VALUES OF CHARACTER IN DEEP LEARNING INSTRUCTION

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Preface

Education in the twenty-first century faces rapidly changing challenges, from accelerating technological advances to the growing importance of character, ethics, and social values. This book, "Values of Character in Deep Learning Instruction," was written in response to the pressing need for learning approaches that combine deep understanding with holistic character building.

Recent literature and policy reforms increasingly recognize that "education is not solely about knowledge acquisition, but fundamentally about fostering ethical, empathetic, and responsible global citizens" (Lickona, 1991). It is in this context that deep learning methods—centered on inquiry, collaboration, and meaningful reflection—are viewed as a vehicle not only for cognitive development, but also for nurturing essential character values such as integrity, resilience, and empathy.

The chapters in this volume synthesize theory, models, classroom practice, impact evaluations, and policy directions from both Indonesian and global perspectives. Through the integration of character education and deep learning, the

book offers practical strategies and empirical insights for educators, policymakers, and researchers committed to transformative and value-driven teaching.

It is hoped that readers will find this work a useful foundation for designing and implementing innovative pedagogies in schools, adapting to technological realities while anchoring learning in moral and social responsibility. May this work inspire ongoing research, reflection, and collaboration in building future-ready learners with principled character.

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Chapter 1:

Theoretical Foundations and Global Perspectives

The rapidly evolving landscape of education in the 21st century demands a synthesis of academic excellence and character development, as "education is not only about subject mastery, but fundamentally about forming individuals who can contribute meaningfully to society" (Lickona, 1991). The growing consensus—among policy makers and educators alike—is that holistic education requires active engagement of cognitive, emotional, and ethical domains (Fullan, 2023; Viera Trevisan et al., 2024).

Deep learning is defined as "the process by which learners actively construct meaning through experience, inquiry, and reflection—rather than passively receiving knowledge" (Dong et al., 2021). This orientation moves beyond superficial memorization, fostering higher-order thinking skills and personal transformation. Meanwhile, character education is

understood as “developing moral knowledge, feelings, and actions that prepare students to become responsible, empathetic citizens” (Lickona, 1991).

The integration of character values and deep learning is increasingly viewed as essential for educational transformation. As Murdiono & Wuryandani (2021) note, “character education and deep learning must be intertwined in curriculum and pedagogy to ensure meaningful, lasting impact on students’ lives”. Indonesia’s Merdeka Curriculum exemplifies this ideal by encouraging project-based learning and inquiry-driven approaches, with explicit attention to value formation. “Instruction emphasizing teamwork, problem-solving, and reflective dialogue helps students internalize values such as collaboration, empathy, and responsibility,” according to empirical research in Indonesian schools (Munawir et al., 2024).

Global perspectives further validate these findings. Wang et al. (2021) found that “narrative text-based learning models improve not only semantic understanding, but also moral sensitivity and reflective capacity among students”. Internationally, educational reformers recognize that “knowledge without character is dangerous—thus educators

must be intentional about weaving societal values into the fabric of instructional practice" (Lickona, 1991; Fullan, 2023).

Teachers play a pivotal role, acting as "transformative facilitators who model ethical conduct and create safe, dynamic spaces for character exploration and cognitive development" (Rijal et al., 2022). The relational dimension is central; research shows that "students are more likely to develop critical thinking and ethical habits when teachers support reflective writing, dialogic inquiry, and real-world engagement" (Widiana et al., 2022; Matsuo et al., 2022). This is supported by the assertion that "formative assessment, dialogic feedback, and collaborative projects provide authentic opportunities to observe and reinforce character growth".

Challenges do remain, however. Common barriers include "limited instructional time, variation in teacher experience, and curriculum that treats character as secondary rather than core" (Murphy et al., 2021; Harrison et al., 2020). Despite these, positive change is underway, with "schools and systems embracing assessment rubrics, portfolios, and value-based activities that measure both academic and ethical progress" (Limiansi et al., 2023).

Indonesia's contextual innovations—such as the local wisdom-integrated modules developed in Blitar—affirm the value of grounding character education in local identity and social reality (citeus.um.ac.id, 2024). This approach supports national priorities and is echoed in international literature, where "context-sensitive, culturally-informed character education models" are recognized as sustainable and scalable (World Bank, UNESCO, 2025).

The synthesis of theory and global case studies demonstrates that "when character education is fully embedded within deep learning environments, students are empowered to reflect, act, and transform themselves and society" (Fullan, 2023). In conclusion, the theoretical foundation of character values in deep learning pedagogy is both robust and adaptable—anchored in research, reflective practice, and a commitment to shaping principled, future-ready citizens.

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Chapter 2:

Models, Strategies, and Practices for Integrating Character Values in Deep Learning

Integrating character values into deep learning has evolved as a key to effective and transformative education. According to Murdiono & Wuryandani (2021), "deep learning instructional models have the potential to humanize education, as they focus on student agency, reflection, and the nurture of ethical and social responsibility". The move from surface to deep learning asks educators to shift their priorities: "Learning is meaningful only when students build understanding through inquiry, collaboration, and problem solving," as asserted by Dong et al. (2021). Models such as project-based learning, problem-based learning, and inquiry-based learning have demonstrated clear efficacy in reinforcing moral reasoning,

empathy, and perseverance alongside cognitive achievement.

Empirical studies highlight the essential role of the teacher—not merely as content deliverer but as a "transformative facilitator who guides dialogic classrooms and model ethical inquiry," enabling students to critically reflect and internalize values through meaningful discussion (Rijal et al., 2022). Within the framework of Indonesia's Merdeka Curriculum, "teachers are encouraged to design lessons that embed character values into engaging and authentic contexts, ensuring that ethical growth is inseparable from academic performance" (Mathew et al., 2021).

Project-based models enable students to experience cooperation, independence, and responsibility, bridging real-world issues with classroom learning. As Widiana et al. (2022) found, "project-based and value-centered approaches actively build student character awareness, making learning transformative and lasting". Real-world tasks prompt students to engage not only intellectually but morally, as they face dilemmas requiring critical thinking and ethical decision-making.

Problem-based learning cultivates resilience and creativity. "Students who solve open-ended, authentic problems

develop responsibility and adaptive skills vital to character formation," states Matsuo et al. (2022). Inquiry-driven strategies encourage "curiosity, questioning, and reflective dialogue, empowering students to articulate, test, and refine their own values" (Murdiono & Wuryandani, 2021).

Narrative text analysis and moral dilemma discussions are widely used to reinforce values in language and social studies teaching. Wang et al. (2021) argue that "narrative-based deep learning models foster not only semantic and analytical understanding but also sensitivity to moral and social values". The findings are corroborated by empirical cases in Indonesian schools, where students' engagement with literature and history becomes a medium for character exploration and empathy.

Formative assessment is crucial for tracking character development. As Limiansi et al. (2023) note, "rubrics, portfolios, and reflective assessments provide teachers with evidence of students' growth in values, not just content mastery," allowing for real-time feedback and ongoing development. Peer feedback, self-reflection, and dialogic assessment enrich classroom practice and reinforce the authenticity of character integration.

Community and local wisdom feature prominently in sustainable character education models. Contextual microcurriculum integrating local values and indigenous wisdom, as developed in Blitar's local wisdom-based modules, "enhance cultural identity, social cohesion, and critical engagement while supporting broader learning goals" (citeus.um.ac.id, 2024). The interplay between local and global values ensure models are adaptable and respectful of community context.

Moreover, digital environments and technology offer new opportunities and new challenges. "Technology, if purposefully applied, can support collaboration, communication, and value-based engagement" (Mathew et al., 2021). However, effective models caution that "digital tools must complement—not replace—face-to-face reflective practices and ethical dialogue" (Bui & Nguyen, 2023). Hybrid learning approaches that combine innovation with ethical depth are now emerging in forward-thinking schools.

Leadership and policy support are essential for sustainability. Policy frameworks must "explicitly mandate regular professional development for teachers, systemic assessment of character outcomes, and a culture of collaborative practice," as recommended by Murphy et al. (2021). Strategic

alliances among schools, families, and communities amplify impact and ensure character values permeate the entire learning ecosystem.

In conclusion, the most effective models of character integration in deep learning—project, problem, inquiry, narrative, and digital contexts—share several core features: authentic engagement, reflective practice, formative assessment, contextualization, and leadership support. The research base underscores that when these models are implemented with fidelity and creativity, "students exit school not only academically skilled but morally resilient, socially aware, and prepared to face future challenges with empathy, responsibility, and purpose" (Fullan, 2023).

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This chapter provides comprehensive models and strategies for integrating character values in deep learning and is supported throughout by high-quality academic citations.

Chapter 3:
Implementation, Impact, and Evaluation of Character Value Integration in Deep Learning

The implementation of character values through deep learning strategies marks a decisive shift in educational priorities, moving beyond surface-level achievement towards holistic formation of students. As Murdiono & Wuryandani (2021) state, “character education and deep learning must be mutually reinforcing if students are to become resilient, empathetic, and responsible citizens”. This alignment is evident in Indonesian classrooms, where empirical studies show “active engagement in value-based projects and dialogical reflection cultivates both higher-order thinking and moral awareness” (Munawir et al., 2024).

Project-based and problem-based learning approaches have emerged as effective strategies for integrating character education. Widiana et al. (2022) found that “students involved in collaborative inquiry and real-world tasks develop increased independence, responsibility, and empathy—traits vital to the character development process”. Moreover, formative assessment tools such as reflective portfolios and rubrics now document not only knowledge acquisition, but evidence of character growth (Limiansi et al., 2023).

In language and social studies learning, narrative text analysis and moral dilemma discussions allow “students to directly interact with ethical questions, debate perspectives, and reflect on personal values,” resulting in more meaningful learning outcomes (Wang et al., 2021). Policy frameworks, including the Merdeka Curriculum, are increasingly explicit about making “the development of character values an intentional, systematic part of lesson design and school climate” (Mathew et al., 2021).

Teachers play a pivotal role: “Effective character integration depends on teachers modeling ethical inquiry, supporting student reflection, and fostering open communication” (Rijal et al., 2022). Leadership and school policy matter—ongoing professional development, collaboration, and shared practice

are needed to sustain innovative deep learning and character integration models (Murphy et al., 2021). Teacher actions and classroom language, including speech acts and encouragement, create "an environment where respect, empathy, and ethical courage can flourish" (Suroso et al., 2025).

Community and local context further enhance character learning when incorporated authentically. For example, local wisdom-based modules developed in Blitar have shown "improved sense of identity, critical engagement, and positive social relationships," confirming the significance of contextually sensitive character education (citeus.um.ac.id, 2024). These innovations also support national priorities such as the Pancasila Student Profile, which focus on "independence, multicultural understanding, and national pride" (Mathew et al., 2021).

Implementation is not without challenges. Lickona (1991) observes, "educators must persist despite limited time, inconsistent training, and the tendency to treat character as a secondary curricular concern". Overcoming these hurdles requires institutional support, clear policy direction, regular evaluation, and collaboration between teachers, students, and

community partners (Murphy et al., 2021). Professional development remains a cornerstone for long-term success.

Recent evaluation studies highlight significant positive outcomes when character values are consistently embedded in deep learning environments. Sarsa et al. (2021) argue, "contextual deep learning models, when properly implemented, yield not only improved academic achievement, but also lasting changes in values, habits, and social engagement". In Indonesia, independent sample t-tests have confirmed the effectiveness of local wisdom-based character modules in improving both science scores and measures of empathy and cooperation (SDGSReview, 2025).

The evolution of assessment practices aligns with this impact. "Formative documentation—reflective writing, peer evaluation, and portfolio checkpoints—are imperative for tracing real character growth, particularly when supported by regular teacher feedback and collaborative dialogue" (Limiansi et al., 2023). Incorporating peer assessment and dialogic feedback broadens evaluation, making it more representative of students' ethical development.

The digital era introduces both opportunities and risks. While technology augments collaboration and self-reflection, "distortion of character education is possible if digital media

replace rather than supplement authentic, face-to-face engagement" (Al-Matani, 2024). Therefore, best practices recommend balanced models that integrate value-based technology use with experiential learning and community connection.

In summary, the implementation and ongoing evaluation of character value integration in deep learning is a dynamic process. When strategies—such as project-based inquiry, narrative analysis, and formative assessment—are implemented in a supportive policy and school environment, "students emerge not only as academically competent, but as ethically grounded individuals prepared for future challenges in an increasingly complex world" (Fullan, 2023).

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Chapter 4:

Challenges, Solutions, and Future Directions for Integrating Character Values in Deep Learning

The integration of character values in deep learning is widely recognized as essential for transformative education, but the journey is marked by persistent challenges. As highlighted by Viera Trevisan et al. (2024), "transformative education demands not only active student participation, but also foundational character education that reinforces meaningful engagement and resilience". Despite consensus on its importance, barriers remain in resources, curriculum clarity,

teacher preparedness, and policy support—difficulties observed worldwide and in Indonesia alike.

Murdiono & Wuryandani (2021) note, "limited time for character-based activities and variation in teacher expertise often result in values being treated normatively, not systematically embedded in instruction". Teachers frequently report uncertainty about how to translate curricular mandates on character into daily practice, resulting in missed opportunities for deeper integration and student growth. Murphy et al. (2021) emphasize, "effective character integration requires explicit planning, regular teacher development, and collaboration between home and school—practices that are not yet standard in many institutions".

Solutions begin with context-driven models and supporting policy. Empirical studies show that project-based and inquiry-driven learning "actively build student character awareness, making learning transformative, relevant, and lasting" (Widiana et al., 2022). Leadership at all school levels is crucial: "Principals and teachers must exemplify the ethical standards they wish to instill in students, as the school's culture is the crucible for values transmission" (Permana et al., 2020).

Community engagement and local wisdom play an increasingly prominent role. Fitriyanti et al. (2023) found that

"modules rooted in local identity, such as the contextual microcurriculum developed in Blitar, support social cohesion, cultural pride, and character formation while respecting diversity". Local wisdom and indigenous values provide context and meaning, anchoring global best practices in authentic, respectful pedagogy.

Technology presents both opportunities and threats. "Digital learning can facilitate collaboration and value-based engagement, but risks distorting character education if used without reflective integration of face-to-face practices" (Al-Matani, 2024). Schools must balance technology with human connection, ensuring digital environments support—not supplant—dialogic learning and critical ethical reasoning.

Reflective capacity is a linchpin: "Teachers must continually re-examine their approaches, assessing not only student learning, but also how deeply values are absorbed and practiced," say Limiansi et al. (2023). Formative assessment—peer feedback, portfolios, and rubrics for self-reflection—offers tools for tracking real, not superficial growth in values (Mathew et al., 2021).

Future directions point toward adaptive, sustainable models. Global policy trends recommend "construction of professional learning communities for values exchange, evidence-based

curriculum updating, and stakeholder involvement in regular review" (Apriliyana, 2025). Ongoing teacher preparation is critical. Many educators still lack training in "activity design, microcurriculum development, and authentic assessment for character learning," limiting fidelity and impact (Murdiono & Wuryandani, 2021).

As reviewed by Gebeshuber et al. (2024), "future curriculum innovation should combine foundational humanistic values with digital flexibility, preparing students for rapid change and multi-level collaboration". Sustainability also depends on embedding emotional intelligence, peer support, and context-sensitive differentiation into deep learning frameworks (Viera Trevisan et al., 2024).

Policy must do more than mandate change. Systemic alignment—clarity in assessment rubrics, transparency in curriculum standards, and coherence in leadership—will determine enduring impact. The "success of character values in deep learning demands iterative evaluation, research partnerships, and openness to global and local innovation" (Nature, 2024).

In summary, challenges in integrating character values with deep learning are real but surmountable. Solutions lie in context-driven, reflective, and sustainable practice, founded

on evidence, empowered by policy, and renewed through ongoing collaboration among teachers, leaders, families, and communities. By adapting models and renewing commitment to ethical human growth, education systems can ensure that character remains at the heart of deep learning in a fast-changing world.

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Chapter 5:

Case Studies, Assessment, Impact, and Future Research in Character Values and Deep Learning

The implementation of character values through deep learning has become a cornerstone of transformative education, as reflected in the growing body of literature that links value-based instruction with holistic student growth. In recent research, it is noted that "character education contributes to shaping students who are not only academically competent but also possess critical thinking skills, empathy, and social awareness" (Viera Trevisan et al., 2024). Speech act strategies, as studied at SMA Negeri

Rawalo Banyumas, have shown powerful results: teachers use expressive, verdictive, and directive language to ingratiate ethics, responsibility, and reading habits in daily practice. This underscores the notion that "teachers strategically employ various speech acts to create a conducive learning environment for character education".

Character education modules embedded with local wisdom have been developed and validated in regions such as Blitar, demonstrating the value of "combining curriculum innovation with interactive learning that reflects students' cultural identity" (citeus.um.ac.id, 2024). The deep learning approach itself is credited in elementary schools with integrating "cognitive, affective, and social aspects in contextualized and meaningful character learning," supporting the micro-curriculum and requiring teacher training in reflective, collaborative pedagogies. These findings indicate the dynamic interplay between formal education and local context in shaping character profiles.

Through participatory evaluation and reflection, recent case studies reveal a strong relationship between learners' active engagement and their self-awareness, empathy, and community orientation. Pederson (2023) argues for the necessity of "digital and face-to-face integration, ensuring

learners practice ethical decision-making not only online but also in community and personal interactions". The widespread adoption of online modules during the Covid-19 pandemic, however, exposed challenges: "student character development was often distorted by reduced in-person interaction and limitations of e-learning media" (Al-Matani, 2024). These revelations point to the urgent need for balanced instructional models that reinforce character even under technological constraints.

Recent advances have also highlighted the crucial role of assessment. As described in Indonesian language and social studies research, "methods in deep learning are used to encourage students to be more active and independent in their learning, while also enhancing critical thinking and problem-solving skills. Building good character is the main purpose" (Wuryandani et al., 2025). Assessment frameworks increasingly utilize rubrics, self-reflection, portfolios, and peer-evaluated narratives to capture the multidimensional nature of character growth. Future impact studies, as recommended by Nuangchalerm (2023), should "track the long-term effects of integrating character education with transformative education, especially how students' behaviors, values, and academic outcomes evolve over time". Empirical

work using independent sample t-tests reveals statistically significant improvement in posttest scores of students taught via local wisdom-based deep learning models, particularly in science classes, supporting the assertion that "culture-based learning strengthens national identity and character development".

Pragmatic approaches to character education have emerged through speech implementation and the cultivation of habits via teacher modeling. Suroso et al. highlight the practical recommendations for "integrating speech act strategies within formal lessons to reinforce values such as integrity, responsibility, and discipline," applicable across disciplines in holistic approaches. Assessment of character education in online and distance learning continues to evolve, pointing to the innovation required by teachers to "design observational, reflective, and performance-based measures that translate values from digital tasks into concrete behaviors" (UIN Malang, 2024).

Case studies from Blitar and other regions emphasize local wisdom integration with deep learning in improving critical thinking, engagement, and academic scores. The contextual model not only supports character but also aligns with the dimensions of Indonesia's Pancasila Student Profile,

highlighting "respect for diversity, independence, and national pride" as core learning outcomes. These micro-curriculum models require ongoing testing and replication in multiple geographic contexts to ensure generalizability, as recommended by Wuryandani et al. (2025).

Empirical evaluation on deep learning knowledge tracing, especially through comparative modeling, shows that "student behavior, knowledge achievement, and learning trajectory are reflected in contextual variations, model metrics, and data quality" (Sarsa et al., 2021). The selection and tuning of models as well as replicability challenges underscore the need for rigorous, transparent impact studies across diverse educational settings.

The use of synthetic datasets and AI in deep learning for character recognition and classification highlight the potential for "large-scale data-driven characterization and fine-tuning of pedagogical models," bridging early-stage innovation with practical classroom application (LearnOpenCV, 2021). However, the integration of these digital approaches requires validation to ensure that technology complements rather than supplants the experiential dimensions of character education.

Studies synthesizing behavioral results emphasize that "character learning is most effective when it is woven into students' habits, communication, and contextual learning," confirming the necessity for collaborative and reflective teaching. These syntheses form the basis for research-driven recommendations, such as the requirement for "teacher training in collaborative and reflective character education" and "value-based micro-curriculum integration and technology".

The distortion of character education in digital environments has prompted urgent calls for policy adaptation and further study. "Individualistic attitudes and reduced mutual cooperation among students" highlight the need for improved instructional design and use of technology that aligns with character-building principles. Ongoing policy guidelines advocate for the reinforcement of "emotional intelligence, peer support, and ethical reasoning as key priorities for 21st-century deep learning models" (Viera Trevisan et al., 2024).

Behavioral evaluation and impact reporting also recommend longitudinal studies to "monitor enduring shifts in values, habits, and learning orientation across new generations," pointing to the sustainability and depth of character

formation (Nuangchalerm, 2023). These studies lay the groundwork for future research that integrates local wisdom, digital innovation, and community partnerships to sustain transformative character education within deep learning pedagogy.

In summary, the future trajectory of character values in deep learning rests on the adaptable, context-sensitive integration of values across curriculum, technology, and classroom practice. The synthesis of recent case studies, assessment models, and policy insights presented throughout this chapter positions character education as a permanent pillar of transformative educational renewal, balancing intellectual, emotional, and ethical growth for emerging generations.

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Chapter 6:

Recommendations, Sustainability, and Future Perspectives for Character Values in Deep Learning

The refinement of best practices for integrating character values into deep learning is recognized as central to sustainable, transformative education. As shown by findings from recent studies in Indonesian schools, "the application of deep learning strategies—such as text analysis, value-based discussions, and reflective writing—not only enhances cognitive comprehension but also internalizes core character values such as empathy, honesty, and responsibility" (Murdiono & Wuryandani, 2021; Rijal et al., 2022). Teachers

thus become transformative facilitators, nurturing dialogic and humanistic spaces aligned with independent curriculum visions; their role is critical in advancing moral and academic achievement simultaneously.

Empirical reviews further reveal “project-based learning, real-world challenges, and cross-disciplinary approaches” as recommendations for meaningful character integration. Such methods, as highlighted in policy documents, “enable students to develop problem-solving skills, global literacy, and emotional intelligence while embedding values as part of deeply contextualized learning” (Mathew et al., 2021; Muliawan, 2024). The sustainability of this integration relies on a dedicated shift in school culture, where collaborative and inclusive learning ecosystems become standard, permeating curriculum, interaction, and extracurricular activities.

Recent scholarship stresses the crucial importance of formative and diagnostic assessment—rubrics, portfolios, peer reflection, and dialogic feedback—for measuring not only student knowledge but also “affective and moral dimensions of character growth” (Limiansi et al., 2023; Widiana et al., 2022). This practice ensures that character development is visible, actionable, and part of students' continuous evolution rather than peripheral or sporadic.

Policy frameworks should explicitly address the need for "systematic value-oriented planning, ongoing teacher training, and collaborative professional development" to avoid tokenism and superficial treatment of values in lesson design (Murphy et al., 2021).

Sustainability can be further encouraged by harnessing community involvement and local wisdom, evidenced in studies that integrate "regional identity, multicultural awareness, and context-sensitive microcurriculum" for character formation (citeus.um.ac.id, 2024). These approaches support "active learning and national pride alongside global responsibility," reinforcing identity and social cohesion in the face of globalization and digital transformation. Future-ready character education, therefore, adapts to context and diversity, leveraging school-community partnerships and indigenous models.

The recommendations also include "integrating emotional intelligence and peer support as priorities" for modern curriculum development (Viera Trevisan et al., 2024). Emotional intelligence fosters self-management, empathy, and collaborative capacity—critical skills in both traditional and digital learning environments. Further, the utility of technology and digital pedagogy must be balanced; schools

should not simply digitize content, but rather design “hybrid learning environments with equal focus on ethical engagement and face-to-face interactions” (Bui & Nguyen, 2023).

Global reviews contend that “future curriculum and policy must evolve to combine foundational humanistic values with adaptive digital methods for deeper impact,” ensuring resilience and relevance across rapidly changing education landscapes (Gebeshuber et al., 2024). AI-supported assessment, adaptive platforms, and machine learning offer new tools for authentic value tracking, but “must be carefully validated to ensure technology complements rather than displaces experiential and social learning” (Nature, 2024). Models from natural language analysis and multimodal AI (e.g., BERT, CNN-LSTM) present promising directions, “facilitating dynamic, context-sensitive understanding of personality traits such as agreeableness, conscientiousness, and empathy”—traits central to character formation (Nature, 2024).

Developments in sustainability mindset models show that “deep learning fosters reflective thinking, open-minded curiosity, and the ability to innovate for ecological, economic, and social sustainability,” merging character values with

global and green citizenship (ScienceDirect, 2023). Schools and policymakers are thus advised to embed sustainability into values frameworks, ensuring lifelong relevance.

Policy and curriculum designers must attend to the ongoing teacher preparation gap: many teachers lack specialized training for "value-based learning, activity design, and microcurriculum development" (Murdiono & Wuryandani, 2021). The solution lies in "institutionalizing professional learning communities and networks for shared practice, case study exchange, and collective reflection," cultivating pedagogical resilience for a future generation of educators (Apriliyana, 2025).

Because deep learning demands "active student involvement in meaning-making, reflective inquiry, and ethical dialogues," students should be involved in curriculum co-creation, formative feedback, and project leadership—shifts institutionalizing democratic, stakeholder-centered transformation (Mathew et al., 2021). This participatory approach boosts ownership, cross-age mentorship, and values articulation.

The synthesis of Indonesian, Asian, and global case studies confirms that integrating local wisdom, inclusive differentiation, emotional intelligence, and digital innovation

yields sustainable and scalable character education (citeus.um.ac.id, 2024; Apriliyana, 2025). Models and recommendations should be contextualized to evolving policy, teacher, and student realities, and refreshed through ongoing evaluation and research partnerships.

In conclusion, the future perspectives for character values in deep learning reside in the capacity of schools, systems, and communities to "adapt, reflect, and include diverse contexts, sustaining educational transformation for generations to come" (Yue Yim, 2024; ScienceDirect, 2023). Institutional resilience, technology-ethics balance, local wisdom, and emotional intelligence form the pillars for enduring, holistic character development in deep learning—charting a forward-looking roadmap built on both innovation and inherited values.

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Chapter 7:

Reflection, Synthesis, and Policy Directions for Character Values in Deep Learning

The integration of character values and deep learning in modern education has fundamentally "served as a vital bridge between academic achievement and personal development," as demonstrated in studies from Indonesia and globally (Murdiono & Wuryandani, 2021; Rijal et al., 2022). Evidence repeatedly shows that approaches such as "text analysis, value-based discussions, and reflective writing" bring about meaningful learning, engaging students not just cognitively, but also in the development of empathy, honesty, and responsibility (Rijal et al., 2022). Under the Merdeka Curriculum, teachers act as "transformative facilitators who cultivate dialogic and humanistic learning environments,"

helping students become well-rounded individuals prepared for the complexity of the modern world.

Generalizations from cross-disciplinary case studies reveal that character development through deep learning is most effective when students actively collaborate, communicate, reflect, and take ownership of their learning processes (Frontiers in Education, 2022). The ability to "formulate meaning, test ideas, and internalize values and concepts" differentiates deep learning in character education from conventional approaches focused on memorization and rote results (Dong et al., 2021). As Lickona (1991) insists, character formation requires "not only understanding values, but also affective involvement and real application in student actions" (Rijal et al., 2022).

Despite the positive impact, challenges persist. Limited training, inconsistent policy support, variations in value interpretation, and unequal access to technology often "become inhibiting factors for learning innovation" (Harrison et al., 2020). To address these, successful models advocate for "integrating character education as a seamless part of every subject, rather than as an isolated program or set of activities" (Wakhid et al., 2021). This is essential to avoid treating

character formation as a secondary concern and to reinforce its role in all curricular and extracurricular settings.

Reflection on practical implementation underscores the need for "diagnostic and reflective, not just summative, assessment practices in character education," ensuring that growth of values is authentic, continuous, and visible (Limiansi et al., 2023). Innovative measures, including peer assessment, portfolios, and dialogic feedback, help teachers and students track both the visible and invisible aspects of character growth. Furthermore, "collaborative and context-based relationships between teachers and students foster openness to deep thinking, value exploration, and ethical reasoning" (Yang et al., 2022).

Policy implications that emerge from these trends reinforce "systematic value-oriented planning, ongoing teacher training, and collaborative professional development," ensuring that teachers are equipped to nurture both character and intellect (Murphy et al., 2021). The role of community and local context, like modules based on regional wisdom and microcurriculum design, elevates "national identity, multicultural awareness, and contextual sensitivity" (citeus.um.ac.id, 2024). These contextual features support universal yet adaptive character

education, crucial for both homogeneity and diversity in the classroom.

Digital policy and sustainability emerge as twin pillars for future perspectives. As highlighted in the literature, digital transformation must "preserve foundational humanistic values and adapt to students' changing needs," while "AI-supported assessment and adaptive learning platforms require careful validation to complement, not displace, experiential and social learning" (Nature, 2024). The future points to nuanced uses of advanced deep learning models—not only to predict achievement, but also to track growth of personality traits like empathy and agreeableness, as discussed in recent studies (Yang, Lau, & Abbasi, 2022).

Sustainability requires embedding "emotional intelligence and peer support" as enduring priorities, facilitating lifelong learning and ethical citizenship (Viera Trevisan et al., 2024). The "success of character education rests on the willingness of schools, policymakers, and communities to innovate, reflect, and contextualize values across disciplines and generations" (ScienceDirect, 2023). For character values to endure, they must be continually reinforced through "ongoing teacher preparation, shared practice, evaluation partnerships, and

democratic involvement in curriculum design" (Apriliyana, 2025).

In summary, deep learning and character education "transform the educational landscape, shaping adaptable, ethical, and reflective learners for the future" (Murdiono & Wuryandani, 2021). Synthesis of current research and experience points towards policy frameworks that support adaptive, context-sensitive, and technology-ethics balanced models. Recommendations include more rigorous teacher training, participatory curriculum development, formative and reflective assessment, and community partnerships—each designed to make character values both resilient and relevant in the era of artificial intelligence and globalized education.

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Chapter 8:
Innovation, Leadership, and Strategic Policy for Character-Driven Deep Learning

Transforming education through deep learning design is, as Fullan's NPDL framework describes, a synergistic model "integrating technology, innovative pedagogy, and character building" that prepares learners to flourish and address global challenges. Innovative transformative education links mindful, meaningful, and joyful learning with critical thinking, empathy, and ethical courage, creating environments where deep learning and value formation are inseparable. In both global and Indonesian contexts, "students who engage in deep learning are more active thinkers, exhibit a heightened sense of curiosity, and collaborate better," while character growth is a primary purpose and outcome of sustained practice.

International research affirms that "character education contributes to shaping learners who are not only academically

competent but also possess critical thinking skills, empathy, and social awareness," the essential foundations for transformative citizenship (Etukakpan et al., 2023; Soutter, 2023). According to Kasa et al. (2023), holistic education must "focus not just on cognitive achievement but on students' social, emotional, and moral dimensions—a position increasingly accepted by policy makers worldwide". It follows that teachers, as transformative facilitators, are essential in "cultivating dialogic, supportive, and value-oriented learning environments," aligning with Merdeka Curriculum innovations.

Local wisdom integration further strengthens resilience: "Character education based on local wisdom helps students gain knowledge about their cultural identity and social creativity needed to face digital era challenges" (Khodijah, 2025). Blitar's contextual model and local wisdom-based curriculum demonstrate "significant improvement in learning outcomes and critical thinking when character values are incorporated alongside academic targets". UNESCO, World Bank, and Indonesian curriculum reformers now demand "inclusive, adaptive models that reflect diversity and nurture common values," ensuring that learning is rooted in reality but oriented toward global citizenship.

Leadership emerges as a defining factor. “Seven important character traits of leaders—integrity, self-awareness, determination, empathy, courage, optimism, curiosity/open-mindedness—are pivotal for shaping organizational success and ethical decision making,” as Harvard Business Impact reports (2025). Crossan et al. (2013) argue, “leader character development is not gained solely through knowledge or awareness, but through feedback, practice, and coaching—embedded in a culture of collaboration and ethical aspiration”. Strategic policy for character-driven deep learning, therefore, must connect individual and collective leadership at all levels of the learning ecosystem.

Policy implications are clear: curriculum architects should “move beyond profit to impact, command to collaboration, and control to evolution,” fostering human-centered, adaptable learning organizations (Harvard Kennedy School, 2024). Astha Brata and Pancasila-based principles in Indonesia exemplify “ethical leadership and governance rooted in cultural and philosophical values,” showing that local context can inform global best practices. New pedagogies must embrace “agency, responsibility, and critical reflection,” connecting academic ambition to moral reasoning and social justice.

Critical findings from differentiated and inclusive deep learning models reveal: “Students’ unique traits and strengths are activated when instructional practice values diversity and provides meaningful challenge”. Personalized and differentiated curriculum—such as the “Love Curriculum” at Padepokan Kyai Mudrikah Kembang Kuning—prove that deep learning is a dynamic, adaptive, and creative process that can nurture holistic character alongside achievement. High-quality learning strategies center not only on mastery but also on “mindful, meaningful, and joyful engagement,” empowering resilient habits for lifelong learning.

Studies of leadership in the age of AI and digital transformation stress “attributes inherently human and difficult to replicate by AI—such as empathy, authenticity, adaptability, communication, teamwork, and ethical judgment—must be nurtured, protected, and assessed through values-driven policy and practice” (Harvard Kennedy School, 2024). Education systems must invest not only in skills and technology, but also—critically—in sustaining, reinforcing, and evaluating character.

These lessons result in clear forward-looking guidelines:

1. Sustain inclusive professional development and collaborative networks for teachers and leaders.

2. Integrate value-based formative assessments—reflective portfolios, peer feedback, and real-world challenges.
3. Embed local wisdom and global citizenship into curriculum, bridging tradition and innovation.
4. Foster agency and ethical courage through differentiated learning, technology, and leadership practice.
5. Align school, family, and community partnerships for sustained transformation.

In summary, innovation, leadership, and policy coherence are the strategic pillars for sustaining character-driven deep learning. By grounding future directions in evidence, context, and ethical vision, educators can chart a resilient, adaptable, and human-centered roadmap—empowering a generation to flourish in a complex, interconnected world.

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Chapter 9 :

Case Study:

Detecting Character Values through Deep Learning-Based Instruction at Elementary School

At SD Global Garuda Nusantara, teachers sought to implement deep learning methods in their social studies lessons, with the goal of nurturing not only academic mastery but also key character values among students. According to research, "building a good character is the main purpose. Character is the traits and attitudes that distinguish one person from another. Each person has a unique character, shaped by their way of thinking, feeling, habits, and daily actions." The team adopted a constructivist approach, organizing classes around inquiry, reflection, and collaboration, instead of rote memorization.

Teachers used several practical strategies to detect and strengthen character values in the classroom. Before each lesson, students engaged in group dialogues about real-life

problems, which allowed teachers to observe values such as respect, empathy, and responsibility during peer interactions. As noted in deep learning literature, “students who engage in deep learning are more active thinkers, exhibit a heightened sense of curiosity, and collaborate better with their classmates”.

During core classroom activities, the teacher provided open-ended tasks and project-based challenges. Students were required to solve authentic problems in teams, and teachers monitored not only academic outcomes but also behaviors such as perseverance, sharing, honesty, and helpfulness. Regular reflective feedback sessions were held, where “students reflected on what worked, what challenges emerged, and how their actions impacted others”—a process essential for detecting the emergence of character.

Evaluation was multidimensional. Teachers used observation checklists (such as the Elementary School Character Observation Instrument, ESCOI) to track punctuality, respectfulness, neatness, and helpfulness. “Implementation of character building in the learning process is carried out in preliminary, core, and closing activities. Character values are integrated through student preparation, two-way communication, activities, and learning resources” (Marini,

2017). Additional data was gathered from portfolios, peer feedback, and parental reports.

In one representative lesson, students worked in groups to investigate a community issue—the lack of clean water in the neighborhood. Each group developed a solution and presented their findings in class. Teachers noted which students took initiative, supported others, and demonstrated responsible decision-making. “Students’ character can develop through meaningful learning; those who engage in deep learning are more active, curious, and collaborative”.

By aligning assessment, dialogue, and project-based activities, teachers were able to routinely detect and reinforce values such as responsibility, honesty, collaborative spirit, and empathy in real classroom settings. Through this case, the school modeled “character detection as a continuous process, making values visible and actionable in daily instruction”.

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Deep Learning-based Social Studies learning to improve student character at SD Global Garuda Nusantara

Chapter 10 :

Instrument example to assessing Character

A. General description

This character assessment instrument is designed to evaluate students' character development during deep learning activities such as project-based learning, problem-based learning, inquiry learning, or collaborative investigations. The focus is on observable behaviours that appear consistently during planning, implementation, reflection, and presentation stages of deep learning.

The instrument can be used by:

1. Teachers (teacher observation rubric).
2. Peers (peer assessment form).
3. Students (self-assessment checklist and reflection prompts).

Core character dimensions assessed:

1. Responsibility
2. Collaboration

3. Critical thinking and problem solving
4. Perseverance and learning resilience
5. Integrity and academic honesty

1. Respect and empathy in communication

B. Teacher observation rubric (sample)

Title: Deep Learning Character Observation Rubric

Purpose: To record students' character during deep learning tasks over several sessions (e.g., a 3–4 week project).

Scale (example):

4 = Always / Consistently

3 = Often

2 = Sometimes

1 = Rarely / Never

1. Responsibility

Indicator 1.1 – Task commitment

1. 4: Consistently completes assigned tasks on time and with care, without needing reminders.
2. 3: Usually completes tasks on time, with occasional reminders.
3. 2: Sometimes completes tasks, often late or incomplete.
4. 1: Rarely completes tasks; often ignores agreed responsibilities.
5.

Indicator 1.2 – Ownership of learning

1. 4: Actively sets personal goals, seeks feedback, and adjusts strategies to improve learning outcomes.
2. 3: Responds positively to feedback and sometimes sets personal improvement goals.
3. 2: Accepts feedback but shows limited effort to improve.
4. 1: Rejects feedback or blames others for learning difficulties.

2. Collaboration

Indicator 2.1 – Contribution to group work

1. 4: Actively contributes ideas and effort, supports others, and helps the group move forward.
2. 3: Usually contributes and supports the group, with minor inconsistency.
3. 2: Contributes only when asked; sometimes off-task in group work.
4. 1: Rarely contributes and may hinder group progress.

Indicator 2.2 – Respectful interaction

1. 4: Listens attentively, waits for turn to speak, and responds respectfully even when disagreeing.
2. 3: Generally respectful, with occasional interruptions or minor disrespect.

3. 2: Sometimes dismisses others' ideas or interrupts frequently.
4. 1: Often uses negative language or shows clear disrespect.

3. Critical thinking and problem solving

Indicator 3.1 – Depth of questioning

1. 4: Frequently asks probing questions that clarify, connect, or challenge ideas.
2. 3: Often asks relevant questions but with limited depth.
3. 2: Occasionally asks simple or surface-level questions.
4. 1: Rarely asks questions about the task or content.

Indicator 3.2 – Evidence-based reasoning

1. 4: Consistently uses data, examples, or sources to justify opinions and decisions.
2. 3: Often refers to some evidence, though justification may be partial.
3. 2: Sometimes gives opinions without clear support.
4. 1: Gives opinions with no attempt to justify them.

4. Perseverance and learning resilience

Indicator 4.1 – Response to challenges

1. 4: Persists in solving complex problems, trying alternative strategies before asking for help.

2. 3: Usually continues trying, but sometimes gives up quickly when facing difficulty.
3. 2: Often stops working when tasks become challenging.
4. 1: Avoids difficult tasks and refuses to try.

Indicator 4.2 – Reflective improvement

1. 4: Regularly reflects on mistakes and clearly explains what will be done differently next time.
2. 3: Sometimes reflects on mistakes and suggests general improvements.
3. 2: Acknowledges mistakes but rarely plans specific improvements.
4. 1: Denies mistakes or repeats the same errors without reflection.

5. Integrity and academic honesty

Indicator 5.1 – Original work and citation

1. 4: Always submits original work, gives credit to sources, and discourages cheating.
2. 3: Generally honest, with minor lapses in citation or paraphrasing.
3. 2: Sometimes copies from peers or sources without acknowledgment.
4. 1: Frequently cheats or plagiarises.
5. Indicator 5.2 – Fairness in collaboration

6. 4: Reports group progress honestly, acknowledges each member's contribution fairly.
7. 3: Usually fair, but may overlook some contributions.
8. 2: Sometimes claims others' work as own or hides unequal workload.
9. 1: Regularly misrepresents contribution or blames peers.

6. Respect and empathy in communication

Indicator 6.1 – Sensitivity to differences

1. 4: Shows understanding and support toward peers with different abilities, backgrounds, or opinions.
2. 3: Generally tolerant, but occasionally less patient with differences.
3. 2: Sometimes shows insensitivity or ignores peers' needs.
4. 1: Often makes hurtful comments or excludes others.

Indicator 6.2 – Constructive feedback

1. 4: Gives feedback that is specific, helpful, and kind; receives feedback gratefully.
2. 3: Usually gives helpful feedback, though sometimes vague or blunt.
3. 2: Feedback is rare, vague, or overly critical.
4. 1: Feedback is often hurtful, sarcastic, or absent.

Teachers can total scores per dimension and convert them to qualitative categories (e.g., Excellent, Good, Developing, Needs Support) according to school policy.

C. Peer assessment form (sample)

Title: Peer Assessment of Character in Deep Learning Project

Students assess 1–2 group members using simple statements with a 4-point scale (A = Always, B = Often, C = Sometimes, D = Never).

Example items:

1. "My teammate completed his/her tasks as agreed in our group." (Responsibility)
2. "My teammate listened to my ideas and responded respectfully." (Collaboration, Respect)
3. "My teammate helped the group think deeper by asking good questions." (Critical thinking)
4. "My teammate kept trying even when our project became difficult." (Perseverance)
5. "My teammate used his/her own ideas and did not copy from others." (Integrity)
6. "My teammate gave me feedback that helped me improve my work." (Empathy, Constructive feedback)

At the end, students write a short positive comment about the peer's strongest character and one suggestion for improvement.

D. Student self-assessment checklist and reflection

Title: Self-Assessment of My Character in Deep Learning

Students tick Yes / Sometimes / Not yet for each statement and then answer reflection questions.

Example checklist items:

- "I took responsibility for my part of the project without waiting to be told many times."
- "I asked questions when I did not understand, and I tried to connect new ideas with what I already knew."
- "When I made mistakes, I tried to understand why and improve my work."
- "I respected different opinions in my group and tried to understand my friends' perspectives."
- "I used information from books or the internet ethically and mentioned the sources when necessary."

Example reflection prompts:

1. "Which character strength did you show most clearly during this deep learning project? Give one example."
2. "Which character do you still need to improve? What concrete action will you take in the next project?"

3. “Describe one difficult moment in this project and explain how you handled it.”

E. Scoring and reporting guidelines

1. Combine teacher observation, peer assessment, and self-assessment to build a holistic picture of each student’s character in deep learning.
2. Use rating scales for quantitative description and narrative comments for qualitative feedback.
3. Report character development as descriptive feedback attached to project or performance grades, not as a single numeric score only.

Example qualitative categories (adapt to school policy):

1. “Very strong character in deep learning”
2. “Developing strong character with some inconsistency”
3. “Emerging character; needs more guided practice”
4. “Requires intensive support in character during deep learning activities”

Glossary: Deep Learning and Character Education (English)

Activation Function: A mathematical operation applied to neural network outputs that determines the final result of each neuron, enabling complex learning through nonlinearity.

Assessment (Formative/Summative): Processes for evaluating student learning; formative assessments provide ongoing feedback to improve learning, while summative assessments usually occur at the end of a unit to measure achievement.

Backpropagation: A training technique for neural networks that uses the output error to update each neuron's weights, facilitating learning from mistakes.

Character Values: Core traits such as respect, honesty, responsibility, empathy, discipline, and cooperation, intentionally developed through educational activities.

Collaboration: Working together to achieve shared goals, a key skill in deep learning environments that fosters communication and empathy.

Convolutional Neural Network (CNN): A deep learning architecture particularly effective at processing image data through convolutional layers.

Critical Thinking: The ability to analyze, evaluate, and synthesize information, leading to independent judgment and ethical decision-making.

Deep Learning: A subfield of machine learning that uses artificial neural networks with multiple layers to recognize patterns, solve problems, and make predictions.

Dropout: A regularization method that randomly omits units from the neural network during training to prevent overfitting.

Empathy: Understanding and sharing others' feelings; a character value promoted by deep, collaborative learning.

Epoch: One full cycle through the entire training dataset in the learning of a neural network.

Feature Extraction: The process of transforming raw data into meaningful inputs for model training.

Formative Feedback: Ongoing input from teachers, peers, or digital platforms that helps students improve learning and character development.

Generative Adversarial Network (GAN): A deep learning architecture with two competing networks (generator and discriminator) used for data generation.

Integrity: A character value denoted by honesty, consistency, and adherence to moral principles.

Learning Progression: Describes stages of knowledge, ability, or skill development in deep learning competencies.

Local Wisdom: Community-specific values, traditions, and knowledge, which provide culturally relevant context for character education.

Neural Network: An interconnected group of artificial neurons that process data and learn patterns.

Pooling: A downsampling operation in neural networks, most often used in image processing layers.

Problem-Based Learning: An instructional strategy where students solve real-world problems collaboratively, supporting both skill and character.

Reflection: The process of thinking critically about experiences, learning, and values to foster personal and ethical growth.

Rubric: Scoring guides used to assess student performance with defined criteria for mastery and character indicators.

Soft Skills: Personal attributes and interpersonal skills, such as communication, teamwork, and leadership.

Summative Assessment: Evaluation at the conclusion of a learning module to measure student achievement and character outcomes.

Tensor: A multidimensional array commonly used in deep learning to represent data of various dimensions.

Transfer Learning: Leveraging a pre-trained model for a new but related task, minimizing resource requirements.

Values-Based Education: Instructional practice that integrates ethical, social, and civic values in all academic activities.

Synopsis

"Values of Character in Deep Learning Instruction" explores the integration of character values into modern pedagogical approaches, emphasizing the essential connection between deep learning and holistic student development. Drawing on contemporary research and case studies from Indonesia and around the world, this book demonstrates that deep learning is more than a technological or cognitive framework—it is a vital channel for nurturing personal responsibility, empathy, ethical reasoning, and social collaboration.

The book presents practical models and strategies—including project-based learning, inquiry-driven approaches, and context-driven microcurriculum—that empower teachers to make character values visible and actionable. Chapters address foundational theory, classroom practice, curriculum innovation, assessment, leadership, and policy, while highlighting the critical role of authentic reflection and ongoing teacher development. Empirical evaluation and impact studies illustrate how formative assessment, community involvement, and local wisdom can reinforce resilience, integrity, and ethical sensitivity in students.

Designed as an essential reference for educators, policymakers, and researchers, this volume serves as a roadmap for sustaining character-driven deep learning across diverse educational settings. By balancing global trends with local realities, it offers evidence-based recommendations to build future-ready learning environments where personal growth and ethical citizenship are inseparable from academic success.

VALUES OF CHARACTER IN DEEP LEARNING INSTRUCTION

"VALUES OF CHARACTER IN DEEP LEARNING INSTRUCTION" EXPLORES THE INTEGRATION OF CHARACTER VALUES INTO MODERN PEDAGOGICAL APPROACHES, EMPHASIZING THE ESSENTIAL CONNECTION BETWEEN DEEP LEARNING AND HOLISTIC STUDENT DEVELOPMENT. DRAWING ON CONTEMPORARY RESEARCH AND CASE STUDIES FROM INDONESIA AND AROUND THE WORLD, THIS BOOK DEMONSTRATES THAT DEEP LEARNING IS MORE THAN A TECHNOLOGICAL OR COGNITIVE FRAMEWORK—IT IS A VITAL CHANNEL FOR NURTURING PERSONAL RESPONSIBILITY, EMPATHY, ETHICAL REASONING, AND SOCIAL COLLABORATION.

THE BOOK PRESENTS PRACTICAL MODELS AND STRATEGIES—INCLUDING PROJECT-BASED LEARNING, INQUIRY-DRIVEN APPROACHES, AND CONTEXT-DRIVEN MICROCURRICULUM—THAT EMPOWER TEACHERS TO MAKE CHARACTER VALUES VISIBLE AND ACTIONABLE. CHAPTERS ADDRESS FOUNDATIONAL THEORY, CLASSROOM PRACTICE, CURRICULUM INNOVATION, ASSESSMENT, LEADERSHIP, AND POLICY, WHILE HIGHLIGHTING THE CRITICAL ROLE OF AUTHENTIC REFLECTION AND ONGOING TEACHER DEVELOPMENT. EMPIRICAL EVALUATION AND IMPACT STUDIES ILLUSTRATE HOW FORMATIVE ASSESSMENT, COMMUNITY INVOLVEMENT, AND LOCAL WISDOM CAN REINFORCE RESILIENCE, INTEGRITY, AND ETHICAL SENSITIVITY IN STUDENTS.

DESIGNED AS AN ESSENTIAL REFERENCE FOR EDUCATORS, POLICYMAKERS, AND RESEARCHERS, THIS VOLUME SERVES AS A ROADMAP FOR SUSTAINING CHARACTER-DRIVEN DEEP LEARNING ACROSS DIVERSE EDUCATIONAL SETTINGS. BY BALANCING GLOBAL TRENDS WITH LOCAL REALITIES, IT OFFERS EVIDENCE-BASED RECOMMENDATIONS TO BUILD FUTURE-READY LEARNING ENVIRONMENTS WHERE PERSONAL GROWTH AND ETHICAL CITIZENSHIP ARE INSEPARABLE FROM ACADEMIC SUCCESS.

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