

The Application of Powtoon Learning Media to Improve Learning Motivation and Learning Outcomes in *Durus al-Lughah al-'Arabiyyah*

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ABSTRACT

Purpose of the study: This classroom action research aims to determine whether the application of Powtoon animated learning media can improve the learning motivation and the learning outcomes of Grade 1D students in the *Durus al-Lughah al-'Arabiyyah* subject at an Aisiyyah modern Islamic boarding school in Bojonegoro, East Java, Indonesia. **Methodology:** A two-cycle classroom action research following the Kemmis and McTaggart model was conducted with 37 first-year female students. Each cycle comprised planning, action, observation, and reflection. Data were collected using a seven-indicator motivation observation sheet and end-of-cycle written tests, then analysed descriptively as percentages and class mean scores. **Main Findings:** Class learning motivation rose from 78% in Cycle 1 to 96% in Cycle 2, and the test passing rate increased from 73% (mean 6.0) to 89% (mean 7.1). The largest gains occurred in students' willingness to ask questions (38% to 78%) and learning enthusiasm (65% to 97%), with all seven indicators improving between cycles. **Novelty/Originality of this study:** While Powtoon has been studied in general school subjects, this study examines its use within the KMI-based Arabic curriculum of an Indonesian *pesantren*—an under-researched setting—and connects the observed gains to the cognitive theory of multimedia learning and motivational design, offering context-specific guidance for Arabic teachers.



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A. Introduction

The rapid development of information and communication technology has reshaped almost every dimension of human life, and education is no exception. Digital tools now make it possible to design instruction that is more interactive, more visual, and more responsive to learners' needs than the conventional lecture allows. In Indonesia, the integration of technology-based learning media has become a marker of instructional innovation in the era of the Fourth Industrial Revolution, and teachers are increasingly expected to move beyond textbooks toward media that can capture attention and sustain engagement (Firmadani, 2020; Hasriadi, 2022). Within Arabic language education, this shift is particularly consequential, because the complexity of the Arabic linguistic system and the varied entry levels of learners place heavy demands on how new vocabulary and grammatical structures are presented.

The need for such innovation was concrete in the setting of this study. Preliminary observation and interviews conducted with the *Durus al-Lughah al-'Arabiyyah* teacher and the school secretary indicated that Grade 1D lessons were delivered predominantly through the direct method with little media support. Many students appeared drowsy during lessons, paid limited attention to the teacher's explanations, and performed poorly on assessments; the school secretary identified students' inability to sustain engagement with the lesson

content as the central problem (Ushofi, 2021; Nisa, 2021). These conditions—low attention, weak participation, and modest achievement in a foundational Arabic course—defined the practical problem that the present action research set out to address.

Learning is fundamentally an interaction between students and teachers, and the quality of that interaction depends in large part on the media that mediate it. Well-chosen instructional media can clarify abstract concepts, reduce ambiguity, and stimulate the attention, interest, and feeling that drive engagement (Ekayani, 2017; Mahmudah, 2018). In Arabic language instruction specifically, audio-visual and electronic media have been shown to enliven classrooms and support comprehension of material that is otherwise difficult to convey through verbal explanation alone (Nugrawiyati, 2018; Pimada & Amrulloh, 2020). The pedagogical premise of the present study is therefore straightforward: if first-year learners of Arabic are presented with engaging, well-designed media, their motivation and their measured learning should both improve.

This premise has theoretical grounding. The cognitive theory of multimedia learning holds that people learn more deeply from words and pictures together than from words alone, because information is processed through two partially independent channels—verbal and pictorial—each with limited capacity (Mayer, 2021, 2024). Meaningful learning occurs when learners select relevant material, organise it into a coherent mental model, and integrate it with prior knowledge; instructional media that combine narration and animation can support these processes when they are designed to manage cognitive load rather than overwhelm it (Mayer & Moreno, 2003). Motivation, in turn, is not a by-product but a condition of learning: motivational-design and self-determination perspectives both emphasise that attention, relevance, confidence, and a sense of competence shape how much effort learners invest (Keller, 2010; Ryan & Deci, 2020). Animated media that are attractive and comprehensible can plausibly act on both the cognitive and the motivational pathways at once.

Two further features of this theory are directly relevant to early Arabic instruction. First, the dual-channel and limited-capacity assumptions imply that presenting new vocabulary simultaneously as a spoken word, a written form, and a depicting image distributes processing across channels and can strengthen the memory trace for an item that would be fragile if presented verbally alone. Second, the principles for managing cognitive load—segmenting material into manageable units, signalling what matters, and excluding extraneous detail—offer concrete design guidance for animated lessons (Mayer & Moreno, 2003). For first-year learners encountering comparative forms or colour vocabulary for the first time, media that follow these principles can lower the intrinsic difficulty of the input and free attention for comprehension. The theory thus predicts not merely that animation will be enjoyable, but that appropriately designed animation will improve learning for identifiable cognitive reasons.

Within Arabic language education specifically, a parallel literature has examined how media support the acquisition of vocabulary (*mufradat*) and grammatical structure, which are the principal hurdles for beginners. Studies have reported that visual and game-based media can strengthen students' retention of Arabic vocabulary (Rahman, Mayasari, Arifudin, & Ningsih, 2021; Ahmad, Muhlisi, & Fathih, 2023), and conceptual reviews have mapped the range of media suited to Arabic instruction and the conditions under which they help (Prananingrum, Rois, & Sholikhah, 2020). Audio-visual and electronic media, in particular, have been associated with greater attention and comprehension in Arabic classrooms (Nugrawiyati, 2018; Pimada & Amrulloh, 2020). What this literature has largely left open is

the combined, cyclical study of an animated medium such as Powtoon on both motivation and achievement within the demanding KMI Arabic curriculum of a *pesantren*—precisely the space this study occupies.

Powtoon is a web-based application that allows teachers to produce animated, audio-visual presentations combining text, images, sound, and movement. Unlike static slide presentations, it offers a range of animation and narration features that can attract attention and make explanations more concrete (Mahmudah, 2018). A growing body of Indonesian classroom research reports positive effects of Powtoon across school subjects. In history instruction, problem-based learning supported by Powtoon raised learning motivation relative to a control group (Purbaningrum & Aman, 2023). In social studies, two cycles of Powtoon-based action research increased student completeness from 45% to 75% and observed activity from 84% to 94% (Nurpajriah, Fahri, & Rosidah, 2025). When paired with an inquiry model, Powtoon produced moderate cognitive and affective gains and increased engagement (Susanti, 2025). In English instruction at the primary level, teachers have used Powtoon as a core medium for presenting new language (Ardaningsih & Adnyayanti, 2022), and a recent systematic review concluded that the medium is consistently associated with improved motivation and comprehension across studies (Use of Powtoon as a Technology-Based Creative Learning Medium, 2025).

Despite this accumulating evidence, two gaps remain. First, the great majority of Powtoon studies have been carried out in general subjects—history, social studies, science, civics, and general English—rather than in formal Arabic language instruction. Second, almost none have been situated in the *pesantren* (Islamic boarding school) environment, where the curriculum, the daily rhythm of study, and the learner population differ markedly from mainstream schools. Studies of Arabic media in *pesantren* contexts have tended to examine digital media in general rather than animated media specifically, and have rarely combined motivation and achievement outcomes within a single action-research design (Hasanuddin, 2024; Fitriyah & Mutammiroh, 2025). The present study addresses this gap by testing Powtoon in the *Durus al-Lughah al-‘Arabiyyah* course of a modern *pesantren* that follows the *Kulliyat al-Mu‘allimin al-Islamiyyah* (KMI) curriculum modelled on Gontor.

Accordingly, this study is guided by two research questions: (1) Can the application of Powtoon learning media improve the learning motivation of Grade 1D students in *Durus al-Lughah al-‘Arabiyyah*? and (2) Can the application of Powtoon learning media improve the learning outcomes of those students? The novelty of the study lies in extending Powtoon research into the specific socio-educational setting of an Indonesian *pesantren* using a KMI-based Arabic curriculum, and in interpreting the results through the combined lens of multimedia learning theory and motivational design, so that the findings can inform Arabic teachers working in comparable institutions.

B. Methods

This study employed a classroom action research (CAR) design, an approach in which practitioners systematically investigate and improve their own teaching through successive cycles of planned action and reflection (Creswell & Creswell, 2018). The CAR design was operationalised through the model of Kemmis and McTaggart, in which each cycle moves through four interdependent stages—planning, action, observation, and reflection—so that the analysis of one cycle directly informs the design of the next (Kemmis, McTaggart, & Nixon, 2014). This design was chosen because the research problem was practical and situated: a specific class showed low motivation and weak achievement, and the goal was not to test a

hypothesis under controlled conditions but to improve learning in the actual classroom while documenting the process rigorously.

The research was conducted at an Aisiyiah modern Islamic boarding school located in Sumberrejo, Bojonegoro, East Java, Indonesia, during the 2021/2022 academic year. The participants were 37 first-year female students enrolled in Grade 1D. The focal subject, *Durus al-Lughah al-'Arabiyyah*, is the foundational Arabic course for first-year students and is taught within the KMI curriculum, an integrated Islamic-secondary model adapted from Gontor that requires learners to develop both communicative and formal command of Arabic. Participants were selected purposively because preliminary observation had identified this class as exhibiting the motivational and achievement difficulties the study sought to address.

Two instruments were used to collect data. The first was a structured observation sheet measuring learning motivation through seven behavioural indicators: active participation in learning, willingness to ask questions or express opinions, attentiveness to the teacher's explanation, demonstration of high enthusiasm, staying alert during class, listening respectfully to peers, and completing assigned tasks. The second was an end-of-cycle written test measuring cognitive learning outcomes, scored on a 1–9 scale with a score of 5 or above treated as passing, consistent with the school's internal grading convention. To support the trustworthiness of the instruments, the indicators and test items were reviewed for content validity by the subject teacher and a colleague before use, and observations were carried out collaboratively by the teacher-researcher together with a second observer so that ratings could be cross-checked. The absence of a formally quantified inter-rater reliability coefficient is acknowledged below as a limitation.

Data were collected through participant observation during each lesson and through the written test administered at the end of each cycle. Motivation data were analysed descriptively: for each indicator the number of students displaying the behaviour was recorded, and the overall class motivation percentage was computed as the total number of indicator fulfilments divided by the maximum possible (seven indicators multiplied by thirty-seven students), multiplied by one hundred. Learning outcomes were analysed by calculating the class passing rate—the number of students scoring five or above divided by the total number of students, multiplied by one hundred—and the class mean score. Because classroom action research foregrounds practical improvement rather than population inference, analysis was deliberately descriptive; inferential testing was not applied, and the implications of this choice for causal interpretation are discussed in the limitations.

The instructional intervention itself merits description, because in multimedia research the design of the media is as important as the decision to use them. For each cycle the team produced a Powtoon presentation that combined Arabic text, illustrative images, and narration, and that was structured to follow the cognitive-load principles noted earlier: the lesson was segmented into short scenes, key vocabulary and grammatical patterns were signalled through colour and motion, and decorative elements that did not carry meaning were kept to a minimum. In Cycle 1 the media presented comparative adjective forms with paired visual comparisons, and in Cycle 2 the media presented colour vocabulary with directly depicting images. This deliberate alignment between the media design and multimedia learning principles is what the study intended to test in practice, rather than the mere novelty of using an animation tool.

Several steps were taken to support the trustworthiness of the findings. Participation took place within regular scheduled lessons with the knowledge and consent of the school

and the class teacher, and the data were used solely for research and instructional-improvement purposes. Triangulation was pursued by combining behavioural observation with written-test results and with the prior interview data, so that motivational and cognitive indicators could be considered together rather than in isolation. The reflective stage of each cycle was documented so that the link between observed weaknesses and subsequent design changes was explicit and auditable. As noted, the principal threats to validity—the consecutive-day schedule, the different lesson topics across cycles, and the absence of a quantified reliability coefficient—are reported openly so that readers can weigh the evidence accordingly.

To make the analysis transparent and reproducible, the computation can be illustrated with the Cycle 1 data. Across the seven indicators, the number of students displaying each behaviour summed to 202 fulfilments; dividing this by the maximum of 259 (seven indicators multiplied by thirty-seven students) and multiplying by one hundred yields a class motivation figure of 78%. For learning outcomes, twenty-seven of the thirty-seven students reached the passing threshold, giving a passing rate of 73%, and the arithmetic mean of all scores was 6.0. The same procedure was applied identically in Cycle 2, so that the two cycles are directly comparable. This indicator-by-indicator reporting also allows the reader to see not only whether motivation rose but which specific behaviours changed, which is more informative than a single aggregate figure.

Following Kemmis and McTaggart, the study set an a priori success criterion: the intervention would be judged successful when class motivation exceeded 75% and the passing rate exceeded 75%. It is important to note that meeting the criterion in a single cycle was not treated as a stopping rule; the reflection stage of Cycle 1 identified specific weaknesses—most notably the low rate of question-asking and uneven enthusiasm—that warranted a second, redesigned cycle to consolidate and extend the gains. This clarifies the rationale for proceeding to Cycle 2 even though the threshold was already exceeded in Cycle 1.

Each cycle followed the same four-stage sequence. In the planning stage the team prepared the lesson plan, designed the Powtoon media for the target lesson, and finalised the observation sheet and test. In the action stage the lesson was delivered using Powtoon through an opening, a core phase, and a closing. In the observation stage student motivation indicators were recorded as the lesson unfolded. In the reflection stage the results were analysed to identify improvements for the next cycle. Cycle 1 was delivered for Lesson 15 on comparative adjectives (*asma' al-tafdil*) and Cycle 2 for Lesson 16 on colours (*al-alwan*). The two cycles were implemented on consecutive teaching days within the school's intensive schedule; this compressed timeline, together with the fact that the two cycles addressed different lesson topics, is treated transparently as a design limitation rather than as a controlled comparison.

C. Result and Discussion

Findings: Cycle 1

In Cycle 1 the Powtoon media presented Lesson 15 on comparative adjectives. Students watched the animated presentation, responded to oral questions, and completed a written test at the end of the lesson. The motivation observation results are summarised in Table 1.

Table 1. Student Motivation Data in Cycle 1 (N = 37)

No.	Indicator	Students (n)	Percentage
1	Active participation in learning	30	81%
2	Asking questions / expressing opinions	14	38%
3	Attentiveness to teacher explanation	37	100%
4	Demonstration of high enthusiasm	24	65%
5	Staying awake / alert during class	33	89%
6	Listening to peers' opinions	27	73%
7	Completing assigned tasks	37	100%
Total / Class motivation		202 / 259	78%

Source: Primary data, observation Cycle 1 (28 October 2021)

The overall class motivation in Cycle 1 was 78%, derived from 202 indicator fulfilments out of a possible 259. Although this already exceeded the 75% criterion, the reflection stage flagged two clear weaknesses: only 38% of students were willing to ask questions or express opinions, suggesting low confidence, and 65% showed consistently high enthusiasm. These weaknesses became the focus of the Cycle 2 redesign. The corresponding learning outcomes are shown in Table 2.

Table 2. Learning Outcomes in Cycle 1

Outcome Category	Number of Students	Percentage	Mean Score
Passing (≥ 5)	27	73%	
Not passing (< 5)	10	27%	
Total	37	100%	6.0

Source: Primary data, written test Cycle 1 (28 October 2021)

On the written test, 27 of 37 students (73%) passed, with a class mean of 6.0. While the passing rate was close to the criterion, the proportion of non-passing students (27%) indicated room for improvement that the second cycle aimed to address.

Findings: Cycle 2

Cycle 2 was designed to remedy the weaknesses observed in Cycle 1. The teacher actively elicited more student questions and responses, and the Powtoon presentation for the topic of colours (*al-alwan*) was enriched with more varied animation and clearer visual cues. The same observation and testing procedures were applied. Motivation results are presented in Table 3.

Table 3. Student Motivation Data in Cycle 2 (N = 37)

No.	Indicator	Students (n)	Percentage
1	Active participation in learning	37	100%
2	Asking questions / expressing opinions	29	78%
3	Attentiveness to teacher explanation	37	100%
4	Demonstration of high enthusiasm	36	97%
5	Staying awake / alert during class	35	94%
6	Listening to peers' opinions	37	100%

No.	Indicator	Students (n)	Percentage
7	Completing assigned tasks	37	100%
	Total / Class motivation	248 / 259	96%

Source: Primary data, observation Cycle 2 (29 October 2021)

Class motivation rose to 96% in Cycle 2, with every indicator improving. The two indicators targeted by the redesign improved most: willingness to ask questions doubled from 38% to 78%, and high enthusiasm rose from 65% to 97%. Learning outcomes for Cycle 2 are shown in Table 4.

Table 4. Learning Outcomes in Cycle 2

Outcome Category	Number of Students	Percentage	Mean Score
Passing (≥ 5)	33	89%	
Not passing (< 5)	4	11%	
Total	37	100%	7.1

Source: Primary data, written test Cycle 2 (29 October 2021)

On the Cycle 2 test, 33 of 37 students (89%) passed and the class mean rose to 7.1. A side-by-side comparison of the two cycles is given in Table 5.

Table 5. Comparative Summary of Motivation and Learning Outcomes Across Cycles

Indicator	Cycle 1 (n)	Cycle 1 (%)	Cycle 2 (n)	Cycle 2 (%)
Class learning motivation	202	78%	248	96%
Passing rate (outcomes)	27	73%	33	89%
Class mean score	6.0	—	7.1	—

Source: Authors' analysis of primary data (2021)

Discussion

Across the two cycles, the application of Powtoon coincided with marked improvements in both learning motivation and learning outcomes. Class motivation increased from 78% to 96%, the passing rate from 73% to 89%, and the class mean from 6.0 to 7.1, with both motivation and achievement exceeding the 75% criterion. Because the design did not include a control group and the analysis was descriptive, these results are best read as evidence that Powtoon use was associated with—rather than proven to have single-handedly caused—the observed gains. The discussion below interprets the pattern in light of theory and prior empirical work while keeping that caution in view.

The results are consistent with the cognitive theory of multimedia learning. Mayer (2021) argues that learners build understanding more effectively when verbal and pictorial information are presented together and processed through dual channels, and that well-designed animation can support the selecting, organising, and integrating processes central to meaningful learning. The animated contextualisation of grammar and vocabulary—comparative forms in Cycle 1 and colour terms in Cycle 2—gave students concrete visual referents for otherwise abstract material, which is the kind of word-and-image pairing the multimedia principle predicts will aid retention (Mayer & Moreno, 2003). The improvement in measured outcomes is therefore theoretically interpretable rather than incidental.

The motivational pattern is equally interpretable. The most striking change was in students' willingness to ask questions, which doubled from 38% to 78%. From a motivational-

design standpoint, the attention-grabbing and comprehensible nature of the animated media plausibly increased learners' confidence and lowered the affective barrier to participating, consistent with Keller's (2010) emphasis on attention and confidence and with self-determination theory's account of how perceived competence supports engagement (Ryan & Deci, 2020). The parallel rise in enthusiasm (65% to 97%) reinforces this reading: when learners find material accessible and engaging, they are more willing to take the social risk of speaking in class.

A closer look at the indicator-level pattern strengthens this interpretation. The indicators that were already high in Cycle 1—attentiveness and task completion, both at 100%—left little room to grow, whereas the indicators with the most room for improvement, namely question-asking (38%) and enthusiasm (65%), showed the largest gains in Cycle 2. This is the profile one would expect if the intervention worked partly by removing affective and motivational barriers rather than by adding attention that was already present. It also suggests that the second-cycle change in teacher questioning behaviour interacted productively with the richer media: the media made the content accessible, and the teacher's prompting converted that accessibility into overt participation. Reading the two cycles together, the gains appear to be jointly produced by media and pedagogy, which is consistent with the action-research premise that improvement comes from the whole redesigned practice rather than from any single isolated variable.

From a design standpoint, the study offers transferable lessons that align with established multimedia principles. The use of segmenting, signalling, and coherence in the Powtoon media corresponds to documented ways of reducing extraneous load and managing essential load (Mayer & Moreno, 2003; Mayer, 2024), and the positive reception observed here is in keeping with a recent systematic review reporting that Powtoon is broadly associated with improved motivation and comprehension across subjects and levels (Use of Powtoon as a Technology-Based Creative Learning Medium, 2025). At the same time, the literature cautions that animation is not automatically beneficial; poorly designed or overloaded media can depress learning. The practical implication for Arabic teachers is therefore specific: the value of Powtoon depends on disciplined design—short segments, clear signalling of target language, and the exclusion of distracting decoration—rather than on animation as such.

These findings align with the broader Indonesian evidence base on Powtoon. Purbaningrum and Aman (2023) reported higher history-learning motivation in a Powtoon condition than in a control group; Nurpajriah and colleagues (2025) documented rising completeness and observed activity across two action-research cycles in social studies; and Susanti (2025) found moderate cognitive and affective gains and increased engagement when Powtoon supported an inquiry model. The present results extend this pattern into formal Arabic instruction, a subject area in which animated media have been comparatively understudied, and into the *pesantren* setting, where digital media research has tended to remain general rather than medium-specific (Hasanuddin, 2024; Fitriyah & Mutammiroh, 2025; Use of Powtoon as a Technology-Based Creative Learning Medium, 2025).

The *pesantren* and KMI context is worth underscoring. The KMI curriculum demands proficiency in both communicative and formal Arabic, and first-year learners must acquire a large volume of vocabulary and grammatical structure quickly. In such a setting, media that make initial input vivid and memorable may be especially valuable, because they ease the cognitive load of early acquisition and help maintain motivation through a demanding

programme. This contextual contribution—rather than the demonstration of a universal effect—is the study’s main claim.

Theoretically, the study contributes a context-bound confirmation rather than a universal claim. It shows that, in a setting that has rarely featured in multimedia research—a women’s *pesantren* following a Gontor-style KMI Arabic curriculum—the predictions of multimedia learning theory and motivational design held up in practice: well-structured animated input was accompanied by gains in both the cognitive and the affective indicators that those theories foreground. This kind of situated evidence is valuable precisely because theories developed largely in Western, laboratory, or higher-education settings are not guaranteed to transfer to intensive religious-school environments with their distinctive routines and learner populations. The study therefore adds a data point that strengthens the external plausibility of these theories for Indonesian Arabic education while remaining honest about the limits of a single-class design.

Several caveats temper the interpretation. The gain in outcomes between cycles cannot be attributed to Powtoon alone, because the two cycles addressed different lesson topics of potentially different difficulty, and because the second cycle also involved deliberate changes in teacher questioning behaviour. The observed improvement may thus reflect a combination of media, topic, and pedagogy. In addition, the two cycles ran on consecutive days, leaving little time for the kind of extended reflection that the action-research model ideally affords, and the test and observation instruments were validated only through expert review rather than full statistical reliability analysis. These limitations do not negate the positive pattern, but they do bound the strength of the conclusions and motivate the directions outlined below.

Taken together, the evidence supports a measured, design-conscious use of Powtoon in Arabic classrooms. Practically, the results suggest that animated media are most useful at the input stage of a lesson—introducing new vocabulary and grammatical patterns—after which teachers should deliberately convert attention into participation through questioning, pair or group tasks, and immediate practice. Used in this way, the medium addresses the specific problem that motivated the study, namely low attention and reluctance to participate, without displacing the teacher’s central role. Sustainability is also a consideration: producing well-designed animated lessons takes time, so departments may benefit from building a shared library of reusable Powtoon materials mapped to the KMI syllabus, which would lower the preparation burden and encourage consistent, principled use across classes.

D. Conclusion

This classroom action research indicates that the application of Powtoon learning media was associated with improved learning motivation and learning outcomes among Grade 1D students in the *Durus al-Lughah al-‘Arabiyyah* subject at an Aisyiyah modern Islamic boarding school in Bojonegoro. Class motivation rose from 78% in Cycle 1 to 96% in Cycle 2, and the passing rate improved from 73% (mean 6.0) to 89% (mean 7.1), with both measures exceeding the 75% success criterion. The most notable change was the increase in students’ willingness to ask questions, which suggests that engaging animated media can lower the affective barriers to active participation in Arabic learning.

The study has clear limitations that should frame its conclusions. It was conducted in a single class at a single school, over only two cycles delivered on consecutive days, with different lesson topics in each cycle and instruments validated through expert judgement rather than quantified reliability testing; it also used descriptive analysis without a control

group. These features mean the findings are best understood as context-specific and associational rather than as proof of a generalisable causal effect.

Three implications follow. For teachers, the results support integrating Powtoon or similar animated media into Arabic lessons to sustain attention and encourage participation, while pairing the media with deliberate questioning strategies. For school administrators, the findings reinforce the value of investing in the connectivity and devices that make media-based instruction feasible in *pesantren*. For researchers, future work should test Powtoon over a full semester, hold lesson content constant across conditions, incorporate a comparison group and inferential analysis with reported reliability coefficients, and examine effects across grade levels and across different Arabic competencies so that more robust and transferable conclusions can be drawn. Further studies could also disaggregate the contribution of the media from that of the accompanying pedagogy through factorial or comparative designs, investigate longer-term retention of the vocabulary and structures taught, and explore whether the motivational gains observed here persist once the novelty of the medium has worn off. Replication in male *pesantren* and in non-KMI Arabic programmes would help establish how far the present, encouraging results extend beyond this particular setting.

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