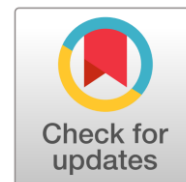


Deep Learning Pedagogy Using Digital Platforms in Arabic Language Instruction at MAN 4 Kebumen

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ABSTRACT

Purpose - This study analyzes how Deep Learning pedagogy is implemented through digital platforms in Arabic language instruction at MAN 4 Kebumen and examines its contribution to building meaningful learning experiences for students.

Design/methodology/approach - A qualitative case study design was employed. Data were gathered across eight classroom observation sessions, in-depth interviews with two teachers and twelve students, and document analysis of lesson plans, student projects, and digital assessment records. Analysis followed the interactive model of Miles, Huberman, and Saldaña (data condensation, data display, and conclusion drawing).

Findings/results - The findings indicate that Deep Learning appears to have transformed Arabic instruction from teacher-centered delivery into a learner-centered knowledge-construction process. Teachers shifted from information providers to facilitators and learning designers. Canva supported knowledge construction and creative project development; QutrubeEyes and Al Ma'ani enabled inquiry-based linguistic exploration; and Quizizz, Kahoot, and ZepQuiz strengthened formative assessment through real-time feedback. Together, these platforms suggest the formation of a pedagogical ecosystem supporting student agency, reflective collaboration, and meaningful Arabic language learning.

Originality/value - This study develops an implementable ecosystem model that positions digital technology not as a supplementary medium but as a pedagogical system integrating knowledge construction, linguistic exploration, reflective collaboration, and continuous assessment — extending Fullan's Deep Learning theory into Arabic language instruction at the madrasah level.

Paper type - Research paper

Keywords: Deep Learning; Digital platforms; Arabic language instruction; Meaningful learning; Student agency.

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Introduction

The shift toward deep, meaning-centered learning has gathered pace in education systems worldwide, driven in large part by the growing availability of digital technology in classrooms (Nofamataro Zebua, 2025). This shift matters especially in foreign language education, where surface-level memorization of grammar rules and vocabulary lists has long been recognized as insufficient for genuine communicative competence. Arabic instruction in Indonesian madrasahs faces this challenge acutely: students often accumulate linguistic knowledge without developing the ability to use the language purposefully or reflectively. Digital platforms have begun to change this equation by enabling more personalized, contextual, and interactive engagement with language content, but the pedagogical frameworks governing their use remain underdeveloped (Selfa-Sastre et al., 2022).

Deep Learning, as theorized by Fullan, Quinn, and McEachen (2017), addresses this gap by positioning learning as a process of genuine knowledge construction rather than passive reception. The theory holds that students must be actively engaged in connecting new concepts to prior experience, applying understanding in authentic contexts, and reflecting on their own learning. In a digitally mediated classroom, technology ideally functions not as a vehicle for content delivery but as a scaffold for exploration, collaboration, and inquiry. When digital tools are integrated with deliberate pedagogical design, they can deepen cognitive engagement and produce learning experiences that extend well beyond recall (Feriyanto & Anjariyah, 2024).

Research on technology-enhanced language learning has grown substantially, yet most existing studies examine the effects of a single platform or tool on specific learning outcomes—vocabulary acquisition, reading comprehension, or grammar accuracy—rather than investigating how an integrated ecosystem of platforms might reshape the entire pedagogical dynamic (Yuyun Rohmatul Uyuni et al., 2024). Studies focusing on Arabic instruction specifically tend to concentrate on product-level outcomes rather than the processes through which teachers and students co-construct learning experiences through digital mediation (Aljehani, 2024). This gap is particularly pronounced at the madrasah level, where the intersection of Islamic educational traditions and digital pedagogy raises questions that general educational technology research does not fully address (Pinto-Llorente & Izquierdo-Álvarez, 2024).

Several relevant studies point toward the contribution digital technology can make to deep, engaged learning. Wu (2024) found through meta-analysis that digital technology positively affects deep learning achievement by increasing interaction and knowledge construction. Rojas and Chiappe (2024) demonstrated that AI-based digital ecosystems create integrated learning experiences with stronger knowledge transfer. Moon et al. (2024) showed that gamified environments foster student collaboration and participation. Buckingham Shum et al. (2024) highlighted how human-centered learning analytics support engagement and self-reflective learning. Taken together, these

findings suggest that the quality of learning depends less on which technologies are used and more on whether those technologies are orchestrated within a coherent pedagogical framework—precisely the kind of integration that Deep Learning theory calls for.

This study examines how MAN 4 Kebumen implemented Fullan's Deep Learning pedagogy through a coordinated ecosystem of digital platforms in Arabic language instruction. The novelty lies in moving beyond effectiveness studies to trace how specific platform functions—knowledge construction through Canva, linguistic inquiry through QutrubEyes and Al Ma'ani, and formative assessment through Quizizz, Kahoot, and ZepQuiz—operate together within the Deep Learning framework. Unlike prior research that treats technology adoption as the dependent variable, this study treats the pedagogical transformation of Arabic instruction as the central phenomenon and examines how digital platforms appear to enable it. This approach seeks to extend Fullan's Deep Learning theory into a specific linguistic and institutional context that has received limited empirical attention (Aulia & Mahliatussikah, 2025).

The study aims to answer the following research questions: (1) What pedagogical transformations do teachers experience when implementing Fullan's Deep Learning pedagogy through digital platforms in Arabic language instruction? (2) How do digital platforms function as a learning ecosystem to support meaningful, reflective, and learner-centered Arabic language learning at MAN 4 Kebumen?

Literature Review

Deep Learning as a Pedagogical Framework

The concept of Deep Learning, as developed by Fullan, Quinn, and McEachen (2017), represents a fundamental reorientation of educational purpose. Rather than positioning schooling as the efficient transmission of predetermined content, Deep Learning frames the goal of education as enabling students to develop six core competencies: character, citizenship, collaboration, communication, creativity, and critical thinking (the "6Cs"). These competencies are not acquired through passive reception; they develop through sustained engagement in authentic, purposeful tasks that require learners to take ownership of their learning and reflect on what they are doing and why. In this study, the 6Cs serve as the analytical lens through which findings are interpreted: each theme in the data is mapped to the specific competency dimensions it appears to activate.

This orientation is particularly relevant for language education. Language learning that focuses exclusively on grammatical accuracy or lexical breadth tends to produce students who can pass examinations but struggle to communicate in real situations (Feriyanto & Anjariyah, 2024). Deep Learning approaches in language classrooms create conditions in which students use language to accomplish genuine



communicative purposes—constructing arguments, exploring ideas, creating multimodal texts, collaborating with peers. Several studies have found that when language instruction incorporates project-based learning and collaborative inquiry, students develop both stronger linguistic proficiency and more durable motivation (Aulia & Mahliatussikah, 2025; Siregar et al., 2025).

Digital Platforms and Knowledge Construction

Wu's (2024) meta-analysis of forty-four studies found a significant positive effect of digital technology on students' deep learning achievements, attributing this primarily to the enhanced interaction and knowledge construction opportunities digital environments provide. This finding is consistent with constructivist learning theory, which holds that knowledge is not transferred from teacher to learner but actively constructed through the learner's engagement with information, tasks, and social interaction (Prakash Chand, 2023). Digital platforms extend these constructivist possibilities by providing access to diverse, interactive resources that students can explore, combine, and respond to according to their own learning needs.

In the specific domain of Arabic language learning, digital resources have demonstrated particular value for linguistic inquiry. Tools that provide morphological analysis, lexical information, and contextual usage examples enable students to investigate language structures independently rather than depending entirely on teacher explanation (Faiqoh et al., 2025). Studies on digital media integration in Arabic and English instruction have found that technology-mediated inquiry supports more autonomous and contextually grounded language engagement when teachers design learning environments that position platforms as inquiry tools rather than passive delivery channels (Alzubi, 2023).

Digital Assessment and Formative Feedback

Formative assessment—designed to support learning rather than merely measure it—plays a central role in Deep Learning environments by providing students with continuous feedback about their progress and encouraging metacognitive reflection (Bevilacqua & Dell'Erba, 2024). Digital assessment platforms have made formative feedback more immediate and interactive, enabling real-time identification of misconceptions while learning is still in progress.

Gamified platforms such as Quizizz and Kahoot have been found to increase student engagement while maintaining the formative function of feedback (Moon et al., 2024). When embedded within a broader Deep Learning framework rather than used as isolated review activities, they contribute to self-regulation, as students learn to monitor their own understanding and identify areas requiring further attention. This self-regulatory dimension connects directly to the student agency that Fullan's theory identifies as a hallmark of genuine deep learning (Pinto-Llorente & Izquierdo-Álvarez, 2024).

Method

Research Design and Rationale

This study employed a qualitative approach with a case study design. Case study methodology was selected because the research aims to gain an in-depth, contextually grounded understanding of how Fullan's Deep Learning pedagogy was implemented in a specific institutional setting—MAN 4 Kebumen, Central Java—rather than to produce generalizable measurements across multiple contexts (Creswell, 2014). This choice is consistent with the study's epistemological orientation: the meanings, experiences, and pedagogical practices under investigation are embedded in a particular social and institutional context that must be understood on its own terms.

Research Site and Participants

The research was conducted at MAN 4 Kebumen, a public Islamic senior secondary school (Madrasah Aliyah Negeri) in Central Java, Indonesia, during January–March 2025. The school had been implementing Fullan's Deep Learning pedagogy as part of its adoption of the Merdeka Belajar curriculum framework, making it an appropriate and information-rich case for the phenomenon under investigation.

Participants were selected through purposive sampling based on two criteria: direct involvement in the Deep Learning implementation and ability to provide information-rich accounts of pedagogical experience and student engagement. Sampling continued until thematic saturation was reached, resulting in a final sample comprising two Arabic language teachers (T1 and T2) and twelve students (S1–S12) from Grades X and XI. Table 1 presents the participant profile.

Table 1. Participant Profile

No.	Code	Role	Gender	Experience/Grade	Subject/Class	Sampling Rationale
1	T1	Arabic Teacher	Female	9 years	Arabic, Grade XI	Lead DL implementer
2	T2	Arabic Teacher	Male	6 years	Arabic, Grade X	Co-implementer; different level
3–14	S1–S12	Students	Mixed	Grades X–XI (15–17 yrs)	Arabic language class participants	Purposive: varied proficiency levels

Note. All names are replaced with pseudonyms to protect participant anonymity.

Data Collection

Three complementary data collection methods were employed to enable source triangulation. Table 2 summarizes the procedures.



Table 2. Data Collection Procedures

Method	Instrument	Schedule/Duration	Focus
Classroom Observation	Structured observation protocol (field notes)	8 sessions × 90 min, Jan–Mar 2025	Platform use, teacher questioning, student engagement, task structure
In-depth Interview	Semi-structured interview guide	45–60 min per participant; audio-recorded	Pedagogical experience, platform rationale, perceived learning impact
Document Analysis	Document checklist	Throughout data collection period	RPP lesson plans, Canva projects, Quizizz/Kahoot score reports, WhatsApp group archives

Classroom observations were conducted using a structured protocol tracking platform use, teacher questioning patterns, student engagement behaviors, and task structure. Field notes were written during sessions and elaborated immediately afterward. Interviews followed a semi-structured guide developed from the literature on Deep Learning and digital pedagogy; all sessions were audio-recorded with participant consent and transcribed verbatim. Documents examined included lesson plans (RPP), student Canva project files, Quizizz and Kahoot score reports, and instructional WhatsApp group archives, which provided evidence of how learning activities extended beyond the classroom.

Data Analysis

Data analysis followed the interactive model of Miles, Huberman, and Saldaña (2014), which proceeds through three iterative stages: data condensation, data display, and conclusion drawing. In the condensation stage, data were coded using an initial open coding process; codes were then grouped into categories and overarching themes through constant comparison. Table 3 presents a sample of the data condensation process.

Table 3. Sample Data Condensation: Initial Codes, Categories, and Themes

Initial Code	Category	Theme	Data Source (Example)
Teacher shifts from lecturer to guide	Role transformation	Pedagogical identity shift	<i>"I no longer stand in front of the class the whole time..." (T1)</i>
Students use AI Ma'ani to verify word form	Independent linguistic inquiry	Digital knowledge construction	Observation session 3; annotated student vocabulary list
Quizizz scores reviewed	Real-time formative feedback	Assessment as learning	Observation sessions 5 & 7; Quizizz score reports

immediately in class			
Student chooses poster or video format	Learner choice in task format	Student agency	<i>"I chose to make a video because I can explain better when I speak." (S4)</i>
Group disagrees on word meaning, returns to digital source	Collaborative meaning negotiation	Social knowledge construction	<i>"We disagreed about the meaning, so we looked it up together..." (S3)</i>

In the data display stage, condensed data were organized into thematic narrative matrices mapping patterns of interaction among teachers, students, and digital platforms. Conclusions were drawn by interpreting these patterns through the lens of Fullan's 6C framework and verified through triangulation of observation, interview, and documentary evidence.

Trustworthiness

Several strategies were employed to strengthen the trustworthiness of findings. Credibility was addressed through source triangulation (comparing observation, interview, and documentary data), member checking (returning draft interpretations to T1 and T2 for verification), and prolonged engagement across eight observation sessions. Dependability was supported by an audit trail of raw field notes, verbatim transcripts, and analytical memos maintained throughout the study. Transferability is addressed through thick description of the research context and participant characteristics, enabling readers to assess the applicability of findings to other settings. Reflexivity was maintained through the first author's research journal, which documented assumptions, emerging interpretations, and potential biases at each stage of analysis.

Research Ethics

Ethical approval was obtained from the institutional research committee of Universitas KH. Abdul Chalim Mojokerto prior to data collection. Written informed consent was obtained from all teacher participants and from the parents or guardians of student participants who were minors. Participants were informed of their right to withdraw at any time without consequence. All identifying information was replaced with pseudonyms; data were stored in a password-protected repository accessible only to the research team. Student artifacts, quiz records, and digital archives were used solely for research purposes.



Result and Discussion

This section presents findings organized around the two research questions. Table 4 provides a cross-referenced evidence matrix mapping themes to observational, interview, documentary, and theoretical dimensions.

Table 4. Findings Matrix: Themes, Evidence, and Fullan's 6C Dimensions

Theme	Observation Evidence	Interview Quote	Document/Artifact	Fullan's 6C Dimension
Pedagogical role shift	Teacher poses open questions; students initiate inquiry (sessions 1, 2, 6)	<i>"I no longer stand in front of the class the whole time. I ask, they explore." (T1)</i>	RPP: facilitator role explicitly in activity sequence	Character; Communication
Digital linguistic inquiry	Students cross-check QutrubeEyes/Al Ma'ani; debate word forms (sessions 3, 4)	<i>"When I found a different word form in QutrubeEyes, I went back and checked my sentence again." (S7)</i>	Annotated vocabulary lists; Canva drafts showing revision cycles	Critical Thinking; Creativity
Collaborative meaning negotiation	Groups negotiate meanings; peer correction observed (sessions 4, 5)	<i>"We disagreed about the meaning at first, so we looked it up together and then changed our poster." (S3)</i>	Group project files; WhatsApp archive of collaborative editing	Collaboration; Communication
Formative digital assessment	Students review quiz results immediately; teacher adjusts next activity (sessions 5, 7)	<i>"After Quizizz, I know exactly which grammar point I still don't get." (S11)</i>	Quizizz score reports; teacher follow-up lesson plan adjustments	Critical Thinking; Character
Student agency / differentiated tasks	Students select task format; self-paced pacing (sessions 6, 8)	<i>"I chose to make a video because I can explain better when I speak. My friend chose a poster." (S4)</i>	Canva project files showing format diversity; submission log	Citizenship; Character; Creativity

RQ1: Pedagogical Transformations in the Deep Learning Implementation

The most consistent finding across all data sources concerns the shift in teachers' professional identity and instructional practice. Both T1 and T2 described a movement away from organizing lessons around sequential content presentation toward designing learning experiences focused on students' active construction of meaning. This shift was not merely technical—it was conceptual. As T1 explained:

"I used to explain everything. Now I ask more than I tell. At first it felt strange, like I wasn't doing my job. But then I saw students actually looking things up, arguing about word meanings, correcting each other—and that's when I realized this is better teaching, not less teaching." (T1)

This account reflects what Siregar et al. (2025) describe as the transition from content delivery to pedagogical orchestration—the teacher's primary task shifting from presenting information to creating conditions for inquiry and reflection. Classroom observations confirmed this pattern: across sessions, T1 was observed posing open-ended questions that directed students toward digital resources rather than providing answers directly, circulating during group tasks to prompt rather than correct, and structuring debrief discussions around student-generated findings rather than predetermined conclusions. This approach corresponds to the communication and character dimensions of the 6Cs: teachers were modeling intellectual honesty and creating space for students to develop their own reasoning.

T2 offered a complementary account focused on the differentiation dimension of this role shift:

"Different students need different things from me. With digital platforms, I can let stronger students go deeper while I spend time with those who need more support. Before, I had to teach to the middle and hope everyone kept up." (T2)

This suggests that Fullan's Deep Learning pedagogy—when implemented with a diverse platform ecosystem—may support differentiated instruction in ways that conventional whole-class teaching cannot easily accommodate. Interview data from students reinforced this: S4 noted, "I chose to make a video because I can explain better when I speak. My friend chose a poster. We both did Arabic, just differently." This degree of learner choice in demonstrating understanding is consistent with Lee and Hannafin's (2016) "Own It, Learn It, Share It" framework for student agency, and with the character, citizenship, and creativity dimensions of Fullan's 6Cs.

Teachers acknowledged that integrating multiple platforms required a significant period of adaptation. Early in the implementation, navigating Canva, QutrubeEyes, Al Ma'ani, Quizizz, Kahoot, and ZepQuiz simultaneously was demanding. With experience, however, both teachers developed clearer pedagogical reasoning about platform differentiation—matching each tool to a specific learning function. T1 described this as moving from "trying everything" to "choosing purposefully," a distinction that appears to matter: the mere presence of digital tools did not in itself produce deep learning, but



deliberate alignment of platform affordances with instructional goals may have done so.

RQ2: Digital Platforms as a Learning Ecosystem

Observation and interview data together suggest that the six digital platforms used at MAN 4 Kebumen did not function as interchangeable delivery mechanisms but operated as a structured ecosystem in which each platform served a distinct pedagogical function aligned with specific dimensions of Fullan's 6Cs.

Canva served as the primary medium for knowledge construction. Students used it to transform linguistic and content knowledge into visual products—posters, infographics, presentation slides—that required genuine decisions about how to organize and communicate ideas in Arabic. As S3 explained: “We disagreed about the meaning at first, so we looked it up together and then changed our poster.” This revision cycle—in which a collaborative disagreement prompted return to a linguistic resource and subsequent product modification—illustrates the creativity and critical thinking dimensions of the 6Cs in action (Masitoh & Aziz, 2025).

QutrubEyes and Al Ma’ani functioned as linguistic inquiry resources. Students were observed using these tools not merely to look up definitions but to investigate morphological patterns, cross-check contextual usage, and evaluate competing interpretations of Arabic structures. S7 described this process: “When I found a different word form in QutrubEyes, I went back and checked my sentence again.” This inquiry cycle—encountering variation, questioning one’s own understanding, returning to a source, revising—closely resembles the epistemic processes that Deep Learning theory identifies as central to knowledge creation rather than knowledge reception (Faiqoh et al., 2025). The capacity for independent linguistic investigation these platforms appear to support addresses a persistent challenge in Arabic education: producing learners who can engage with Arabic texts and contexts autonomously rather than depending indefinitely on teacher mediation.

Collaborative learning took on a more substantive character within this framework. Group tasks required students to pool information gathered from digital sources, discuss findings, and arrive at collective understanding through dialogue. S3’s account illustrates genuine disagreement—and its resolution through shared inquiry—as a recurring feature of group work. This pattern of collaborative meaning negotiation corresponds to the collaboration and communication dimensions of the 6Cs, and extends Rojas and Chiappe’s (2024) finding that AI-based digital ecosystems can create integrated learning experiences with stronger knowledge transfer.

Project-based learning activities integrated these processes into extended tasks requiring sustained engagement with both linguistic content and digital production. Students produced digital posters, interactive presentations, infographics, and short Arabic-language videos. The project format meant that students encountered language not as a set of exercises to complete but as a medium for communication and creative

expression—a condition Fullan's framework associates with the creativity and citizenship competencies (Selfa-Sastre et al., 2022).

Digital assessment through Quizizz, Kahoot, and ZepQuiz played a distinct role within the ecosystem. Rather than serving as summative checkpoints, these tools were woven into the learning process as formative mechanisms. S11 described the experience: "After Quizizz, I know exactly which grammar point I still don't get." Teachers used aggregated quiz data to adjust subsequent instruction. Both teachers and students described the experience of digital assessment as qualitatively different from conventional tests: the immediate feedback, the low-stakes character, and the discussion that followed score review made self-evaluation feel like part of learning rather than a judgment on it. This perception is consistent with Bevilacqua and Dell'Erba's (2024) account of assessment as learning.

Taken together, these findings indicate—though with appropriate caution given the single-site design—that the six platforms operated as an interconnected learning ecosystem: Canva supporting knowledge construction (creativity, critical thinking); Qutrubees and Al Ma'ani enabling linguistic inquiry (critical thinking, communication); collaborative tasks fostering meaning negotiation (collaboration, communication, citizenship); and the assessment platforms enabling formative reflection and self-regulation (character, critical thinking). This mapping—in which platform functions correspond to specific 6C dimensions—offers one way of extending Fullan's Deep Learning theory by providing an implementable structure for understanding how digital technology can serve as a pedagogical system rather than a collection of tools.

Conclusion

This study indicates that implementing Fullan's Deep Learning pedagogy through digital platforms at MAN 4 Kebumen appears to have transformed Arabic language instruction from content delivery into a learner-centered process of meaning construction. The evidence suggests that the coordinated use of Canva, Qutrubees, Al Ma'ani, Quizizz, Kahoot, and ZepQuiz functions as a pedagogical ecosystem in which each platform plays a distinct role—knowledge construction, linguistic inquiry, and formative assessment—while contributing to an integrated learning experience. Students appear to have developed greater agency, engagement, and capacity for reflective learning as a result, and teachers underwent a meaningful professional reorientation from information providers to designers of learning experiences. Patterns corresponding to Fullan's six core competencies—character, citizenship, collaboration, communication, creativity, and critical thinking—were identifiable across themes, though the degree of development in any individual competency warrants further investigation.

This study seeks to extend Fullan's Deep Learning theory by suggesting how it might be implemented through an interconnected digital platform ecosystem in Arabic



language instruction at the madrasah level. For teachers and institutions considering similar approaches, the evidence suggests that effectiveness depends on deliberate pedagogical design—purposefully matching platform affordances to learning goals—rather than on the volume or novelty of technologies adopted. Institutional support for teacher professional development, particularly in what might be called digital pedagogical reasoning, appears to be a condition worth attending to.

This study is bounded by several limitations that should be considered when interpreting the findings. First, the single-site, qualitative design means that findings reflect what appears possible in one institutional context — MAN 4 Kebumen — and should not be generalized to diverse madrasah settings without further investigation. Second, the participant sample is intentionally small: two teachers and twelve students provided information-rich data appropriate for a case study, but the limited number of informants constrains the range of pedagogical experiences represented. Claims about what is typical of this setting, let alone of digital-platform-based Deep Learning instruction more broadly, would require larger and more varied samples. Third, this study does not include any measurement of student learning outcomes. It documents what teachers and students experienced and describes how platforms were used, but it cannot establish whether the observed instructional practices produced gains in Arabic language proficiency, critical thinking, or any other competency. Fourth, data were collected across a single three-month period, which means there are no longitudinal data: how student agency, linguistic competence, or reflective capacity might develop — or diminish — over sustained exposure to this pedagogical approach remains unknown. Future research should employ mixed-methods designs that combine process data with pre- and post-outcome measures, extend across at least one full academic year, and examine implementation across multiple madrasah levels and institutional conditions. Investigating the role of artificial intelligence and generative platforms in this pedagogical framework would also be a productive direction.

Implication of Findings

The findings of this study reinforce prior research demonstrating that digital learning environments can foster meaningful learning through active knowledge exploration, reflective engagement, and sustained cognitive involvement (Zhu et al., 2021; Al Mamun & Lawrie, 2023). The case of MAN 4 Kebumen indicates that this potential is realized not through technology adoption per se but through the purposeful pedagogical integration of technology within a theoretical framework that treats meaning-making as the central goal of instruction. Student agency appears to have emerged not from digital access alone but from instructional design that created genuine opportunities for self-directed inquiry, collaborative meaning negotiation, and formative reflection. These findings suggest—though without overclaiming given the

bounded nature of the study—that the transition toward Deep Learning-oriented instruction in Arabic education is feasible and potentially impactful, and that the quality of implementation, more than the adoption of any particular platform, is the key variable. This study seeks to expand Fullan’s Deep Learning theory by offering a concrete, implementable ecosystem model in which knowledge construction, linguistic exploration, reflective collaboration, and continuous assessment function as an interconnected pedagogical whole (Fullan et al., 2017).

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