Strengthening Principals' Growth Mindset to Support Deep Learning

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ABSTRACT

This community service program was conducted to strengthen school principals' growth mindset as a foundation for instructional leadership in supporting the implementation of Deep Learning. The background of this program was the need for school leaders to develop adaptive, reflective, and growth-oriented perspectives in responding to educational change, particularly in fostering mindful, meaningful, and joyful learning environments. The program aimed to enhance principals' understanding and readiness to apply growth mindset principles in their leadership practices. The activities involved 32 principals from elementary schools and early childhood education institutions in Jember Regency and were implemented through an andragogy-based training and mentoring approach. The methods included interactive lectures, classroom discussions, reflective worksheet activities, group presentations, and collaborative learning strategies designed to encourage reflection, dialogue, and shared learning experiences among participants. The results indicated that the program successfully facilitated conceptual understanding and initial behavioral changes among participants. Principals demonstrated increased active participation, openness to feedback, reflective thinking, and readiness to implement follow-up actions related to Deep Learning in their respective schools. In addition, the program produced reflective learning artifacts and contributed to the emergence of an initial professional learning network among principals, supporting peer collaboration and knowledge sharing. In conclusion, the community service program effectively achieved its objectives by strengthening principals' growth mindset through participatory and reflective learning processes, suggesting that growth mindset-based leadership development constitutes a relevant and sustainable strategy for enhancing instructional leadership and supporting the implementation of Deep Learning in schools.

Keywords: Andragogy, Leadership, Mindset, Principals, Reflection

INTRODUCTION

Improving the quality of primary and secondary education in Indonesia remains a major national agenda that has yet to be achieved evenly. Various indicators reveal that students' literacy, numeracy, and higher-order thinking skills are still at an alarming level. The results of the Programme for International Student Assessment (PISA) 2022 indicate that the majority of Indonesian students remain at lower levels of cognitive proficiency, while only a small proportion are able to demonstrate complex and reflective reasoning skills (OECD, 2023). This condition highlights that the core challenge of education lies not merely in access, but in the quality of learning processes taking place in schools.

In response to these challenges, the government, through the Ministry of Primary and Secondary Education, has promoted the transformation of learning through the Deep Learning approach. This approach is designed to move beyond rote-oriented instruction toward learning that is mindful, meaningful, and joyful, emphasizing students' active engagement in understanding, applying, and reflecting on knowledge (Ministry of Primary and Secondary Education, 2025). Deep Learning is not positioned as a new curriculum, but rather as a pedagogical approach that strengthens the quality of learning processes and aligns with the demands of twenty-first-century education.

The successful implementation of Deep Learning is highly dependent on the readiness of the school ecosystem, particularly the quality of school leadership. Principals play a crucial role in shaping learning vision, guiding teachers' pedagogical practices, and creating a school climate that supports high-quality learning. Numerous studies have shown that effective instructional leadership significantly contributes to the improvement of teaching quality and the development of a positive learning culture within schools (Leithwood et al., 2020). Therefore, learning transformation requires principals not only to understand policy directions, but also to translate them into concrete practices at the school level.

However, policy changes and instructional reforms are often not accompanied by corresponding shifts in the mindset of educational leaders. Many school principals remain focused primarily on administrative and managerial tasks, resulting in limited attention to the development of learning culture and pedagogical innovation. This situation is frequently reinforced by a fixed mindset, which views abilities as static and difficult to develop, thereby discouraging experimentation, reflection, and innovation in learning practices (Dweck, 2016). Consequently, the implementation of innovative approaches, including Deep Learning, tends to be fragmented and unsustainable.

In contrast, a growth mindset perceives abilities as qualities that can be developed through effort, reflection, and continuous learning. Individuals with a growth mindset are more open to feedback, more resilient in the face of challenges, and more intrinsically motivated to improve (Dweck, 2016). Within the context of school leadership, a growth mindset serves as a critical foundation for principals to encourage innovation, foster collaboration among teachers, and cultivate a school environment that supports deep and meaningful learning. For this reason, strengthening principals' growth mindset has become an urgent necessity in the broader agenda of educational transformation.

Research on professional development consistently emphasizes that effective leadership development cannot rely solely on one-way training activities, but instead requires sustained, reflective, and context-sensitive approaches. Professional development programs that integrate training, mentoring, and reflective practice have been shown to be more effective in promoting lasting changes in leadership attitudes and practices (Darling-Hammond et al., 2020). Such approaches are closely aligned with the principles of Deep Learning, which emphasize meaningful learning experiences and reflection as essential components of capacity building.

Based on these considerations, this community service program was designed as a strategic effort to bridge the gap between Deep Learning policy and leadership practices in schools. The program focuses on training and mentoring school principals to strengthen their growth mindset as a foundation for instructional leadership. Through this process, principals are not only provided with conceptual understanding of Deep Learning, but are also encouraged to critically reflect on their leadership practices and to implement the principles of mindful, meaningful, and joyful learning within their respective school contexts (Hattie & Donoghue, 2016).

The problem-solving strategy employed in this community service activity adopts a continuous professional development approach that enables systematic processes of understanding, application, and reflection. Principals are actively engaged in adult learning processes (andragogy), reflective discussions, and the sharing of best practices that are relevant to their school contexts. This approach is considered more effective in fostering deep changes in mindset and leadership practice compared to conventional training models (Fullan, 2020).

The primary objective of this community service program is to strengthen principals' growth mindset in supporting the implementation of Deep Learning in schools. More specifically, the program aims to help principals develop reflective, adaptive, and learning-oriented leadership that focuses on nurturing the potential of teachers and students alike. By reinforcing a growth mindset, principals are expected to cultivate school cultures that are mindful, meaningful, and joyful, thereby enabling the consistent and sustainable implementation of Deep Learning across educational settings (Ministry of Primary and Secondary Education, 2025; Leithwood et al., 2020).

METHOD

This community service program employed a sustainable training and mentoring design aimed at strengthening school principals' growth mindset to support the implementation of Deep Learning. The design was selected based on the premise that changes in mindset and instructional leadership practices cannot be achieved through one-way training alone, but require reflective, contextual, and continuous adult learning processes. Therefore, the program was implemented using an In–On–In scheme, which enables systematic stages of conceptual reinforcement, field-based application, and collective reflection and evaluation.

The program was organized through a collaboration between the Center for Teacher and Education Personnel Development (BBGTK) of East Java Province and the Department of Education of Jember Regency, reflecting institutional synergy between professional development agencies and local education authorities. The participants consisted of 32 school principals from elementary schools (SD) and early childhood education institutions (PAUD) in Jember Regency. The diversity of participants in terms of educational levels and school contexts served as the basis for designing a training approach that was adaptive and relevant to the practical needs of instructional leadership in the field.

The training adopted an andragogical approach, positioning participants as adult learners with rich professional experiences and contextual knowledge. In its implementation, the program integrated various learning techniques, including interactive lectures for conceptual reinforcement, classroom discussions to build shared understanding, worksheet-based activities (LK) for structured reflection on leadership practices, and the window-shopping method (problem and idea exploration) to broaden perspectives and promote peer learning. This variety of methods was intentionally designed to foster active engagement, openness to feedback, and the willingness to explore more adaptive leadership practices.

The first stage of the in–On–In scheme was conducted as In-Service Training, focusing on strengthening participants' conceptual understanding of growth mindset and Deep Learning. During this stage, principals were encouraged to reflect on the mindsets that had influenced their leadership practices, identify learning challenges within their schools, and understand their strategic role in cultivating learning cultures that are mindful, meaningful, and joyful. Interactive lectures, classroom discussions, and worksheet-based reflections were the primary activities used to develop initial awareness and readiness for change.

The second stage, On-the-Job Training, involved the application of growth mindset principles within participants' respective schools. At this stage, principals were encouraged to implement the outcomes of their reflections and planning processes, such as supporting teachers' instructional innovation, promoting reflective teaching practices, and creating a safe and supportive school climate for learning. This stage was accompanied by mentoring and reflective communication to help participants meaningfully connect theoretical understanding with authentic leadership practices in their daily professional contexts.

The third stage consisted of advanced In-Service Training, which emphasized collective reflection, evaluation of practices, and the consolidation of shared learning. Participants exchanged experiences from the implementation phase, discussed challenges encountered in the field, and identified emerging best practices. Classroom discussions and the window-shopping method were again utilized to enrich participants' perspectives and strengthen collaborative learning among principals as a professional learning community.

Evaluation of the community service program was conducted using formative and reflective approaches, focusing on participants' engagement, the quality of reflective processes, and changes in principals' perspectives regarding instructional leadership. Formative evaluation took place throughout the training process through observation of participant involvement, reflective discussions, and feedback on learning activities. Reflective evaluation was conducted at the end of the program to assess the extent to which growth mindset strengthening influenced participants' attitudes and follow-up action plans in supporting Deep Learning.

Monitoring was carried out continuously to ensure consistency of implementation and sustainability of program outcomes. The monitoring process focused on the continuity of reflective leadership practices, principals' support for teachers' learning processes, and efforts to cultivate school cultures aligned with the principles of Deep Learning. Findings from the monitoring activities

were used as a basis for refinement and reinforcement, ensuring that the community service program functioned not merely as a standalone activity but as a catalyst for sustained transformation in instructional leadership practices at the school level.

RESULTS AND DISCUSSION

This community service program focused on strengthening school principals' growth mindset as a foundational element of instructional leadership to support the implementation of Deep Learning. Growth mindset was positioned as a critical foundation because principals' ways of interpreting challenges, mistakes, and feedback significantly influence school learning cultures and openness to innovation (Dweck, 2016; Fullan, 2020). Within the policy context of Deep Learning, principals with a growth mindset are expected to foster learning practices that are mindful, meaningful, and joyful in a sustainable manner (Ministry of Primary and Secondary Education, 2025). The program involved 32 principals from elementary schools (SD) and early childhood education institutions (PAUD) in Jember Regency, with institutional support from the East Java BBGTK and the Jember Regency Department of Education, providing legitimacy and stronger prospects for sustainability.

The outputs of the program were not physical products, but rather new competencies and shifts in principals' perspectives regarding instructional leadership. By targeting school principals as learning leaders, the program aimed to generate systemic impact, as mindset transformation at the leadership level has the potential to influence teachers, staff, and overall school learning culture (Leithwood et al., 2020). This approach was deliberately chosen because technical training alone is often insufficient to produce sustained changes in practice without accompanying mindset transformation.

In terms of implementation design, the program adopted an andragogical approach, positioning principals as adult learners with rich professional experiences. The training methods were intentionally varied and participatory, including interactive lectures, classroom discussions, worksheet-based activities, group presentations, and the *window shopping* method (problem and idea exploration). This approach aligns with adult learning principles that emphasize experiential relevance, contextual problem-solving, and critical reflection as key drivers of meaningful learning (Knowles et al., 2015).

Figure 1. Group Activities on Growth Mindset Worksheet Completion

Figure 1. shows participants working collaboratively on growth mindset worksheets. This activity served as a critical entry point for structured reflection, enabling participants to identify fixed mindset tendencies that had influenced their leadership practices and to formulate alternative growth-oriented responses. In the context of elementary and early childhood education, such reflection is

particularly relevant, as principals lead learning ecosystems that require patience, empathy, and openness to pedagogical experimentation.

Figure 2. Groups Presenting the Results of Their Discussions in the Classroom

Figure 2. illustrates groups presenting their discussion results in class. These presentations functioned as mechanisms of social learning and collective sense-making. The willingness to articulate ideas and receive feedback reflects a shift in learning orientation from avoiding mistakes toward embracing growth through dialogue and reflection (Dweck, 2016). From an instructional leadership perspective, this experience equips principals to later facilitate professional dialogue and reflective practices among teachers in their schools (Fullan, 2020).
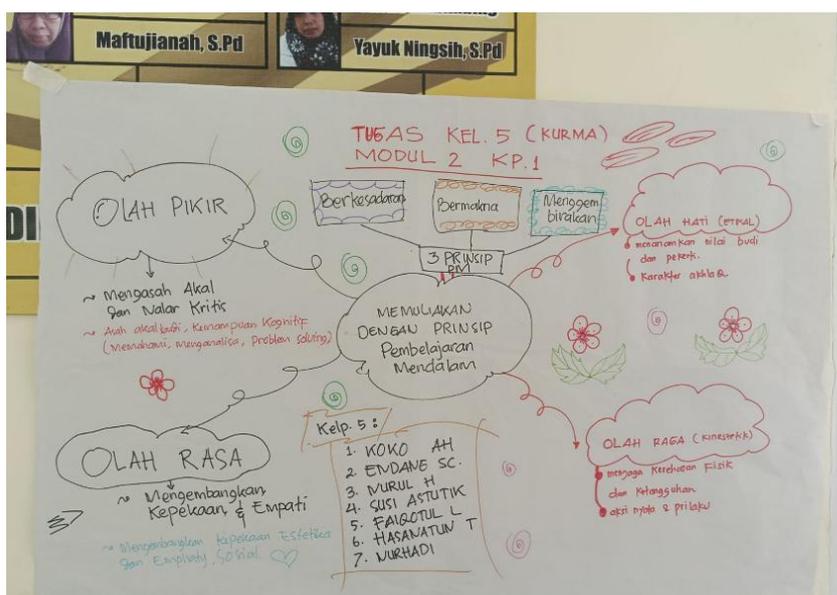

Figure 3. An Example of Group Work Presented on Flipchart Paper

Figure 3 presents one example of group outputs displayed on flipchart paper. These artifacts represent participants' processes of elaboration and visualization, illustrating connections between growth mindset, principals' roles, and Deep Learning implementation. Visual products such as these support clearer planning and systematic thinking, facilitating the transfer of conceptual understanding into school leadership practice. From a learning perspective, such activities support

knowledge organization processes that contribute to long-term learning and application (Hattie & Donoghue, 2016).

Figure 4. One of the Training Methods: Window Shopping (Problem Exploration)

Collaborative learning was further strengthened through the application of the *window shopping* method, as shown in Figure 4. This method allowed participants to observe other groups' work, offer feedback, and broaden their perspectives. In professional development contexts, peer learning and horizontal knowledge exchange have been shown to be effective in promoting changes in leadership and instructional practices (Darling-Hammond et al., 2020). Additionally, the *window shopping* method fostered a joyful yet intellectually challenging learning atmosphere consistent with Deep Learning principles.

Figure 5. An Example of Active Participant Engagement Through Questioning in Classroom Discussion and Exploration

Active participant engagement, as depicted in Figure 5, represents an important indicator of process effectiveness. Principals' willingness to ask questions and engage in dialogue signals psychological safety and a deeper learning orientation. In school leadership contexts, such

engagement is a prerequisite for cultivating reflective dialogue and sustained professional learning cultures (Leithwood et al., 2020).

Based on these processes, the final products and outcomes of the community service program can be articulated more explicitly. The primary output was a growth mindset strengthening service model for school principals, implemented through andragogical and collaborative learning strategies. Additional outputs included reflective learning artifacts, such as worksheets and flipchart presentations, which documented participants' understanding and action planning. Further outcomes included enhanced instructional leadership capacity, reflected in early behavioral changes such as increased participation, openness to feedback, and readiness to implement Deep Learning principles at school. Finally, the program fostered an emerging principals' learning network across SD and PAUD institutions, which has the potential to evolve into a sustained community of practice.

From a strengths perspective, the model and final outputs demonstrate several advantages. First, the focus on mindset transformation represents a low-cost yet high-impact intervention, as it addresses a foundational aspect of leadership influencing broader school systems. Second, the andragogical and participatory methods align well with principals' characteristics as adult learners, enhancing relevance and engagement (Knowles et al., 2015). Third, the presence of tangible learning artifacts increases the concreteness and follow-up potential of the program. Fourth, institutional support from BBGTK and the local education authority strengthens sustainability and replication prospects (Leithwood et al., 2020).

Nevertheless, several limitations must be acknowledged. Mindset transformation is inherently a long-term process, and the indicators observed at this stage primarily reflect early behavioral and attitudinal changes rather than fully institutionalized cultural shifts (Fullan, 2020). Moreover, differences in school contexts between elementary and early childhood settings require adaptive strategies for implementation. Without structured follow-up mechanisms such as reflective reporting, mentoring, or regular peer learning forums there is a risk that the service model remains a training experience rather than an embedded leadership practice (Darling-Hammond et al., 2020).

To clarify the final outputs of the community service program, a summary of products and outcomes is presented in Table 1.

Table 1. Products and Final Outcomes of the Community Service Program

No.	Product / Final Outcome	Brief Description	Form of Output
1	Growth mindset strengthening service model for principals	An andragogy-based training and mentoring model supporting Deep Learning implementation	Conceptual and procedural model
2	Reflective learning artifacts	Worksheets and flipchart presentations documenting participants' reflections and action plans	Documents and visual products
3	Enhanced instructional leadership capacity	Improved readiness of principals to cultivate supportive learning cultures	Professional competencies
4	Early behavioral change indicators	Increased participation, questioning, and openness to feedback	Behavioral indicators
5	Emerging principals' learning network	Collaborative interactions across SD and PAUD institutions	Professional learning network

Table 1 indicates that the final outcomes of the community service program extend beyond training processes to include conceptual models, reflective artifacts, and early indicators of leadership change. The presence of both tangible and intangible outputs strengthens the sustainability of Deep Learning implementation, while the emergence of a principals' learning network provides opportunities for continued collaboration and follow-up.

Overall, this discussion demonstrates that strengthening principals' growth mindset through an andragogical and collaborative approach constitutes a relevant and contextually grounded community service intervention. By explicitly articulating both the process and the final products, the findings presented here provide a solid foundation for drawing conclusions and formulating recommendations regarding the sustainability and future development of instructional leadership initiatives in schools.

CONCLUSION

This community service program can be concluded to have achieved its primary objective, namely strengthening school principals' growth mindset as a foundation for instructional leadership in supporting the implementation of Deep Learning. Through an andragogy-based training and mentoring approach, the program successfully facilitated reflective, dialogical, and collaborative learning processes among 32 principals from elementary schools and early childhood education institutions in Jember Regency. The principals not only gained conceptual understanding of growth mindset and Deep Learning, but also experienced learning processes that encouraged shifts in perspective toward viewing challenges, mistakes, and feedback as integral parts of continuous learning and improvement.

The achievements of the program are reflected in the establishment of a replicable growth mindset strengthening service model for school principals, the availability of reflective learning artifacts in the form of worksheets and visual presentations, and the emergence of early behavioral change indicators, such as increased active participation, willingness to ask questions, openness to feedback, and readiness to implement follow-up actions in their respective schools. In addition, collaborative interactions during the program contributed to the formation of an initial principals' learning network across educational institutions, which holds potential to be further developed into a professional community of practice supporting the sustainability of Deep Learning implementation.

With institutional support from the East Java BBGTK and the Jember Regency Department of Education, this community service activity demonstrates that strengthening principals' growth mindset through participatory and reflective training approaches is both relevant and contextually grounded. From a practical perspective, the outcomes of this program provide school principals with a concrete foundation to initiate small but strategic leadership actions that foster reflective teaching practices and supportive learning cultures at the school level. Furthermore, the service model developed in this program may serve as a reference for similar capacity-building initiatives aimed at strengthening instructional leadership in diverse educational contexts.

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