Authentic Assessment Techniques in IPAS Learning in Elementary School : A Case Study

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Abstract: This research aims to describe the authentic assessment techniques coveyring cognitive, affective, and psychomotor aspects in IPAS learning in elementary schools. This research used a qualitative approach with a descriptive method. The design used in this research is a case study, in which researchers reveal and analyze holistically to get specific results. The subjects contained in this study are educators as homeroom teachers who are also IPAS teachers, students, and school principals. The data collection carried out in this study is using primary sources which include observation and interviews. Secondary sources included journals, books, and scientific articles. Data analysis conducted in this research is descriptive analytic. The results obtained in this study are based on the cognitive aspects of educators using written test assessment techniques, oral tests, and assignments. Affective aspects educators use observation, self-assessment, peer assessment, and journal assessment techniques. As well as psychomotor aspects, educators use project and portfolio assessment techniques. The achievement of learner competence can be seen based on the three aspects and the level of learning success is an integral part of the educational process.

Introduction

Assessment is the most important part of education that cannot be separated. Assessment is used as a form to provide information related to the acquisition of student learning outcomes and help educators measure student abilities and improve learning. In general, the assessment that is often carried out is focused on knowledge skills only. However, in this 21st century skill, educators are required to carry out assessment techniques that include cognitive, affective, and psychomotor aspects. According to (Ngatman et al., 2024) authentic assessment is an assessment that can be used to evaluate student learning outcomes significantly on cognitive, affective, and psychomotor aspects. The concept of this authentic assessment technique is that it can measure the ability of students which includes knowledge and skills that are relevant to the real world. Accuracy in implementing authentic assessment will improve learner learning outcomes and develop 21st century skills. This research has an urgency to examine authentic assessment techniques that have been carried out in elementary schools that have implemented the independent curriculum.

Quality education is one of the factors in curriculum development. The education system in Indonesia has undergone changes and improvements from the 1947 curriculum to the current educational institutions implementing an independent curriculum. The independent curriculum is defined not as a replacement for the existing curriculum, but is used as a complement to the previous curriculum. According to (Wasehudin et al., 2023) the evolution of education in Indonesia marked a significant shift with the introduction of the

independent curriculum that encouraged innovation in educational institutions. The independent curriculum encourages educational institutions to try new innovations and adapt the program based on local needs and respond to modern demands in a dynamic way. The curriculum serves as a guideline related to material, scope, objectives, and learning strategies. According to (Purwanti et al., 2022) every learning process activity can be said to run well if the curriculum conditions are also good because the learning experience in the classroom will refer to the curriculum. The independent curriculum gives freedom to educational institutions, including giving freedom to students to choose their preferred interests. In line with the opinion of (Arifin & Rizaldy, 2023) the independent curriculum is a flexible method which is a form of learning at the education unit level to help create a learning culture that is creative, not restrictive, and in accordance with the needs of students.

The independent learning curriculum is designed to equip learners with the skills needed in the 21st century. Therefore, independent learning and the 21st century have a very close and complementary relationship. The skills that must be possessed by learners in welcoming the 21st century are that learners are expected to be able to think critically and creatively, collaboration and communication, as well as the ability to adapt and learn independently. According to (Zainulloh et al., 2022) mastery of 21st century life skills is needed to improve competitiveness in the field of human resources. The concept of independent learning was formulated by Nadiem Makarim, a Minister of Education and Culture, to realize learning in an interesting and fun atmosphere (Abidah et al., 2020). Independent learning emphasizes student-centered learning which emphasizes active and participatory learning, relevant and contextual learning experiences, and the use of technology. The implementation of an independent curriculum can provide quality, critical, expressive, varied and progressive learning. This requires support, sincerity, cooperation, and a strong commitment from all parties so that the implementation of the independent curriculum can be carried out properly. One of the successes of implementing an independent curriculum is inseparable from the role of an educator. In line with (Supriatna, 2023) opinion, teacher professional development is an important factor to contribute to the success of curriculum development and implementation.

Standards and assessments are one of the support systems needed to maximize 21st century learning. Therefore, in this case, several systems are needed, namely (1) standards and assessments, (2) curriculum and instruction, (3) professionalism development, (4) learning environment (Cholifah Tur Rosidah et al., 2021). Permendikbud Number 23 of 2016 in (Sari & Nursafitri, 2023) establishes educational assessment standards which include the scope, objectives, benefits, principles, mechanisms, procedures, and instruments for student learning outcomes which are used as the basis for assessing student learning outcomes in primary and secondary education institutions. Assessment is the most important part of the learning process. Appropriate assessment can help students to learn more effectively and achieve learning objectives. In relation to curriculum implementation, assessment is the most important part of the curriculum tools implemented to measure and assess the level of competency achievement. A consistent, organized and effective assessment system is necessary for a meaningful learning process.

Permendikbud number 104 of 2014 the government agreed that the type of evaluation that is appropriate for use in the 21st century is a form of authentic assessment. According to (Ibrohim et al., 2020) authentic assessment is an assessment model that can measure student learning outcomes in real and significant aspects of knowledge, attitudes, and skills. The purpose of this authentic assessment is to evaluate knowledge and determine the competence

of students. This authentic assessment can be used to measure cognitive, affective, and psychomotor aspects. In practice in the field, this authentic assessment is still not fully implemented ideally. Therefore, in this case it has an impact that results in a lack of motivation of students in participating in the learning process. In addition, the factor of educators who also feel difficulties regarding understanding related to authentic assessment so that they only follow the continuation of the 2013 curriculum. The presence of the concept of independent learning in the 21st century is expected to be able to provide solutions related to the problems that arose in the previous curriculum (Wulandari et al., 2018).

Previous research conducted by (Neliwati et al., 2023) found that the implementation of authentic assessment based on the 2013 curriculum in learning Al-Qur'an hadith has not been able to run optimally because there are factors of difficulty for educators in the aspect of assessing the attitude (affective) of students. This happens because of the lack of fit between academic grades and the attitude of these students. Another study conducted by (Lutfiah & Anfa, 2023) found that when implementing authentic assessment at SMPN 1 Ngawi, educators still experience difficulties, especially in the affective aspect, so in this case educators are looking for other alternatives that can facilitate the assessment carried out by educators. While the implementation of authentic assessment which includes cognitive and psychomotor aspects has gone quite well, it is hoped that in the future there will be no obstacles in the process of implementing the authentic assessment. In this case, related to the implementation of authentic assessment in elementary schools, the most emphasized aspect is the cognitive aspect. This is because at the elementary school level it prioritizes understanding and mastery of the material received by students. However, in this study researchers will examine and analyze related to the assessment of all aspects, namely cognitive, affective, and psychomotor in IPAS learning with the research subject of IPAS subject teachers, grade IV students, and principals at SD Negeri 3 Kalisongo. The urgency of this research is that researchers want to examine the assessment techniques carried out at SD Negeri 3 Kalisongo as a driving school, especially in IPAS learning. Authentic assessment carried out in this driving school has implemented assessment techniques that focus on competencies as a whole that are relevant to the real world, learning that is carried out is learner-centered, and learning in this school has been differentiated which makes educators plan a lesson tailored to the diversity of students in understanding and mastering concepts. This research can be a basis for reference to the analysis of assessment, especially in authentic assessment.

Research Method

This research uses a qualitative approach with a descriptive method. Case study is a research design used to analyze and understand a phenomenon comprehensively (Fadli, 2021). According to Bodan and Taylor in (Moleong, 2021), qualitative research is a research procedure that produces descriptive data in the form of written words orally and in writing based on the research subject. This research was conducted at State Elementary School 3 Kalisongo. The sources of information used in this study came from informants who were considered to have a lot of knowledge so that the information was easy to obtain. The informants came from the IPAS subject teacher, grade IV students, and the principal. In addition, this study uses two sources, namely primary data which includes observations and interviews, and secondary data which includes journals, books, and scientific articles relevant to the research topic. This research uses a data analysis method that refers to the Miles and Huberman interactive analysis model.

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The interactive analysis model consists of four main points, namely: 1) data collection, 2) data condensation, 3) data display, and 4) conclusion. These four things are done before, during, and after data collection which are interrelated to produce an analysis. Data validity testing can be done by triangulating data and informants.

Results and Discussion

Assessment in the learning process is very important to do with the aim of informing the parents of students. The things that need to be reported are related to the abilities of students which include learning achievements, reflection and evaluation of student learning outcomes at school. Based on the results of interviews conducted with school principals and IPAS subject teachers, it is said that the assessment technique carried out for IPAS subjects is to use authentic assessment techniques. Assessment techniques used by IPAS subject teachers who provide assessments of cognitive, affective, and psychomotor aspects.

1) Cognitive Aspect Assessment Techniques

Implementation of authentic assessment carried out by IPAS subject teachers at State Elementary School 3 Kalisongo. The assessment follows up on the continuation of the previous curriculum, namely the 2013 curriculum. In line with this, the informant said that:

> "Authentic assessment is designed to measure a learner's ability that includes affective and psychomotor aspects in a live situation. Authentic assessment can also be used as a support in learner-centered learning, so in this case authentic assessment is also a technique that functions to develop 21st century skills. Some of the assessment techniques I use in the cognitive aspect include written, oral, and assignment assessments. Regarding the written assessment, I use the assessment contained in the student book, namely using a multiple choice question model, short form, true or false, and matching" (IPAS teacher interview: 2024).

Based on the explanation of the interview results, educators use assessment techniques based on cognitive aspects including written, oral, and assignment assessments. This is useful for measuring the ability of students to understand the material that has been explained, and is used to determine the achievement of the learning process through the evaluation stage.

1) According to (Moch. Abduh, 2019) a written test is a type of test where the questions and answers are given in the form of a test. Written tests have two types, first, questions consisting of multiple choices, questions consisting of two answer choices (True-False, Yes-No), and matching questions. Second, questions that do not provide answer choices in the sense of fill-in type questions and descriptions.
   a) Multiple Choice Questions
      Multiple choice questions are questions whose answers must be chosen from a number of available options. Each multiple choice question consists of a stem and an answer choice (option). The answer key is the correct answer while the checker is the wrong answer (Kadek et al., 2021).
   b) True False Questions
      Questions in the form of true-false and yes-no ask students to choose one of the options available in the statement (Achmad et al., 2022).
   c) Matching Questions
      Matching questions have the ability to measure learners' ability to connect, adjust, and match two statements. The matching question consists of two lanes, the

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subject matter is in the first lane placed on the left, while the answer options are in the second lane placed on the right (Ahmad, 2020).

d) Fill-in questions

Fill-in questions and short answers are questions where students are asked to provide short answers that include words, phrases, numbers, and symbols. The type of stuffing question is arranged in the form of a news sentence while the short answer question is arranged in the form of a question (Yustianingsih et al., 2017).

e) Description Problem

Description questions are a type of question that requires students to remember and organize ideas related to the material that has been studied in the form of written descriptions (Abdillah et al., 2021). How to assess description questions can be divided into objective description questions, namely assessing the ability of students to describe material concepts and scoring objectively and non-objective description questions, namely assessing the ability of students to describe material concepts and scoring subjectively.

2) Oral Test

Oral test is a method used to assess directly through communication between students and educators to answer questions orally.

"Sometimes in class I conduct oral test assessments in several ways, namely through questions and answers, presentations, and discussions between groups. This is done with the aim of training students' confidence and improving communication in each individual" (IPAS teacher interview: 2024).

3) Assignment Test

The assignment test is an assessment method that requires students to complete a task or project within an agreed period of time. Common types of assignment tests conducted by educators are projects and portfolios.

Written tests, oral tests, and assignment tests are inseparable from making questions made by educators and done by students. Making questions must be adjusted to cognitive, affective, and psychomotor aspects. According to (Ida & Musyarofah, 2021), the characteristics in making questions are 1) validity, which refers to the level of accuracy in measuring what you want to measure. The question is said to be valid if it matches what you want to measure. 2) reliability, which refers to the accuracy of the measurement results that have been obtained based on the question. The question is said to be reliable if it obtains consistent results when tested on the same group of students at different times or on different groups of students but with the same ability.

"The preparation of questions in a public school institution, there are several ways, namely questions made by subject teachers such as Islamic religious education teachers, made by homeroom teachers, and made by the Teacher Working Group (KKG)". In the process of working on assignments or daily tests, if students get a score below the KKM (Minimum Completeness Criteria), then we give remedial questions to get a score above the KKM" (IPAS teacher interview: 2024).

The process of making questions for PTS, PAS, or tryouts held at SD Negeri 3 Kaliosongo, educators are assisted by the KKG team. Meanwhile, the questions for daily tests and assignments are made by the homeroom teacher and the teacher of the subject concerned. The statement delivered by the homeroom teacher is supported by the answers based on interviews conducted with students, namely:

"During the learning process, the teacher always provides an explanation of the material presented. After all students understand the material, the teacher gives assignments in the form of worksheet questions which aim to see how much students understand the material presented. When going home from school, the teacher does not forget to ask questions related to the material on that day. If students can answer correctly, then students are allowed to go home. In addition, students who get the highest scores in the class, either tests or daily assignments, the teacher gives us a reward in the form of stickers which will later be collected. Learners who get the most stickers for one month, then the teacher gives us a gift in the form of stationery. On Saturdays sometimes we are also given assignments to do at home and collect on the next Monday" (Learner interview: 2024).

2) Affective Aspect Assessment Techniques

Affective aspect is an aspect related to the feelings, emotions, values and attitudes of individuals that refer to psychological aspects. In addition to cognitive and psychomotor aspects, affective aspects are one of the three main aspects that are important and need to be considered in the learning process. (Tiara & Sari, 2019) said that attitude is an expression based on a person's life principles that can be changed to encourage desired behavior or action. The affective aspect is motivated by the formulation of Pancasila and the opening of the 1945 Constitution which is related to the fact of the development of a nation's problems. In the learning process, attitude competency assessment is a series of activities that aim to evaluate the attitude of students. Assessment of affective aspects is an assessment carried out by educators to measure the level of achievement of competencies possessed by students which includes:

1) Receiving

   Learners show a desire to pay attention to stimuli that arise during the learning process, such as activities in the classroom.

2) Responding

   Learners have actively participated in responding to problems that have been studied. At this level, learning outcomes emphasize the acquisition of responses, the desire to respond, and satisfaction in responding.

3) Valuing

   At this level, learners' ability to express their attitudes, values, and beliefs while showing their commitment. For value to be clearly understood, learning outcomes at this level correlate with consistent learner behavior.

4) Organization

   Learners are able to resolve value conflicts and organize values among each other. At this level, learners begin to build a consistent internal value system and conceptualize values.

5) Characterization

   This is the highest level of affective aspect. Learners have a value system that can control their behavior so that it becomes a pattern of life. Learning outcomes at this level are related to social, emotional, and personal.

Based on several levels of achievement contained in the affective aspect, making students respond to the results obtained to be able to distinguish good and bad things in the learning process, so that they can be applied in everyday life. Techniques and instruments are two very important things in affective aspects. Technique refers to a method that serves to collect data, while the instrument is a tool used in the data collection process. According to

(Achmad et al., 2022) the techniques used in the assessment process that cover affective aspects are observation, self-assessment, peer assessment, and journals.

1) Observation

A technique that is carried out on an ongoing basis using the senses, both directly and indirectly to the observed behavior. The ability of students in social and spiritual attitudes can be observed through an independent curriculum. Educators must prepare rubrics and scoring instructions before carrying out observations.

2) Self-assessment

An assessment technique that asks learners to tell their strengths and weaknesses in achieving attitudinal, spiritual and social competencies.

3) Peer assessment

Assessment technique that asks learners to assess each other related to social and spiritual attitude competencies including aspects of honesty, tolerance, discipline, and mutual respect.

4) Journal

An assessment technique carried out by educators by evaluating regularly which aims to collect information on students related to their strengths and weaknesses. The journal notes are used for attitude assessment that lasts one semester.

The assessment techniques described above have been carried out by the IPAS subject teacher at State Elementary School 3 Kalisongo who has the role as an informant, he said that:

> "The attitude assessment that I do to students is an observation assessment that involves in-class assessment which includes students' attention to educators who explain the material, the activeness of students during the learning process, manners outside the classroom, mutual respect for others, discipline, related to self-assessment and assessment among friends, I make competencies that will be assessed in students and other students. This must be discussed by one class, so that students know what factors are a form of assessment. As for small notes in the form of a journal, I carry the book everywhere, either in the classroom or while in the teacher's room. It aims to assess the behavior of students while in or outside the classroom" (IPAS teacher interview: 2024).

3) Psychomotor Aspect Assessment Techniques

The psychomotor aspect is a domain related to skills and the ability to act after gaining learning experience (Magdalena et al., 2021). Learning outcomes owned by students are not only measured using cognitive aspects, but also based on the experience of students during the learning process is also very important, because learning is best through experience. The psychomotor aspect is the ability of educators to assist students in finding ideas or ideas that have been learned through deduction (discovery learning). Through repeated practice, psychomotor aspects become a habit and will automatically continue to be done. Knowledge of cognitive aspects has a positive impact on the psychomotor development of students. In line with this statement, the informant also said:

> "The psychomotor aspect is a very important aspect to do in the learning process. It can improve the ability to communicate and express. The implementation of psychomotor aspects can also indirectly provide a pleasant experience in the learning process, because psychomotor aspects are aspects that greatly support the growth and development of students holistically, this makes students able to learn effectively and their potential is maximized. I assess the psychomotor aspects in the learning process, for example, I give students an assignment to demonstrate the water cycle process that takes place on earth. Before students explain in front of the class, students are asked to

make a water cycle scheme first by looking at learning resources in the form of a package book owned by them, after which they are asked to explain in front of their friends in class (IPAS teacher interview: 2024).

Based on this statement, the psychomotor aspect has several characteristics, namely imitation, which is the ability to carry out activities that are easy and identical to what has been previously observed. Manipulation, which is the ability to perform simple activities that have never happened directly but are still based on instructional guidelines. Precision, which is the ability to perform activities accurately to get the right work results. Articulation, which is the ability to perform simple activities precisely so as to get perfect work results. Naturalization, which is an activity that uses physical movements to produce good work products (Dave, 1970).

Conclusion

Based on the research and discussion above, it can be concluded that the assessment carried out by the IPAS teacher is using authentic assessment which focuses on three aspects, namely cognitive, affective, and psychomotor aspects based on the implementation of the independent curriculum. In each aspect, the implementation of this authentic assessment has gone well. Based on the cognitive aspects of educators using written test assessment techniques, oral test, and assignments. Affective aspects educators use observation, self-assessment, peer assessment, and journal assessment techniques. As well as psychomotor aspects, educators use project and portofolio assessment techniques. The achievement of learner competence can be seen based on the three aspects and the level of learning success is and integral part of the educational process. However, evaluation for educators also needs to increase competence so that it can produce superior quality education and create quality students.

Recommendation

Based on the results of research related to authentic assessment techniques in IPAS learning in elementary schools, the researchers will submit recommendations for educators, namely in the form of implementing authentic assessment techniques carried out periodically with the aim of obtaining more comprehensive information related to students' understanding of a material and authentic assessment techniques carried out by educators are expected to be in accordance with the learning objectives and characteristics of students. Researchers' recommendations for schools are to be able to provide training to educators related to authentic assessment techniques and between educators collaborate to develop authentic assessment instruments.

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