

Development Of Islamic Religious Assessment Techniques and Instruments for Education Teachers

Irwan Hasibuan¹ Zulhimma²

Postgraduate UIN SYAHADA Padangsidimpuan

irwanhasibuan1506@gmail.com¹ Zulhimma@uinsyahada.ac.id²

Abstract

Assessment is one of the important components of the learning process that serves to measure the achievement of students' overall competencies, including aspects of attitudes, knowledge, and skills. In Islamic Religious Education (PAI) learning, teachers are required to be able to develop assessment techniques and instruments that are in accordance with the characteristics of the material, learning objectives, and needs of students. However, in practice, various obstacles are still found, such as the limited understanding of teachers in compiling valid and reliable instruments and the lack of optimal application of various assessment techniques. This study aims to describe the development of assessment techniques and instruments carried out by Islamic Religious Education teachers in the learning process. The results of the study show that Islamic Religious Education teachers have developed various assessment techniques, including attitude assessment through observation and journals, knowledge assessment through written and oral tests, and skill assessment through practice, projects, and portfolios. Continuous training and mentoring are useful to improve the quality of the development of assessment techniques and instruments in Islamic Religious Education learning.

Keywords: development of assessments; instruments; techniques.

Abstrak

Penilaian merupakan salah satu komponen penting dalam proses pembelajaran yang berfungsi mengukur pencapaian kompetensi siswa secara menyeluruh, mencakup aspek sikap, pengetahuan, dan keterampilan. Dalam pembelajaran Pendidikan Agama Islam (PAI), guru dituntut untuk mampu mengembangkan teknik dan instrumen penilaian yang sesuai dengan karakteristik materi, tujuan pembelajaran, dan kebutuhan siswa. Namun, dalam praktiknya, masih ditemukan berbagai kendala, seperti terbatasnya pemahaman guru dalam menyusun instrumen yang valid dan reliabel serta belum optimalnya penerapan berbagai teknik penilaian. Penelitian ini bertujuan untuk mendeskripsikan pengembangan teknik dan instrumen penilaian yang dilakukan oleh guru Pendidikan Agama Islam dalam proses pembelajaran. Penelitian ini menggunakan pendekatan kualitatif dengan metode deskriptif. Hasil penelitian menunjukkan bahwa guru Pendidikan Agama Islam telah mengembangkan berbagai teknik penilaian, meliputi penilaian sikap melalui observasi dan jurnal, penilaian pengetahuan melalui tes tertulis dan lisan, serta penilaian keterampilan melalui praktik, proyek, dan portofolio. Pelatihan dan pendampingan secara berkelanjutan bermanfaat untuk meningkatkan kualitas pengembangan teknik dan instrumen penilaian dalam pembelajaran Pendidikan Agama Islam.

Kata Kunci: Pengembangan asesmen; Instrumen; Teknik

INTRODUCTION

Education is a process that aims to develop students' potential optimally, both in terms of knowledge, skills, and attitudes. To determine the success rate of the educational process, an evaluation system is needed that is able to measure the achievement of student competencies in an objective, valid, and sustainable manner. One of the important components of educational evaluation is assessment. Assessments not only function as a tool to measure student learning outcomes, but also as a means to improve the learning process to be more effective and in accordance with the educational goals that have been set (Jailani 2023). In the context of modern education, assessment is no longer only oriented towards the final result in the form of numerical scores. Assessment has evolved into a comprehensive process for collecting, analyzing, and interpreting information about student development. Through good assessment, teachers can get an idea of students' abilities, weaknesses, and learning needs so that they can design more appropriate learning strategies. In addition, the results of the assessment can also be used as a basis for decision-making related to grade increase, graduation, and curriculum improvement (Achmad et al. 2022).

Effective assessment implementation requires the use of appropriate techniques and instruments. Assessment techniques are a way used to obtain information about the achievement of student competencies. Assessment techniques can be both test and non-test. Test techniques are usually used to measure cognitive aspects or mastery of learning materials through various forms of questions, such as multiple-choice, descriptive, true-wrong, matchmaking, and oral tests. Meanwhile, non-test techniques are used to assess affective and psychomotor aspects through observation, interviews, assignments, portfolios, journals, self-assessments, and peer-to-peer assessments (Rainfall 2022).

On the other hand, an assessment instrument is a tool used to carry out assessment techniques. A good instrument must meet the criteria of validity, reliability, objectivity, practicality, and be able to provide accurate information about students' abilities. Improper use of instruments can lead to inaccurate assessment results and do not reflect the actual abilities of the student. Therefore, teachers are required to have the ability to compile and use quality assessment instruments so that the results obtained can be accounted for. Curriculum development in Indonesia also requires changes in the assessment system (Destiana, et al. 2020). A competency-oriented curriculum requires teachers to comprehensively assess

students, covering aspects of knowledge, skills, and attitudes. Assessment is not only carried out at the end of learning, but also during the learning process. Thus, the assessment techniques and instruments used must be able to accommodate various aspects of these competencies so that the assessment results can describe the overall development of students (Putri et al. 2022).

However, in practice, various problems are still found related to the implementation of assessments. Some educators still tend to use assessment techniques that are limited to written tests so that aspects of students' skills and attitudes are not optimally measured. In addition, there are still teachers who have difficulty in compiling valid and reliable assessment instruments. This condition can have an impact on the quality of the assessment results obtained and the effectiveness of the overall learning process. Understanding assessment techniques and instruments is essential for educators (Mustafa, et al. 2022).

Research conducted by (Marfuah and Febriza 2019) Right *"Authentic Assessment of Islamic Religious Education (PAI) Learning in Schools and Colleges"* Authentic assessment techniques pay attention to 3 things, namely affective, cognitive, and psychomotor competencies. The components of authentic assessment itself that must be considered are the completion of authentic tasks and the rubric of authentic assessment. Meanwhile, the problematic implementation of authentic assessments in schools or in colleges and universities has different obstacles. However, this study only focuses on the authentic assessment of affective aspects and has not integrated the skill aspect comprehensively. Then the research (Leksono, Ramadhani, and Nugraha 2025) Titled *"Implementation of Attitude Assessment in Islamic Religious Education Lessons Obligatory Prayer Material to Increase Faith in Allah SWT Class V in Elementary School"* Behavioral assessments require students to behave in accordance with Islamic teachings, but their behavior often does not go well. Teachers tend to focus on skill assessment and face difficulties in creating clear and consistent assessment tools. To address these issues, more efforts need to be made to assess the importance of assessments using assessment and testing tools. In addition, behavioral assessments should be included in the report card and not just for formalities. Thus, it is hoped that the PAI learning process can be more meaningful and contribute to the formation of student character as a whole

By understanding various assessment techniques and how to prepare good instruments, teachers can conduct the evaluation process more professionally and in accordance with the principles of educational assessment. Quality assessments not only provide information about

student learning outcomes, but also a means to improve the quality of learning and the overall quality of education.

RESEARCH METHODS

This research uses a qualitative approach with a qualitative descriptive research type. This approach was chosen because the research aims to understand and describe in depth the process of developing techniques and assessment instruments carried out by Islamic Religious Education (PAI) teachers in learning activities. Qualitative research allows researchers to obtain comprehensive data on assessment practices applied by teachers, starting from the planning, implementation, to evaluation of assessment results (Pahleviannur et al. 2022).

The research was conducted at MIN 1 Padangsidempuan City. The research subjects consisted of Islamic Religious Education teachers as the main informants. The selection of informants is carried out using the purposive sampling technique, which is a deliberate selection of informants based on the consideration that they have knowledge and experience that is relevant to the focus of the research. The data sources in this study consist of primary data and secondary data (Stuart 2016). Primary data was obtained directly through observation and interviews with informants. Meanwhile, secondary data was obtained from various documents related to the implementation of assessments, such as teaching modules, learning tools, assessment grids, assessment rubrics, assessment journals, and other documents that support the research. Data collection techniques are carried out through observation, interviews, and documentation. Observation is used to directly observe the application of assessment techniques and instruments applied by teachers in PAI learning. Semi-structured interviews were conducted to gather information about the assessment instrument development process, the obstacles faced, and the efforts made by teachers to improve the quality of assessment. Documentation is used to complement the data obtained from observations and interviews. All will be reduced to data, data presentation, and drawing conclusions or verification. Data reduction is done by selecting and simplifying data that is relevant to the focus of the research. Furthermore, the data is presented in the

form of a descriptive narrative so that it is easy to understand. The last stage is the drawing of conclusions based on the findings obtained during the research process. To ensure the validity of the data, this study uses source triangulation techniques and triangulation techniques. Source triangulation was carried out by comparing information obtained from teachers, principals, and PAI students. Meanwhile, technical triangulation was carried out by comparing data from observations, interviews, and documentation.

RESULTS AND DISCUSSION

A. Scope of Knowledge Competency Assessment

The scope of knowledge competency assessment is an aspect that is the object of measurement in the process of assessing student learning outcomes in the cognitive domain. The knowledge competency assessment aims to determine the level of students' mastery of various learning materials which include facts, concepts, principles, procedures, and metacognitive. This scope is a guideline for educators in compiling assessment instruments so that the results obtained can describe students' overall abilities (Dinata et al. 2025).

In the education system, knowledge competence not only emphasizes the ability to memorize information, but also the ability to understand, apply, analyze, evaluate, and create new knowledge based on the information that has been learned. Therefore, the scope of knowledge competency assessment includes various dimensions of knowledge and the level of thinking ability that students must achieve. According to Anderson and Krathwohl's revision of Bloom's Taxonomy, the scope of knowledge competencies encompasses four main dimensions (Rosyidi 2020), namely:

1. Factual Knowledge

Factual knowledge is basic knowledge that students must master. This knowledge relates to facts, terms, names, symbols, dates, events, and the basic elements of a discipline, for example

- a) Mentioning the pillars of Islam.
- b) Explain the date of the Proclamation of Indonesian Independence.

- c) Mention the names of the prophets and apostles.

Factual knowledge is the basis for students to understand more complex material.

2. Conceptual Knowledge

Conceptual knowledge deals with the relationship between the various facts that make up a particular concept, theory, principle, or model, for example:

- a) Explain the concepts of supply and demand in economics.
- b) Understand the concept of zakat in Islamic economics.
- c) Explain the theory of economic growth.

Conceptual knowledge helps students understand the meaning and relationships between learning materials.

3. Procedural Knowledge

Procedural knowledge relates to steps, methods, techniques, or procedures in solving tasks or problems, for example:

- a) Steps to calculate zakat maal.
- b) Procedure for opening an Islamic bank account.
- c) How to compile a research report.

This knowledge emphasizes the ability of students to apply a method systematically.

4. Metacognitive Knowledge

Metacognitive knowledge is the ability to understand and control one's own thought processes. Students can find out which learning strategies are most effective for them, for example:

- a) Determine the right study strategy before the exam.
- b) Evaluate independent learning outcomes.
- c) Identify weaknesses and strengths in understanding the material.

Metacognitive knowledge is essential to form independent learners and be able to learn throughout life.

B. Techniques and examples of Knowledge Competency Assessment instruments

The knowledge competency assessment technique is a method used by educators to gather information about the level of mastery of students' learning materials in the cognitive domain. The assessment of knowledge competency aims to find out the extent to which students understand, remember, apply, analyze, evaluate, and create knowledge based on the material that has been studied (Mustopa et al. 2021). The assessment technique is selected according to the characteristics of the competencies to be measured so that the assessment results can describe students' abilities objectively and accurately. In its implementation, knowledge competency assessment generally uses written test techniques, oral tests, and assignments. Each technique has its own advantages and functions in measuring students' abilities. A good instrument must meet the criteria of validity, reliability, objective, practicality, and in accordance with the learning objectives. (Nugroho and Mawardi 2021).

C) Scope of Attitude Competency Assessment

Attitude competency assessment is the process of collecting and processing information to determine the development of students' behavior, character, values, and habits during the learning process. In the education system, attitude competence is one of the important aspects that must be developed in addition to knowledge and skill competencies. Therefore, an assessment that is able to describe student attitudes comprehensively and sustainably is needed. The scope of attitude competency assessment is all aspects of behavior that are the object of assessment in the educational process (Widiastuti 2022).

This scope includes spiritual attitudes and social attitudes that students show in daily life, both in the school, family, and community environment. The assessment of attitude competency focuses not only on the final outcome, but also on the ongoing process of character building. Attitude assessment aims to form students who not only excel in academics, but also have good personalities,

noble character, responsibility, and are able to interact positively with their social environment (Arum 2022). The scope of attitude competency assessment includes various values and characters that are the goals of national education. In general, the scope of attitude competency assessment consists of two main aspects, namely spiritual attitudes and social attitudes.

1. Spiritual Attitude

Spiritual attitudes are behaviors related to students' relationship with God Almighty. This attitude reflects faith, piety, gratitude, and appreciation for the teachings of the religion adhered to. Spiritual attitudes are the main foundation in the formation of students' character because religious values play a role in directing human behavior towards goodness (Lestari 2020). The assessment of spiritual attitudes aims to find out the extent to which students are able to practice their religious teachings in daily life

2. Social Attitudes

Social attitudes are behaviors related to students' relationships with themselves, others, the environment, and society. Social attitudes are essential because they help students interact positively and build harmonious relationships in social life (Sudirman et al. 2020). Social attitude assessment aims to determine students' ability to apply good social values in daily life. Some aspects of social attitudes that are the scope of the assessment include: honesty, discipline, responsibilities, etiquette, care, confidence, collaboration.

D. Techniques and examples of Attitude Competency Assessment instruments

Attitude competency assessment is the process of collecting and processing information to determine the development of students' behaviors, characters, values, and habits (Riandeni, Yulianti, and District 2022). To obtain accurate information about students' attitudes, appropriate assessment techniques and instruments are needed. Assessment techniques are methods used by educators to collect data on students' attitudes, while assessment instruments are tools used to

carry out the technique. The selection of the right techniques and instruments will help teachers get an objective picture of the development of students' attitudes. In the implementation of attitude competency assessment, there are several commonly used techniques, namely observation, self-assessment, peer-to-peer assessment (Nasution 2020).

1. Observations

Observation is an assessment technique that is carried out by observing student behavior directly during the learning process and outside of learning. This technique is one of the most effective methods because teachers can see the real behavior that students are showing. Observation can be carried out continuously to get more complete information about the development of students' attitudes.

2. Self-Assessment

Self-assessment is an assessment technique that provides opportunities for students to assess themselves based on predetermined criteria. This technique aims to foster awareness, honesty, and self-reflection skills. Through self-assessment, students can recognize their strengths and weaknesses so that they are encouraged to improve their behavior.

3. Peer Evaluation

Peer-to-peer assessment is an assessment technique carried out by students on the attitudes of their classmates based on predetermined indicators. This technique helps students learn to assess objectively and increase awareness of positive behavior. In compiling an attitude assessment instrument, teachers must pay attention to the following principles:

- a. Objective, based on observed facts and behaviors.
- b. Valid, measuring attitudes that are indeed the purpose of the assessment.
- c. Reliable, producing consistent data.
- d. Continuously, it is done continuously.
- e. Practical, easy to use and understand.
- f. Educate, encourage the development of students' character.

E. Scope of Skills Competency Assessment

Skill competency assessment is the process of collecting and processing information to measure students' ability to apply the knowledge they already have in the form of certain actions, practices, works, or products. This assessment focuses on the ability of students to perform a job or task in real life according to the competencies that have been determined in learning. The scope of skill competency assessment covers various aspects of the student's ability to apply the concepts, procedures, methods, and techniques learned to complete a task or produce a product. Skills assessment not only measures the final outcome, but also pays attention to the processes carried out by students during the implementation of learning activities (Puspitasari 2025). In the learning process, skills are an important indicator that shows that students have been able to master the learning material as a whole. Students not only know a concept, but are also able to apply it in real-world situations. For example, students who study zakat material are not only able to explain the meaning of zakat, but also able to calculate zakat, compile zakat management reports, or create zakat-based community empowerment programs. This ability shows the existence of skill competencies that develop through the learning process.

F. Techniques and examples of Skills Competency Assessment (Performance Assessment) instruments

Performance evaluation (*Performance Appraisal*) is one of the skills competency assessment techniques that is carried out by directly observing student activities in carrying out certain tasks or jobs. This assessment aims to determine the ability of students to apply the knowledge, procedures, and skills that have been learned into real actions (Mahmudah and Yazid 2022). Performance evaluation emphasizes the process and results of task implementation. Through this technique, teachers can assess the extent to which students are able to demonstrate their competence in real situations or close to

real conditions. The results of the assessment were obtained through observation using instruments that had been prepared based on the skill indicators to be assessed. Performance appraisals have several objectives, namely:

1. Measuring students' ability to apply the knowledge that has been learned.
2. Knowing the level of mastery of a particular skill.
3. Assess the process and results of students' work.
4. Provide feedback for learning improvements.
5. Help teachers know the strengths and weaknesses of students in doing an assignment.

G. Project Assessment

Project assessment is one of the skills competency assessment techniques used to assess students' ability to complete tasks that must be completed within a certain period of time. These tasks are usually in the form of investigation, research, problem-solving, or work creation activities that involve a series of activities ranging from planning, implementation, to the preparation of activity results reports (Widiastuti, Putrayasa, and ... 2022). Project assessments aim to measure students' ability to apply knowledge, thinking skills, information management skills, cooperative skills, and problem-solving abilities systematically. In contrast to performance appraisals that are usually done in a short period of time, project appraisals take longer because they involve several interrelated stages of work. Through project assessment, students are given the opportunity to demonstrate their ability to plan activities, collect data, process information, make decisions, and produce products or reports that are in accordance with learning objectives. Project assessment is considered an authentic form of assessment that is able to provide a comprehensive picture of student competencies.

H. Fortopolio Ranking

Portfolio assessment is one of the skills competency assessment techniques that is carried out through the systematic and continuous collection of various student work results over a certain period of time (Kuntoro and Wardani 2020). The portfolio contains a collection of evidence of learning outcomes that show the development of students' abilities, achievements, creativity, and competency achievements over time. In simple terms, a portfolio can be interpreted as a collection of documents or students' best works that are arranged in an organized manner to provide an overview of the learning process and the results that have been achieved. In addition, this assessment can also increase students' sense of responsibility and independence towards the learning process they undergo.

CONCLUSION

The development of assessment techniques and instruments for Islamic Religious Education (PAI) teachers is a strategic step in improving the quality of the learning process and teacher professionalism in the educational environment. Good assessment not only serves as a tool to measure teacher performance, but also as a means of evaluation and continuous improvement in the implementation of educational tasks. Therefore, the development of systematic, objective, valid, and reliable assessment techniques and instruments is indispensable in order to provide an accurate picture of the competence of PAI teachers. Islamic Religious Education teachers have complex responsibilities, not only delivering learning materials, but also shaping students' character, morals, and spirituality. This condition requires an assessment instrument that is able to comprehensively measure all aspects of teacher competence, including pedagogical, professional, personality, and social competence. The assessment instruments developed must be able to accommodate the typical characteristics of PAI learning that emphasize the balance between aspects of religious knowledge, attitudes, and skills. The results of the development show that the use of various assessment techniques, such as observation, questionnaires, interviews,

documentation, self-assessment, and peer assessment, can provide more complete information about teacher performance compared to the use of a single assessment technique. The combination of these various techniques allows the assessment process to be more objective because the data obtained comes from various sources and viewpoints. The development of PAI teacher assessment techniques and instruments provides significant benefits for various parties. For teachers, the assessment results can be used as material for self-reflection to improve the quality of learning and professional competence. For schools, this instrument can be a tool in conducting academic supervision and teacher coaching in a more targeted manner. Meanwhile, for education policy makers, the results of the assessment can be used as the basis for the formulation of a program to improve the quality of Islamic religious education in a sustainable manner.

REFERENCES

- Achmad, G H, D Ratnasari, A Amin, E Yuliani, and ... 2022. "Authentic Assessment of the Independent Learning Curriculum in Islamic Religious Education Learning in Elementary Schools." *Educational: Journal of Science* <https://www.academia.edu/download/92541635/pdf.pdf>.
- Arum, A E, M Khumaedi, and E Susilaningsih. 2022. "Development of Affective Domain Assessment Instrument (Attitude) of Self-Confidence in Students." *Basicedu Journal*. <https://www.neliti.com/publications/450038/pengembangan-instrumen-penilaian-domain-afektif-sikap-kepercayaan-diri-pada-sisw>.
- Destiana, D, And Suchyadi, and... 2020. "Development of Assessment Instruments to Improve the Quality of Productive Learning in Elementary Schools." *Journal of Educationand* <https://journal.unpak.ac.id/index.php/jppguseda/article/view/2720>.
- Dinata, F R, M Qomarudin, A Kuswadi, and ... 2025. "PAI Learning Assessment (Techniques and Instruments for Assessment of the Domain of Psychomotor Knowledge) Class X of SMK Muhammadiyah Tawang Rejo." *Al-I'tibar: Journal* <http://journal.unuha.ac.id/index.php/JPIA/article/view/4392>.
- Jailani, MS 2023. "Data Collection Techniques and Educational Scientific Research Instruments on Qualitative and Quantitative Approaches." *IHSAN: Journal of Islamic Education*.
- Kuntoro, B T, and N S Wardani. 2020. "Development of Social Attitude Assessment Instruments for Thematic Learning for Grade III Elementary School." *Scientific Journal of Educational Vehicles*. <http://www.jurnal.peneliti.net/index.php/JIWP/article/view/295>.
- Leksono, Shalwa Fauziyah, Adinda Putri Ramadhani, and Enung Nugraha. 2025. "Implementation of Attitude Assessment in Islamic Religious Education Lessons of Fardhu Prayer Material to Increase Faith in Allah SWT Class V in Elementary School." *Character : Journal of Islamic Education Research* 2 (1).
- Lestari, D, and W Setyarsih. 2020. "The Feasibility of Formative Assessment Instruments Based on Students' Science Literacy on Global Warming Materials." *Physics Education Innovation*. <https://ejournal.unesa.ac.id/index.php/inovasi-pendidikan-fisika/article/download/36287/32371>.

- Mahmudah, R, and M Yazid. 2022. "Analysis of Teacher Assessment Techniques on Student Report Card Scores during the Covid-19 Pandemic." *Prima Magistra: A Scientific Journal*
<http://e-journal.uniflor.ac.id/index.php/jpm/article/view/2032>.
- Marfuah, Anis, and Febriza. 2019. "AUTHENTIC ASSESSMENT ON ISLAMIC RELIGIOUS EDUCATION (PAI) LEARNING IN SCHOOLS AND COLLEGES." *Fondatia : Journal of Basic Education* 3 (2).
- Maulana, A. 2022. "Analysis of the Validity, Reliability, and Feasibility of Student Confidence Assessment Instruments." *Journal of Educational Quality*.
<http://journal.kualitama.com/index.php/jkp/article/view/331>.
- MUID, A, and M Puspitasari. 2025. "EVALUATION RESULTS ASSESSMENT TECHNIQUES." ... *SCIENCE AND*
<https://jurnal.maziyatulilmi.com/index.php/jippi/article/view/140>.
- Mustafa, PS, and N K Masgumelar. 2022. "Development of Attitude, Knowledge, and Skill Assessment Instruments in Physical Education." ... *Scientific Faculty of Teacher Training and....*
<https://ejournal.unsub.ac.id/index.php/FKIP/article/view/1093>.
- Mustopa, A, J Jasim, H Basri, and ... 2021. "An Analysis of Educational Assessment Standards." ... *Management Journal....*
<https://journal.unpak.ac.id/index.php/JMP/article/view/3364>.
- Nasution, H A, and F A Nasution. 2020. "Development of Techniques and Instruments for Assessing Aspects of Technology-Based Knowledge." *Administration: Journal of Management....*
<https://journal.iaingorontalo.ac.id/index.php/tjmpi/article/view/1306>.
- Nugroho, A S, and M Mawardi. 2021. "Development of Accountability Attitude Assessment Instruments in Thematic Learning in Elementary Schools." *Basicedu Journal*. <https://www.neliti.com/publications/451619/pengembangan-instrumen-penilaian-sikap-tanggungjawab-dalam-pembelajaran-tematik>.
- Pahleviannur, MR, A De Grave, D N Saputra, and ... 2022. *Qualitative Research Methodology*.
- Prayogi, Blessings. 2025. "ANALYSIS OF THE ABILITY OF ISLAMIC RELIGIOUS EDUCATION TEACHERS ON THE IMPLEMENTATION OF THE INDEPENDENT CURRICULUM." *Journal of Education and Teaching Review* 8 (1).

- Putri, H, D Susiani, N S Wandani, and ... 2022. "Instrument for Assessment of Cognitive Learning Outcomes in Description Tests and Objective Tests." *Papeda Journal: Journal* <https://www.academia.edu/download/114163112/1078.pdf>.
- Riandeni, A, D Yulianti, and I W District. 2022. "Development of Student Active Learning-Based Cognitive Assessment Instruments to Improve Critical Thinking of Elementary School Students." *Basicedu Journal*. <https://www.neliti.com/publications/445513/pengembangan-instrumen-penilaian-kognitif-berbasis-student-active-learning-untuk>.
- Rosyidi, D. 2020. "Cognitive Domain Assessment Techniques and Instruments." *Tasyri': Journal of Tarbiyah-Sharia'ah Islamiyah*. <https://ejournal.kopertais4.or.id/pantura/index.php/tasyri/article/view/3479>.
- Sari, Rahmahidayati, and Ayu Rahma Nengsi. 2023. "Development of Practice Assessment Instruments in PAI Materials for Compulsory Prayer Practice." *SURAU : Journal of Islamic Education* 2 (1).
- Sudirman, S, K Kistiono, H Akhsan, and ... 2020. "Development of Assessment Instruments for Knowledge, Attitudes and Skills of Science Based on Critical Thinking on the Electrical Concept of Junior High School Students." *Journal of Innovation and....* [https://repository.unsri.ac.id/149037/1/Pengembangan knowledge assessment instrument%2C science attitudes and skills based on critical thinking on the electrical concept of SMP.pdf](https://repository.unsri.ac.id/149037/1/Pengembangan%20knowledge%20assessment%20instrument%20science%20attitudes%20and%20skills%20based%20on%20critical%20thinking%20on%20the%20electrical%20concept%20of%20SMP.pdf) students.
- Sugiyono. 2016. *Educational Research Methods Quantitative Qualitative Approach R and D*. Bandung: Alfabeta.
- Widiastuti, N P K, I B Putrayasa, and ... 2022. "An Instrument for Assessing Elementary School Students' Writing Skills." *Journal of Pedagogy and....* <https://ejournal.undiksha.ac.id/index.php/JP2/article/view/42473>.