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Deep Learning Based Digital Quizzes as A Pathway to Joyful and Meaningful Morphology Learning

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ABSTRACT

Arabic morphology is a crucial yet challenging component of Islamic education due to its structural complexity and conventional teaching methods. This study examines the integration of Genially-based digital quizzes within a deep learning framework to enhance students' conceptual understanding and engagement in learning Morphology. Using a qualitative intrinsic case study, data were collected through classroom observations, interviews, and digital documentation involving forty female students and one teacher at Persatuan Islam Putri Bangil Islamic Boarding School in Indonesia. Thematic analysis identified five significant learning dimensions: joyfulness, engagement, independent learning, spiritual meaning, and conceptual understanding. The findings show that Genially-based quizzes foster active participation, intrinsic motivation, and reflective thinking, shifting learners from rote memorization toward a meaningful comprehension of morphological patterns. Integrating Qur'anic verses and moral reflection within the quizzes deepened spiritual awareness, resonating with the Islamic educational philosophy of *ta'dib*, which harmonizes knowledge, ethics, and spirituality. The approach demonstrates that deep learning pedagogy, supported by interactive digital tools, promotes cognitive mastery, affective engagement, and moral growth simultaneously. This model contributes to Sustainable Development Goal 4 (Quality Education) by encouraging inclusive, reflective, and lifelong learning in Islamic education. Despite infrastructural and literacy challenges, the study highlights Genially's potential as a transformative pedagogical medium that bridges traditional and digital paradigms, advancing Arabic language instruction toward a more holistic, joyful, and spiritually grounded learning experience suitable for the Society 5.0 era.

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1. Introduction

Arabic, a language rich in grammatical structures and morphological systems, plays a crucial role in Islamic education, particularly in understanding religious sources such as the Quran and Hadith. One of the main branches of Arabic language studies that serves as the foundation for this

learning is morphology, which studies word forms and their meaning changes through derivation and conjugation. Mastery of morphology is crucial for developing the ability to deeply understand sentence meaning and distinguish word functions within syntactic structures (Al-Farraj, 2017).

However, the reality on the ground shows that learning morphology is often considered complicated, tedious, and even intimidating for most Arabic learners, especially beginners (Tarigan & Zulkarnein, 2023). Field observations and interviews suggest that teaching approaches remain predominantly conventional. Relying heavily on memorizing tables, a pattern or cycle of rhythm in Arabian and paper-and-pen exercises, which tend to be less engaging for today's digital native students. In contrast, the advancement of digital-based educational technologies provides tangible opportunities to design more meaningful and joyful learning experiences that respond to individual learners' needs through deep learning and gamification approaches.

The digital transformation in education has opened new horizons in learning models, particularly with the integration of artificial intelligence (AI) based technology, adaptive learning, and deep learning approaches. Deep learning in an educational context refers not only to technology but also to a pedagogical approach that emphasizes deep conceptual understanding, the transfer of knowledge across contexts, and the development of critical and reflective thinking (Biggs & Tang, 2011). The implementation of deep learning-based digital quizzes can be a learning strategy that can increase active student engagement while supporting the ongoing mastery of grammar material.

According to Deterding et al. (2011), gamification in education, including the use of digital quizzes, can increase students' intrinsic motivation, especially when designed with elements of healthy competition, immediate feedback, and challenges appropriate to the students' ability levels (Deterding et al., 2011). Furthermore, joyful learning approaches have been empirically proven to increase information retention and cognitive engagement (Irawan et al., 2025). Thus, the combination of a joyful learning approach, the use of digital quizzes, and deep learning principles in learning Morphology can be an innovative pedagogical solution in overcoming the stagnation of Arabic grammatical learning.

In the era of Society 5.0, the education system faced the challenge of balancing technological sophistication with humanitarian and spiritual values. In this context, learning Morphology aims not only to develop linguistic skills but also to shape character, disciplined thinking, and linguistic sensitivity in understanding authentic Islamic texts (Zia & Johnson, 2024). Therefore, the implementation of transformative and contextual learning models is crucial so that students not only memorize word change patterns but also understand the wisdom and socio-cultural functions of understanding Arabic as a whole.

Furthermore, a digital approach that incorporates interactive quizzes based on deep learning

can enhance the personalization aspect of learning. Deep learning algorithms enable the system to recognize student error patterns, provide relevant feedback, and recommend exercises tailored to each individual's needs (Woolf, 2021). This statement directly supports the principle of "assessment for learning," where the evaluation process is not only a tool for measuring achievement but also an integral part of the learning process itself.

In the context of learning Morphology, digital quizzes can be designed not only to test students' factual knowledge of conjugation patterns but also to hone their analytical thinking skills in identifying word roots, forming derivations, and applying morphological rules to real-world texts. Furthermore, the tiered quiz design enables students to gradually improve their understanding, progressing from mere memorization to using concepts in communicative and contextual situations.

In line with the development of 21st-century learning concepts that emphasize the 4C skills (critical thinking, creativity, communication, and collaboration), digital quiz-based Morphology learning can also be developed into a collaborative learning approach. For example, students can be allowed to discuss different quiz answers online, compare their problem-solving strategies, and provide feedback on solutions proposed by their classmates. This process will enrich the learning experience and build a supportive learning community (Vygotsky, 1978).

Several studies have also shown that students engaged in digital quiz-based learning demonstrate significant improvements in their learning motivation and academic performance. The integration of AI-based quizzes in language learning can improve mastery of grammatical structures and vocabulary more effectively than traditional methods (Hwang et al., 2015). This finding aligns with other studies, which demonstrate that the use of quiz platforms like Kahoot! and Quizizz in Arabic language learning can significantly increase active participation and enhance mastery of grammatical material (Auliya et al., 2025).

More importantly, the "joyful" aspect of learning should not be overlooked. According to neuropedagogical concepts, positive emotions during the learning process can trigger activation of the brain's prefrontal cortex, which is responsible for information processing and long-term memory (Immordino-Yang & Damasio, 2007). Therefore, creating a fun Morphology learning experience through a digital approach impacts not only the cognitive aspects but also the emotional and affective aspects of learners. The inclusion of gamification in learning also contributes to understanding how games influence student engagement and learning behavior (Smiderle et al., 2020).

However, it is essential to note that the successful implementation of deep learning-based digital quizzes in Morphology learning depends heavily on several factors, including teacher readiness in designing interactive content, the availability of digital infrastructure, and adequate

student digital literacy. Furthermore, ongoing evaluation of the effectiveness of this method is also necessary through classroom action research, validity testing of digital evaluation instruments, and analysis of user behavior through learning analytics data (Long & Siemens, 2011).

Previous studies have explored the use of Genially across various educational contexts and disciplines, but none have focused on its application in Arabic Morphology learning through a deep learning framework. For instance, Reyes et al. (2024) used Genially to design interactive History lessons for secondary students, showing improvements in motivation, participation, and the development of critical thinking (Reyes et al., 2024). Similarly, Castillo-Cuesta et al. (2024) combined Genially and Kahoot within a CLIL approach for EFL university learners, demonstrating enhanced engagement, collaboration, and comprehension of subject-specific content (Castillo-Cuesta et al., 2024). Sitinjak et al. (2025) focused on developing Genially-based quiz media to improve learning motivation in science subjects (Sitinjak et al., 2025), while Rodríguez-Martín et al. (2025) examined its use in gamifying Thermodynamics learning, revealing significant gains in conceptual understanding and learner enthusiasm (Rodríguez-Martín et al., 2025).

In contrast, the present study differs in three fundamental ways. First, it contextualizes Genially within Arabic Morphology learning, a linguistically and cognitively demanding area that has rarely been addressed through gamified digital media. Second, it emphasizes the integration of deep learning pedagogy, moving beyond surface-level interactivity toward fostering conceptual transfer, reflective analysis, and contextual understanding of morphological rules in authentic Arabic texts. Third, unlike previous studies that focused mainly on cognitive or motivational outcomes, this study incorporates a spiritual and humanistic dimension rooted in Islamic education, aiming to cultivate linguistic sensitivity, disciplined reasoning, and ethical awareness through joyful and meaningful learning experiences.

This study offers several distinctive contributions to the field. It introduces a new pedagogical perspective by integrating deep learning principles with Genially based digital quizzes for teaching Arabic Morphology. An approach that has not been widely explored in previous research, such as the contextualization of Genially technology in Islamic boarding schools' environments, has not been extensively investigated in Arabic language learning literature. Furthermore, the deep learning approach is structured thematically but remains linked to an understanding of Morphology principles, meaning the concept of joyful learning is not merely entertainment or light gamification. This research also emphasizes the perspective of students as the center of the learning experience, providing narrative space to understand how students construct meaning in Morphology through digital quizzes.

Genially was chosen for this research because it provides pedagogical and technological affordances that align seamlessly with the goals of deep, joyful, and contextual learning. Compared

to other quiz-based platforms, such as Kahoot! Quizizz, or Wordwall, Genially offers greater design flexibility, multimodal integration, and personalized learning pathways. These features allow educators to design layered and interactive experiences that combine visual, textual, and auditory elements to clarify complex Morphology patterns.

Unlike Kahoot! which emphasizes rapid competitive responses, or Quizizz, which focuses primarily on multiple choice formats, Genially supports adaptive storytelling, branching scenarios, and embedded feedback loops, all of which are central to a deep learning approach. It enables the creation of interactive modules where students can explore morphological structures through guided discovery, receive contextualized feedback, and connect grammar to authentic textual applications such as Qur'anic verses or classical Arabic prose. Furthermore, Genially's analytics tools allow teachers to track learning progress and identify student misconceptions, thereby supporting assessment for learning. Its user-friendly interface and cloud-based accessibility also make it highly practical for educators in diverse Islamic educational settings, including Islamic boarding schools, where digital infrastructure and teacher digital literacy may vary.

Thus, the decision to use Genially is not merely technical but pedagogical and philosophical. It reflects a commitment to creating a transformative learning environment that combines cognitive depth, emotional engagement, and spiritual meaning. This aligns with contemporary educational imperatives that emphasize joyful learning, reflective understanding, and technological adaptability while remaining faithful to the Islamic educational ethos that seeks knowledge as both an intellectual and moral pursuit.

This study is critical because it contributes to the ongoing transformation of Arabic language education through the integration of digital pedagogy, specifically within the field of Morphology. While previous research has demonstrated the pedagogical potential of digital learning tools, there remains a critical need to adapt these innovations to the context of Islamic education, where learning extends beyond linguistic mastery toward moral, spiritual, and intellectual formation. By combining deep learning principles, gamification, and joyful learning through the Genially platform, this research bridges traditional and modern educational paradigms, promoting joyful learning. Not only linguistic competence, but also reflective and value-based learning. In an era where digital literacy is indispensable, this study aims to model how technology can be integrated with the spiritual and ethical dimensions of Islamic learning, thereby supporting the holistic development of learners in Society 5.0.

This situation encourages the creation of a values-based hybrid learning model, where technology is used not as a substitute for teachers, but as a medium that enriches interactions and Islamic learning experiences. Considering these opportunities and challenges, the research and development of digital quiz-based morphology learning with a deep learning approach needs to

be conducted systematically and evidence-based. Based on this explanation, this study aims to analyze digital quiz-based morphology learning using a deep learning approach through the Genially Education platform to create a fun, reflective, and spiritually valuable learning experience.

2. Method

This research employs a qualitative approach with an intrinsic case study design to explore the practice of learning Morphology through digital quizzes based on Genially Education. The qualitative design was selected because it allows an in-depth exploration of learning experiences, emotions, and engagement among female students (Nowell et al., 2017). Within this framework, an embedded case study model (Yin, 2018) was adopted to achieve both analytical depth and contextual breadth. This model enables the researcher to capture the holistic classroom dynamics while focusing on detailed experiences of selected participants who represent the diversity of the learning community.

The study was conducted at the Persatuan Islam Putri Bangil Islamic Boarding School in Pasuruan, focusing on a Morphology class at the final level of junior high school. Participants consisted of one female teacher and all forty students enrolled in the class. Classroom observations involved all students to provide a comprehensive picture of the learning environment and collective engagement patterns, thereby ensuring ecological validity and authenticity of the natural classroom setting (Stake, 1995).

From the total of forty students, twenty were purposively selected as key informants for in-depth interviews and reflective discussions. The following criteria guided the selection: (1) having studied Morphology for at least one academic year, (2) possessing sufficient digital literacy to operate Genially based quizzes, and (3) demonstrating active participation and reflective thinking during class activities. This purposive inclusion allowed the researcher to obtain data that are rich, meaningful, and manageable, representing both high and moderate levels of engagement. Thus, the combination of broad observation and focused interviews ensured a balanced data structure, thereby strengthening the internal validity of the findings.

Data were collected through three primary techniques: observation, in-depth interviews, and digital documentation. Observations were conducted to capture real-time learning interactions, collaboration, and student responses to Genially based digital quizzes. In-depth interviews with the teacher and selected students explored their joyful and spiritually meaningful learning experiences. Meanwhile, digital documentation consisted of video recordings of class sessions, screenshots of quiz activities, and field notes capturing spontaneous reflections and interactions.

The Genially based digital quizzes were designed using the principles of deep learning (Darling-Hammond et al., 2020), emphasizing conceptual understanding, reflective engagement,

and contextual application. The learning materials focused on *fi'il māḍī* (past tense verbs), present or *fi'il muḍāri'*(future tense verbs), *fi'il amr* (imperative verbs), and *maṣdar* (verbal nouns). These topics were deliberately chosen because they represent the morphological foundation of Arabic verbal systems, which form the basis for understanding derivational patterns, syntactic structures, and semantic relations in Arabic texts (Smirani & Yamani, 2024). Mastery of these elements enables students to decode Qur'anic and Hadith texts with greater linguistic sensitivity and cognitive awareness, aligning with the vision of Arabic education in Islamic boarding schools.

Data analysis was conducted using Braun and Clarke's (2006) thematic analysis framework, which includes data familiarization, coding, theme generation, validation, and interpretation (Braun & Clarke, 2006). The emerging themes included joyfulness, engagement, independent learning, spiritual reflection, and conceptual understanding. Triangulation of methods and sources was conducted to ensure credibility by comparing data from observations, interviews, and documentation (Flick, 2018). Member checking was used to validate interpretations, and an audit trail was maintained to ensure transparency through field notes, analytical memos, and digital data archives.

The adoption of an embedded case study approach in this Islamic boarding school context is theoretically justified by the socio-religious and communal characteristics of Islamic Boarding School education. As a learning environment that emphasizes both cognitive and spiritual development, Islamic Boarding School nurtures collective discipline, moral awareness, and shared inquiry (Nikmatullah et al., 2023). The embedded case study design enables the researcher to explore not only individual experiences but also the relational and spiritual dimensions of learning within the group. This approach aligns with the constructivist paradigm, which views knowledge as socially constructed through interaction and reflection within a meaningful cultural setting (Vygotsky, 1978). Therefore, this methodological framework enables a comprehensive understanding of how Genially-based digital quizzes promote joyful, reflective, and spiritually resonant Morphology learning in a contemporary boarding school context.

3. Results and Discussion

The qualitative data analysis, conducted through observation, in-depth interviews, and documentation at Persatuan Islam Putri Bangil Islamic Boarding School in Pasuruan, yielded five primary themes in the implementation of digital quiz-based morphology learning using the Genially Education platform. These themes, joyfulness, engagement, independent learning, spiritual meaning, and conceptual understanding, reflect a holistic transformation of learning experiences in the digital era. The study employed purposive sampling involving 20 selected students, while classroom observations encompassed 40 learners to capture broader behavioral dynamics. The codes generated from the data did not represent headcounts but rather recurring

meaning units, reflecting the richness, frequency, and intensity of pedagogical experiences among participants.

The theoretical basis of these findings is grounded in constructivist learning theory, primarily articulated by Lev Vygotsky (1978). Constructivism conceptualizes learning as an active, generative, and meaning-making process wherein learners construct new knowledge through interaction, reflection, and experience (Vygotsky, 1978). Thus, learning is not merely the transfer of information, but a dynamic reconstruction of personal and social understanding. Within this framework, joyfulness and engagement represent the practical and behavioral dimensions of meaningful learning. Students who experience pleasure and curiosity during the learning process tend to show greater motivation and sustained participation, an indicator of effective digital pedagogy. Independent learning aligns with constructivist principles of learner autonomy and self-regulation, empowering students to control their learning pace through digital interfaces.

Spiritual meaning extends the constructivist paradigm into the realm of Islamic pedagogy. In this context, learning Arabic morphology through digital media becomes both an intellectual and devotional act, integrating knowledge with worship. Meanwhile, conceptual understanding signifies the cognitive depth attained when learners connect new morphological structures to existing schemas consistent with constructivist emphases on schema formation and cognitive restructuring.

From this analysis, it is evident that the constructivist approach provides a comprehensive lens for interpreting how deep learning, joyfulness, and digital engagement converge to form holistic educational experiences. Constructivist learning emphasizes (1) the development of competence from prior knowledge, (2) the design of varied and authentic pathways, and (3) the integration of cognitive, affective, and social dimensions through collaborative meaning making (Azzahra et al., 2025). Hence, integrating Genially based digital quizzes into Arabic morphology instruction supports not only cognitive achievement but also students' affective and spiritual development, aligning with the holistic vision of Islamic education that nurtures intellect, emotion, and spirit.

Table 1. Indicators of the Five Identified Themes

Themes	Indicators	Description
Joyfulness	Students show enjoyment and positive emotions.	Smiles, laughter, verbal enthusiasm, and willingness to learn beyond class hours.
Engagement	Students respond quickly and curiously to quiz challenges.	Active participation, collaboration, and minimal off-task behavior.
Learning Independence	Students manage their learning pace autonomously.	Voluntary revisions, self-access quizzes, and learning outside class sessions.
Spiritual Meaning	Students express gratitude and connect knowledge to faith.	Moral behavior, reflective statements, and linking morphology to Qur'anic understanding.
Conceptual Understanding	Students apply morphology rules accurately.	Correct answers, reasoning explanations, and contextual linguistic analysis.

These findings demonstrate that digital quiz integration in morphology learning influences not only cognitive dimensions but also spiritual and affective domains, resonating with the ideals of Islamic education.

3.1. Pedagogical Dimensions of Joyful Morphology Learning

3.1.1. Enhancing Students' Engagement

The analysis of 20 purposively selected students revealed five interconnected pedagogical dimensions: joyfulness, engagement, independent learning, spiritual meaning, and conceptual understanding, which emerged from the digital quiz-based learning process. Among these, joyfulness appeared as the dominant affective code, expressed through laughter, curiosity, and eagerness to engage in post-class activities. Female students described Genially supported morphology lessons as fun, energizing, and not monotonous. The platform's gamified design, interactive animations, and instant fostering of cultivated positive emotions illustrate Islahuddin's (2025) principle of joyful learning, where education and entertainment harmoniously merge (Islahuddin et al., 2025).

Parallel to this, student engagement was another salient dimension. Students demonstrated rapid responses, engaged in collaborative discussions, and showed enthusiasm in competitive quizzes. These behaviors echo Vygotsky's (1978) notion of socially mediated learning within the zone of proximal development (Vygotsky, 1978). The Genially environment acted as a virtual ZPD, where peers and feedback mechanisms scaffolded knowledge construction through dialogue and interaction (Alharbi, 2023). The third key dimension, independent learning, manifested in students' ability to manage time, explore additional materials, and self-assess through replayed quizzes. Participants expressed pride in their ability to learn without waiting for the teacher. This autonomy illustrates constructivist self-regulation (Deni et al., 2024), showing how technology empowers learners to identify gaps and direct their own progress.

Equally compelling is the emergence of spiritual meaning as a hallmark of pedagogy. Many students viewed morphology learning not merely as academic work but as an act of devotion, a pathway to understanding the Qur'an and improving recitation. As one participant reflected: "Studying morphology helps me recite and understand the Qur'an more carefully." Such reflections emphasize that digital pedagogy within Islamic contexts must integrate faith, knowledge, and morality.

3.2. A New Era of Morphology Learning in Education

The Genially-based deep learning model demonstrated adaptability to individual learners' needs by analyzing interaction patterns, detecting learning challenges, and adjusting task difficulty dynamically, an illustration of AI-assisted adaptive learning (Sajja et al., 2024). In this

research, deep learning refers to both a machine learning paradigm and a pedagogical orientation that fosters higher-order thinking, reflection, and value integration. Through repeated digital quiz interactions, students did not merely memorize morphological patterns; they constructed understanding through iterative feedback, self-correction, and peer collaboration, hallmarks of deep, meaningful learning. Thus, Genially-based quizzes promoted not only cognitive mastery but also metacognitive reflection and affective spiritual engagement, confirming that technology can serve as a vehicle for transformative education when aligned with Islamic values.

3.2.1. The Relevance of Deep Learning to Contemporary Education

The findings affirm the relevance of deep learning-based digital pedagogy to contemporary Islamic education, which aspires to comprehensive human development. In the view of Al-Attas (1980), education is a process of instilling adab, a harmonious synthesis of knowledge, ethics, and behavior that shapes a balanced human being (Al-Attas, 1980). Thus, learning Arabic morphology through the Genially platform is not merely a cognitive exercise in linguistic structure but a formative process that nurtures intellectual discipline and moral consciousness. The interactive digital quizzes provided by Genially stimulate active participation and reflection, leading learners beyond surface-level memorization toward a deeper understanding, which is the essence of deep learning.

In this study, deep learning is conceptualized as a multidimensional process that involves meaningful engagement, metacognitive reflection, and the integration of knowledge into ethical and contextual application. This perspective aligns with Bloom's taxonomy of higher-order thinking and the concept of a deep approach to learning, where students not only recall morphological rules but also understand their functional relevance in constructing meaning, expressing nuance, and appreciating the beauty of Arabic as the language of the Qur'an. The digital quizzes on Genially are thus designed not merely for repetition or gamification, but for conceptual reinforcement and mindful inquiry, guiding students to analyze morphological patterns, compare derivations, and apply them in authentic communicative contexts. Hence, while using digital quizzes alone does not automatically qualify as deep learning, the pedagogical intent and reflective interaction embedded in their use within Genially indeed foster deep learning outcomes.

This approach also aligns with alternative and contemporary methods in Arabic morphology instruction, such as collaborative digital worksheets and project-based learning activities. As Syaifudin et al. (2025) observed, educators have begun integrating creative digital media such as interactive worksheets designed through the Canva platform to create more engaging and contextualized learning experiences (Syaifudin et al., 2025). These tools encourage autonomy, creativity, and reflective learning, complementing the use of Genially in constructing a digital morphology ecosystem that is both joyful and intellectually profound. The synergy between

Genially's quizzes and Canva-based tasks exemplifies how digital tools, when grounded in pedagogical and ethical frameworks, can elevate both the linguistic and spiritual dimensions of learning in Islamic education.

Furthermore, this integration directly supports the United Nations Sustainable Development Goal 4 (Quality Education), which promotes inclusive, equitable, and lifelong learning opportunities for all (UNESCO, 2022). The ability of students to access and engage with Genially quizzes independently outside of class embodies the lifelong learning principle, central to 21st-century education, which encourages creativity, collaboration, critical thinking, and digital literacy (Fitriyah & Ramadani, 2021). Deep learning through such tools not only enhances academic mastery but also cultivates self-regulated learners who are spiritually aware and socially responsible.

Nevertheless, the findings highlight specific challenges, particularly in digital infrastructure and teacher readiness within Islamic educational institutions such as the Islamic Boarding School. Limited internet access and uneven levels of digital literacy can hinder optimal implementation. Therefore, continuous professional development for educators becomes crucial not only to improve technical competence but also to preserve the pedagogical and spiritual balance that underpins Islamic education. By equipping teachers with digital pedagogical skills rooted in adab and deep learning theory, the integration of platforms such as Genially and Canva can transform morphology learning into an experience that is intellectually rigorous, ethically grounded, and technologically adaptive.

This relationship among Deep Learning, Digital Pedagogy (Genially & Canva), and Islamic Education Goals can be illustrated through the following figure 1:

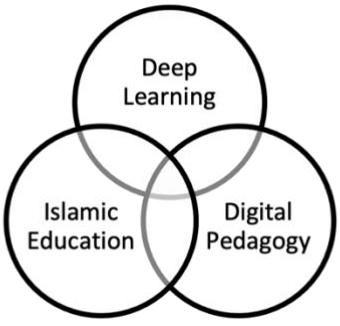

Figure 1. Conceptual Relationship between Deep Learning, Genially, and Morphology Learning

Through this conceptual integration in Figure 1, the research emphasizes that technology, when used reflectively, becomes not a substitute for traditional pedagogy but a bridge toward meaningful, value-oriented learning that reflects the holistic mission of Islamic education in the digital era.

4. Conclusion

This study concludes that the implementation of Arabic Morphology learning through Genially-based digital quizzes, integrated with a deep learning approach, has successfully transformed the pedagogical experience of students at MTs Persatuan Islam Putri Bangil Islamic Boarding School. The integration of technology in this context has proven to enhance not only cognitive mastery of linguistic concepts, such as *tashrif* (morphology), and *wazn* (a pattern or cycle of rhythm in Arabic), as well as word derivation, but also foster affective engagement, independent learning behavior, and spiritual reflection. The qualitative data gathered through observation, interviews, and documentation revealed that students experienced joy, curiosity, and intrinsic motivation during digital quiz sessions, demonstrating a dynamic and interactive learning process consistent with constructivist principles. Furthermore, the embedded use of Qur'anic verses and moral reflections within Genially content reaffirmed that digital pedagogy could coexist harmoniously with Islamic values, deepening both understanding and faith. This approach reflects the *ta'dib* (the essence of education) as envisioned by Al-Attas (1980), uniting knowledge, ethics, and spirituality into a unified and meaningful learning process. Moreover, by facilitating autonomous and lifelong learning beyond classroom boundaries, this model aligns with Sustainable Development Goal 4 (SDG 4) on Quality Education, emphasizing inclusivity and continuous learning. Nevertheless, challenges such as limited infrastructure and the need for ongoing teacher training in digital literacy remain crucial for sustainability. Therefore, the study highlights that the Genially based deep learning model offers a replicable, future-oriented framework for Islamic education, one that harmonizes technology, spirituality, and academic excellence, ensuring that digital innovation serves as a medium to cultivate both intellectual growth and moral integrity.

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