

Innovative Training in Learning Evaluation: Enhancing The Accuracy and Objectivity of Assessment in Elementary School

Rifqy Muhammad Hamzah^{1, a)}, Tb. Moh. Irma Ari Irawan^{1, b)}, Muhammad Dzikri Ar-Ridlo^{2, c)}, Firyal Aulia Rais^{1, d)}, Resi Rahmawati^{1, e)}, Riyani^{1, f)}

¹Elementary School Teacher Education Study Program, Universitas Pendidikan Indonesia, Bandung, Indonesia

²Digital Business Study Program, Universitas Pendidikan Indonesia, Bandung, Indonesia

^{a)}Corresponding author: rifqyhamzah@upi.edu

^{b)}tubagusirma@upi.edu

^{c)}dzikri.ar@upi.edu

^{d)}firyalauliarais@upi.edu

^{e)}resipintar17@upi.edu

^{f)}riyaniryryn@upi.edu

ABSTRACT

Accurate and objective learning evaluation is essential for improving the quality of primary education. In Tasikmalaya City, many teachers still face difficulties in constructing valid, data-driven instruments that reflect authentic assessment principles. To address this challenge, a community service program was implemented to strengthen teachers' capacity in designing and applying reliable evaluation tools. The initiative involved 45 elementary school teachers from the Nagarawangi Elementary School Complex in Tasikmalaya City and employed a structured method consisting of planning, interactive practice-based workshops, and evaluation of participants' outputs. Training was conducted collaboratively and contextually, tailored to the characteristics of the teachers and the conditions of their schools. Descriptive data analysis was used to measure improvements in participants' understanding and skills. Results indicate that 82% of teachers demonstrated enhanced competence in developing accurate and objective assessments, accompanied by the emergence of collaborative networks for co-developing sustainable evaluation systems. This initiative contributes uniquely by providing a replicable model of teacher empowerment that integrates professional development with practical classroom needs. The availability of reliable evaluation instruments not only supports continuous use in primary schools but also represents a foundational step in strengthening teacher capacity. Ultimately, the program aligns with and advances SDGs Goal 4 by promoting equitable, high-quality education through improved assessment practices.

ARTICLE INFO

Article History:

Submitted/Received: 4 November 2025

First Revised: 29 November 2025

Accepted: 10 December 2025

First Available online: 31 January 2026

Publication Date: 31 January 2026

Keyword :

Evaluation

Accuracy

Objectivity

INTRODUCTION

Education is the foundation for shaping human resources that are conscious, competitive, and responsible citizens. In the modern era, education must equip learners not only with knowledge and character but also with critical thinking, creativity, and adaptability (Ganiadi et al., 2025). Within this context, teachers serve as facilitators who create meaningful learning environments oriented toward holistic student development.

One of the most crucial responsibilities of educators is evaluation, which functions as a reflective tool to measure learning effectiveness. Ideally, assessment should provide valid insights into students' progress rather than serve as a mere administrative task (Amelia, 2025). However, in practice, evaluations are often subjective, outcome-focused, and lack clear standards, raising concerns about fairness and student motivation. Limited understanding of data-based assessment, restricted access to technology, and reliance on conventional methods remain significant obstacles (Magdalena et al., 2023).

Although technological advances and government policies have opened opportunities for innovation in assessment practices (Huljannah, 2021; Ariska, 2014), many teachers still struggle to design valid and reliable instruments due to workload, infrastructure limitations, and adaptation barriers (Poerwanti et al., 2023; Chasanah, 2023). Teachers still require guidance and training to adapt to ongoing developments in learning practices, so that instruction remains effective and meaningful for students (Khusnul Fatonah et al., 2024). This situation highlights a research gap between the ideal expectations of authentic, data-driven evaluation and teachers' readiness to implement it effectively. Addressing this gap requires practical interventions that directly strengthen teachers' competence in constructing accurate and objective evaluation instruments (Jenita et al., 2023). In Tasikmalaya, particularly at the Nagarawangi Elementary School Complex, several supporting factors provide a strong foundation for such interventions.

- Institutional Support – Schools demonstrate commitment to improving teacher competence through training programs.
- Teacher Enthusiasm – Elementary teachers show a strong desire for continuous learning and professional growth.
- Technological Development – The availability of digital platforms supports assessment and evaluation practices.
- Government Policies – Policies promoting authentic, assessment-based evaluation encourage practical implementation of training outcomes.

Conversely, inhibiting factors must also be considered.

- Limited Understanding of Data-Based Evaluation – Many teachers still rely on conventional and subjective methods.
- Technological Infrastructure Limitations – Not all schools have access to digital tools.
- Time Constraints – Teachers' busy schedules hinder full participation in training.
- Adaptation Barriers – Some teachers face challenges adopting new evaluation methods due to age or limited experience with technology.

By acknowledging both supporting and inhibiting factors, this program situates itself within the broader effort to enhance teacher capacity. Ultimately, it aligns with SDGs Goal 4 by promoting

inclusive, high-quality education through improved assessment systems that foster equitable student development.

METHOD

Innovative Training in Learning Evaluation: Enhancing the Accuracy and Objectivity of Assessment was conducted at the SDN Nagarawangi Complex in the Cihideung District, Tasikmalaya City, from June to July 2025. A total of 45 elementary school teachers participated in this program, consisting of classroom teachers from grades 1 to 6, subject teachers of Indonesian language, mathematics, and science, as well as homeroom coordinators. The participants came from diverse teaching backgrounds, levels of experience, and technological proficiency, providing a comprehensive representation of real challenges encountered in learning evaluation within primary schools.

The training was designed to enhance teachers' ability to develop evaluation instruments, utilize technology to support assessment, and implement effective methods to achieve accurate and objective learning evaluation. To achieve these goals, the program was structured into five interconnected phases: needs identification and analysis, material design and preparation, training implementation, mentoring and monitoring, and evaluation and follow-up.

The first phase, which needs identification and analysis, took place in June 2025 through an initial survey and semi-structured interviews aimed at mapping teachers' understanding of learning evaluation. The data collected provided insights into teachers' familiarity with authentic assessment, difficulties in constructing rubrics and observation sheets, their ability to use digital tools such as Google Forms and Excel, and their needs for professional development. These findings served as the foundation for determining the focus of the training materials and the instructional strategies employed.

The second phase involved the preparation of training materials based on the needs analysis results. During this stage, the facilitation team developed a training module on authentic assessment, along with examples of analytic rubrics, observation sheets, and project-based assessment instruments. Interactive learning materials and digital examples were also prepared. The facilitation team consisted of academics, assessment specialists, and school supervisors experienced in instrument development.

The third phase, training implementation, took place from June 30 to July 1, 2025. The training was delivered through a combination of seminars, workshops, and hands-on practice sessions. A Problem-Based Learning (PBL) approach was adopted to encourage participants to collaborate in analyzing real classroom evaluation challenges and designing assessment instruments aligned with specific learning objectives and classroom contexts.

Following the implementation, the fourth phase focused on mentoring and monitoring. Teachers received individualized guidance through consultation sessions, instrument reviews, and classroom simulations. Facilitators closely monitored participants' progress, identified emerging challenges, and provided targeted feedback to help refine the instruments produced. Peer review among participants also played a crucial role in improving the consistency and validity of the developed instruments.

The final phase, evaluation and follow-up, utilized pre-tests and post-tests to measure changes in participants' skills in three key areas: constructing analytic rubrics, designing observation sheets, and developing project-based assessments. Each instrument created by participants was evaluated in terms of indicator clarity, alignment with learning objectives, and feasibility for classroom application. Quantitative data from the pre-test and post-test scores were analyzed using descriptive techniques to

assess improvement, while qualitative feedback was examined thematically to identify program strengths, participant challenges, and areas for further support.

Overall, the findings indicated substantial improvement in teachers' assessment competencies, demonstrating the effectiveness of the five-phase training model. The systematic progression from needs assessment to sustained mentoring allowed teachers to understand concepts, apply them in practice, and refine their skills through continuous support. This structured approach is expected to contribute to long-term enhancements in the accuracy and objectivity of learning evaluation practices in primary schools.

RESULTS AND DISCUSSION

In addition to improving conceptual knowledge, this training successfully enhanced the practical assessment skills of 45 participating teachers, particularly in designing evaluation instruments that are more objective, measurable, and aligned with learning outcomes. At the beginning of the program, most teachers experienced difficulties in formulating indicators and developing rubrics and observation sheets due to limited technical understanding of measurable learning indicators (Capperucci, 2019). However, the hands-on sessions conducted using the Problem-Based Learning (PBL) approach provided teachers with opportunities to practice directly in designing instruments relevant to their classroom contexts. Observations during the workshops showed substantial improvement in teacher performance. Almost all participants were able to construct analytic rubrics capable of evaluating student projects more transparently and consistently, and to design project assessment tools that captured not only final products but also the learning process (Villarroel et al., 2018; Wolf & Stevens, 2007).

The skills achieved through this training covered three essential components: designing analytic rubrics, developing observation sheets for attitudes and skills, and constructing project-based assessments. These competencies were strengthened through hands-on practice, contextual case studies, and collaborative discussions. Participants practiced designing rubrics with clear criteria, applying observation sheets in simulated classroom activities, and producing project-based assessments that align with authentic learning principles. These results are consistent with Ventista & Brown (2023), who emphasized that practice-oriented and collaborative training is more effective in enhancing teacher competence compared with theory-driven approaches. Therefore, this training not only enriched teachers' conceptual understanding but also equipped them with practical, ready-to-use instruments applicable in daily classroom practice.

The success of the program was strongly supported by the direct mentoring provided by experts in learning evaluation and authentic assessment. The effectiveness of mentoring in this program aligns with Wulandari et al., (2025) who emphasize that mentoring functions as a bridge between theory and practice while fostering participants' confidence in the learning process. The instructional design integrated both conceptual explanations and practical workshops, allowing teachers to better understand how to formulate clear, measurable, and consistent indicators. Participants were guided step-by-step to ensure that the evaluation instruments they produced aligned with curriculum goals and supported transparent assessment practices. Through this process, teachers deepened their understanding of the importance of fair, reliable, and objective assessment practices in improving student learning. Consequently, the training prepared participants to implement more accurate and meaningful evaluation processes in the classroom.

The practical sessions offered authentic opportunities for teachers to apply the assessment theories

they had learned. Teachers designed evaluation instruments, analytic rubrics, observation sheets, and project assessments tailored to the needs of their students and contextualized to their teaching realities. The improvement in teachers' technological and media-development skills is consistent with findings by Fatonah et al. (2024), who reported that teachers become able to create interactive learning media using various digital applications they previously had not mastered. This approach is in line with Bhandari et al. (2025), who explain that differentiated instruction implemented through personalized tasks, flexible grouping, and collaborative learning is essential for addressing learner diversity and creating a more inclusive learning environment. Such involvement aligns with Villarroel et al. (2018), who state that teacher engagement in developing authentic assessments increases the relevance and objectivity of evaluation. In this regard, the training supported teachers' capacity to apply authentic assessment effectively, contributing to more transparent, equitable, and meaningful learning experiences for students.

TABLE 1. Pre-Test and Post-Test Scores of Participants' Understanding

No	Aspect	Pre-Test	Post-Test	Percentage of Improvement
1	Ability to develop assessment rubrics	52	82	58%
2	Ability to create observation sheets	48	78	63%
3	Ability to design project-based assessments	48	80	78%

Table 1 below presents the results of the pre-test and post-test, which show significant improvement across all assessment components. Teachers' ability to develop rubrics increased from 52 to 82 (58%), their ability to design observation sheets rose from 48 to 78 (63%), and the highest improvement was seen in project-based assessments, which increased from 48 to 80 (78%). These improvements indicate that the training not only enhanced teachers' technical abilities but also strengthened their conceptual understanding of evaluation, particularly in constructing indicators, aligning assessment criteria with learning objectives, and ensuring internal consistency in assessment tools. These findings are consistent with previous studies showing that interactive, well-designed instructional media can significantly enhance teachers' competence and overall learning engagement (Putri Taqwa Prasetyaningrum et al., 2025).



FIGURE 1. The Produced Training Module

Another major output of this program was a teaching module created collaboratively by participants. The module contains integrated instruments, including analytic rubrics, observation sheets, and project-based assessments designed to help teachers implement authentic assessment more systematically (Dwi et al., 2024). Figure 1 presents the cover of the module produced during the training. The visual design reflects a structured combination of learning materials and evaluation instruments, making it easy for teachers to apply and adapt the module to various subjects and grade levels.

The module produced has several strengths. First, it improves teaching efficiency because teachers can directly use the ready-made rubrics and observation sheets without having to create new instruments from scratch. Second, the instruments included in the module can be adapted to students' characteristics, ensuring relevance to real learning needs, as emphasized by Villarroel et al. (2018). Third, the module promotes active learning because its project assessments focus not only on outcomes but also on student engagement and process, supporting Prince's (2004) assertion that active participation increases learning motivation and quality.

However, the teaching module also presents several limitations. The process of integrating evaluation instruments requires considerable time and preparation, increasing teachers' workload, especially for those with heavy teaching responsibilities. Additionally, differences in technological and pedagogical literacy caused variations in the quality and pace of module development. Some teachers needed additional support to integrate evaluation instruments effectively, which aligns with Darling-Hammond et al. (2017), who emphasize the importance of continuous professional development to ensure skill mastery.

These limitations indicate the need for follow-up assistance in the form of mentoring and advanced training so that teachers become more confident and consistent in implementing authentic assessment. Evaluation of the program conducted through practice observations, case analyses, and review of the produced modules showed that most participants successfully developed modules meeting eligibility standards. This reinforces the effectiveness of the Problem-Based Learning (PBL) model implemented in this training (Hmelo-Silver & Barrows, 2006; Savery, 2006).

Overall, the achievements of this training demonstrate that teachers not only gained conceptual knowledge of learning evaluation but also developed practical skills to design accurate, objective, and meaningful assessment instruments. The integration of rubrics, observation sheets, and project assessments into a single module offers teachers a more holistic framework for assessing students' skills, attitudes, and learning processes. In the long term, this innovative training is expected to promote fairer evaluation practices, increase student motivation, and encourage continuous teacher innovation in implementing authentic assessment.

As a follow-up, the program will continue with ongoing mentoring and advanced training to further strengthen teachers' implementation of practice-based assessments. A learning community will also be established as a forum for sharing best practices, enabling teachers to collaborate and continuously improve their assessment competencies. Thus, this training program is expected to serve as a model for enhancing accurate, objective, and meaningful evaluation practices in primary schools.



FIGURE 2. Activity Documentation

CONCLUSION

Innovative Training in Learning Evaluation: Enhancing the Accuracy and Objectivity of Assessment in Nagarawangi Elementary School Complex, implemented in primary schools across Cihideung District, Tasikmalaya City, successfully met its main objective of strengthening teachers' knowledge and skills in designing accurate and objective learning evaluation instruments. Through structured and practice-based sessions, participants gained a deeper understanding of authentic assessment and improved their ability to develop analytical rubrics, observation sheets, and project-based assessments. The program's innovative contribution lies in its integration of a Problem-Based Learning (PBL) approach with collaborative, hands-on module development, an approach that has proven effective in enhancing teachers' assessment literacy.

Quantitative findings reinforce the program's impact, showing a 58% increase in rubric-development skills, 63% improvement in constructing observation sheets, and a 78% increase in project-assessment design skills. These gains reflect the effectiveness of practice-oriented training in improving the accuracy, transparency, and objectivity of classroom assessment. Despite these positive outcomes, the program had several limitations. Time constraints prevented participants from exploring more advanced assessment tools, and variations in technological competence among teachers affected the consistency of implementation. Additionally, limited access to digital devices in some schools posed challenges during practice sessions. These limitations indicate the need for extended mentoring and access to technological support to ensure equitable skill development across participants.

The long-term implications of this program are substantial. Strengthening teachers' assessment competence contributes to more transparent, fair, and student-centered evaluation practices, thereby improving the overall quality of learning. Furthermore, sustained implementation of authentic assessment has the potential to influence school-level decision-making, promote data-driven instructional planning, and support policy initiatives that advocate for competency-based education. As a follow-up, the program is recommended to continue through ongoing mentoring, advanced workshops on innovative assessment approaches, and the establishment of teacher communities focused on sharing best practices. These sustained efforts will help ensure consistent integration of authentic assessment and support long-term improvements in both classroom practice and broader educational policy. Ultimately, it is hoped that educational institutions and policymakers will place greater emphasis on adopting comprehensive,

development-oriented evaluation systems that promote equitable and high-quality learning experiences for all students.

ACKNOWLEDGMENTS

Acknowledgments are extended to Universitas Pendidikan Indonesia, Tasikmalaya Campus, for providing internal community service grant funding. Sincere appreciation is also conveyed to the Lembaga Penelitian dan Pengabdian Kepada Masyarakat (LPPM) Universitas Pendidikan Indonesia for their continuous support, assistance, and active contribution to all implemented activities.

REFERENCES

- Amelia, Y. R. (2025). Penerapan Evaluasi Pembelajaran di Sekolah Dasar. *Jurnal Pendidikan Sosial dan Humaniora*, 4(2), 2923-2933.
- Ariska, F. (2014). Analisis Penggunaan Diagram Vee Sebagai Alat Metakognitif Dalam Pembelajaran Konsep Sains (Bachelor's thesis, Fakultas Ilmu Tarbiyah dan Keguruan UIN Syarif Hidayatullah Jakarta).
- Bhandari, B. L., Bhandari, L. P., & Baguinat, N. S. (2025). English Language Teachers' Practices of Differentiated Instruction in Mixed-Ability Classrooms. *JOLLT Journal of Languages and Language Teaching*, 13(2), 912–923. <https://doi.org/10.33394/joltt.v13i2.13573>
- Capperucci, D. (2019). assessing learning to learn through rubrics and authentic tasks. *Studi sulla Formazione/Open Journal of Education*, 22(2), 123-136.
- Chasanah, M. (2023). Strategi dan tantangan dalam pelaksanaan evaluasi pembelajaran di sekolah dasar. *J-PGMI: Jurnal Pendidikan Guru MI*, 6(1), 65-72.
- Darling-hammond, L., Hyler, M. E., Gardner, M., Berkman, M. B., Pacheco, J. S., & Plutzer, E. (2008). *C_Teacher_Professional_Development_REPORT.pdf*. Learning Policy Institute, 6(June), 0920–0924.
- DWI, C. N., VINA, A. S. M., MAZDA, L. O. S., MARWAN, P., NAJLATUL, F., & FAHMI, S. A. (2024). Improving the Competence of Elementary School Teachers Through Assistance in the Preparation of Numeracy-Based Literacy Teaching Modules. *ABDIMAS UMTAS: JURNAL PENGABDIAN MASYARAKAT Учредители: LPPM Universitas Muhammadiyah Tasikmalaya*, 7(3), 1138-1145.
- Ganiadi, M., Nailufar, N. T., Sayyidina, R. Z., & Widyati, M. (2025). Penguatan Metode Pembelajaran Inklusif untuk Anak Penyandang Tunarungu pada Bimbingan Belajar Widya Wicara di Taman Banten Lestari, Serang, Banten. *Jurnal Pengabdian Kepada Masyarakat Patikala*, 4(4), 1267-1274.
- Hmelo-Silver, C. E., & Barrows, H. S. (2006). Goals and Strategies of a Problem-based Learning Facilitator. *Interdisciplinary Journal of Problem-Based Learning*, 1(1), 5–22. <https://doi.org/10.7771/1541-5015.1004>
- Huljannah, M. (2021). Pentingnya proses evaluasi dalam pembelajaran Di sekolah dasar. *Educator (Directory of Elementary Education Journal)*, 2(2), 164-180.

- Jenita, J., Harefa, A. T., Pebriani, E., Hanafiah, H., Rukiyanto, B. A., & Sabur, F. (2023). Pemanfaatan teknologi dalam menunjang pembelajaran: Pelatihan interaktif dalam meningkatkan kualitas pendidikan. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(6), 13121-13129.
- Khusnul Fatonah, Mujazi, Gunawan Wiradharma, & Muhammad Rijal Fadli. (2024). The Implementation of Interactive Flipbook Learning Media in Elementary School Penggilingan 01 Jakarta. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 7(4), 1487–1499. <https://doi.org/10.35568/abdimas.v7i4.5489>
- Magdalena, I., Ramadhan, G., Wahyuni, H. D., & Safitri, N. D. (2023). Pentingnya proses evaluasi dalam pembelajaran di sekolah dasar. *Ta'rim: Jurnal Pendidikan dan Anak Usia Dini*, 4(3), 167-176.
- Poerwanti, J. I., Marmoah, S., Istiyati, S., & Mahfud, H. (2023). Classroom-Based Assessment System to Improve the Quality of Learning in Malaysia and Indonesia. In *Elementary School Forum. Mimbar Sekolah Dasar*, 10(3), 626-642.
- Putri Taqwa Prasetyaningrum, Ibrahim, N., Ozzi Suria, Eka Aryani, March Sevenia Putri Surga, & Rani Melati Siregar. (2025). Innovation in Interactive Learning Media Based on Visual Design and Gamification to Enhance Student Engagement. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 8(3), 1319–1333. <https://doi.org/10.35568/abdimas.v8i3.6714>
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Savery, J. R. (2006). Tinjauan tentang Definisi dan Pembelajaran Berbasis Masalah Perbedaan. *Jurnal Interdisipliner Pembelajaran Berbasis Masalah*, 1(1), 3. <https://docs.lib.purdue.edu/ijpbl/vol1/iss1/3>
- Ventista, O. M., & Brown, C. (2023). Teachers' professional learning and its impact on students' learning outcomes: Findings from a systematic review. *Social Sciences and Humanities Open*, 8(1), 100565. <https://doi.org/10.1016/j.ssaho.2023.100565>
- Villarroel, V., Bloxham, S., Bruna, D., Bruna, C., & Herrera-Seda, C. (2018). Authentic assessment: creating a blueprint for course design. *Assessment and Evaluation in Higher Education*, 43(5), 840–854. <https://doi.org/10.1080/02602938.2017.1412396>
- Wolf, K., & Stevens, E. (2007). The role of rubrics in advancing and assessing student learning. *The Journal of Effective Teaching*, 7(1), 3–14. http://works.bepress.com/cgi/viewcontent.cgi?article=1058&context=susan_madsen#page=8
- Wulandari, A., Clara Novita Anggraini, Freddy Yusanto, & Catur Nugroho. (2025). Strengthening Digital Literacy and AI Ethics for Children and Adolescents through Participatory Approaches and Experiential Learning. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 8(3), 1431–1438. <https://doi.org/10.35568/abdimas.v8i3.6862>.