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The Effectiveness of Integrating Islamic-Themed Arabic Digital Content on Students' Listening and Speaking Skills: A Quasi-Experimental Study

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ABSTRACT

Limited exposure to authentic spoken Arabic in formal instruction often leaves students with weak listening (mahārah istimāʿ) and speaking (mahārah kalām) skills, even though Arabic-language Islamic content is widely available online. This study aims to examine whether integrating such content into face-to-face instruction improves both skills. A quasi-experimental Non-Equivalent Control Group Design was used with 79 fourth-semester students of the Arabic Language Education Department at UIN Sayyid Ali Rahmatullah Tulungagung (40 experimental, 39 control). Over six meetings, the experimental class learned through listening tasks and cooperative speaking tasks built on 4 Islamic Arabic videos from YouTube, Instagram, and Telegram. The control class received conventional instruction using structured pedagogical audio. Both skills were measured with pre- and post-tests; speaking was scored with a rubric by three raters. Gains were analyzed with N-Gain, independent samples t-tests, and MANOVA. The experimental class outperformed the control class in listening (N-Gain = 0.531 vs. 0.316; $t(77) = 6.150$, $p < .001$) and speaking (0.596 vs. 0.331; $t(77) = 8.971$, $p < .001$). MANOVA showed a large combined effect (Wilks' $\Lambda = .350$, $F(2, 76) = 70.444$, $p < .001$, partial $\eta^2 = .650$), with a larger effect on kalām (partial $\eta^2 = .511$) than on istimāʿ (.329). The findings suggest that structured Islamic digital content can develop listening and speaking together, and they support an input–output instructional cycle for oral skills in Islamic higher education.

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INTRODUCTION

Over the past decade, the way people around the world learn languages has changed dramatically, and this change is no longer something confined to isolated classrooms or individual teachers experimenting with new tools. It has become a matter that international organizations actively monitor and try to guide, because the quality of education systems worldwide is now closely tied to how well those systems adapt to digital technology. The Organisation for Economic Co-operation and Development, through its Digital Education Outlook 2023, surveyed dozens of countries and found that many of them are actively constructing what can be called digital ecosystems for education, meaning coordinated systems of digital tools, platforms, and resources used not only for teaching but also for testing and evaluating student progress (OECD, 2023). Several of these countries have gone so far as to digitize their national assessments of foreign-language ability, including assessments for languages such as English, which shows that treating digital tools as a normal and expected part of language instruction is no longer an experimental idea but is quickly becoming standard educational policy in many parts of the world.

Alongside this, UNESCO released its Global Education Monitoring Report 2023, which asked a pointed question in its very subtitle: technology in education is being adopted everywhere, but whose interests does it actually serve, and does it genuinely improve learning outcomes, or is it adopted simply because it is fashionable (UNESCO, 2023)? This report is important to mention here because it reminds researchers and educators that digital technology by itself does not automatically produce better learning; technology only becomes valuable for education when it is intentionally designed and integrated with a clear pedagogical purpose in mind, rather than being used as decoration or novelty. This global concern about how technology should be thoughtfully integrated into learning, rather than simply added on top of existing methods, is directly relevant to the field of foreign language education, because language learning is one of the subjects most fundamentally dependent on exposure to authentic communication, something that digital media can now provide in ways that a physical classroom alone often cannot.

Among the many foreign languages taught around the world, Arabic occupies a position that is both globally significant and uniquely tied to religious and cultural identity. Arabic is not only a means of communication across the many countries and communities that make up the Islamic world, but it also carries a status that goes beyond ordinary language learning, because it is the language in which the Qur'an was revealed and the primary language through which centuries of Islamic scholarship have been recorded and transmitted. For this reason, understanding both classical and contemporary Islamic texts in their original language is considered essential for anyone seeking a deeper engagement with Islamic knowledge, and this makes Arabic language education a matter of religious as well as academic importance. Indonesia, as the country with the largest Muslim population in the world, has a particularly strong stake in ensuring that its Arabic language education programs are effective, since the quality of these programs directly affects how well Indonesian students and scholars can participate in global networks of Islamic knowledge and culture.

Within Indonesian higher education, Arabic language teaching has undergone the same broad pedagogical shift experienced in foreign language education worldwide, moving away from an older, more structuralist approach that emphasized memorizing grammar rules in isolation, toward a communicative approach that emphasizes actually using the language to interact meaningfully (Sirad et al., 2023). Under a communicative approach, curricula and classroom activities are supposed to be designed so that students experience authentic, meaningful language use, not just grammatical drills. However, this shift in philosophy has not always translated smoothly into classroom practice, and many Arabic Language Education programs in Indonesian higher education still report genuine difficulties helping students develop two particular oral skills, listening comprehension, known in Arabic as *istimāʿ*, and speaking ability, known as *kalām*.

Students frequently struggle to understand authentic spoken Arabic when they encounter it outside carefully controlled textbook materials, and they often lack the confidence to produce spoken Arabic themselves, even when they understand the grammar behind what they want to say. Part of the explanation for this difficulty is psychological rather than purely linguistic. Recent research on foreign language anxiety among Arabic learners has shown that emotional and cognitive factors interact in complex ways to suppress students' willingness to speak; a recent qualitative study, for example, found that cognitive interference and fear of negative evaluation mediate the relationship between anxiety and oral fluency among Arabic learners, meaning that students often know the language better than their spoken performance suggests, because anxiety itself becomes an obstacle standing between knowledge and production (Sa'Diah & Fahmi, 2026).

A related study among students learning Arabic as a foreign language similarly found a meaningful relationship between foreign language anxiety and learners' willingness to communicate, reinforcing the idea that oral skill development in Arabic cannot be separated from the emotional and social conditions under which students practice speaking (Zaharuddin et al., 2023). These findings suggest that simply delivering more grammar instruction will not necessarily solve the *istimāʿ* and *kalām* gap that many programs experience; students also need repeated, low-pressure exposure to authentic spoken Arabic in order to build both competence and confidence. At the same time that these challenges have persisted, a separate but closely related development has been unfolding: the sheer abundance of Arabic-language digital content now available online, much of it Islamic in theme and freely accessible on platforms such as YouTube, Instagram, TikTok, and Telegram.

Unlike textbook audio recordings, which are typically scripted, slow, and artificially clear, this digital content usually features native or near-native speakers communicating in natural, everyday registers, discussing religious, cultural, and social topics in ways that closely resemble how Arabic is actually used outside the classroom. A substantial and growing body of international research has investigated whether exposure to this kind of digital content, when properly structured, can meaningfully improve listening and speaking outcomes in foreign language learners generally, and the findings have been largely encouraging. One especially useful way researchers have summarized this evidence is through meta-analysis, a research method in which findings from many separate studies are statistically combined so that researchers can estimate an overall, more reliable picture of how effective an intervention tends

to be across different contexts, rather than relying on the result of just one single study (Sirad et al., 2025).

Applying this method specifically to mobile-assisted language learning, meaning language learning that happens through mobile devices and applications, Li (2024) combined the results of eighteen separate experimental and quasi-experimental studies involving a total of 932 learners and found that mobile-assisted language learning produced what statisticians call a significantly large effect on foreign language learners' speaking development when compared with conventional, non-digital instruction; in simpler terms, students who learned with the help of mobile-based digital content consistently outperformed those who learned only through traditional classroom methods, and the size of this advantage was large enough to be considered practically meaningful, not just statistically detectable. The same researcher conducted a parallel meta-analysis focused specifically on listening skill development, drawing on twenty separate studies and 1,218 participants, and again found a moderate-to-large positive effect favoring mobile-assisted approaches over conventional instruction.

A broader meta-analysis by Mihaylova et al. (2022) likewise concluded that mobile language-learning applications tend to improve second-language achievement compared with traditional methods, particularly when the applications are designed in ways that align with well-established principles of how human memory and learning actually work, rather than simply digitizing a traditional textbook. Video-based digital content specifically has also been studied at scale: a systematic review synthesizing eighty-one separate studies on the use of YouTube in language learning reported an unusually high effect size of 1.24 for speaking skill improvement, a figure that, in plain terms, indicates one of the strongest effects reported anywhere in this area of research (Salsabila & Salam, 2025, as cited in a recent study on YouTube-based Arabic instruction).

Within Arabic language education specifically, rather than foreign language learning in general, similarly encouraging results have started to emerge. Alsaiari (2025) conducted a quasi-experimental study involving sixty Arabic-language students in Dumat Al-Jandal, Saudi Arabia, comparing an experimental group taught through digital storytelling, meaning structured audiovisual narratives combining spoken Arabic with supporting visuals, against a control group taught through conventional methods, and found that the digital storytelling group achieved significantly stronger improvement in listening comprehension. Taken together, this international literature paints a fairly consistent picture: across many different contexts, languages, and digital formats, structured exposure to digital content tends to outperform purely conventional instruction when the goal is improving listening and speaking ability.

Indonesian researchers have contributed an equally active, though somewhat more scattered, body of evidence specifically focused on Arabic. Baity, Khoirunnisa, and Hamidah (2024) found that integrating the Learning Al-Jazeera website, an online platform offering authentic Arabic news and spoken content, into classroom instruction meaningfully improved students' Arabic listening comprehension compared with instruction that did not use this resource. Habib (2025) conducted classroom action research and found that interactive digital learning activities increased speaking competence among students at an Islamic junior high school, suggesting that the benefits of digital content are not limited to university-level learners.

Faiqoh, Gadoum, and Baity (2025) documented more broadly how digital media contributes to Arabic-language classrooms, reinforcing the general pattern that digital resources tend to enrich rather than merely supplement traditional teaching.

Hidayah et al. (2025) focused specifically on social media exposure and reported that it improved speaking ability among fifth-semester Arabic education students, pointing again toward platforms that students already use recreationally as a promising, low-cost source of language input. Several more recent Indonesian studies have looked even more closely at specific social media platforms. Research examining short-form video content on TikTok and Instagram Reels found that this format supports Arabic vocabulary acquisition in ways that are engaging and easy for students to access repeatedly outside class hours, since short videos are naturally suited to the kind of quick, repeated exposure that vocabulary learning benefits from. A related qualitative study describing Arabic vocabulary learning delivered multimodally, meaning through a combination of text, audio, and visuals, across Instagram and TikTok similarly found that this combination of media formats supports richer and more memorable vocabulary encounters than text-based materials alone.

Broader studies examining audio-visual Arabic learning across YouTube, TikTok, Instagram, and Facebook together found that these platforms collectively support several distinct benefits at once, including increased learning motivation, improved listening skills, expanded vocabulary, improved speaking skills, and greater accessibility for students learning outside formal class time, although the same research also cautioned that teachers need to carefully filter content, since not everything circulating on these platforms is appropriate or aligned with learning objectives. Focusing specifically on YouTube as a combined listening-and-speaking resource, a recent Indonesian study developed and examined a YouTube-based learning approach and situated its findings within a wider body of evidence showing similar benefits in other foreign language contexts, including research showing that YouTube-based instruction produced a sizeable, measurable improvement in speaking ability compared with traditional methods, and other research emphasizing that students benefit from the self-directed, varied, and actively engaging nature of YouTube content when learning to speak a new language.

A recent systematic literature review focused specifically on teaching *kalām*, or Arabic speaking skill, through digital media in higher education screened nearly two hundred records from major academic databases and ultimately reviewed twenty-six studies published between 2020 and 2025, concluding that digital media consistently supports Arabic speaking development when it is examined through recognized theoretical lenses such as the Input Hypothesis, which holds that language is acquired through exposure to comprehensible input slightly beyond a learner's current level, and the Technology Acceptance Model, which explains how learners' perceptions of a tool's usefulness and ease of use shape whether they actually adopt it for learning. Not all Indonesian findings have been uniformly positive, however. Hamidah and Marsiah (2020), studying YouTube-based *istimāʿ* instruction specifically, cautioned that despite its promise, this approach still faces real implementation problems tied to inconsistent teacher readiness and a lack of systematic pedagogical design, meaning that simply exposing students to digital content is not automatically sufficient; the way that content is structured and guided by an instructor still matters a great deal.

When these two bodies of evidence, the international literature and the Indonesian literature, are considered together, a fairly clear pattern emerges, but so does an equally clear gap. International meta-analyses confirm, at a large aggregate scale spanning many languages and many studies, that digital content delivered through mobile applications, digital storytelling, and video platforms meaningfully improves both listening and speaking outcomes compared with conventional instruction (Li, 2024, 2023; Mihaylova et al., 2022; Alsaiari, 2025). Indonesian studies confirm that this same basic pattern holds specifically for Arabic, whether the content comes from curated websites, YouTube, TikTok, or Instagram, and whether the outcome measured is listening comprehension, speaking competence, or vocabulary acquisition (Baity et al., 2024; Habib, 2025; Faiqoh et al., 2025; Hidayah et al., 2025). Systematic reviews further confirm that this evidence base has grown substantially and consistently over the past several years, particularly for speaking skill development.

However, when these studies are examined closely, a specific and important gap becomes visible. Almost all of the existing Indonesian research examines digital content and a single skill in isolation, either listening or speaking, and almost all of it treats digital content as a supplementary resource layered onto existing instruction rather than as a deliberately structured, primary component of the curriculum itself. None of the reviewed studies has specifically examined Islamic-themed Arabic digital content, meaning content that is religious or culturally Islamic in nature and drawn directly from the everyday social media platforms that Indonesian students already use, such as YouTube, Instagram, and Telegram, as the deliberately designed centerpiece of a single structured pedagogical model intended to develop listening and speaking competence together, at the same time, within a formal Arabic Language Education curriculum in Islamic higher education. This is the specific research gap that the present study addresses.

This research fills that gap by designing and empirically testing a structured learning model in which authentic Islamic Arabic digital content is not treated as optional supplementary media, as it has generally been treated in prior research, but is instead deliberately integrated into face-to-face instruction as the primary source of spoken language input from which students develop both *istimāʿ* and *kalām* simultaneously. This distinguishes the present study from most previous research in two important ways. First, rather than isolating a single skill, as most prior Arabic-focused digital learning research has done, this study examines listening and speaking together, within the same structured intervention, which better reflects how oral communication actually works in real life, since listening and speaking are rarely exercised independently of one another.

Second, rather than positioning digital content as an auxiliary tool that a teacher might occasionally show in class, this study positions Islamic Arabic digital content as a core, systematically integrated pedagogical component embedded within a communicative-approach framework, tested specifically among fourth-semester Arabic Language Education students at the State Islamic University of Sayyid Ali Rahmatullah Tulungagung. In doing so, the study responds directly to the concern raised earlier by international bodies such as UNESCO, namely that digital technology in education only produces genuine benefit when it is thoughtfully and systematically designed around clear pedagogical purposes, rather than simply made available and hoped to help.

This study draws on four ideas. Krashen's (1982) Input Hypothesis holds that acquisition occurs when learners understand input slightly beyond their current level (i+1). Swain's (1985) Output Hypothesis adds that producing language pushes learners to notice gaps in their knowledge. Canale and Swain (1980) define language ability as the appropriate use of language in real communication, and Nunan (1999) argues that skills develop best when taught together in meaningful contexts. Mayer's (2009) multimedia learning theory explains why audio combined with visual context supports comprehension.

Guided by this gap and this novelty, the present study sets out to examine several closely related questions in a single coherent investigation. It seeks to analyze whether meaningful differences exist in listening skill improvement between Arabic Language Education students who are taught through a model that integrates Islamic Arabic digital content and those who are taught through conventional instruction alone, and it seeks to examine, in a parallel fashion, whether similarly meaningful differences exist in speaking skill improvement between these same two groups of students. Then, the hypotheses in this study were H1: students taught with Islamic Arabic digital content show greater *istimāʿ* gains than students taught conventionally. H2: the same holds for *kalām*. H3: the intervention affects *istimāʿ* and *kalām* gains jointly.

Beyond examining these two skills separately, the study also seeks to understand whether the effect of digital content integration on listening and speaking occurs simultaneously, meaning whether a single pedagogical intervention can meaningfully strengthen both interconnected oral skills at once, rather than benefiting one skill at the expense of the other. By pursuing these closely related questions together, this article aims to contribute concrete empirical evidence regarding the effectiveness of Islamic Arabic digital content as authentic instructional material within a communicative-approach framework, while also offering a pedagogical model that other Arabic Language Education programs in Islamic higher education, both in Indonesia and elsewhere, may be able to adapt and apply within their own institutional contexts.

METHOD

Research Design

This study used a quantitative approach with a quasi-experimental Non-Equivalent Control Group Design (Cohen et al., 2007). Intact classes were used because individual students could not be randomly assigned within the existing course structure. Both classes took a pre-test and a post-test. The population was all students of the Arabic Language Education Department at UIN Sayyid Ali Rahmatullah Tulungagung in 2026/2027 academic year. Two intact fourth-semester classes (PBA 4A and PBA 4B) enrolled in the Arabic Language Teaching Material Development course were selected through nonprobability (intact group) sampling. The sample totaled 79 students: 40 in the experimental class and 39 in the control class. Pre-test means were comparable across classes (*istimāʿ*: $t(77) = -0.76$, $p = .451$; kalām: $t(77) = 0.17$, $p = .862$). Shapiro–Wilk tests indicated that the gain scores were normally distributed in both classes (all $p \geq .070$), and Levene's tests indicated homogeneous variances (*istimāʿ* $p = .695$; *kalām* $p = .938$). Because the classes did not differ at pre-test, the gain scores were compared directly.

Treatment

Both classes met six times over eight weeks, 100 minutes per meeting, with the same lecturer and the same semester plan. In the experimental class, 4 Islamic Arabic videos (2–5 minutes each) were used: 2 from YouTube, 1 from Instagram, and 1 from Telegram. Researcher shortlisted them from 10 candidates using four criteria: *fusha* or contemporary *fusha* Arabic, proportional duration, Islamic themes relevant to the academic context, and communicative elements that can prompt listening and speaking. Three validators reviewed the final set on ten aspects (duration, difficulty, speech speed, pronunciation clarity, content type, theme, language authenticity, text availability, audio/video quality, and learning potential) on a 1–4 scale; the mean score was 3.43 (very valid). Each meeting had four stages: (1) pre-listening: activating prior knowledge, introducing key vocabulary, and predicting the content; (2) while-listening: students watched the video [number] times and completed comprehension tasks on the main idea and details; (3) post-listening discussion in small groups to negotiate meaning; (4) a collaborative spoken response to the video. After each response, the lecturer gave immediate feedback on pronunciation, grammar, vocabulary, and content, and closed the lesson with follow-up work. The control class studied the same topics through textbook texts and lecturer-read or recorded audio, followed by question–answer and speaking drills, with the same meeting time. Observation sheets completed over the six meetings showed that both classes followed the plan (experimental: 94.27%, very good; control: 82.81%, good).

Instruments, Validity and Reliability

The *istimāʿ* test had 20 multiple-choice items based on Islamic Arabic audio. The kalām test was a performance task in which students responded orally to a listened stimulus. Speaking was scored with a rubric covering pronunciation, fluency, grammatical accuracy, vocabulary, comprehension of the stimulus, and communicative adequacy, each on a 1–4 scale. Item validity was tested empirically with 30 students who had completed the related course, using Pearson correlations (r-table = .361 at $\alpha = .05$). Of the 30 *istimāʿ* items tested, 23 were valid and the 20 best-fitting items were retained; of the 24 *kalām* items tested, 21 were valid. The *istimāʿ* test reliability was [KR-20/$\alpha = 0.9$]. For *kalām*, 3 raters scored each performance independently after calibration on several sample recordings.

Data Analysis

Gains were computed as N-Gain and categorized as low ($g < 0.30$), moderate ($0.30 \leq g < 0.70$), or high ($g \geq 0.70$) (Hake, 1998). Normality was checked with the Shapiro–Wilk test (Shapiro & Wilk, 1965) and homogeneity of variance with Levene's test (Levene, 1960). Group differences were tested with independent samples t-tests (Student, 1908), with the Mann–Whitney U test (Mann & Whitney, 1947) as the alternative when assumptions failed. A one-way MANOVA tested the combined effect on *istimāʿ* and *kalām* gains. Effect sizes were reported as Cohen's d and partial eta squared, with $\alpha = .05$.

RESULTS

The Improvement of Listening Skill through Digital Content Integration in Learning

The first hypothesis tested whether Arabic Language Education students who received Islamic Arabic digital content integration achieved greater listening improvement than students who received conventional instruction. The experimental class gained more (N-Gain M = 0.531, SD = 0.164) than the control class (M = 0.316, SD = 0.147); both fall in the moderate category. The difference was statistically significant, t (77) = 6.150, p < .001, mean difference = 0.215, 95% CI [0.145, 0.284], d = 1.38. H1 was supported.

Table 1

Independent Samples t-Test Results for *Mahārah al-Istimāʿ*

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
ISTIMA	Equal variances assumed	6.150	77	.001	.21481	.03493	.14525	.28436
	Equal variances not assumed	6.158	76.543	.001	.21481	.03488	.14534	.28428

These findings showed Islamic Arabic digital content integration provides positive contribution to student listening ability improvement. In *istimāʿ* learning, students need more than isolated sound or vocabulary introduction; they need authentic spoken language encounters with context, narrative flow, intonation, and complete meaning. This aligns with Richards and Schmidt's view that listening is not passive activity but active cognitive process involving perception, comprehension, interpretation, and meaning construction. Thus, digital content use helps students obtain more realistic listening experiences.

Emerging improvement differences also relate to used digital content characteristics in experimental classes. Arabic digital content enables students obtaining more varied spoken input than conventional learning. Conventional learning input often limits to instructor voice, read texts, or pedagogical audio arranged for practice purposes. Conversely, digital content presents more authentic speech, possesses visual or situational context, and demonstrates Arabic language use in more natural communication. Ryding emphasizes Arabic learners need authentic spoken Arabic exposure to recognize sound patterns, intonation, and discourse structures more naturally.

The Improvement of Speaking Skill through Digital Content Integration in Learning

The second hypothesis tested whether the same intervention produced a comparable advantage in speaking improvement. The experimental class again gained more (M = 0.596, SD = 0.132) than the control class (M = 0.331, SD = 0.132), t(77) = 8.971, p < .001, mean difference = 0.265, 95% CI [0.206, 0.324], d = 2.02. H2 was supported.

Table 2
Independent Samples t-Test Results for *Mahārah al-Kalām*

		t-test for Equality of Means						
		t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
KALAM	Equal variances assumed	8.971	77	.001	.26523	.02956	.20636	.32410
	Equal variances not assumed	8.970	76.868	.001	.26523	.02957	.20635	.32411

These findings show that learning integrating Arabic digital content provides stronger space for students developing speaking ability. In this research, *kalām* is understood not as undirected free speech but as ability producing spoken responses based on listening stimulus. That is, students speak not arbitrarily but after listening, comprehending, and processing content. This design aligns with measurement direction, where *kalām* is evaluated through spoken tasks relating to listened content including pronunciation, fluency, language accuracy, vocabulary, stimulus comprehension, and content appropriateness or communicativeness.

Theoretically, these results are understandable because speaking skills develop not through grammar knowledge alone but through using language in meaningful situations. Richards and Schmidt view speaking as ability producing utterances linguistically and pragmatically comprehensible in specific communication contexts. Thus, experimental class *kalām* improvement relates to clearer communication context availability through digital content. Students obtain listened material, comprehend content, then use that content as basis for spoken responses. This process makes speaking activity non-isolated but emerging from comprehended input.

Digital Arabic Content Integration's Simultaneous Effect on Listening and Speaking Skill Improvement

The third hypothesis tested whether digital content integration affected listening and speaking simultaneously rather than as two independent outcomes. Box's M test supported the equality of covariance matrices (M = 0.42, p = .94), and the two gain scores were weakly correlated within groups (r = −.18). The multivariate effect of instruction type was significant, Wilks' Λ = .350, F(2, 76) = 70.444, p < .001, partial η^2 = .650. Follow-up univariate tests were also significant for *istimāʿ*, F(1, 77) = 37.818, p < .001, partial η^2 = .329, and *kalām*, F(1, 77) = 80.487, p < .001, partial η^2 = .511 (Table 4). H3 was supported.

Table 3
MANOVA Test Results

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Kelas	Pillai's Trace	.650	70.444[b]	2.000	76.000	.001	.650
	Wilks' Lambda	.350	70.444[b]	2.000	76.000	.001	.650
	Hotelling's Trace	1.854	70.444[b]	2.000	76.000	.001	.650

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Roy's Largest Root	1.854	70.444[b]	2.000	76.000	.001	.650

These findings reinforce the core assumption that *istimāʿ* and *kalām* represent two interrelated oral skills. In Arabic language learning, listening functions not merely as receptive skill but becomes basis for oral production. Students obtaining sufficient spoken input possess language material building verbal responses. This aligns with Nunan's view that language learning becomes more effective when language skills develop integrally within meaningful communication contexts. In other words, when students listen, comprehend, discuss, then deliver spoken responses, learning no longer proceeds separately between receiving and producing language.

This simultaneous influence also relates to experimental class treatment characteristics. Arabic digital content serves not merely as audio or video playback media but becomes both spoken input source and communication stimulus. Students first receive Arabic speech through digital content, then direct toward comprehending content, identifying important information, discussing meaning, and producing spoken responses. This pattern creates learning flow from input toward output. From language acquisition perspectives, Krashen emphasizes comprehensible input importance for language development, while the other affirms that output helps learners testing and improving language ability. Both appear working in this research: digital content provides input while *kalām* activities provide language processing and production space.

DISCUSSION

The significant listening advantage observed in the experimental class is best understood through Krashen's Input Hypothesis, introduced earlier in this article's literature review, which holds that language acquisition occurs when learners are exposed to input that is comprehensible yet slightly beyond their current ability, commonly expressed as i+1 (Krashen, 1982). In the present study, the Islamic Arabic digital content used in the experimental class was deliberately selected and validated for duration, difficulty level, speech speed, pronunciation clarity, and audio quality, which allowed students to receive spoken Arabic that was challenging enough to promote acquisition while still remaining comprehensible. This interpretation is consistent with Richards and Schmidt's (2022) view, already introduced in the literature review, that listening is not a passive activity but an active cognitive process involving perception, comprehension, interpretation, and meaning construction; the structured pre-listening, during-listening, and post-listening tasks used in this study's experimental treatment gave students repeated opportunities to engage in exactly this kind of active processing rather than simply hearing Arabic passively.

The advantage also aligns with Ryding's (2013) argument that Arabic learners specifically need exposure to authentic spoken Arabic in order to internalize sound patterns, intonation, and discourse structure, something conventional classroom audio, which tends to be scripted and artificially clear, rarely provides. From a multimedia learning perspective, Mayer's (2009) Cognitive Theory of Multimedia Learning further explains part of this

advantage, since the digital content used in this study combined auditory input with visual context, expressions, and situational cues, allowing students to connect sound, image, and meaning simultaneously rather than relying on sound alone.

These findings extend, but also sharpen, earlier Indonesian evidence on digital-content-supported listening. Baity, Khoirunnisa, and Hamidah (2024) similarly found that authentic digital sources, in their case the Learning Al-Jazeera platform, improved Arabic listening comprehension, and the present findings reinforce that conclusion. At the same time, Hamidah and Marsiah (2020) had cautioned that YouTube-based listening instruction, despite its promise, still faces implementation problems related to inconsistent teacher readiness and insufficiently systematic pedagogical design; the present study's results suggest a possible explanation for why its own treatment succeeded where less structured interventions have struggled, namely that the digital content here was not simply shown to students but was embedded within a deliberately staged listening-task sequence.

This pattern is also consistent with more recent international evidence outside Arabic language education. Alsaiari (2025) found that Saudi sixth-grade students taught through structured digital storytelling achieved significantly greater listening improvement than a conventionally taught control group, a finding that mirrors the present result in both direction and underlying logic, structured digital audiovisual input outperforming conventional instruction. A recent meta-analysis by Dalman and Plonsky (2025), examining second-language listening strategy instruction across many studies, similarly concluded that listening improves most reliably when learners are guided through explicit processing strategies rather than left to listen unassisted, which corresponds closely to the pre-, during-, and post-listening task structure used in this study's experimental treatment.

The larger effect size observed for *kalām* compared with *istimāʿ* (Partial Eta Squared of 0.511 versus 0.329) invites closer theoretical attention, and it is here that Output Hypothesis, introduced earlier That comprehensible input alone is necessary but not sufficient for language development; learners also need to be pushed to produce output, because the act of production forces them to notice gaps between what they can understand and what they can actually say, and to test and refine their linguistic resources in the process. In the present study, digital content did not merely function as listening material but was deliberately used as a trigger for spoken response: students listened, comprehended, discussed, and then were required to produce contextually appropriate spoken output based on that comprehension. This design meant that the experimental class experienced not just enriched input, as in the listening-only interpretation above, but a complete input-to-output cycle, which may explain why the treatment effect on *kalām* was proportionally larger than on *istimāʿ*. This interpretation is further supported by Rüschoff's (2009) theoretical account of output-oriented language learning with digital media, which argues that digital and project-based tasks are particularly well suited to fostering comprehensible output because they place learners in situations requiring active linguistic negotiation rather than passive reception, a description that closely matches the cooperative discussion and response tasks used in this study's experimental treatment.

The finding also aligns with Richards and Schmidt's (2022) definition of speaking as the ability to produce utterances that are linguistically and pragmatically appropriate to a specific

communicative context, since students in the experimental class were not asked to produce arbitrary speech but speech directly tied to comprehended digital content, closely mirroring real communicative demands. Ellis's (2003) view of task-based, communicative activities as drivers of language development is similarly reflected in the cooperative structure of the experimental treatment, in which students discussed listened content with peers before producing spoken responses, a structure that gave them repeated, low-stakes opportunities to test vocabulary, correct structure, and build fluency and confidence through interaction. These results are broadly consistent with earlier Indonesian findings, Habib (2025) reported that interactive digital learning increased *kalām* ability among junior high school students, and Hidayah et al. (2025) found that Arabic social media exposure improved vocabulary, fluency, and speaking confidence among Indonesian undergraduates, but the present study extends these findings by demonstrating a comparatively large effect size within a controlled, hypothesis-tested quasi-experimental design rather than a purely descriptive or correlational one (W. S. Gosset, 1908).

Internationally, this pattern is corroborated by Li's (2024) meta-analysis, which found a significantly large aggregate effect of mobile-assisted language learning on foreign-language speaking development across eighteen studies, and by Tan and Zuo's (2024) more recent quasi-experimental study, which found that EFL learners who used instructional videos combined with an AI-driven tutoring system achieved significantly greater speaking gains, and reported less speaking-related anxiety, than learners who used instructional videos alone. This last finding is particularly relevant to the present study, since it echoes the concern raised earlier in the literature review regarding foreign language anxiety among Arabic learners (Sa'Diah & Fahmi, 2026; Zaharuddin et al., 2023): structured, digitally mediated speaking practice appears capable of easing the very anxiety that has been shown to suppress Arabic oral production.

The MANOVA results, showing a large combined effect (Wilks' Lambda = 0.350, Partial Eta Squared = 0.650) alongside significant individual effects for both skills, provide the clearest evidence in this study that *istimāʿ* and *kalām* were not developed as two separate, unrelated outcomes but as an integrated communicative process. This supports Nunan's (1999) view, introduced in the literature review, that language skills develop more effectively when treated integrally within meaningful communicative contexts rather than trained in isolation from one another. It also supports Canale and Swain's (1980) broader framework of communicative competence, which holds that genuine language ability involves the appropriate use of language within real communicative situations, not merely the mastery of isolated grammatical forms; in the experimental treatment, students were never asked to demonstrate listening or speaking as separate skills for their own sake but were guided through a continuous sequence of understanding, discussing, and responding that mirrors authentic communication. Read together, Krashen's Input Hypothesis and Swain's Output Hypothesis, both introduced earlier, offer a coherent theoretical account of this simultaneous effect: digital content supplied the comprehensible input from which *istimāʿ* improved, while the structured response tasks built on that same input supplied the pushed output from which *kalām* improved, and because both processes drew on the same digital content within the same instructional sequence, their effects reinforced one another rather than operating independently (Shapiro et al., 1965).

This integrated pattern is echoed in recent international research examining combined listening-speaking interventions outside the Arabic context. A study of Moodle-based instruction combining listening and speaking activities found that integrating the two skills through a single digital platform produced stronger listening outcomes than listening instruction delivered in isolation (Nguyen & Huynh, n.d.), while Dizon (2020), studying the use of an intelligent personal assistant with second-language learners, found that a combined input-output digital intervention produced significant gains in speaking proficiency, even though listening gains alone did not always reach significance, a pattern that itself underscores how output-oriented tasks may be necessary to fully realize the benefits of digital input. Most directly relevant, a 2025 mixed-methods study explicitly testing Krashen's Input Hypothesis using AI-generated reading input found significant oral proficiency gains among adult EFL learners over a sustained intervention period, providing recent, direct empirical support for the same input-to-oral-output pathway proposed here (Aldamen et al., 2025). The present study's contribution, relative to this wider body of work, lies in demonstrating this integrated input-output pathway specifically for Arabic, and specifically through Islamic-themed content that is both linguistically authentic and culturally resonant for Indonesian Muslim learners, a combination not previously tested in the reviewed literature (Mann & Whitney, 1947).

Taken together, these findings support a conceptual model that can be proposed as a theoretical contribution of this study, here termed the Digitally Mediated Input–Output Cycle for Integrated Arabic Oral Skills. The model describes four interlocking stages through which Islamic Arabic digital content is understood to produce simultaneous *istimāʿ* and *kalām* development, rather than developing either skill in isolation. The first stage is authentic input selection, in which Islamic-themed Arabic digital content drawn from platforms students already use, such as YouTube, Instagram, and Telegram, is deliberately curated and validated for authenticity, difficulty, pacing, and audiovisual clarity, ensuring that the input students receive sits within Krashen's comprehensible i+1 range rather than being either too simple to promote growth or too difficult to be followed (Hake, 1998). The second stage is guided input processing, in which structured pre-listening, during-listening, and post-listening tasks direct students toward active comprehension, prediction, and meaning construction, consistent with Richards and Schmidt's view of listening as an active cognitive process rather than passive reception. The third stage is input-to-output transformation, in which cooperative discussion tasks require students to negotiate meaning with peers and convert their comprehension of the digital content into a communicative intention, operationalizing Swain's claim that output pushes learners to notice and resolve gaps in their linguistic knowledge (Levene, 1960).

The fourth stage is contextualized communicative output, in which students produce spoken responses evaluated not as isolated speech but as pragmatically appropriate reactions to specific comprehended content, reflecting Canale and Swain's model of communicative competence. Critically, the model proposes a reinforcing loop rather than a linear sequence: because the content driving this cycle is Islamic in theme and drawn from platforms already embedded in students' daily lives, it is theorized to lower what Krashen (1982) termed the affective filter, the anxiety, low motivation, or lack of confidence that can block input from being acquired even when that input is otherwise comprehensible, more effectively than generic or unfamiliar foreign-language content would. This theoretical extension directly

addresses the foreign language anxiety concern raised earlier in this article's introduction (Sa'Diah & Fahmi, 2026; Zaharuddin et al., 2023), proposing that cultural and religious familiarity functions as an additional affective-filter-lowering mechanism specific to Islamic-themed digital content, alongside the purely linguistic mechanisms already established in the input-output literature. Successful output, in turn, is theorized to increase students' willingness to re-engage with further digital input, closing the cycle and helping explain why the treatment effect in this study proved large and mutually reinforcing across both skills rather than confined to one (Cohen et al., 2007).

Beyond confirming that digital content integration improves *istimāʿ* and *kalām*, this study's central theoretical contribution lies in demonstrating, through a single controlled design, that Krashen's Input Hypothesis and Swain's Output Hypothesis operate not as competing explanations but as complementary stages of one integrated communicative cycle when digital content is deliberately structured to move students from comprehension toward production. This extends prior research, most of which has tested input-oriented and output-oriented digital interventions separately, and it extends existing Arabic-specific research, most of which has examined *istimāʿ* or *kalām* in isolation, by showing that a single, culturally grounded pedagogical design can develop both simultaneously with a large combined effect. Practically, the proposed Digitally Mediated Input–Output Cycle offers Arabic Language Education programs in Islamic higher education a concrete design principle: digital content should not be introduced merely as supplementary listening material but should be deliberately sequenced through input selection, guided processing, cooperative transformation, and contextualized output stages, using content that is both linguistically authentic and culturally meaningful to learners, in order to maximize its combined effect on listening and speaking development together.

CONCLUSION

Based on conducted research and discussion, conclusions emerge that listening ability improvement differences exist between Arabic Language Education students following digitally-integrated learning and conventional learning. This showed through experimental class 0.531 average N-Gain, while control class achieved 0.316 average N-Gain. Independent Samples t-Test results also showed 0.001 significance < 0.05, thus the first hypothesis was supported. Therefore, Islamic Arabic digital content integration indicate providing better listening improvement compared to conventional learning. Learning with Islamic Arabic digital content integration also indicate providing significant speaking ability improvement differences among students. Experimental class N-Gain average reached 0.596, while control class achieved 0.331 average N-Gain. Independent Samples t-Test results showed 0.001 significance < 0.05, thus the second hypothesis was supported. These findings show that Islamic Arabic digital content use not merely helps students comprehending spoken input but promotes their oral response ability more effectively. Islamic Arabic digital content integration simultaneously affected *istimāʿ* and *kalām* improvement among Arabic Language Education students. MANOVA testing results showed Wilks' Lambda value = 0.350, F = 70.444, and 0.001 significance < 0.05. Partial Eta Squared value of 0.650 showed treatment effects fell in

large categories. Thus, the third hypothesis was supported, making Islamic Arabic digital content integration effectively improving student listening and speaking skills integrally.

Generally, these research results suggest that Islamic Arabic digital content learning integration can provide positive contributions toward Arabic Language Education student oral skills improvement. Digital content functions not merely as supplementary media but can become contextual and authentic spoken input source when systematically used in learning processes. Therefore, Arabic learning combining digital content with listening and speaking activities proved more effective than conventional learning improving student *istimāʿ* and *kalām* skills. This study used intact classes at one institution over eight weeks, so groups may differ in unmeasured ways, and results may not generalize. The same lecturer taught both classes, which controls instructor differences but may introduce expectancy effects. Future studies should use more sites, longer treatments, and delayed post-tests.

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