process that aims to achieve the best solutions to solve student problems. The model can function as an important means of communication, whether it is talked about teaching in the classroom or the practice of supervising children ([Bahcipan 2017](#)).

According to [Cheung and Hwe \(2008\)](#), some indicators of habits of mind can be developed and trained through online learning. [Bell & Cowie \(2002\)](#) says the formative assessment is an important part of teaching which considers students' need in thinking. Thus formative assessment will train students to be active during the learning process such as interacting with other students and discussion as a tool to exchange ideas. In order for authentic assessment practices to be implemented in ways that are true to their underlying philosophy, and to avoid their misuse as more bureaucratic testing, this type of inquiry should prove useful for educators and policymakers engaged in the reform of testing practices for teachers.

[Mueller \(2014\)](#) the most commonly used authentic assessments are performance assessment, portfolio assessment, and self-assessment. This suggests that authentic assessment encourages students to develop analytical skills; have the ability to integrate what is learned; be creative; be able to work collaboratively; and develop written and oral expression skills ([Palm, 2008](#)). Teachers assess student learning through varied procedures such as structured and informal observations, projects, tests, presentations, performances and exhibitions, audio and videotapes, experiments, portfolios, and journals. It is highly recommended by some scholars that today's student assessment should be authentic ([Mueller, 2014](#); [Palm, 2008](#)). It is assumed that student authentic assessment enhances motivation, assists lecturers with decision making, and is effective for reporting accomplishments and progress to parents.

METHODOLOGY

This research includes development research that refers to efforts to develop a new product or perfect an existing product accountably ([Sugiyono, 2014](#)). This type of research includes design research (design research) which consists of two types, namely development studies and validation studies ([Plomp, 2013](#)). This type of development study aims to develop research-based on solutions to complex problems in education, while validation studies aim to develop or validate a theory. The research product produced is an inquiry learning model in the Indonesian language that is valid, practical, and effective. This development uses the Plomp development model consisting of preliminary research, prototype stage (development or prototyping phase), and the assessment phase.

After researchers and researchers conducted a trial of this product, it was carried out on a limited basis at General High School, Padang Lawas Utara, North Sumatra. The reason for choosing a trial subject is because it matches the needs and context analysis. The types of data in this study are quantitative and qualitative. Quantitative data was obtained from Indonesian language tests, questionnaires, and observation sheets, while qualitative data were obtained from the results of discussions, observations/observations, and interviews. In collecting data, researchers use instruments to measure, observe, or document quantitative and qualitative data ([Creswell, 2008](#)).

There are two main activities carried out, namely the field survey and literature review supporting product development. Field surveys are conducted to collect information related to the conditions of learning and assessment conducted by teachers. The literature review on authentic assessments was brought into the focus group discussion forum (FGD) by inviting several colleagues to get input as the material making design development of authentic assessment guidebooks. To obtain information about the conditions of learning and conducting evaluations and teacher knowledge and teacher expectations about authentic assessment handbooks are needed teacher respondents.

The research instruments used were grouped into three research focuses, namely (1) needs analysis, (2) validity, (3) practicality, and (4) effectiveness. First, the analysis of the needs of the instruments used is the matter of the Indonesian language pretest, the format of the interview with the teacher, the format of the interview with the students. Second, the validity of using the book validation sheet inquiry learning model, teacher handbook validation sheet and validation sheet, book validation sheet for students and validation sheet. Third, practicality with the observation sheet instrument implementing the inquiry learning model process and its validation sheet, the practicality questionnaire of the teacher's handbook and the validation sheet, the student book practicality questionnaire and the validation sheet. Fourth, the effectiveness of using the observation sheet of student learning activities, student learning motivation questionnaire and validity of the validity, and posttest questions in Indonesian and the validation sheet.

Data in the form of questionnaire results were analyzed quantitatively with percentage calculation, while the interview result data and the study of the teacher's documents are in the form of verbal data analyzed with qualitative descriptive techniques. Data in the form of studies library and FGD, that is in the form of peer input in FGD concerning. An authentic assessment is analyzed with qualitative descriptive techniques.

RESULTS/FINDINGS

The results of this study can be described as analysis of needs and context in research is based on the rationality of the need to develop inquiry learning models, analyze the objectives and content of Indonesian language subjects, and analyze student characteristics. The steps taken, namely investigating the need for inquiry learning models on Indonesian language subjects seen from student learning outcomes by interviewing teachers and students, analyzing the purpose and learning content of the Indonesian language and analyzing student characteristics.

Second, the prototype stage. The prototype stage activity is carried out by designing a prototype that is designing components of inquiry learning models consisting of learning syntax, social system or learning environment, designing principles, and designing support systems. The results of the design, made in the form of a model book, teacher handbook, and student books, and designing instructional impacts in learning. Perform formative evaluations, carried out to determine the quality of development carried out by experts who act as expert validators and Indonesian.

Third, the assessment stage. This stage is done by assessing the prototype that has been revised from the validator's suggestions. An assessment carried out by practicality tests and effectiveness tests. Activities carried out at this stage focus on field tests that aim to determine whether the model developed is practical and effective. Field tests conducted are still limited (limited field test). The results of the validation of the inquiry learning model by expert validators can be seen below table 1.

Table 1: The results of the validation of the inquiry learning model by expert validators

No	Rated Aspect	Validation Results	Category
1	Content	3,80	Very Valid
2	Language	3,85	Very Valid
3	Presentation	3,65	Very Valid
4	Graphics	3,50	Very Valid
Score		3,70	Very Valid

The practical results of the inquiry learning model are obtained from questionnaires distributed to students who have been filled. The following are the results of the practicalities of teaching materials by students can be seen below.

Table 2: The practicalities of teaching materials by students

No	Statement	Percentage (%)	Category
1	The book authentic assessment model is easy to understand.	80,9	Very Practical
2	The book authentic assessment model can increase my learning passion.	95,2	Very Practical
3	The concept described in the model book is very helpful for me to understand correctly.	90,4	Very Practical
4	Learning outcomes in the model book can be understood according to the indicators set.	76,1	Practical
5	How to use the model book can direct the concept of inquiry/discovery.	85,7	Very Practical
6	This authentic assessment model can be studied independently by students.	85,7	Very Practical
7	The authentic assessment model contains tips for finding meaning.	90,4	Very Practical
8	The authentic assessment model can add insight to students.	71,4	Practical
Score		84,5	Very Practical

The results of the effectiveness of the authentic assessment model were obtained from student activities and student learning outcomes during the learning process using the model book. Student activities were observed by two observers who helped researchers, namely Mrs. Komariah and Mr. Budiman Siregar. The average percentage of student activity overall using the authentic assessment model of 94.65% is categorized as very effective. Based on the description of the results of the above research, it can be stated several research findings following the validity, practicality, and effectiveness of the authentic assessment model after being tested in class XI of Padang Bolak General High School. The development of the authentic assessment model can increase students' learning motivation in finding meaning learned by students. Besides, Indonesian language teachers at Padang Bolak General High School were more creative in applying the authentic assessment model book on Indonesian subjects in class XI. The teacher can learn according to general instructions and specific instructions in the model book. The material presented in the model book can be studied by the teacher independently by following the instructions and steps in the model book.

DISCUSSION / ANALYSIS

Based on the results of the development of the problem-based authentic assessment model on Indonesian language subjects can be summarized as follows. First, the development of the problem-based authentic assessment model uses the Plomp development model which consists of three stages, namely the preliminary research phase of the prototype stage, and the assessment stage. This study produced a valid, practical and effective inquiry learning model book. The book model is said to be valid, judging from the judgment of the expert validator from content validity and construct validity, while the practical model book is seen from the ease in using the model book for teachers and student books.

The material contained in the model book is presented from material that is easily understood to complex material. The aim is to see the teacher's ability to convey to students and students easily understand it. The book of the problem-based authentic assessment model is effectively seen from the results of the observer's assessment and the questionnaire given to students.

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[Williams and Ivey \(2010\)](#) state that a teacher must be able to find the right way to motivate students to always want to learn. Therefore, the problem-based authentic assessment model functions as a student controller of the behaviors that it does. In this case, effective assessment can control student behavior in learning. The practicality of the questionnaire model was given to the teacher to be filled objectively in limited class and large class trials. The results of the questionnaire on the practicality of the problem-based authentic assessment model show that it is very practical. In line with the opinion of [Gall et al \(2003\)](#) states that systematic testing obtained the same quality and product standards can be used at different times and different teachers. Following the expert opinion, testing the practicality of the model at the time of limited trials and large class trials can obtain very practical results.

Besides, the practicality of the problem-based authentic assessment model questionnaire was given to students to see the practicality of this problem-based authentic assessment model for students. The results of the questionnaire for practicality for students show that the authentic problem-based assessment model is very practical. Obstacles observed in the implementation of this assessment model lies in the presentation of student assignments in front of the class less than the maximum at the fifth meeting in a large class.

The effectiveness of authentic problem-based assessment models is obtained from student learning outcomes and student activities. Student learning outcomes are obtained from tasks done by students and adjusted to guidelines or assessment rubrics. Student activity is obtained from observations made by observers. In this case, the contents of the observation sheet from the teacher observing the activities of students in the category are very effective. The results of the effectiveness test of the authentic problem-based assessment model show that the improvement of student learning outcomes after using the assessment model.

CONCLUSION

Based on the research results discussed in the previous chapter, the following conclusions are presented which are the findings authentic problem-based assessment models on learning Indonesian in SMA N 1 Gunungtua include affective, cognitive, and psychomotor assessments. The authentic assessment model has been proven to have a good level of validity, practicality, and effectiveness. The validity level of the problem-based authentic assessment model is 96.75 with a very valid category. This shows that the content, language, and graphic models are very good and can be used without revision. The level of practicality of authentic problem-based assessment models in learning Indonesian is very practical. This is evidenced by the results of the practicality stuffing by the teacher in the limited trials obtained 97.5 and the results of the student filling amounted to 98.40. The level of practicality of the model in large class trials, the results obtained practicality questionnaire was 98.2 and the student practicality questionnaire was 99.21. The effectiveness level of the model in limited trials was obtained from the results of the teacher content of 94.5 with the very effective category and the effectiveness level in the large-scale experimental class at 79.15 with the very effective category and the control

class at 68.18 with the effective category. The results of testing with the treatment of groups that use an authentic problem-based assessment model have given results that are significantly better in the cognitive, affective and psychoneurotic domains compared to groups using traditional assessments.

LIMITATION AND STUDY FORWARD

This article is a continuation of my dissertation, which is expected to provide benefits in the assessment of language learning.

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AUTHORS CONTRIBUTION

This article can enrich the learning assessment, especially language learning.

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