

The Implementation of the Wayground Application in Nahwu Learning to Improve Students Understanding of Arabic Grammar Rules at Nahdlatul Ulama University of Purwokerto.

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ABSTRACT

The increasing complexity of Arabic grammar instruction presents persistent challenges for student engagement and conceptual understanding. This study aimed to examine the role of the Wayground digital learning platform in supporting the teaching and learning of Nahwu in higher education. The research sought to explore how a gamified digital platform influences classroom participation, motivation, and comprehension of grammatical concepts. A qualitative classroom study design was employed to analyze learning experiences during the implementation of the digital platform in Nahwu instruction. Data were collected through classroom observations, student participation records, instructor reflections, and analysis of learning activities generated during interactive quiz sessions. The collected data were examined using thematic analysis to identify patterns related to engagement, participation, and conceptual learning processes. The results show that the integration of the Wayground platform increased student engagement and participation during grammar learning sessions. Students demonstrated higher levels of responsiveness, collaborative discussion, and sustained attention to grammatical tasks. Immediate feedback mechanisms and structured quiz activities supported iterative practice and helped students refine their understanding of grammatical rules. The digital environment also provided instructors with valuable insights into common misconceptions and learning difficulties, enabling more targeted instructional responses. These findings indicate that gamified digital platforms can contribute to more interactive and student centered grammar instruction. The study highlights the importance of aligning digital tools with pedagogical objectives and suggests that such platforms can enhance both motivational and cognitive aspects of language learning.

KATA KUNCI:

Nahwu;
Pembelajaran
Bahasa Arab,
Pemahaman
mahasiswa,
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ABSTRAK

Pembelajaran bahasa Arab, khususnya *nahwu*, memiliki peran penting dalam pendidikan Islam karena menjadi dasar pemahaman terhadap literatur keislaman klasik. Namun, dalam praktiknya mahasiswa masih menghadapi kesulitan dalam memahami kaidah *nahwu* akibat karakter materi yang abstrak serta dominannya metode pembelajaran konvensional yang kurang interaktif. Sejumlah penelitian terdahulu menunjukkan bahwa pemanfaatan media digital dapat meningkatkan motivasi dan hasil belajar bahasa Arab, tetapi kajian yang secara khusus menelaah penggunaan aplikasi berbasis gim seperti Wayground dalam pembelajaran *nahwu* di perguruan tinggi Islam masih terbatas, sehingga menimbulkan kesenjangan penelitian. Penelitian ini merumuskan permasalahan pada bagaimana penerapan aplikasi Wayground dalam pembelajaran *nahwu* serta sejauh mana perannya dalam meningkatkan pemahaman kaidah tata bahasa Arab mahasiswa. Penelitian ini menggunakan jenis penelitian kualitatif dengan desain deskriptif yang dilaksanakan di Program Studi Pendidikan Bahasa Arab Universitas Nahdlatul Ulama Purwokerto. Data diperoleh melalui observasi pembelajaran, wawancara dengan mahasiswa, dan dokumentasi aktivitas pembelajaran, kemudian dianalisis melalui tahapan reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa penerapan Wayground mampu meningkatkan keterlibatan, motivasi, dan pemahaman mahasiswa terhadap konsep-konsep *nahwu* melalui fitur interaktif, umpan balik langsung, serta suasana belajar yang lebih menyenangkan. Kebaruan penelitian ini terletak pada pemanfaatan Wayground sebagai media pendukung pembelajaran *nahwu* di perguruan tinggi Islam, serta merekomendasikan integrasi media pembelajaran digital berbasis gim dalam kurikulum *nahwu* dan penelitian lanjutan dengan pendekatan kuantitatif atau metode campuran.

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INTRODUCTION

Nahwu, the Arabic grammatical system that governs syntactic relations and case marking, remains central to the academic formation of students in Islamic studies and Arabic language education. Accurate interpretation of Qur'anic verses, hadith texts, and classical scholarly works depends on readers' ability to identify syntactic roles, inflectional endings, and sentence patterns, because relatively small grammatical differences can yield substantial shifts in meaning (Baharun, 2025; Sari et al., 2025; Solehudin, 2026). The continuing emphasis on text based learning in Islamic higher education therefore makes Nahwu mastery not only a linguistic objective but also an epistemic prerequisite for participating responsibly in scholarly traditions and contemporary academic discourse.

Nahwu instruction in universities often remains teacher centered and deductive. Such lecture dominant formats reduce active practice, rapid feedback, and collaborative meaning making. As a result, learners may stay passive and become less prepared for authentic text analysis (Fidlya, 2025; Ishak, 2025). This gap becomes visible when students must integrate grammar knowledge with interpretive reasoning. Rule rehearsal alone may not transfer to accurate parsing of sacred and scholarly texts. Difficulties are further reinforced by first language interference. Learners may project native structures onto Arabic syntax and inflection, producing persistent misconceptions that disrupt comprehension (Hastang & Ahmad, 2023).

Digital technology in higher education has created an additional dimension to this problem and its potential solutions. Language education has increasingly adopted learning management systems, interactive media, and feedback rich digital environments that enable more varied modalities of representation and interaction than conventional chalk and talk instruction. Research grounded in models such as SAMR indicates that digital platforms can shift classroom activity from substitution toward modification and redefinition when institutional support and instructor competence are present (N & Shyamsundar, 2022; Ritonga et al., 2024). Digital approaches also allow structured practice beyond classroom time, facilitate formative assessment, and expand opportunities for learner autonomy, though outcomes depend on infrastructure and professional development (Kurebayeva et al., 2024).

Studies highlight the role of carefully selected textbooks and locally resonant resources that encourage inductive exploration and contextual examples rather than purely deductive rules, contributing to stronger comprehension and longer term retention (Noor, 2023). Evidence also supports the use of authentic and targeted materials, including l'rab based modules and Qur'anic grammar resources, to strengthen learning outcomes and interpretive ability Ishak (Fidlya, 2025). Technology enhanced and multimodal methods such as interactive whiteboards and dynamic visualizations have been associated with improvements in engagement and perceived usefulness of Nahwu instruction, particularly when paired with structured scaffolding and gradual progression (Maghfiroh et al., 2025; Masnun et al., 2025). Digital tools further enable data driven feedback mechanisms that support iterative practice and targeted remediation (Masnun et al., 2025).

Evidence from language education indicates that gamified approaches can increase engagement and time on task, with learning gains more likely when activities are aligned with explicit linguistic outcomes and supported by robust feedback (Emihovich, 2024). Research in Arabic learning contexts similarly reports that game informed tasks and cooperative designs can improve grammar practice outcomes and participation, while cautioning that implementation quality and contextual constraints remain decisive (Puspita et al., 2025).

Despite converging recommendations for contextualization, multimodality, and



technology supported feedback, empirical work that examines specific gamified applications for university level Nahwu learning remains limited, particularly in Islamic higher education contexts. Prior studies often focus on general Arabic skills or on school level settings, leaving uncertainty regarding how a platform centered on interactive quizzes can be adapted to address the distinctive conceptual demands of advanced Nahwu. This gap is salient because Nahwu mastery has a documented relationship with interpretive accuracy, analytical reading, fluency, and confidence in engaging both classical and contemporary texts (Ishak, 2025). The present study responds to this gap by examining the implementation of the Wayground application within the An Nahwu Lil Mutaqaddim course at Nahdlatul Ulama University of Purwokerto.

This study aims to analyze how Wayground is implemented in classroom learning activities and to examine its role in improving students' understanding of Arabic grammar rules, with attention to engagement, motivation, and the learning process as experienced by students and the lecturer. The study offers a descriptive qualitative account rather than testing a statistical hypothesis, thereby providing contextual justification for future experimental or mixed method work. Novelty is located in the focused examination of Wayground for university level Nahwu learning in an Islamic higher education setting where evidence is still scarce. The scope is limited to third semester students in the Arabic Language Education program and the course lecturer, and it concentrates on instructional implementation, perceived learning support, and classroom dynamics associated with Wayground mediated Nahwu learning.

LITERATURE REVIEW

Nahwu occupies a core position in Arabic linguistics because it governs sentence structure, syntactic functions, and the grammatical status of words, and mastery of Nahwu is widely treated as a prerequisite for accurate interpretation of Arabic texts in Islamic and Arabic language education programs (Solehudin, 2026). Across contemporary scholarship, recurring difficulties in university level Nahwu learning are traced to the inherent complexity of the rule system and the cognitive load imposed by case endings, syntactic roles, and shifting constructions, particularly when instruction privileges memorization over contextualized application (Hastang & Ahmad, 2023). These cognitive pressures interact with first language interference, which can shape persistent misconceptions about nominal and verbal sentence structures and inflectional patterns, thereby constraining learners' ability to parse Qur'anic and classical texts with accuracy (Baharun, 2025). Affective factors further mediate outcomes, with grammar anxiety and reduced motivation repeatedly identified as barriers to sustained engagement with Nahwu's analytical demands (Sari et al., 2025;).

Theoretical frameworks for digital and gamified learning explain why interactive tools may address both motivational and cognitive constraints in language learning. Self Determination Theory suggests that points, badges, and leaderboards can increase persistence when designs support autonomy, competence, and relatedness (Makasheva et al., 2025). The Octalysis framework offers a complementary design lens by mapping specific game mechanics to motivational "core drives," supporting more principled gamification choices (Christopher & Waworuntu, 2021). At the same time, systematic reviews stress that gamification differs from game based learning and that learning effects depend on alignment between game elements and pedagogical goals, with superficial implementations producing mixed or negative outcomes (Henry et al., 2024; Kevin Mario Laura-De La Cruz et al., 2023; Urh et al., 2015). Cognitive affective theory of learning with media further predicts benefits when multimedia representations and immediate feedback reduce unnecessary load and support meaningful processing in grammar



learning (Fidlya, 2025). Constructivist and sociocultural perspectives similarly justify interactive and collaborative digital learning environments that promote active knowledge construction and situated meaning making (Puspita et al., 2025). Universal Design for Learning extends these arguments by emphasizing multiple means of representation, engagement, and expression to support diverse learners in digital language learning contexts (Emihovich, 2024). Empirical studies in Arabic language learning indicate that digital platforms and gamification can increase motivation, participation, and learning outcomes, including in Islamic and higher education settings (Ismail et al., 2023; Rezi et al., 2024).

RESEARCH METHODS

This study employed a qualitative approach to examine how a digital quiz platform is implemented within university level Nahwu instruction and how participants interpret its pedagogical value. Qualitative designs are widely considered appropriate for investigating classroom technology use because they enable in depth attention to enacted practice, contextual factors, and learners' lived experiences with educational tools (Thurairasu, 2022). In studies of higher education digital learning tools, qualitative methods also allow researchers to document implementation processes and to interpret how tool features interact with pedagogy, engagement, and learning behaviors rather than treating technology as an isolated variable (Yacob et al., 2022;). In line with this methodological orientation, the present work adopted a descriptive qualitative design with a phenomenological emphasis to foreground students' and the lecturer's experiences while using Wayground in the An Nahwu Lil Mutaqaddim course.

The research setting was the Arabic Language Education program at Nahdlatul Ulama University of Purwokerto. Participants included third semester students enrolled in the course and the course lecturer who designed and facilitated the Wayground assisted learning activities. The sampling was purposive, focusing on individuals directly involved in the implementation process and therefore able to provide experiential and instructional perspectives relevant to the research objectives. Consistent with qualitative best practice, the study prioritised depth of understanding over statistical representativeness and sought to capture a rich account of instructional context, learning routines, and participant perceptions (Thurairasu, 2022).

Data were collected through multiple complementary techniques that are commonly used in qualitative research on classroom educational technology. First, classroom observations were conducted to document how Wayground was integrated into lesson sequences, how students interacted with the platform during practice and evaluation tasks, and how the lecturer facilitated activities and feedback. Observation is frequently recommended for technology integration studies because it captures situated interactions that may not be fully articulated in interviews (Thurairasu, 2022). Second, semi structured interviews were carried out with students and the lecturer to elicit reflections on engagement, motivation, perceived learning support, and challenges experienced during Wayground mediated Nahwu learning. Semi structured interviewing is widely used in higher education digital tool research to reveal meanings, expectations, and contextual constraints that shape adoption and outcomes, (Yacob et al., 2022; . Third, documentation was collected to triangulate observed practice and interview claims, including lesson plans, teaching materials, screenshots or interface displays used during instruction, and records of learning activities and evaluations. Artifact analysis is particularly relevant in digital tool studies because it provides tangible evidence of instructional design and the forms of feedback or analytics available to lecturers.

Data analysis followed an interactive model that cycles through data reduction, data display, and conclusion drawing and verification. This iterative approach supports theme development while allowing constant comparison between observation notes, interview



transcripts, and documents. Such thematic and iterative analysis strategies are frequently used to identify patterns in technology use, learner participation, and perceived learning processes in classroom research (Thurairasu, 2022). To strengthen credibility, the study applied triangulation across data sources and methods, comparing evidence from observations, interviews, and documentation to corroborate interpretations. Where feasible, participant verification was used to confirm the resonance of emerging themes, and the researcher maintained reflective notes to support transparency and confirmability, in line with recommendations for rigor in qualitative educational research .

RESULTS AND DISCUSSION

Results

The findings describe how Wayground was implemented in the An Nahwu Lil Mutaqaddim course and how its use shaped classroom engagement, participation, and students' understanding of Arabic grammar rules. The results are presented as a coherent narrative derived from classroom observations, interviews, and documentation, consistent with qualitative reporting practices that emphasize enacted use of technology in context (Khaldi et al., 2023). Across observed sessions, Wayground was positioned as an interactive medium for practice and formative evaluation rather than as a replacement for the lecturer's explanation. The lecturer typically began by introducing a target Nahwu topic and clarifying key concepts, then transitioned students to Wayground activities that required identifying grammatical functions, selecting correct *i'rāb* markers, or applying rules to short sentence items. In this design, the platform served as a structured "practice space" in which learners engaged with a sequence of questions that moved from recognition to application, reflecting a gradual scaffolding logic that is frequently recommended for dense grammar content (Baharun et al., 2025). Documentation and screen displays showed that the lecturer used the projector view to guide the class through item sets, while students interacted through their devices, enabling a shared focus and making progress visible in real time.

Picture 1. The Wayground Display on The Projector



Observable engagement increased most clearly during the Wayground phases of instruction. Compared with the preceding lecture segment, students demonstrated more frequent on task behaviors, including sustained attention to the displayed items, faster response initiation, and higher rates of voluntary participation. In classroom interaction, the quiz format produced a recognizable shift from passive listening to active responding: students asked clarification questions about specific items, negotiated answers with peers, and monitored their own performance as the activity progressed. This pattern aligns with broader findings that game based digital platforms can elevate participation when game mechanics are aligned with learning tasks and when instructors facilitate purposeful engagement rather than merely adding entertainment features (Almelhes, 2024; Lewis, 2024). In interviews, students consistently reported that the

platform made Nahwu feel “more approachable” and “less monotonous,” indicating an affective shift that supported persistence with challenging grammar content, a concern repeatedly noted in Nahwu pedagogy literature (Puspita et al., 2025).

Participation patterns also changed in the structure of classroom talk. During Wayground activities, interaction moved from lecturer dominated explanation to a more distributed pattern in which students initiated questions and offered peer explanations in response to items they found difficult. Observations captured short peer discussions where students justified choices using rule terminology and compared alternative analyses before submitting answers. This increase in student initiated discourse and peer reasoning is consistent with sociocultural and constructivist accounts of technology supported language learning, where learning is strengthened through dialogue, feedback, and situated meaning making (Puspita et al., 2025). It also resembles participation shifts described in studies of cooperative strategies in Nahwu contexts, where task oriented interaction supports deeper processing of grammatical relations (Dapat, 2025).

A prominent finding concerned the role of immediate feedback and iterative practice. Wayground’s feedback features allowed students to recognize errors quickly and attempt subsequent items with revised reasoning, producing an observable “error correction loop” during sessions. Students described that they could identify precisely which rule they misapplied, particularly in topics that require distinguishing syntactic roles and determining case endings. This reported mechanism is consistent with research that highlights immediate, actionable feedback as a key advantage of quiz based platforms in supporting conceptual understanding and corrective learning, especially for complex grammar topics (Fakir, 2022; Harindranathan et al., 2025; Jutasompakorn et al., 2021). The lecturer’s facilitation further amplified this effect by pausing after clusters of incorrect responses and briefly reviewing the underlying rule, then resuming the quiz sequence, thereby blending technology feedback with instructor mediated clarification.

The data indicate that students’ understanding of Nahwu rules improved primarily through three complementary pathways: increased practice frequency, structured progression across difficulty levels, and a clearer linkage between rules and application. First, repeated engagement with multi item sets increased the amount of retrieval practice occurring within and beyond the classroom. Students reported that the platform encouraged them to practice more often than they typically would under lecture only instruction, because the tasks felt bounded, time efficient, and “trackable.” This pattern corresponds with broader evidence that repeated testing and retrieval practice can strengthen retention and understanding over time (Taveira-Gomes et al., 2015; Winarlim et al., 2024; Yadav et al., 2024). Second, students reported that question sequences that progressed from basic identification to more analytical items reduced the perceived burden of Nahwu’s dense rules, supporting the cognitive load management that the literature argues is necessary for successful grammar learning (Hastang & Ahmad, 2023). Third, students described that they could see how rules operate in actual sentence constructions, not only as abstract statements, which is consistent with the long standing critique that decontextualized rule drilling limits transfer to authentic reading tasks (Ishak, 2025).

The lecturer’s use of performance data was a second major result. Documentation and interview responses indicated that the lecturer used quiz results to identify topics associated with recurring errors and to plan follow up interventions. The lecturer described using item level patterns to detect which sub concepts were not yet stable, such as confusion in distinguishing *mubtada’* and *khobar* or uncertainty about particular *i’rāb* markers. This data informed short remediation segments in subsequent sessions and guided the selection of review items. Such use of learning analytics corresponds with research describing how digital assessment tools generate actionable performance data that can support formative evaluation and instructional adjustment (Liang, 2023; Ningsih, 2025; Rodríguez, 2025). Observationally, this approach supported a tighter

feedback cycle between assessment and instruction than is typical in lecture dominant settings, where misconceptions may remain hidden until later summative tests.

Students also reported a change in their study habits and perceived self regulation. Several described using their quiz outcomes to decide what to review, focusing on specific rule categories rather than rereading entire notes. This suggests that the platform's transparency of performance encouraged metacognitive monitoring, which is frequently identified as an important mechanism of improvement in digital learning contexts (Yadav et al., 2024). The availability of progress indicators and repeated attempts also encouraged some students to continue practice until they achieved higher accuracy, reflecting persistence patterns documented in studies of gamified language tools when the activities are perceived as meaningful and aligned with course goals (Hossain & Younus, 2024).

The motivational profile of the classroom was shaped by competitive and game like elements, but the results suggest that these features were beneficial only when managed as supportive rather than controlling. Students frequently mentioned that leaderboards, scoring, and time bounded questions made learning "exciting," increased focus, and strengthened willingness to participate. These perceptions are compatible with motivational explanations grounded in Self Determination Theory, where competence signals and social interaction can strengthen persistence if learners feel appropriately challenged and supported (Dicheva et al., 2019; Hashim et al., 2025). At the same time, a smaller subset of students reported mild anxiety during time pressured items, indicating that competition can create differential experiences. This nuance matches literature cautioning that gamification is not universally positive and that design choices, facilitation, and classroom climate shape whether competition motivates or discourages participation (Henry et al., 2024).

In terms of observable learning processes, several patterns emerged when students worked on higher level Nahwu items. Students tended to perform more confidently on recognition and classification questions, while application items that required multi step reasoning prompted longer deliberation and more peer discussion. When errors clustered on complex items, the lecturer's intervention typically focused on clarifying the reasoning path rather than only stating the correct answer, which aligned with the idea that feedback quality and explanation specificity are critical for conceptual consolidation (Harindranathan et al., 2025). This pattern also reflects broader methodological guidance for interpreting digital performance data in grammar learning: repeated errors can indicate either conceptual misunderstanding, cognitive load overload, or insufficient scaffolding, and therefore require contextual interpretation rather than purely numerical judgments.

The results further indicate that digital tool effectiveness depended on infrastructural and readiness conditions. While most sessions proceeded smoothly, observations noted that device availability and connectivity could affect participation equity, with some students experiencing delays or needing to share access. Students reported that when connectivity was unstable, the motivational benefits of the platform decreased because the activity flow was disrupted. This finding is consistent with research emphasizing that engagement gains from interactive platforms depend on reliable access, digital literacy, and instructor readiness, and that inadequate infrastructure can attenuate or unevenly distribute benefits (N & Shyamsundar, 2022; Ritonga et al., 2024). Relatedly, the lecturer emphasized that effective use required preparation time to design items aligned with the syllabus and to anticipate common misconceptions, which aligns with evidence that implementation quality and pedagogical alignment are decisive determinants of learning value (Kevin Mario Laura-De La Cruz et al., 2023).

Overall, the findings show that Wayground supported a more interactive, feedback rich learning environment that strengthened participation and facilitated the internalization of Nahwu



rules through repeated, scaffolded practice. In this study context, the platform contributed to a shift toward student centered learning by encouraging active responding, peer interaction, and self monitoring, while enabling lecturers to use performance data for targeted remediation. These outcomes are congruent with prior work on interactive Nahwu quizzes and drill and practice media, which reported feasibility and effectiveness in strengthening grammatical understanding. The present results also align with applied reports that integrating quiz apps with pedagogical guidance can increase motivation and learning effectiveness in Arabic learning contexts. Consistent with broader digital media research, students' reported increases in motivation and perceived understanding are also compatible with evidence that digital learning media can elevate motivation relative to conventional methods.

Taken together, the results suggest that the pedagogical value of Wayground in university level Nahwu learning is realized through an integrated design: explicit instructor framing of grammar concepts, systematic quizzing for retrieval and application, immediate feedback supported by targeted explanation, and continuous formative evaluation using platform data. At the same time, the results indicate practical constraints that shape implementation, including infrastructure reliability and the need for instructor competence in digital pedagogy and assessment design, considerations that are emphasized in higher education technology integration literature (Emihovich, 2024).

Discussion

Interpreting engagement gains through gamification and motivational theory

The results indicate that Wayground was associated with higher on task behavior, faster response initiation, and more frequent voluntary participation during Nahwu learning sessions, suggesting that the platform functioned as a practical engagement catalyst rather than merely a delivery channel. This pattern is consistent with evidence that game based digital platforms can increase motivation and time on task when game mechanics are aligned with learning objectives and embedded within purposeful instructional design (Lewis, 2024). The observed motivational lift can be interpreted through Self Determination Theory, which predicts that engagement increases when learners experience competence signals, social interaction, and a sense of agency within tasks (Huseinović, 2023; Makasheva et al., 2025). In this study, competence cues were provided through visible scoring and progress indicators, while relatedness emerged through peer discussion and shared activity pacing, reinforcing conditions under which gamification tends to support persistence.

Competition, scoring, and classroom climate as dual edged mechanisms

A notable finding is that competitive elements and scoring were often reported as energizing, yet some learners experienced mild anxiety during time pressured items. This divergence aligns with the broader literature that positions competition as beneficial when it creates healthy challenge but potentially harmful when it produces stress, exclusion, or social pressure (Hossain & Younus, 2024). Empirical work in language learning similarly cautions that competitive gamification should be balanced with collaboration and inclusive facilitation to avoid demotivation among some students (Radwan & Elsaid, 2020). The present results suggest that the lecturer's mediation acted as a protective factor by framing scores as formative information rather than as high stakes judgment, and by allowing collective discussion of difficult items. This supports design guidance that points and badges are most educationally valuable when they represent meaningful linguistic achievements and when the classroom climate emphasizes learning progress over ranking (Dicheva et al., 2019).

Immediate feedback as a mechanism for conceptual consolidation in Nahwu

The most theoretically salient mechanism in the findings is the immediate feedback loop:



learners identified errors quickly, refined reasoning, and applied corrected rules in subsequent items. Prior work consistently identifies instant feedback as a driver of corrective learning because it enables rapid hypothesis testing and minimizes reinforcement of incorrect mental models (Jutasompakorn et al., 2021, Harindranathan et al., 2025). For Nahwu specifically, this mechanism directly targets known barriers in grammar learning, including cognitive overload and persistent misconceptions about syntactic roles and case endings (Baharun, 2025; Hastang & Ahmad, 2023). The results also highlight a crucial nuance emphasized in the literature: feedback timing alone is insufficient if feedback content is generic. The lecturer's practice of pausing the quiz and adding rule focused explanation mirrors recommendations that feedback should be specific, actionable, and linked to the underlying linguistic rule to support durable conceptual change (Harindranathan et al., 2025).

Explaining student centered participation through sociocultural and constructivist perspectives

The shift from lecturer dominated talk to more distributed peer explanation and student initiated questioning is consistent with constructivist and sociocultural theories, which describe learning as active knowledge construction mediated by interaction and shared meaning making. Digital platforms can reorganize participation structures by making tasks visible, time bounded, and collectively referenced, thereby inviting peer negotiation and collaborative reasoning (Khaldi et al., 2023). The present findings echo evidence from cooperative strategies in Nahwu instruction where dialogue and peer support deepen understanding and increase learner agency (Dapat, 2025). This participatory shift matters because Nahwu learning difficulties are not purely cognitive; they are also affective and contextual, including grammar anxiety and reduced motivation that can be alleviated when students experience supportive interaction and successful practice episodes (Hastang & Ahmad, 2023).

CONCLUSION

This study examined the implementation of the Wayground application in the An Nahwu Lil Mutaqaddim course at Nahdlatul Ulama University of Purwokerto and interpreted its role in supporting university students' understanding of Nahwu rules. Synthesizing classroom observations, participant interviews, and instructional documentation, the findings indicate that Wayground functioned effectively as a supplementary learning medium that strengthened engagement, increased active participation, and supported grammar understanding through structured, feedback rich practice.

The principal result is that Wayground shifted the learning environment from predominantly teacher centered reception toward more student centered engagement. During Wayground mediated activities, students demonstrated higher on task behavior and more frequent participation, including peer explanation and rule focused discussion, indicating that the platform fostered interactive learning routines that are difficult to sustain through lecture dominant instruction alone. This change was pedagogically meaningful because Nahwu learning is frequently constrained by cognitive load and affective barriers; the platform's item sequencing and game like features helped students persist with demanding grammatical analysis while maintaining focus.

A second key finding concerns learning processes supported by immediate feedback. Wayground enabled rapid error recognition and correction, creating iterative practice cycles in which students refined reasoning across consecutive items. Students reported that this mechanism made abstract rules more accessible and improved their ability to apply Nahwu concepts to sentence level analysis. In parallel, the lecturer used performance information from the platform to identify recurring misconceptions and plan targeted remediation, strengthening formative assessment and making instruction more responsive to students' needs.



In terms of implications, the study suggests that interactive quiz based platforms can enhance Nahwu pedagogy when they are aligned with course objectives and integrated with lecturer facilitation. For instructors, Wayground can be used to provide low stakes retrieval practice, strengthen rule application, and support formative feedback loops. For institutions, the findings highlight the value of investing in digital pedagogy capacity and reliable infrastructure so that engagement gains are distributed equitably and technology supported instruction remains stable.

This research contributes to the existing body of knowledge by providing a context grounded account of quiz mediated, game based digital learning in university level Nahwu instruction within an Islamic higher education setting. While prior studies have documented digital tools and gamification in broader language learning contexts, evidence specifically focused on Wayground style interactive quizzes for advanced Arabic grammar remains limited. By describing how Wayground was enacted in practice and how participants experienced its pedagogical effects, the study extends empirical understanding of technology enhanced Arabic grammar learning and offers practical insights for instructional design.

Future research may build on these findings through quantitative or mixed method designs that measure learning gains in grammar accuracy and text comprehension over longer periods, compare platform supported instruction with alternative pedagogies, and test how different quiz designs, feedback types, and collaboration structures affect cognitive and affective outcomes. Further work should also examine equity factors, including access, digital literacy, and the differential impacts of competition features, to inform inclusive implementation in diverse higher education contexts.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article. The research was conducted independently without any personal, financial, or professional relationships that could have influenced the study's design, data collection, analysis, interpretation, or reporting of the results.

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