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Deep Learning as a Transformative Pedagogical Model for Critical Thinking Development in Indonesian Vocational English Education

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ABSTRACT: The integration of critical thinking in vocational English education is increasingly urgent for 21st-century workforce preparation. However, vocational schools in developing countries like Indonesia struggle to move beyond rote memorization toward reflective learning. This study investigates how deep learning is enacted to develop critical thinking in English classrooms and identifies implementation challenges in Indonesian vocational education. Using a qualitative design, in-depth interviews were conducted with five English teachers at vocational high schools in Tana Toraja, Indonesia. Data were analyzed using Miles and Huberman's interactive model. Findings reveal that teachers enact deep learning through contextualized materials aligned with students' vocational fields, higher-order questioning, collaborative activities (project-based learning and discussions), facilitative teaching roles, and supportive classroom climates. These practices foster students' ability to analyze problems, question information, defend arguments, and transfer critical thinking beyond the classroom. However, implementation faces significant challenges: teacher-level factors (time limitations, conceptual gaps, administrative burden); student-related challenges (mixed abilities, low confidence, unpreparedness for independent learning); institutional barriers (limited technology, assessment complexities); and cultural factors where respect for authority hinders questioning. The study implies that sustainable critical thinking development requires multi-level interventions: context-specific professional development, reduced administrative workload, improved infrastructure, curriculum reforms prioritizing depth over breadth, and culturally responsive pedagogies.

KEYWORDS: Critical thinking, Deep learning, English language teaching, Pedagogical transformation, Vocational education.

INTRODUCTION

The landscape of vocational education in Indonesia is undergoing significant transformation as the nation prepares its workforce for the challenges of the Fourth Industrial Revolution and the demands of global competition. Within this context, English language proficiency combined with critical thinking skills has emerged as a fundamental competency that vocational high school graduates must possess to succeed in an increasingly interconnected and knowledge-based economy (Daulika et al., 2025; Özaltun, 2025). The Indonesian government, through the implementation of the Merdeka Curriculum, has explicitly emphasized the development of higher-order thinking skills and the creation of meaningful, student-centered learning experiences that prepare learners not merely for examinations but for life and work (Lukie et al., 2025). However, the translation of these policy aspirations into classroom practice remains a complex and contested terrain characterized by significant implementation gaps.

The persistent disconnect between educational policy and classroom reality in Indonesian vocational schools is well documented in the international literature. Studies have consistently revealed that English instruction in many vocational contexts remains dominated by teacher-centered approaches, rote memorization, and decontextualized grammar exercises that fail to engage students in meaningful cognitive processing or prepare them for authentic communication in workplace settings (Hafiz Abdul Sami et al., 2025; Maxmudovna, 2025). Students graduate with certificates but without the ability to think critically, solve problems, or communicate effectively in English competencies that employers consistently identify as lacking among vocational graduates in developing economies (Vengaluvakkel, 2020). This disconnects between educational outcomes and workforce demands represents a critical challenge that requires fundamental pedagogical transformation.

Deep learning as a pedagogical model offers a promising framework for addressing this challenge. Distinguished from its homonymous usage in artificial intelligence, deep learning in educational contexts refers to an approach that emphasizes meaningful understanding, critical reflection, active engagement, and the ability to transfer knowledge to novel situations (Jimenez, 2024; Wardani et al., 2025). Unlike surface learning, which focuses on memorization and reproduction, deep learning

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involves students in relating ideas, seeking patterns, questioning assumptions, and connecting new knowledge to prior experiences and real-world contexts (Ras et al., 2022; Yoon & Coble, 2024). In vocational education specifically, deep learning holds particular promise because it aligns with the fundamentally applied nature of vocational knowledge students must not only know but be able to do, and to do thoughtfully and adaptively in changing workplace environments (Apriliyana, 2025; Cooper et al., 2024).

Despite growing international interest in deep learning pedagogies, research specifically examining their application in Indonesian vocational English education remains remarkably scarce. Existing international studies have explored deep learning in higher education contexts (Fitrah et al., 2025; Nurhasanah et al., 2025), investigated critical thinking development in various educational settings (Massaty et al., 2024; Rapti et al., 2025), or examined general English teaching practices in Asian contexts (Balasubramanian, 2022; Brahim, 2021). However, no studies to date have systematically investigated how deep learning as a coherent pedagogical model is enacted to develop critical thinking in vocational English classrooms in Indonesia, nor have they explored the specific challenges teachers face when attempting to implement such approaches in the unique cultural and institutional context of Indonesian vocational education. This research gap is particularly significant given the distinctive characteristics of vocational students their practical orientation, their need for contextualized learning connected to specific career pathways, and the particular challenges of engaging learners who may have experienced years of unsuccessful English language learning (Jazayeri et al., 2025; Wang et al., 2025). Furthermore, the cultural context of Tana Toraja, with its strong communal values and deep respect for authority, presents both opportunities and challenges for deep learning implementation that have not been adequately explored in the international literature. While critical thinking is often framed as a universal educational goal, scholars have increasingly recognized that its expression and development are inevitably shaped by cultural values and norms (Fox et al., 2020; Garrard, 2022; Santoso et al., 2025). Understanding how deep learning pedagogies interact with local cultural contexts is essential for developing culturally responsive approaches that can succeed in diverse Indonesian settings and for contributing to the broader international discourse on contextualizing Western-originated pedagogies in non-Western educational systems.

This study addresses these gaps by investigating two research questions: (1) How is deep learning-based English teaching enacted in Indonesian vocational high school classrooms to support students' critical thinking skills? (2) What are the challenges faced by teachers in implementing deep learning-based methods in English instruction at Tana Toraja? By examining the practices and challenges of five English teachers in Tana Toraja vocational high schools, this research seeks to provide empirical insights into the possibilities and constraints of deep learning as a transformative pedagogical model in this context.

The significance of this study is threefold. Theoretically, it contributes to the growing international body of literature on deep learning pedagogies by examining their application in a previously unexplored context Indonesian vocational English education and by illuminating how deep learning principles interact with local cultural values and institutional constraints. Practically, the findings offer guidance for teachers, school administrators, policymakers, and international development organizations working to improve vocational education quality in developing countries. Methodologically, the study demonstrates the value of qualitative inquiry in capturing the complexity and contextual specificity of pedagogical transformation, providing rich descriptions that can inform both practice and further research across similar contexts.

METHODOLOGY

Research Design

This study employed a qualitative research design to investigate the enactment of deep learning-based English teaching and the challenges teachers face in its implementation within Indonesian vocational high schools. The qualitative approach was deemed appropriate as the research sought to understand the meanings, practices, and experiences of teachers within their natural classroom contexts, capturing the complexity and nuance of pedagogical implementation that quantitative methods alone cannot access (Barella et al., 2024; Cheron et al., 2022; Franklin, 2022; Sardana et al., 2023). The phenomenon under investigation deep learning pedagogy is inherently contextual, culturally situated, and shaped by the interpretations and agency of teachers, making qualitative inquiry particularly suitable for revealing the richness and depth of implementation processes (Ebekozien et al., 2024; Seiler, 2024; St. Pierre, 2025).

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Participants

The participants of this study were five English teachers from vocational high schools in Tana Toraja, a regency in South Sulawesi, Indonesia. The participants were selected through purposive sampling, a strategy that involves intentionally selecting individuals who have rich information and direct experience relevant to the research focus (Ali Memon et al., 2025; Campbell et al., 2020; Memon et al., 2025). The inclusion criteria required that participants be actively teaching English in vocational high schools, have implemented or attempted to implement student-centered approaches aligned with deep learning principles, and be willing to share their experiences and challenges in detail. The five teachers represented two different schools SMK Kristen Pelangi and SMKN 4 Tana Toraja and taught across various vocational majors including Computer Network Engineering, Light Vehicle Engineering, Fashion Design, and Heavy Equipment Engineering. This diversity across schools and vocational programs provided a range of perspectives that enriched the data and enhanced the transferability of findings (Brands et al., 2025; Juwanto et al., 2024).

Data Collection

The primary instrument for data collection was a semi-structured interview protocol developed based on the study's research questions and a comprehensive review of relevant international literature on deep learning and critical thinking (Biggs & Tang, 2011; Entwistle, 2009; Facione, 1990). Semi-structured interviews were chosen because they combine predetermined questions with the flexibility to probe emerging themes and follow participants' leads, allowing for the discovery of unexpected insights while maintaining focus on the research objectives (Kallio et al., 2016; Brinkmann & Kvale, 2018). The interview protocol consisted of two main sections aligned with the research questions. The first section explored how teachers enacted deep learning practices, including questions about learning objectives, materials, activities, questioning techniques, facilitation strategies, classroom atmosphere, and students' learning experiences. The second section investigated implementation challenges, covering teachers' understanding of deep learning, time constraints, facilities and technology, student characteristics, assessment practices, administrative burden, school support, professional development, and cultural influences.

Data collection procedures involved several stages conducted over a period of four weeks. Following ethical approval and permission from school authorities, individual interviews were conducted at times and locations convenient for participants. Each interview lasted between 60 and 90 minutes and was conducted in Indonesian to enable participants to express themselves fully and naturally (Welch & Piekkari, 2006). With participants' permission, all interviews were audio-recorded. Field notes were also taken during and immediately after interviews to record contextual details, non-verbal cues, and the researcher's initial reflections (Phillippi & Lauderdale, 2018).

Data Analysis

Data analysis followed the interactive model developed by Miles, Huberman, and Saldaña (2020), which consists of three concurrent flows of activity: data condensation, data display, and conclusion drawing/verification. The analysis process began with verbatim transcription of audio recordings, followed by reading and re-reading transcripts to achieve familiarization, and selecting and simplifying data according to the research questions. Initial coding was conducted using both deductive codes derived from the theoretical framework and inductive codes that emerged from the data through open coding procedures (Saldaña, 2021). Codes were refined and grouped into categories and themes through an iterative process of constant comparison. Data display involved organizing condensed data into matrices and networks to facilitate identification of patterns and relationships.

RESULTS

This section presents qualitative findings from semi-structured interviews with five vocational English teachers in Tana Toraja, analysed through Miles, Huberman, and Saldaña's (2020) interactive model comprising data condensation, data display, and conclusion drawing. Findings are structured according to the two research questions.

RQ1: Enactment of Deep Learning-Based English Teaching

Data condensation generated five themes characterising teachers' deep learning practices. Table 1 presents the full condensation structure; sub-sections below present each theme with supporting evidence.

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Table 1. Data Condensation RQ1: Deep Learning Practices

Code	Theme	Category / Definition	Indicators from Data
T1	Vocational Contextualization	Purposeful alignment of materials with students' vocational fields and target professional roles	Technical manuals (Computer Network Engineering); professional email; customer service dialogues; hospitality communication scenarios
T2	Higher-Order Questioning	Shift from factual recall to analytical, evaluative, and hypothetical questioning	Why / how / what-if questions; purpose and audience analysis; elimination of yes-no questions; text interrogation
T3	Project- & Problem-Based Learning	Extended multi-stage tasks integrating multiple language skills within authentic vocational scenarios	English video tutorials (research → script → record → present); workplace problem-solving; reflective writing; collaborative simulation
T4	Facilitative Teaching Role	Repositioning from knowledge transmitter to inquiry facilitator	Movement among groups; productive struggle maintenance; peer-redirection; withholding answers; orchestrating collective inquiry
T5	Risk-Safe Classroom Climate	Deliberate construction of psychologically safe environments enabling intellectual risk-taking	Explicit error normalisation; peer-facing seating; meaning-before-form feedback; public valuing of questioning behaviours

T1 Vocational Contextualization of English Materials

All five teachers described the purposeful alignment of materials with students' vocational fields as the foundational strategy of their deep learning approach, transforming English from an abstract subject into a professionally purposeful tool.

> *"I select materials based on students' majors. For Computer Network Engineering, I focus on technical manual reading. For service careers, we practise customer service dialogues. When materials connect to their vocational interests, learning becomes meaningful because students understand not just the language but its purpose in real professional contexts."* **(Teacher B)**

This selection strategy anchors instruction in authentic communicative demands, generating the relevance that teachers consistently identified as the primary driver of student engagement.

> *"I always think about what these students will actually use English for after graduation. If the material has no connection to their future, they disengage almost immediately. When they see themselves in the material, something changes."* **(Teacher A)**

The phrase 'see themselves in the material' reflects the shift from compliance-driven to identity-driven engagement that vocational contextualization produces.

T2** Higher**-Order Questioning Techniques

Every teacher reported a deliberate shift from factual recall toward analytical questioning requiring students to reason, evaluate, and justify a reorientation of classroom discourse from reproduction to critical engagement.

> *"Rather than asking what should be in an opening paragraph, I ask why it is important and what impression applicants want to convey to employers. Students must think about purpose, audience, and effect not just what to write, but the reasoning behind every choice."* **(Teacher A)**

The shift from what-level to why-level questioning constitutes one of the clearest operational expressions of deep learning in English instruction.

> *"When students read an article in English, I ask: Do you believe this? How do you know? Is there another way to see this? These questions teach students to interrogate texts, not just comprehend them."* **(Teacher E)**

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Teacher E's progression from comprehension to interrogation captures the fundamental reorientation of the learner's relationship with text that deep learning aims to produce.

T3** Project**- and Problem-Based Learning Activities

Four teachers designed extended, multi-stage tasks oriented around authentic vocational scenarios, integrating multiple language skills within a single purposeful activity and requiring genuine collaborative decision-making.

> *"Students create video tutorials in English related to their vocational majors they research content, write scripts, practise speaking, record, edit, and present. Every stage requires both thinking and language use simultaneously, not separately."* **(Teacher C)**

The simultaneity of thinking and language use in this project is qualitatively distinct from conventional skill-by-skill instruction and directly instantiates the deep learning principle of authentic integration.

> *"After each project, students write a short reflection in English: What did you learn? What was difficult? What would you do differently? This is when I can see them thinking critically about their own learning not just about the product they created."* **(Teacher D)**

Teacher D's inclusion of structured reflection extends deep learning beyond task completion toward metacognitive engagement with the learning process itself.

T4** Facilitative**, Non-Transmissive Teaching Role

All five teachers described a fundamental reconceptualisation of their professional role from knowledge transmitter to facilitator of student inquiry enacted through physical movement, strategic withholding of answers, and deliberate redirection of questions to peers.

> *"When students express inaccurate ideas, I do not immediately correct them. I redirect to other students, ask for different perspectives, and guide the class toward understanding through collective inquiry. The understanding that emerges belongs to the students."* **(Teacher C)**

The distinction between correcting and redirecting is pedagogically decisive: correction forecloses inquiry, while redirection sustains it and positions error as a productive starting point.

> *"I move around the room constantly and ask questions that push thinking further not questions that give the answer, but questions that show students the next step they need to take themselves. My job is to make the struggle productive."* **(Teacher B)**

'Making the struggle productive' precisely names the facilitative teacher's core task: calibrating cognitive challenge to sustain inquiry without generating disengagement.

T5** Supportive**, Risk-Safe Classroom Climate

All five teachers identified the deliberate construction of psychologically safe environments as an essential structural precondition not supplementary support for the intellectual risk-taking that critical thinking requires.

> *"From the first class I establish one rule: there are no wrong attempts here, only different levels of thinking. I publicly acknowledge students who ask questions that challenge what I have said. If I punish questions, I teach students that questioning is dangerous the opposite of what deep learning requires."* **(Teacher A)**

Publicly valuing questions that challenge teacher authority communicates that critical inquiry is the expected norm, not a tolerated exception.

> *"When students make mistakes in speaking, I respond to the meaning first, not the error. Communication is the goal imperfect language that communicates is more valuable than perfect silence. Only after meaning is established do I gently revisit the form."* **(Teacher D)**

Teacher D's meaning-before-form sequencing reduces the affective cost of oral participation and directly addresses the confidence deficit documented across all participants.

1) ***Evidence of Student Critical Thinking Development***

Across all five interviews, teachers reported observable indicators of students' developing critical thinking dispositions. Table 3 presents these indicators, constructed through the data display phase of Miles et al.'s (2020) analytical model.

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Table 2. Data Display Observed Indicators of Student Critical Thinking Development

Indicator	Description
Questioning information sources	Students interrogated the reliability and origin of information rather than passively accepting printed content as authoritative
Systematic problem analysis	Students decomposed communication problems into constituent elements before proposing solutions
Reasoned argumentation	Students expressed positions in English supported by explicit evidence and logical justification
Perspective-taking	Students examined issues from multiple stakeholder viewpoints before drawing conclusions
Evidence-seeking behaviour	Students independently sought supporting data to validate or challenge claims in reading and listening tasks
Metacognitive awareness	Students monitored their own comprehension and production, self-correcting without teacher prompting
Communicative confidence	Students demonstrated increased willingness to initiate and sustain English interaction despite unresolved linguistic gaps

Note. Indicators constructed through the data display phase of Miles et al. (2020); derived from observational accounts across all five interview transcripts.

> *"Students who previously accepted article content as true began asking about information reliability, seeking evidence, and considering alternative perspectives indicating that critical thinking was becoming internalised as a disposition, not merely performed as a classroom exercise."* **(Teacher B)**

The distinction between internalised disposition and performed behaviour is the definitive evidence of genuine critical thinking development.

> *"One student came to me after class and said she had been reading an English news article at home and found herself asking the questions I always ask in class where is the evidence, is this one-sided, what is the writer's purpose. She was thinking critically outside the classroom, without being told to."* **(Teacher E)**

Transfer of critical thinking to self-initiated, out-of-class contexts is the deepest level of learning outcome evidence of an autonomous critical disposition that operates without institutional prompting.

RQ2: Challenges in Implementing Deep Learning-Based English Teaching

Data condensation generated six challenge themes operating across four levels: teacher, student, institutional, and cultural. Table 2 presents the full condensation structure; sub-sections below present each challenge with supporting evidence.

Table 3. Data Condensation RQ2: Implementation Challenges

Code	Theme	Level	Indicators from Data
C1	Conceptual-Practical Gap	*Teacher*	Foundational understanding present; PD insufficient for context-specific application; strategy development through time-consuming trial and error
C2	Time Constraints	*Teacher / Institutional*	Deep learning requires 2–3× more instructional time; forced depth-vs-coverage trade-off; compounded by heavy administrative load
C3	Student Unreadiness	*Student*	Passive, teacher-dependent dispositions from prior schooling; deficit in self-direction, independent inquiry, and oral confidence

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C4	Mixed-Ability Classes	*Student*	Wide intra-class proficiency variance; genuine differentiation for 30+ students logistically demanding and time-intensive
C5	Infrastructure Limits	*Institutional*	Unreliable internet; insufficient devices; authentic assessment design and marking disproportionately burdensome
C6	Cultural Authority Deference	*Cultural*	Toraja socialisation to respect authority conflicts with critical inquiry; requires deliberate, patient cultural reframing over time

C1 Conceptual-Practical Gap in Deep Learning Knowledge

Three teachers reported a meaningful gap between theoretical understanding of deep learning and the practical, context-specific strategies required for vocational English classrooms a gap that professional development had not adequately bridged.

> *"I understand the theory. But implementing it practically with my specific students, my constraints, 80 minutes per week that is where I struggle. I develop strategies through trial and error, which is time-consuming and sometimes discouraging."* **(Teacher D)**

The gap between declarative and procedural professional knowledge reflects a systemic PD failure: the provision of conceptual knowledge without context-specific application support.

> *"The training gave me a good understanding of what deep learning should achieve. But it did not show me how to design a deep learning task for a class where half the students cannot yet write a paragraph. The gap between ideal and reality is sometimes very wide."* **(Teacher B)**

This account confirms that PD content and classroom reality remain structurally misaligned in this vocational context.

C2 Time Constraints and Curriculum Coverage Pressure

All five teachers identified time as the most universal and acute challenge a structural collision between deep learning's time demands and institutional requirements for curriculum coverage, compounded by administrative burdens.

> *"I must make difficult choices about which topics to treat deeply and which to cover superficially. Deep learning is not consistently implemented across all content I cannot afford it to be. That selectivity is itself a compromise of deep learning's principles."* **(Teacher A)**

The forced selectivity Teacher A describes reveals that deep learning in this context is episodic rather than systemic a structural condition, not a personal failure.

> *"Preparing lesson plans, completing reports, entering grades into three systems by the time all that is done, the energy left for designing genuinely creative deep learning lessons is very limited. The system consumes the time deep learning needs."* **(Teacher C)**

Teacher C articulates the central paradox: institutional systems require deep learning while simultaneously consuming the resources its preparation demands.

2) ***C3 Student Unreadiness for Active and Independent Learning***

All five teachers identified a fundamental mismatch between deep learning's requirements and students' actual dispositions shaped by years of passive, teacher-dependent instruction that had not cultivated the self-direction, reflection, or oral confidence deep learning demands.

> *"When I first asked students to research independently and bring their own questions to class, most looked at me blankly. Years of schooling had trained them to follow instructions, not to generate their own inquiry."* **(Teacher D)**

Student unreadiness is a learned disposition the product of prior instructional environments requiring sustained scaffolding to remediate rather than a fixed individual characteristic.

> *"When I ask students to form an opinion and defend it in English, two barriers appear simultaneously: the intellectual challenge of forming a defended position, and the linguistic challenge of expressing it. Both are significant; both must be addressed."* **(Teacher B)**

The compound nature of this challenge intellectual and linguistic unreadiness operating simultaneously explains why student readiness development is slower and more demanding than either challenge in isolation.

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C4 Mixed-Ability Classroom Management

Four teachers identified wide intra-class proficiency variance as a persistent challenge, with genuine differentiation at scale proving logistically demanding within already constrained time conditions.

> *"In one class I have students who write coherent paragraphs and students who cannot produce a full sentence. A task pitched at stronger students excludes weaker ones; pitched at weaker students, it bores the stronger ones. Genuine differentiation for 30 students is extremely difficult it often becomes superficial rather than real."* **(Teacher A)**

The risk of nominal rather than genuine differentiation adjusting surface task features without substantively adapting cognitive demand is the core challenge Teacher A identifies.

C5 Institutional and Infrastructural Constraints

All five teachers reported that technology limitations constrained project-based activities, while authentic assessment demands created a disproportionate marking burden.

> *"The video tutorial project requires reliable internet, enough computers, and students with smartphones. In our school, internet is unreliable, computers are insufficient, and some students have no data. I adapt constantly, but the infrastructure does not consistently support what deep learning activities require."* **(Teacher A)**

Adaptation is possible but cannot fully replicate the intended learning experience when essential tools are structurally unavailable.

> *"Creating valid rubrics to assess critical thinking fairly is genuinely difficult. Critical thinking exists on a continuum and looks different in different students. Turning that complexity into a defensible grade is one of the hardest things I do."* **(Teacher E)**

The tension between the complexity of critical thinking as a construct and the reductive requirements of conventional grading systems is an institutional constraint that individual teachers cannot resolve unilaterally.

C6 Cultural Tension: Authority Deference vs. Critical Inquiry

All five teachers identified the intersection of deep learning's demands for intellectual questioning with Toraja cultural values of respectful authority deference as a uniquely context-specific challenge requiring deliberate, patient navigation.

> *"Students socialised to respect authority without question are often reluctant to question or challenge ideas even when explicitly encouraged. The instinct to defer is very deep and does not change quickly."* **(Teacher B)**

Authority deference is a thoroughly internalised cultural disposition, not a superficial classroom behaviour it cannot be addressed by simple instructions to 'be critical.'

> *"I reframe critical thinking as a form of respect: asking a careful question honours the idea you are engaging with. This reframing slowly shifts how students relate to questioning rather than experiencing it as culturally dissonant, they begin to see it as compatible with who they are."* **(Teacher D)**

Cultural reframing repositioning critical inquiry as an expression of Toraja values rather than a departure from them is the most pedagogically sustainable response to this challenge.

DISCUSSION

Interpret and explain the main results in the context of existing literature. The discussion presented in the original manuscript is structurally coherent and analytically relevant; it correctly connects the five enactment practices and six challenge themes to their corresponding theoretical and empirical bases. However, three substantive weaknesses require correction. First, the majority of citations (Marton & Säljö, 1976; Biggs & Tang, 2011; Entwistle, 2009; King, 1995; Thomas, 2000; Kokotsaki et al., 2016) are more than a decade old and, in several cases, more than fifty years old; they do not reflect the current state of the literature. Second, several cited sources (O'Sullivan, 2004; Schweisfurth, 2013; Guthrie, 2018; Atkinson, 1997; Gay, 2018; Ladson-Billings, 2014; Steiner-Khamsi, 2014) address general developing-country challenges or broad culturally responsive pedagogy frameworks without direct connection to Indonesian vocational English contexts. Third, the discussion of the cultural dynamics finding is underdeveloped relative to its significance: the Toraja-specific authority-deference tension and the communal values resource are mentioned but not analytically resolved. The revised discussion below addresses all three weaknesses while maintaining the structural logic of the original.

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Deep Learning Practices: Alignment with Current Literature

The five deep learning practices identified in this study vocational contextualization, higher-order questioning, project- and problem-based learning, facilitative teaching, and risk-safe climate construction align closely with the current literature on transformative pedagogy in EFL and vocational contexts. Table 4 provides a systematic mapping of each finding to its corresponding evidential base in recent empirical literature.

Table 4. Mapping of Findings

Code	Finding	Alignment with Literature	Key References
T1	Vocational Contextualization	Vocational relevance as motivational foundation; authentic materials enhance engagement	*Mutiaraningrum et al. (2024); Rampeng et al. (2025); Sari & Atmojo (2023)*
T2	Higher-Order Questioning	Teacher questioning as a critical thinking tool; shift from display to referential questions	*Yuan & Liao (2023); Zhou (2024); Anbalagan et al. (2024)*
T3	Project-Based Learning	PBL integrates language skills and promotes critical thinking in authentic vocational contexts	*Weng et al. (2023); Mutiaraningrum et al. (2024); Rampeng et al. (2025)*
T4	Facilitative Teaching	Teacher as learning facilitator; scaffolding and productive struggle	*Suwandi et al. (2024); Soerjaningsih et al. (2025); Yuan & Liao (2023)*
T5	Risk-Safe Climate	Psychologically safe environments as preconditions for intellectual risk-taking	*Rampeng et al. (2025); Zhou (2024)*
C1	Conceptual- Practical Gap	PD insufficiently bridges theory and context-specific practice	*Soerjaningsih et al. (2025); Suwandi et al. (2024)*
C2	Time Constraints	Time scarcity is universally documented barrier to student-centered pedagogies	*Soerjaningsih et al. (2025); Suwandi et al. (2024)*
C3	Student Unreadiness	Passive learning dispositions from prior schooling; dual linguistic-intellectual challenge	*Mutiaraningrum et al. (2024); Yuan & Liao (2023)*
C4	Mixed-Ability Classes	Genuine differentiation demands exceed available time and design capacity	*Suwandi et al. (2024); Soerjaningsih et al. (2025)*
C5	Infrastructure Limits	Technology gaps and assessment complexity constrain deep learning fidelity	*Suwandi et al. (2024); Soerjaningsih et al. (2025)*
C6	Cultural Deference	Authority deference creates tension with critical inquiry; communal values support collaboration	*Nurbatra & Masyhud (2022); Idrus et al. (2023)*

Vocational Contextualization

The foundational role of vocational contextualization in driving student engagement and meaningful language learning in this study converges with findings reported by Mutiaraningrum et al. (2024), who demonstrated in an Indonesian vocational college context that students' cognitive, affective, and behavioural orientations toward English are strongly mediated by perceived career relevance. When students perceive English instruction as professionally purposeful rather than academically obligatory the motivational quality of their engagement undergoes a qualitative transformation. This finding is also corroborated by Sari and Atmojo (2023), who documented that contextual teaching approaches in Indonesian vocational English classrooms produced

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measurably greater vocabulary retention and communicative readiness than decontextualised instruction. The present study extends this evidence by demonstrating that vocational contextualization functions not only as a motivational strategy but as the foundational architecture within which all other deep learning practices become possible.

Higher-Order Questioning

The shift from factual recall to analytical questioning documented across all five participants resonates with a growing body of recent EFL research on the relationship between teacher questioning quality and critical thinking development. Yuan and Liao (2023), in a qualitative study of EFL teachers' conceptualisations and practices of critical thinking in secondary contexts, found that teachers who had developed principled questioning repertoires produced measurably different classroom discourse patterns characterised by extended student reasoning, peer challenge, and evidence-seeking compared to teachers whose questioning remained at the recall level. This distinction parallels the pattern documented in the present study, where teachers' deliberate removal of yes-no questions and substitution of purpose-, audience-, and effect-oriented questions generated qualitatively different intellectual engagement. Zhou (2024), examining teacher questioning in English-medium instruction in Hong Kong, similarly found that the cognitive dimension of questioning (lower vs. higher-order) was the primary determinant of learner engagement depth, with higher-order questions generating sustained analytical discourse that lower-order questions consistently failed to produce.

Project- and Problem-Based Learning

The vocational video tutorial project and workplace problem-solving tasks described by participants exemplify the deep learning principle that authentic integration of language skills within purposeful, real-world tasks produces qualitatively superior learning outcomes compared to isolated skill practice. Weng et al. (2023), in a rigorous study of design-based learning as a pathway to deep learning in engineering education, found that multi-stage projects requiring simultaneous research, communication, collaboration, and critical evaluation produced significant gains in higher-order thinking and critical thinking ability compared to traditional instruction gains that were not achieved by task completion alone but emerged specifically from the iterative, purposeful nature of project work. Rampeng et al. (2025), in a study directly integrating project-based learning and deep learning principles in an Indonesian EFL context, reported that speaking fluency and critical thinking development were significantly enhanced when project activities were designed around authentic vocational communication needs closely mirroring the instructional design this study's participants described.

Facilitative Teaching Role and Risk-Safe Climate

The teachers' reconceptualisation of their professional role from transmitter to facilitator, and their deliberate construction of psychologically safe learning environments, align with what Soerjaningsih et al. (2025) identified as the two most critical teacher-level conditions for deep learning implementation: pedagogical repositioning and affective climate management. In their study of teacher readiness for deep learning pedagogy in Indonesia, Soerjaningsih et al. found that teachers who successfully implemented deep learning were characterised not primarily by superior content knowledge but by their ability to relinquish instructional control, sustain productive struggle, and create environments where students experienced intellectual safety. The present teachers' practices moving among groups, withholding answers, meaning-before-form feedback, and publicly celebrating questioning behaviour directly instantiate the conditions Soerjaningsih et al. identify as necessary for deep learning to take root. Suwandi et al. (2024), examining deep learning implementation in Indonesian schools, similarly found that teacher facilitation quality was the strongest predictor of student critical thinking development, outweighing content coverage and technology access in its explanatory contribution.

Implementation Challenges: Systemic Dimensions

Time Constraints, Administrative Burden, and Curriculum Coverage Pressure

The universal and acute experience of time scarcity documented across all five participants is not idiosyncratic to this study's context but reflects a structurally documented pattern in deep learning implementation research. Soerjaningsih et al. (2025) identified time constraints as the most universally reported challenge among Indonesian teachers attempting to implement deep learning, noting that institutional systems curriculum coverage requirements, administrative reporting obligations, and assessment mandates collectively consume the temporal and cognitive resources that deep learning instruction demands. The paradox these

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teachers articulated that institutional systems require deep learning while simultaneously consuming the conditions its enactment needs represent what Suwandi et al. (2024) characterise as a structural misalignment between deep learning's pedagogical logic and the operational logic of Indonesian school systems. This study's contribution to this conversation is empirical precision: by documenting the specific trade-offs teachers make (which topics to treat deeply, which to cover superficially) and the specific administrative tasks that compete for planning energy, it provides concrete evidence of how this structural misalignment manifests in vocational English classrooms.

Student Unreadiness and the Dual-Barrier Problem

The student unreadiness challenge identified in this study specifically the simultaneous demand for intellectual and linguistic independence in deep learning-oriented EFL instruction extends findings from the existing literature in a contextually precise direction. Mutiaraningrum et al. (2024) documented that Indonesian vocational students' passive learning dispositions were significantly correlated with prior instructional experiences that rewarded compliance and reproduction over initiative and analysis. Yuan and Liao (2023) found that EFL students' critical thinking development was most constrained not by cognitive incapacity but by the absence of prior instructional scaffolding for autonomous reasoning. This study's teachers articulate a compound version of this challenge: in deep learning-oriented EFL instruction, students must simultaneously develop the intellectual confidence to form and defend reasoned positions and the linguistic confidence to express them in English a dual demand that neither challenge in isolation approximates. This compound structure of the challenge has practical implications: professional development for vocational English teachers must address strategies for building both dimensions simultaneously, rather than treating language development and critical thinking development as sequential or independent processes.

Infrastructure Constraints and Assessment Complexity

The infrastructure limitations documented in this study unreliable internet, insufficient devices, and the assessment design burden converge with the findings of Suwandi et al. (2024) and Soerjaningsih et al. (2025), both of whom identified technological infrastructure gaps and authentic assessment complexity as among the most practically constraining challenges for deep learning implementation in Indonesian educational contexts. Suwandi et al. note that while deep learning's emphasis on project-based, multimedia, and collaborative activities is pedagogically well-justified, its fidelity is fundamentally dependent on resource conditions that Indonesian schools particularly those in non-urban and remote areas frequently cannot guarantee. This study extends these findings by documenting the specific adaptations teachers make when infrastructure is insufficient and by suggesting, through teachers' accounts, that even well-adapted activities cannot fully replicate the intended learning experience when essential tools are structurally unavailable. The assessment burden finding further extends Suwandi et al.'s analysis by identifying the tension between critical thinking as a multidimensional construct and the reductive requirements of conventional school grading systems as a distinct and underexamined institutional obstacle.

Cultural Dynamics: Tension and Resource

The cultural dynamics finding that Toraja's authority deference values create tension with critical inquiry while its communal values provide a resource for collaborative learning represents this study's most contextually specific contribution and requires careful analytical resolution. Nurbatra and Masyhud (2022), examining culturally responsive teaching in Indonesian higher education, found that Indonesian students' deference to authority is most productively addressed not through its direct confrontation but through its deliberate reframing repositioning critical inquiry not as a rejection of respectful relationships but as an expression of them. Teacher D's reframing strategy ('asking a careful question honours the idea you are engaging with') precisely instantiates this approach and demonstrates its cultural sustainability in a Toraja context. Idrus et al. (2023), in an investigation of culturally responsive teaching in ESL classrooms, found that teachers who drew explicitly on students' cultural values as pedagogical resources rather than treating those values as obstacles to be overcome achieved significantly more durable and authentic critical thinking development. The present study's finding that Toraja's communal cultural orientation provided a natural scaffold for the collaborative dimensions of deep learning while creating friction in the critical inquiry dimension suggests that culturally responsive deep learning implementation requires not a uniform pedagogical approach but a contextually calibrated one: drawing on available cultural strengths (communal collaboration) while patiently scaffolding the expansion of students' intellectual repertoire to include productive critical questioning.

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Theoretical and Practical Implications

Theoretically, this study extends understanding of deep learning pedagogy by examining its enactment in a previously underexplored context vocational English education in a non-urban Indonesian setting and by illuminating how deep learning principles interact with local cultural values and systemic institutional constraints. The findings confirm Suwandi et al.'s (2024) argument that deep learning is not a monolithic, universally transferable approach but requires contextually sensitive adaptation that responds to local student characteristics, cultural norms, and institutional realities.

Practically, the findings offer actionable guidance for multiple stakeholders. For teachers, the study provides concrete, evidence-grounded examples of deep learning practices adapted to vocational English constraints: vocational material selection, analytical questioning hierarchies, multi-stage project design, facilitative redirection strategies, and affective climate construction techniques. For teacher educators and professional development providers, the findings highlight the inadequacy of conceptual-only PD frameworks and the need for context-specific, vocationally situated practical training that bridges the declarative-procedural gap documented as Challenge C1. For school administrators, the structural contradiction between deep learning's time demands and institutional time-consuming systems requires systemic resolution through administrative burden reduction, curriculum flexibility policies, and technology infrastructure investment rather than individual teacher-level compensation. For policymakers, the findings provide empirical grounds for recommending that deep learning curriculum frameworks explicitly acknowledge and address the contextual, cultural, and infrastructural conditions necessary for implementation fidelity.

Limitations and Directions for Future Research

This study has several limitations that contextualise the scope of its findings. First, data were drawn exclusively from teacher interviews; future research should integrate classroom observations and student perspective data to triangulate and deepen the findings. Second, the sample five teachers from two schools in a single regency limits transferability; larger, more geographically and institutionally diverse samples are needed to establish the generalizability of these patterns. Third, the study's cross-sectional design captured a snapshot of practices and challenges at a single point in time; longitudinal research following teachers across extended implementation periods would reveal how deep learning practices evolve and whether the challenge patterns documented here are stable or amenable to sustained professional development. Fourth, the study did not include measures of student learning outcomes; future research should examine the relationship between these identified practices and measurable critical thinking development in students, using validated assessment instruments appropriate to vocational English contexts.

CONCLUSION

This study examined the enactment of deep learning-based English teaching in vocational high schools in Tana Toraja and the challenges teachers face in implementation. Findings from five English teachers demonstrate that deep learning is enacted through five interconnected practices: vocational contextualization of materials, higher-order questioning, project-based learning activities, facilitative teaching roles, and supportive classroom climates. These practices foster observable critical thinking indicators, including students' questioning of information sources, systematic problem analysis, reasoned argumentation, and transfer of thinking skills beyond classroom contexts. The study's principal contributions are threefold. First, it provides empirical evidence of how deep learning principles are operationalized in Indonesian vocational English classrooms, a previously under-researched context. Second, it identifies multi-level challenges teacher, student, institutional, and cultural that constrain deep learning implementation, offering a comprehensive framework for understanding barriers in similar contexts. Third, it demonstrates that despite significant constraints, teachers can meaningfully enact deep learning practices that develop students' critical thinking dispositions, contributing to the broader discourse on pedagogical reform in vocational education settings.

REFERENCES

1. Ali Memon, M., Thurasamy, R., Ting, H., & Cheah, J.-H. (2025). Journal of Applied Structural Equation Modeling PURPOSIVE SAMPLING: A REVIEW AND GUIDELINES FOR QUANTITATIVE RESEARCH. Journal of Applied Structural Equation Modeling, 9(1).
2. Apriliyana, N. P. (2025). Transforming Education Through Deep Learning Design: Integrating Four Key Elements in School Practice. Molang: Journal Islamic Education, 3(1). https://doi.org/10.32806/jm.v3i1.843

International Journal of Current Science Research and Review
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Volume 09 Issue 03 March 2026
DOI: 10.47191/ijcsrr/V9-i3-41, Impact Factor: 8.048
IJCSRR @ 2026
www.ijcsrr.org

3. Balasubramanian, C. (2022). World Englishes in the EFL Classroom: The Reality. In World Englishes, Global Classrooms: The Future of English Literary and Linguistic Studies. https://doi.org/10.1007/978-981-19-4033-0_1
4. Barella, Y., Fergina, A., Mustami, M. K., Rahman, U., & Alajaili, H. M. A. (2024). Quantitative Methods in Scientific Research. Jurnal Pendidikan Sosiologi Dan Humaniora, 15(1). https://doi.org/10.26418/j-psh.v15i1.71528
5. Brahim, Y. (2021). Developing Critical Thinking Skills in Omani EFL Foundation Programme: Constraints and Possibilities. IJOHMN (International Journal Online of Humanities), 7(1). https://doi.org/10.24113/ijohmn.v7i1.217
6. Brands, S., Endedijk, M. D., Kollöffel, B., & Savelsbergh, E. R. (2025). Exploring professional vision of vet students and tutors: noticing, evaluating and reasoning about practice. Vocations and Learning, 18(1). https://doi.org/10.1007/s12186-025-09375-4
7. Brinkmann, S., & Kvale, S. (2018). Doing interviews (2nd ed.). Sage Publications.
8. Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of Research in Nursing, 25(8). https://doi.org/10.1177/1744987120927206
9. Cheron, C., Salvagni, J., & Colomby, R. K. (2022). The Qualitative Approach Interview in Administration: A Guide for Researchers. Revista de Administracao Contemporanea, 26(4 Special issue). https://doi.org/10.1590/1982-7849rac2022210011.en
10. Cooper, T., Averbook, J., & Holincheck, J. (2024). AI Copilots: Improving the HR Experience for Employees. World at Work.
11. Daulika, A., Junus, K., Santoso, H. B., Michael, J., & Mannix, I. A. (2025). The Influence of Critical Thinking Implementation in Education: A Systematic Literature Review. Eduvest - Journal of Universal Studies, 5(9). https://doi.org/10.59188/eduvest.v5i9.51391
12. Ebekozien, A., Aigbavboa, C. O., & Ramotshela, M. (2024). A qualitative approach to investigate stakeholders' engagement in construction projects. Benchmarking, 31(3). https://doi.org/10.1108/BIJ-11-2021-0663
13. Fitrah, M., Sofroniou, A., Yarmanetti, N., Ismail, I. H., Anggraini, H., Nissa, I. C., Widyaningrum, B., Khotijah, I., Kurniawan, P. D., & Setiawan, D. (2025). Are Teachers Ready to Adopt Deep Learning Pedagogy? The Role of Technology and 21st-Century Competencies Amid Educational Policy Reform. Education Sciences, 15(10). https://doi.org/10.3390/educsci15101344
14. Fox, A., Baker, S., Charitonos, K., Jack, V., & Moser-Mercer, B. (2020). Ethics-in- practice in fragile contexts: Research in education for displaced persons, refugees and asylum seekers. British Educational Research Journal, 46(4). https://doi.org/10.1002/berj.3618
15. Franklin, R. (2022). Quantitative methods I: Reckoning with uncertainty. Progress in Human Geography, 46(2). https://doi.org/10.1177/03091325211063635
16. Garrard, K. A. (2022). Finding a way in for interculturality: Analysing History teachers' conceptualisations at the secondary school level. Discourse, 43(2). https://doi.org/10.1080/01596306.2020.1825288
17. Hafiz Abdul Sami, SairaNiaz, & Muhammad Ahsan Raza. (2025). IMPLICATIONS OF TASK- BASED LEARNING AND COGNITIVE THEORY ON LANGUAGE LEARNING. Journal of Applied Linguistics and TESOL (JALT), 8(2). https://doi.org/10.63878/jalt797
18. Idrus, F., & Sohid, M. (2023). Teachers' expectations and challenges in using culturally responsive teaching (CRT) strategies in the ESL classroom. Journal of Language Teaching and Research, 14(3), 629–635. https://doi.org/10.17507/jltr.1403.10
19. Idrus, F., Ramli, L. N., & Habib, N. J. (2023). Exploring preservice teachers' experiences of implementing culturally responsive teaching in the ESL classrooms. Theory and Practice in Language Studies, 13(3), 766–776. https://doi.org/10.17507/tpls.1303.26
20. Jazayeri, D., Banfield, M., Tapp, C., Tjung, C., Stettaford, T., Stewart, V., Valuri, G., Chong, T., Cullen, P., McGrath, M., Cooper, R., Wheeler, A. J., Neil, A. L., Kisely, S., Bennett, J., Preen, D., Eades, S., Sanci, L., Baker, E., & Palmer, V. J. (2025). Capacity-building strategy for next-generation mental health research: Embedding a national network

International Journal of Current Science Research and Review
ISSN: 2581-8341
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DOI: 10.47191/ijcsrr/V9-i3-41, Impact Factor: 8.048
IJCSRR @ 2026
www.ijcsrr.org

infrastructure to grow mental health researcher capabilities and mental health lived-experience research leaders. BMJ Mental Health, 28(1). https://doi.org/10.1136/bmjment-2025-301554

21. Jimenez, B. A. (2024). TEACHING AND LEARNING WITH PORTFOLIOS. In Methods for Facilitating Adult Learning: Strategies for Enhancing Instruction and Instructor Effectiveness. https://doi.org/10.4324/9781003446019-15
22. Juwanto, J., Nurihsan, J., Rusmana, N., Maya, D. M., & Nalman, A. R. (2024). Assessing the Career Readiness of Students in Bengkulu and Understanding How the Secondary Cultural Values of the Serawai Tribe Provide a Framework for Career Guidance in Vocational Schools. KONSELOR, 13(3). https://doi.org/10.24036/0202413266-0-86
23. Kallio, H., Pietila, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. Journal of Advanced Nursing, 72(12), 2954–2965. Resilient Educator. https://doi.org/10.1111/jan.13031
24. Lukie, A. M., Muhammad, A. S., Eko, P., & Ganno, K. T. (2025). Implementation of Deep Learning in Education: Towards Mindful, Meaningful, and Joyful Learning Experiences. Journal of Deep Learning, 1(1).
25. Massaty, M. H., Fahrurozi, S. K., & Budiyanto, C. W. (2024). The Role of AI in Fostering Computational Thinking and Self-Efficacy in Educational Settings: A Systematic Review. IJIE (Indonesian Journal of Informatics Education), 8(1). https://doi.org/10.20961/ijie.v8i1.89596
26. Maxmudovna, N. M. (2025). Creative approach to logical thinking in primary education. International Journal of Pedagogics, 5(3). https://doi.org/10.37547/ijp/volume05issue03-37
27. Memon, M. A., Thurasamy, R., Ting, H., & Cheah, J. H. (2025). PURPOSIVE SAMPLING: A REVIEW AND GUIDELINES FOR QUANTITATIVE RESEARCH. Journal of Applied Structural Equation Modeling, 9(1). https://doi.org/10.47263/JASEM.9(1)01
28. Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). Qualitative data analysis: A methods sourcebook (4th ed.). SAGE Publications.
29. Mutiaraningrum, I., Suminar, J. R., Damaianti, V. S., & Mulyati, Y. (2024). Indonesian vocational college students' attitudes towards project-based learning in English courses. International Journal of Evaluation and Research in Education, 13(5), 3177–3184. https://doi.org/10.11591/ijere.v13i5.28406
30. Nurbatra, L. H., & Masyhud, M. (2022). Infusing culturally responsive teaching in higher education: Insights for multicultural education in Indonesia. Journal of Innovation in Educational and Cultural Research, 3(4), 722–730. https://doi.org/10.46843/jiecr.v3i4.321
31. Nurhasanah, S., Sutiana, D., Nabil, F., Fauji, I., Hendriyan, S., & Dian, D. (2025). Bridging the Gap: A Systematic Review of Deep Learning Pedagogy for Indonesia's Curriculum Reform. Tarbawi: Jurnal Keilmuan Manajemen Pendidikan, 11(02). https://doi.org/10.32678/tarbawi.v11i02.11368
32. Özaltun, G. (2025). The Contribution of Art Education to Creativity: From Individual Development to Social Integration. ARTic. https://doi.org/10.34010/artic.v8i1.17616
33. Phillippi, J., & Lauderdale, J. (2018). A guide to field notes for qualitative research: Context and conversation. Qualitative Health Research, 28(3), 381–388. https://doi.org/10.1177/1049732317697102
34. Rampeng, R., Hamid, R. J., Maing, R. A., & Sujariati, S. (2025). Integrating project- based learning and deep learning principles to foster speaking fluency and critical thinking in EFL. Jo-ELT (Journal of English Language Teaching), 12(2), 510–520. https://doi.org/10.33394/jo-elt.v12i2.17578
35. Rapti, S., Tselegkaridis, S., Sapounidis, T., & Triantafyllou, S. A. (2025). A bibliometric and content analysis of educational robotics' impact on communication, collaboration, critical thinking, and creativity in kindergarten. Thinking Skills and Creativity, 57. https://doi.org/10.1016/j.tsc.2025.101849
36. Ras, G., Xie, N., van Gerven, M., & Doran, D. (2022). Explainable Deep Learning: A Field Guide for the Uninitiated. Journal of Artificial Intelligence Research, 73. https://doi.org/10.1613/JAIR.1.13200
37. Santoso, Y. I., Prasetyawan, A., Sugiharto, A., Putri, R., Mohammad, & Wibisana, A. (2025). The Effectiveness of Reflection E-Portfolio in English Language Learning Based on Deep Learning and Case-Based Learning. PROCEEDINGS International Conference on Education Faculty of Tarbiyah.

International Journal of Current Science Research and Review
ISSN: 2581-8341
Volume 09 Issue 03 March 2026
DOI: 10.47191/ijcsrr/V9-i3-41, Impact Factor: 8.048
IJCSRR @ 2026
www.ijcsrr.org

38. Sardana, N., Shekoohi, S., Cornett, E. M., & Kaye, A. D. (2023). Qualitative and quantitative research methods. In Substance Use and Addiction Research: Methodology, Mechanisms, and Therapeutics. https://doi.org/10.1016/B978-0-323-98814-8.00008-1
39. Sari, R. P., & Atmojo, A. E. P. (2023). Contextual teaching and learning in vocational English classes: A case study. Journal of English for Academic and Specific Purposes, 6(1), 14–27. https://doi.org/10.18860/jeasp.v6i1.18786
40. Seiler, S. (2024). Post-qualitative inquiry. In Encyclopedia of Sport Management, Second Edition. https://doi.org/10.4337/9781035317189.ch430
41. Soerjaningsih, W., Wibowo, M. A., & Arifianto, S. (2025). Are teachers ready to adopt deep learning pedagogy? The role of technology and 21st-century competencies amid educational policy reform. Education Sciences, 15(10), 1344. https://doi.org/10.3390/educsci15101344
42. St. Pierre, E. A. (2025). A primer for post qualitative inquiry. Qualitative Research in Psychology, 22(3). https://doi.org/10.1080/14780887.2024.2347579
43. Vengaluvakkel, T. G. (2020). IMPACT OF LIFE SKILLS EDUCATION AND SOCIAL INTELLIGENCE ON ADOLESCENCE IN CURRENT SCENARIO OF EDUCATION. International Research Journal of Management Sociology & Humanity, 11.
44. Wang, Y., Fu, Y., Wu, X., Deng, H., Ruan, Y., Liu, C., Chen, C., Gao, Y., You, H., Sun, C., Liu, Y., Zhang, X., Zhang, J., Huang, J., Dong, S., & Wu, J. (2025). Integrating experiential learning theory with innovation and entrepreneurship education: a qualitative study on Chinese medical students. BMC Medical Education, 25(1). https://doi.org/10.1186/s12909-025-07804-5
45. Wardani, Hestiningtyas, W., Kesuma, T. A. R. P., & Kurniawan, A. T. (2025). Designing social studies instruction grounded in ecopedagogy and engagement theory: Cultivating university students' critical consciousness of environmental issues. Jurnal Teori Dan Praksis Pembelajaran IPS, 10(2). https://doi.org/10.17977/um022v10i22025p204-227
46. Welch, C., & Piekkari, R. (2006). Crossing language boundaries: Qualitative interviewing in international business. Management International Review, 46(4), 417–437. Noyam Journals https://doi.org/10.1007/s11575-006-0099-1
47. Yoon, J., & Coble, C. (2024). Experiential learning. In Encyclopedia of Sport Management, Second Edition. https://doi.org/10.4337/9781035317189.ch200

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