Mentoring the Implementation of In-Depth Learning for High School and High School Plus Teachers at the Al-Ashriyyah Nurul Iman Foundation

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Abstract
This community service program was conducted in the framework of strengthening the professional competencies of high school teachers in the application of Deep Learning strategies. The target audience were teachers of SMA and SMA Plus at Yayasan Al-Ashriyyah Nurul Iman Islamic Boarding School – Parung, Bogor. The problems found included the lack of understanding and implementation skills related to deep learning-based learning strategies and assessment instruments. Through workshops, mentoring, and collaborative coaching methods, the teachers were guided to design and apply deep learning-based assessments. The results indicated an improvement in teachers' understanding and ability to implement deep learning assessments, as reflected in positive feedback in the satisfaction survey, the increased post-test scores and formation of professional traits based on teachers' self-assessment. This program contributes significantly to pedagogical strengthening and the quality of learning in the Merdeka Belajar curriculum context.

Keywords: *Deep Learning, Assessment Instrument, Teacher Professionalism, Mentoring, SMA Nurul Iman*

INTRODUCTION

Education is the primary foundation for producing a generation that is not only cognitively intelligent but also capable of facing the complex challenges of our time. One approach that is increasingly being used to address these challenges is Deep Learning (*Deep Learning*). This learning is a transformative approach that emphasizes the development of 21st-century competencies such as critical thinking, collaboration, and contextual creativity (Fullan et al., 2018). (Ministry of Primary and Secondary Education, 2025) also emphasized that in-depth learning is part of the Merdeka Belajar agenda to foster holistic student competency development. Furthermore, Tall (2017) demonstrated that deep thinking skills go beyond simply producing correct answers, but also through understanding the structure of thinking itself—an essential skill for navigating the complexities of the real world (Byers, 2015).

Deep learning (*deep learning*) has become an important focus in curriculum development and pedagogical practice because of its ability to encourage conceptual understanding, critical reflection, and meaningful application of knowledge.(Hermes & Rimanoczy, 2018) emphasizes that deep learning not only enhances conceptual understanding, but also fosters *sustainability mindset that* relevant to answer global challenges.(Kovač et al., 2025)underscores the importance of understanding *why, what, and how of* deep learning, including a critical analysis of the benefits and challenges of its application in various educational contexts.(Chen et al., 2024)Through a systematic review, various concepts, supporting factors, models, and measurement approaches in in-depth learning research in education have been identified, which serve as important references for formulating valid evaluation instruments.(Weng et al., 2023) shows how design-based *learning facilitates* the realization of deep learning in students through creative and reflective engagement.

The Al-Ashriyyah Nurul Iman Islamic Boarding School Foundation in Parung, Bogor Regency, is a rapidly growing Islamic boarding school-based educational institution. The foundation not only provides free general and religious education but also equips

students with life and entrepreneurial skills. In its educational system, the foundation strives to integrate spiritual, academic, and vocational values. However, in its implementation, various issues have been identified related to the quality of learning at the high school and high school levels.

Although the urgency of immersive learning has been articulated in various policies, many teachers still face challenges in implementing it systematically and sustainably. Focused discussions and field observations revealed that most teachers in foundations have not yet optimally implemented immersive learning approaches. Key challenges include a lack of understanding of immersive learning concepts, difficulties in designing relevant assessment instruments, and a lack of ability to utilize technology to support learning. Furthermore, limited ongoing training and mentoring activities exacerbate this situation.

In the context of the Independent Learning Curriculum policy, teachers are required not only to teach but also to act as facilitators, capable of guiding students toward achieving the Pancasila Student profile. Therefore, teachers' ability to design and implement in-depth learning strategies is crucial. Assessments in in-depth learning must also be able to uncover students' higher-order thinking skills, not simply measure memorization.

The role of teachers in implementing immersive learning is crucial. Teachers are not merely transmitters of information, but also architects of learning experiences that encourage students to explore the meaning, value, and relevance of the learning material. Fullan (2020) emphasized that teachers within the framework of Deep Learning Teachers must be agents of change capable of integrating global competencies such as creativity, collaboration, communication, character, citizenship, and critical thinking (6C). Therefore, teacher professional development is not sufficient through technical training alone; it must also include strengthening reflective capacity, understanding student contexts, and the ability to design learning oriented towards knowledge transfer across situations.

According to the Jakarta State University Strategic Plan (Renstra), this community service activity demonstrates the university's concrete role in fostering and empowering the educational community. It is hoped that this activity will strengthen collaboration between the university and its partner schools and improve the quality of education in partner regions.

The goal of this activity is to improve teachers' professional competence in implementing in-depth learning strategies, particularly in developing appropriate assessment instruments. The activity was conducted through a series of workshops, mentoring sessions, and coaching sessions involving lecturers from the UNJ Graduate School. Using an andragogical approach, teachers were encouraged to be active, reflective, and collaborative throughout the entire series of activities.

Thus, this article aims to describe the process, results, and impact of mentoring activities to implement in-depth learning for teachers at the Al-Ashriyyah Nurul Iman Foundation. The primary focus is on improving teachers' understanding, skills, and attitudes in designing and implementing in-depth learning and assessment strategies in accordance with the requirements of the Merdeka Belajar Curriculum.

Based on this background, this mentoring activity was designed to answer several main questions: (1) what are teachers'

perceptions and levels of satisfaction with the training on implementing deep learning? (2) to what extent have teachers' understanding and skills in designing and implementing deep learning improved after participating in the mentoring? and (3) how have teachers' teaching behaviors in the classroom changed in implementing the principles of deep learning after the mentoring? These three questions are the focus of the evaluation within Kirkpatrick's three-step model framework, which allows for a gradual and in-depth tracking of the training's success, from initial responses to changes in actual classroom practice.

IMPLEMENTATION METHOD

This community service activity was carried out using a participatory approach through three main stages, namely: (1) preparation, (2) implementation of workshops and mentoring, and (3) evaluation. The method used combines andragogy strategies, active training (active training), And coaching Collaboratively. The activity took place at the SMA and SMA Plus Yayasan Al-Ashriyyah Nurul Iman Islamic Boarding School in Parung, Bogor Regency.

The first stage is identifying needs and planning activities. The service team conducts a needs analysis through interviews, observations, and Focus Group Discussion (FGD) with teachers and school leaders. The results indicated the need to strengthen teacher capacity in designing in-depth learning-based assessments and to develop a more comprehensive understanding of the implementation of the Independent Curriculum.

The second stage is an implementation workshop and mentoring. The activity was conducted over three days offline using interactive training methods. The material presented included: the concept of in-depth learning, the principles of authentic assessment, the development of assessment indicators and rubrics, and practical work on designing questions and assessment instruments based on learning of Higher Order Thinking Skills (HOT). Every session followed by group discussions, simulations, and direct practice.

The team of lecturers provided intensive mentoring to groups of teachers to revise and refine their assessment designs. The team also provided constructive feedback and encouraged critical reflection on the learning processes implemented by the teachers.coachingCollaborative learning is implemented to create a learning atmosphere that is mutually respectful and encourages changes in learning practices.

The third stage is the evaluation of mentoring using the Kirkpatrick model. Data collection was carried out using three types of instruments, namely: (1) participant questionnaires with a Likert scale to measure perceptions of the material and resource persons, (2) pre- and post-tests to measure improvements in teacher understanding of concepts, strategies, and assessments of in-depth learning; and (3) self-assessment questionnaires to measure changes in teacher teaching practices in the classroom. This questionnaire measures two main aspects, namely the implementation of in-depth learning and the ability to conduct authentic assessments.

All data were analyzed quantitatively and qualitatively to obtain a comprehensive overview of the activity's achievements. Data from the reaction questionnaire were analyzed descriptively using average values and percentages to illustrate the level of teacher satisfaction with the training and mentoring activities. To determine the increase in teacher understanding before and after the training, a

paired sample t-test was used on the pre-test and post-test scores. This test was used to test the significance of the difference in mean scores at two related measurement times. Questionnaire data of self-assessment analyzed descriptively using mean and percentage statistics, and categorized into four levels of understanding (very good, good, sufficient, and needs coaching), based on the total score obtained.

This implementation method was chosen because it emphasizes active participant involvement and takes into account the socio-cultural context of the partner schools. It is hoped that this approach will not only improve teacher competency but also foster a reflective and collaborative learning culture within the school environment.

RESULTS AND DISCUSSION

Multilevel evaluation is important to improve the quality of teaching and ensure follow-up after training (Khotimah & Abdan, 2025) (Irfanuddin et al., 2025). The following are the results of Kirkpatrick's three-step evaluation applied in workshop-in-depth learning assistance for SMA and SMA Plus Nurul Iman teachers.

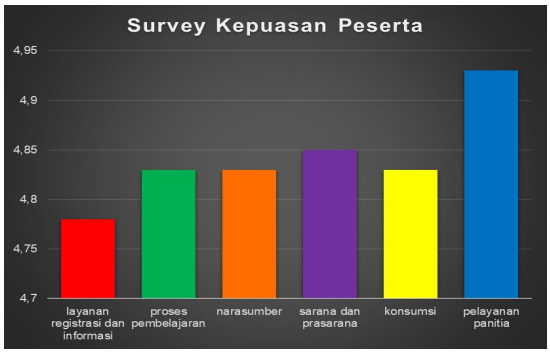

Figure 1.*Participant Satisfaction Survey Results*

A total of 19 mentoring participants took part in a satisfaction survey to evaluate their reactions to the implementation of the activity, as summarized in the evaluation model for the *Reaction* stage from Kirkpatrick. The survey results showed that participants were generally very satisfied with various aspects of the activity, with scores ranging from 4.78 to 4.93 on a scale of 5. The committee service aspect received the highest score of 4.93, reflecting the participants' high appreciation for the committee's responsiveness and support throughout the activity. This was followed by facilities and infrastructure with a score of 4.85, indicating satisfaction with the quality of the facilities. Meanwhile, the resource persons, consumption, and learning aspects received the same average score of 4.83, indicating satisfaction with the delivery of the material and the overall learning process. Finally, registration and information services had the lowest score of 4.78, although still in the very satisfactory category. These findings indicate that the activity was well received by participants, but there is room for improvement, especially in the registration and information services aspects.

Evaluation results of the stage of *Learning* in the Kirkpatrick model shows an increase in participants' knowledge after participating in the activity, as reflected in the comparison of pre-test and post-test scores. The average pre-test score of 27 participants was at 45.37, while the average post-test score increased significantly to 85.93 with a gain value of 33.70, indicating that the effectiveness of learning was in the moderate category. This increase indicates that the learning objectives were successfully achieved and the material presented was well understood by the participants. These results also reflect the positive contribution of the learning process, the quality of the material, and the competence of the resource person in improving the cognitive achievements of the participants.

Based on the results of the questionnaire of *self-assessment* in a two-month follow-up study of participants on the in-depth learning mentoring workshop, 31 teachers reported on the level of implementation of various in-depth learning practices in their classrooms. Overall, the average score of *self-assessment* showed that most participants had begun to consistently implement deep learning principles, although with varying degrees of implementation in some aspects. The most frequently implemented practices were linking learning objectives to real-world contexts, providing space for students to improve learning outcomes, and encouraging open and collaborative discussions in class, with an average score approaching 4 on a scale of 1-4. However, there are several areas that still require further strengthening. Aspects such as the development of assessment rubrics, peer assessment, and the implementation of project-based learning *inquiry* structurally show a lower average score than other aspects, namely around 3.1 to 3.3. Graph 2 shows the distribution of average scores for each indicator.

Figure 2. Distribution of average scores for each indicator

The results of the community service program showed a significant increase in teachers' understanding and skills in developing and implementing in-depth learning-based assessments. Data obtained from pre-test and post-test to all participants before and after the training. The average value-per-test of 62, while the average value/post-test reached 85, showing an increase of 23 points.

This increase indicates that the activity of workshop and mentoring have had a positive impact on teacher competency. Specifically, participants demonstrated a better understanding of the differences between conventional assessments and in-depth learning assessments and were able to design assessment rubrics that measure higher-order thinking skills.

In addition to quantitative data, qualitative feedback from participants also supported these findings. Most teachers stated that the material provided was highly relevant to their needs, and the interactive training approach made it easier for them to grasp complex concepts. One participant stated, "This activity opened my eyes and provided practical guidance that I can immediately apply in my classroom."

Real-world examples of teacher products include case study-based assessment designs and contextual issue-based projects. Some teachers also developed formative assessment rubrics to assess students' thinking processes during discussions and reflections. These products were evaluated by the service team and provided with individual feedback.

Observations during the training revealed an increase in teacher active participation in discussions and practice. Teachers became more reflective and critical in assessing the effectiveness of the learning they designed. Post-training mentoring also helped teachers address weaknesses in their assessment designs and boosted their confidence in implementing new strategies.

The reaction survey results showed that the majority of teachers (over 85%) expressed

great satisfaction with the workshop and mentoring, including the materials, facilitators, and their relevance to in-depth learning needs. This positive response from participants aligns with other research in the field of teacher training, such as the evaluation of the use of digital learning media, which showed that participant enthusiasm for the materials and facilitators was the foundation for the success of subsequent steps (Hasugian, 2024).

Based on pre-posttest, an average increase in understanding of in-depth learning concepts and strategies was 25% ($p<0.01$). This indicates that the training substantially strengthened teachers' understanding of both the theory and practice of in-depth learning. Similar results were also found by Zakiyatut et al. (2021) in their evaluation of the Covid-19 Preparedness technical e-learning training, where participants' understanding increased by approximately 20.65%. This increase in teachers' conceptual understanding is also consistent with research findings in the field of educational program evaluation. Munandar et al. emphasized that the Kirkpatrick and CIPP models are capable of providing a comprehensive evaluation framework that systematically maps competency development (Munandar et al., 2023).

Two months after the mentoring activity, the questionnaire of self-assessment showed that 70% of teachers were in the "good" or "very good" category in implementing in-depth learning; approximately 20% were adequate, and 10% needed further coaching. This indicates adaptation and internalization in daily teaching practice, although it is not yet evenly distributed. In the training evaluation literature, there is a tendency that new behaviors take time to consolidate and require continued support to become habits.(Fitri et al., 2025) (Muhammad et al., 2022).

The discussion of these results shows that this community service activity not only impacts teachers' cognitive aspects but also shapes professional attitudes that support sustainable development. This aligns with the principles of the Independent Curriculum, which encourages meaningful, student-centered learning.

Thus, this activity makes a real contribution to improving the quality of learning in partner schools. The success of this program demonstrates that teacher training must be designed in a contextual, participatory, and sustainable manner to achieve optimal results.

CONCLUSION

This community service activity successfully improved the understanding and skills of high school and high school plus teachers at the Al-Ashriyyah Nurul Iman Foundation in developing and implementing in-depth learning-based assessments. Through a collaborative workshop and mentoring approach, teachers demonstrated significant improvement in their ability to design assessment instruments that measure higher-order thinking skills. Quantitative and qualitative evaluations demonstrated the program's effectiveness in shaping professional attitudes and encouraging more meaningful changes in learning practices.

The tangible contribution of this activity is seen not only in improved test scores and participant satisfaction, but also in the creation of contextual and reflective assessment products. This program also emphasizes the importance of ongoing, participatory, and contextual teacher training to support the comprehensive implementation of the Independent Curriculum.

SUGGESTION

Follow-up in the form of regular mentoring after training is necessary to ensure teachers' competency development continues sustainably. Schools and foundations are expected to facilitate collaborative learning spaces for teachers to foster productive communities of practice. Furthermore, expanding similar activities to other educational levels or partner schools could be an effective strategy to broaden the impact of this community service program.

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