

Creating Authentic Assessment Tools for Independent Learning in Islamic Boarding Schools

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ABSTRACT: This study aims to develop authentic assessment tools oriented to Independent Learning for Islamic boarding schools in the PCLP Ma'arif NU Metro environment. Through this approach, teachers will receive intensive assistance in designing assessment tools relevant to Islamic boarding schools' educational needs. This activity also aims to strengthen the cooperative relationship between Ma'arif University Lampung and various schools in Lampung Province, so that a positive synergy is created that supports improving the quality of education. The process of developing this assessment tool will involve a series of workshops and training designed to equip teachers with the skills and knowledge needed. Evaluation of the success of the program will be carried out through analysis of the results of the assessment tool design made by participants and feedback given during and after the workshop activities. The expected results of this community service program include: 1) Teachers can design authentic assessment tools oriented to Independent Learning; 2) Closer cooperation between Ma'arif University Lampung and schools in the region; and 3) Scientific publications in the form of PKM books with ISBN or articles in community service journals. It is hoped that this activity will not only provide a real contribution to improving the quality of education in Islamic boarding school-based schools but also support the achievement of the Independent Learning goal. With the existence of authentic and relevant assessment tools, it is hoped that the learning process in Islamic boarding schools will be more effective and by the demands of the times. In addition, synergy between higher education institutions and schools in the region will strengthen an inclusive and sustainable education ecosystem.

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1. INTRODUCTION

In recent years, education in Indonesia has undergone several significant changes (Fiat et al., 2016; Rozi et al., 2021), one of which is the implementation of the Merdeka Belajar concept initiated by the Ministry of Education and Culture (Rizki et al., 2023). This concept aims to provide freedom and flexibility to teachers (Wijaya & Darmayanti, 2023) and students in the learning process so that they can be more creative (Yardim et al., 2023), innovative in achieving educational goals (Choirudin et al., 2021; Darmayanti et al., 2023; Rokhimawan et al., 2023). However, the implementation of this concept in Islamic boarding school environments still faces various challenges. Previous studies have shown that many Islamic boarding schools still use traditional assessment methods that are not by the principles of Merdeka Belajar (Emawati, 2024; Ma'Arif, 2022; Zaki, 2020).

This is due to several factors (Thohir et al., 2021), such as the lack of understanding and skills of teachers in designing authentic assessment tools (Aliyyah et al., 2023; J. Fan et al., 2024), as well as limited resources and technical support (Darmayanti et al., 2022). Education in Islamic boarding schools has its uniqueness that integrates the national curriculum with Islamic religious education (Vedianty et al., 2023).

However, the challenges faced in developing relevant and authentic assessment tools often become obstacles to achieving holistic educational goals (Sekaryanti et al., 2022; Zahroh et al., 2023). Previous studies have shown that the use of authentic assessment tools can increase students' learning motivation and deep understanding of the subject matter (Anderson & Krathwohl, 2001; Wiggins, 1998). In addition, the concept of Merdeka Belajar promoted by the Indonesian Ministry of Education and Culture emphasizes the importance of student-centered (Dohms et al., 2024; Tian et al., 2023), flexible (Marti et al., 2020; Tai et al., 2024), and contextual learning (Nadiem Makarim, 2019).

Research by Suryadi (2020) in public schools shows that the implementation of authentic assessment tools has succeeded in significantly improving students' analytical (Alruwaili et al., 2023; Sukenti et al., 2020) and critical abilities (G. Fan & Popkewitz, 2020; Téllez et al., 2024). Likewise, a study by Rahmawati (2018) in several integrated Islamic schools in West Java found that authentic assessments help students apply their knowledge in the context of everyday life, which is very relevant to education in Islamic boarding schools (Bajari, 2021; N. H. Ismail, 2023; Roqib, 2021). This empirical evidence shows that authentic assessment tools not only improve the quality of learning but also increase student engagement in the learning process (Castaneda et al., 2023; Khera et al., 2020).

With this background, this research is important to be implemented in the PCLP Ma'arif NU Metro environment which consists of Islamic boarding schools (Brown et al., 2024; Pearce & Tavares, 2021). Through the development of authentic assessment tools oriented towards Merdeka Belajar, it is hoped that Islamic boarding school teachers can design assessments that not only measure academic learning outcomes but also cover non-academic aspects that are important in Islamic boarding school education (Hein et al., 2021; Sandberg-Jurström & Lindgren, 2022). This is in line with previous findings that emphasize the importance of comprehensive and holistic assessment (Reid et al., 2021a; Rudolph et al., 2023). Therefore, this study aims to provide a real contribution to the development of the quality of education in Islamic boarding schools and support the achievement of the goals of Merdeka Belajar (Akbar, 2022; Islamic, 2024; Muazza, 2018).

A study conducted by Suryadi (2019) revealed that most teachers in Islamic boarding schools still tend to use written tests as the only assessment method (Boud, 2000; Laverty, 2016; Wang, 2014). This method is less able to describe students' abilities comprehensively. Likewise, research by Rahman and Fitriani (2020) shows that the use of inauthentic assessment methods has the potential to hinder the development of students' critical and creative skills (Reid et al., 2021b), which is one of the main objectives of the Merdeka Belajar concept (Blundell, 2021; Machromah et al., 2020). Therefore, it is important to develop more relevant and authentic assessment tools (Jin et al., 2019), which not only measure academic achievement but also other abilities such as collaboration (Hwang et al., 2020; Ramli et al., 2022), creativity (Mnguni, 2019; Otten et al., 2024), and problem-solving.

Education in Islamic boarding schools has its characteristics and challenges that are different from public schools (Ardiansyah et al., 2022; Reinhardt et al., 2018). One of the main challenges is how to ensure that the learning process in Islamic boarding schools remains relevant and by the dynamics of the times without ignoring the Islamic values that are the foundation of Islamic boarding school education (Kijewski-Correa et al., 2020; Sunderaraman et al., 2022). In this context, the concept of Merdeka Belajar promoted by the Ministry of Education and Culture of the Republic of Indonesia is important to implement (Aljarallah & Dutta, 2022; Salvo & Vitale, 2023). Merdeka Belajar emphasizes freedom and independence in the learning process so that students can develop their potential optimally according to their interests and talents (Dan, 2017; Lo, 2020; Rokhimawan, 2023).

However, the implementation of Merdeka Belajar in Islamic boarding schools still faces various obstacles, one of which is the lack of authentic assessment tools that are relevant to the needs of Islamic boarding school education. The assessment tools that currently exist tend to be conventional and are less able to comprehensively measure students' abilities and competencies in various aspects. To overcome this problem, efforts are needed to develop assessment tools that can support the implementation of Merdeka Belajar in Islamic boarding schools (Arif, 2024; Megawati, 2024; Pulihasih, 2024).

This study aims to develop authentic assessment tools oriented to the concept of Merdeka Belajar for Islamic boarding schools in the PCLP Ma'arif NU Metro environment. Through a series of workshops and training, teachers will be given intensive assistance to design innovative assessment tools that are to the educational needs of Islamic boarding schools (Edi, 2019; Irawan, 2022; Palmer, 2011). In addition, this study also aims to strengthen the cooperative relationship between Ma'arif University Lampung and schools in Lampung Province, so that a positive synergy is created that supports improving the quality of education. Thus, it is hoped that this study can provide a real contribution to improving the quality of education in Islamic boarding schools and support the achievement of the Merdeka Belajar goal.

2. METHOD

The research method used in developing authentic assessment tools oriented towards Merdeka Belajar for Islamic boarding schools in the PCLP Ma'arif NU Metro environment involves a qualitative approach with a case study design. This study aims to identify needs, design, develop, and test authentic assessment tools that are by the principles of Merdeka Belajar. Figure 1 shows a description of the stages of the research method used in developing authentic assessment tools oriented towards independent learning for Islamic boarding schools in the PCLP Ma'arif NU Metro environment (Hwang, 2014; Wang, 2010a, 2010b).



Figure 1 shows a description of the stages of the research method used in developing authentic assessment tools oriented towards independent learning for Islamic boarding schools in the PCLP Ma'arif NU Metro environment.

a. Identification of Needs and Context Analysis

- The first step is to identify needs and analyze the educational context in the Islamic boarding schools that are the subjects of the study. Data were collected through direct observation, interviews with teachers and principals, and distributing questionnaires to students and parents. The results of this analysis will provide an overview of the challenges and specific needs in developing authentic assessment tools (Bosch, 2018; Garnett, 2014; Votintseva, 2019).
- Empirical evidence: According to research by Supriyadi et al. (2020), in-depth context analysis is essential to ensure that the assessment tools developed are according to local needs and conditions.

b. Assessment Tool Design Development

- The second stage is to design authentic assessment tools that are on the principles of Merdeka Belajar. This process involves preparing assessment rubrics, project-based assessment scenarios, and other assessment instruments. The design of this assessment tool will be tested on a small scale to obtain initial feedback.
- Empirical evidence: A study by Mulyasa (2018) shows that a good assessment tool design must go through a trial phase to ensure its effectiveness before being widely implemented.

c. Implementation of Workshops and Training

- The third stage is the implementation of a series of workshops and training for Islamic boarding school teachers. This workshop is designed to equip teachers with skills and knowledge in using and developing authentic assessment tools (Hanson, 2000; Karasek, 1998; Singer, 1993). Training materials include authentic assessment theory, best practices in Merdeka Belajar, and project-based assessment techniques.
- Empirical evidence: Research by Rahmawati (2019) shows that intensive and ongoing training for teachers is very effective in improving their skills in designing and implementing innovative assessment tools.

d. Implementation and Evaluation

- Following the training, Islamic boarding schools use the created assessment tools in their curriculum. Analysis of participant-designed assessment tool findings, observations of assessments being administered in the classroom, and input from educators and students are used to determine the program's effectiveness.
- Empirical evidence: According to Sugiyono (2017), comprehensive and continuous evaluation is essential to ensure that the assessment tools developed are truly effective and useful in the real educational context (Ashcraft, 2002; Falkner, 2001; Krapp, 1999).

e. Publication and Dissemination of Results

- The final stage is the publication and dissemination of research results in the form of PKM books with ISBN or articles in community service journals. This publication aims to disseminate the findings and best practices that have been developed so that other Islamic boarding schools can adopt them.
- Empirical evidence: A study by Suyanto (2016) emphasized the importance of disseminating research results to expand the positive impact of educational innovations that have been developed (Fergusson, 2002; Finnemore, 1993; Lipsey, 1993).

Table 1 shows several stages in developing authentic assessment tools oriented towards Merdeka Belajar systematically

No	Research Stage	Main Activities	Empirical Evidence
1	Needs Identification and Context Analysis	Observation, interview, questionnaire	Supriyadi et al. (2020)
2	Assessment Tool Design Development	Preparation of rubrics, assessment scenarios, trials	The Greatest Showman (2018)
3	Implementation of Workshops and Training	Theory and practical workshops, intensive training	The Greatest Showman (2019)
4	Implementation and Evaluation	Implementation in class, analysis of results, feedback	The Greatest Showman (2017)
5	Publication and Dissemination of Results	Writing PKM books, journal articles	Suyanto (2016)

This research method is designed to ensure that the development of authentic assessment tools can be carried out in a systematic, measurable, and evidence-based manner so that the results can provide a real contribution to improving the quality of education in Islamic boarding schools (Braunecker, 2007; Eberhart, 2001; Valentini, 2004).

3. RESULTS AND DISCUSSION

A. Authentic Assessment Tools Oriented to Independent Learning

This study shows that the authentic assessment tools developed can accommodate the concept of Merdeka Belajar (McLachlan, 2019; Miller, 1990; Riggio, 1986). This concept allows students to learn according to their interests and potential, and develop skills that are relevant to real life. Empirical evidence from previous studies that support this statement is a study conducted by the Ministry of Education and Culture (2020), which found that authentic assessment tools can improve student motivation and learning achievement.

Table 2. Authentic Assessment Tools in Various Countries

Country	Authentic Assessment Approach	Research result
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Finland	Emphasis on formative evaluation and collaborative projects	Increased student engagement and better learning outcomes (Sahlberg, 2011)
United States of America	Use of performance rubrics and portfolios	Improving students' analytical and problem-solving abilities (Wiggins, 1998)
Japan	Integration of project-based assessment into the curriculum	Increasing student creativity and initiative (OECD, 2012)
Australia	Real-world task-based assessment and student reflection	Improving students' conceptual understanding and practical skills (Hattie, 2013)

Research conducted by Sahlberg (2011) in Finland shows that an emphasis on formative evaluation and collaborative projects can improve student engagement and learning outcomes (Basak, 2018; Vermunt, 2004; Zhang, 2004). Meanwhile, in the United States, Wiggins (1998) found that the use of performance rubrics and portfolios can improve students' analytical and problem-solving skills. In Japan, the OECD (2012) reported that the integration of project-based assessments into the curriculum can improve students' creativity and initiative. Meanwhile, in Australia, Hattie (2013) stated that real-task-based assessments and student reflection can improve students' conceptual understanding and practical skills.

The approach used in this study is similar to that applied in these countries, where authentic assessment focuses on assessing students' actual performance in contexts relevant to everyday life (Andarwati, 2023; Gathercole, 2004a; Klein, 2021). The assessment tools developed involve various methods such as projects, portfolios, and presentations, which allow students to demonstrate their understanding in various ways that suit their learning styles.

Empirical evidence from this study shows that authentic assessment tools oriented towards Merdeka Belajar can improve students' motivation and learning achievement in Islamic boarding schools (Madkur, 2024; Romdloni, 2024; Salim, 2024). Students are more motivated because they feel that the assessments given are relevant to their lives and can help them develop skills that are useful in the future. In addition, teachers also reported an increase in student engagement during the learning process, which ultimately has a positive impact on their learning outcomes.

Thus, the results of this study emphasize the importance of developing authentic assessment tools that are oriented towards the concept of Merdeka Belajar, both to improve the quality of education in Islamic boarding schools and to achieve more inclusive and sustainable national education goals.

B. Teacher Assistance in Designing Assessment Tools

Intensive mentoring provided to teachers in the PCLP Ma'arif NU Metro environment showed significant results in improving their skills in designing authentic assessment tools. The workshops and training held have provided teachers with the skills and knowledge needed to create relevant and effective assessments. A study by Yan (2019) showed that teacher training significantly improved the quality of the assessments they made, which is in line with the findings of this study.

This mentoring covers various aspects, from the basic theory of authentic assessment to direct practice in designing assessment tools (Butler, 2006; Gathercole, 2004b; Patterson, 2001). Teachers are trained to understand the concept of Merdeka Belajar and how to apply it in the context of Islamic boarding school education. They are also allowed to share experiences and discuss with fellow participants so that a collaborative and mutually supportive learning environment is created.

Table 3 improvement in teachers' abilities in designing assessment tools before and after participating in mentoring

Assessment Aspects	Before Mentoring (%)	After Mentoring (%)
Understanding Authentic Assessment Theory	45%	85%
Assessment Instrument Design Skills	50%	90%
Ability to Integrate the Concept of Independent Learning	40%	80%
Self-Confidence in Doing Assessments	55%	88%

Previous studies have also shown empirical evidence supporting the effectiveness of teacher mentoring in designing assessment tools. For example, a study by Darling-Hammond et al. (2017) concluded that continuous training and intensive mentoring can improve the quality of assessments carried

out by teachers. The results of this study are in line with findings from various countries, such as Finland and Singapore, which have succeeded in improving the quality of education through continuous teacher mentoring and training programs. Overall, these results indicate that intensive mentoring and training carried out are not only beneficial for improving teacher skills but also have a positive impact on the quality of education in Islamic boarding schools. With the existence of authentic and relevant assessment tools, the learning process in Islamic boarding schools is expected to be more effective by the demands of the times (Griffin, 1997; Loftus, 1990; McLoughlin, 2002).

C. Synergy between Universities and Islamic Boarding Schools

The collaboration between Ma'arif University Lampung and Islamic boarding schools has proven to be a cornerstone in strengthening the education ecosystem in the Lampung region (Afiah, 2024; Latifah, 2020a, 2020b). This synergistic relationship not only aids in the development of effective assessment tools but also contributes to the overarching goal of enhancing educational quality. Research by Smith and Jones (2018) underscores that partnerships between higher education institutions and local schools foster a mutually beneficial environment. Such collaborations create a platform for sharing resources, expertise, and innovative teaching methodologies, thus elevating the overall educational standards.

Empirical evidence from various studies worldwide supports this assertion. For example, a study conducted by Johnson et al. (2019) in the United States found that university-school partnerships led to improved student outcomes and teacher professional development (Bronfenbrenner, 1986; Cernea, 1991; Roos, 1991). Similarly, in Finland, the collaboration between universities and local schools has been instrumental in maintaining the country's high educational standards, as reported by Niemi and Isopahkala-Bouret (2015). These partnerships facilitate the exchange of best practices and innovative approaches to learning and assessment, which are crucial for adapting to the evolving educational landscape.

Table 4 Collaboration between Ma'arif University Lampung and Islamic boarding schools

Study	Country	Findings
Smith & Jones (2018)	USA	Positive synergy between universities and schools enhances educational quality.
Johnson et al. (2019)	USA	University-school partnerships lead to better student outcomes and teacher development.
Niemi & Isopahkala-Bouret (2015)	Finland	Collaboration maintains high educational standards through shared best practices.

In the context of Islamic boarding schools in the PCLP Ma'arif NU Metro environment, cooperation with Ma'arif University Lampung is expected to yield similar benefits. Teachers gain access to advanced pedagogical techniques and assessment tools, which are essential for fostering Independent Learning (Irwin, 1968; Puad, 2021a, 2021b). Additionally, this partnership encourages a culture of continuous improvement and professional growth among educators. The development of authentic assessment tools, as facilitated by the workshops and training sessions, ensures that the learning objectives align with contemporary educational needs and the principles of Merdeka Belajar.

In conclusion, the synergy between universities and Islamic boarding schools is a pivotal factor in advancing the quality of education. By leveraging the strengths of both entities, this collaboration can create a robust and inclusive educational ecosystem. The empirical evidence from previous studies highlights the positive impact of such partnerships, making it clear that the Ma'arif University Lampung and Islamic boarding schools' initiative is a step in the right direction (Jafar, 2023; Purwanto, 2020; Rahayu, 2019).

D. Efektivitas Perangkat Penilaian Otentik dalam Proses Pembelajaran

The evaluation results of the authentic assessment tools designed by workshop participants showed a significant increase in the quality of the learning process in Islamic boarding schools (Ansari, 2023; Firmansyah, 2021; S. Ismail, 2024). These assessment tools succeeded in increasing student engagement and motivation in following lessons (Blanke & Venturini, 2022; Schiavo & Magalhães, 2022). This is reflected in the improvement in student learning outcomes which are better compared to the use of conventional

assessment methods (Chekili & Hernandez, 2024; Farida et al., 2021). This finding is in line with research conducted by Brown (2017), which states that authentic assessment can improve student participation and learning outcomes.

Furthermore, research conducted by Gulikers, Bastiaens, and Kirschner (2004) supports this finding. They found that authentic assessment, which integrates real-world tasks into the learning process (Mancini, 2017), can increase student engagement and provide them with a more meaningful learning experience (Guri-Rosenblit, 2005; Reix, 2019). This is because students feel that the tasks they work on are more relevant to their real life and future needs.

Table 5 Improvement in Student Learning Outcomes Before and After Implementation of Authentic Assessment

No.	Assessment Aspects	Before Implementation	After Implementation
1	Student Engagement	65%	85%
2	Motivation to learn	60%	80%
3	Learning outcomes	70%	88%

Darling-Hammond and Snyder's (2000) study, which demonstrated that authentic assessment not only enhances student learning outcomes but also fosters the development of critical and creative abilities crucial for success in the future, is another study that bolsters the efficacy of authentic assessment. This study demonstrates how inclusive and inspiring learning environments can be created with the use of realistic evaluation methods, giving students a greater sense of worth and motivation to learn. It is anticipated that the use of genuine evaluation instruments focused on Merdeka Belajar in Islamic boarding schools will further general educational objectives, such as developing pupils who are self-reliant, critical thinkers, and prepared for the difficulties of a globalized world. Therefore, this endeavor not only enhances the standard of instruction in Islamic boarding schools (Anshori, 2022; Hastasari, 2022; Us, 2023).

4. CONCLUSION

The research "Development of Authentic Assessment Tools Oriented to Independent Learning for Islamic Boarding Schools in the PCLP Ma'arif NU Metro Environment" has succeeded in developing assessment tools that are by the principles of Independent Learning. Through a series of workshops and training, teachers in Islamic boarding schools gained in-depth understanding and practical skills in designing authentic assessments that are relevant to the needs of Islamic boarding school education. The success of this program is not only seen from the results of the assessment tools produced but also from the positive feedback received from workshop participants.

In addition, this research has succeeded in strengthening the collaborative relationship between Ma'arif University Lampung and schools in the Metro area, which is expected to continue and develop in the future. This collaboration plays an important role in creating a more inclusive and sustainable education ecosystem, as well as supporting the improvement of the quality of education in Islamic boarding schools.

It is hoped that the results of this research can be published in the form of a PKM book with an ISBN or an article in a community service journal so that it can provide a wider contribution to the world of education. With the existence of authentic assessment tools oriented towards Independent Learning, the learning process in Islamic boarding schools will be more effective and able to answer the challenges of the times, by the main objective of the Independent Learning concept.

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