Online Learning in Educational Research
Volume 6, Issue 1, 13-27.
e_ISSN: 2798-2351
https://www.journal.foundae.com/index.php/oler/index
DOI: 10.58524/oler.v6i1.982

YouTube Content Production for Arabic Language Learning: Cross-National Study

Segaf Baharun*
Universitas Islam Internasional Darullughah Wadda'wah, INDONESIA

Nur Hanifansyah
Universitas Islam Internasional Darullughah Wadda'wah, INDONESIA

Moh. Tohiri Habib
Universitas Islam Internasional Darullughah Wadda'wah, INDONESIA

Ahmad Arifin
Universitas Islam Negeri Jurai Siwo Lampung, INDONESIA

Muhammad Syaifullah
Universitas Ma'arif Lampung, INDONESIA

Nur Aina Faqihah
International Islamic University Malaysia, MALAYSIA

Article Info

Article history:

Received: November 29, 2025
Revised: February 24, 2026
Accepted: March 13, 2026

Keywords:

Arabic language learning;
Cross-national study;
Digital pedagogy;
Learner autonomy;
YouTube content.

Abstract

This study employs a mixed-methods approach to examine the pedagogical value of learner-generated YouTube videos in Arabic language instruction in Islamic senior secondary schools across Malaysia and Indonesia. The study involved 240 non-native Arabic learners, with 120 participants from each country, and investigated the impact of video production on Arabic language proficiency, learner autonomy, and digital literacy over a sixteen-week period. Quantitative data were collected through standardized pre–post proficiency tests, autonomy and digital literacy scales, while multimodal content analysis was conducted on 240 purposively selected videos from a validated corpus of 600 YouTube uploads that followed structured production cycles. The findings revealed statistically significant improvements in overall Arabic language proficiency in Malaysia (d = 0.86) and Indonesia (d = 0.76), with particularly strong gains in speaking skills in Malaysia (d = 1.04) and Indonesia (d = 0.94). Learner autonomy and digital literacy competencies also showed significant improvement. Regression analysis indicated that production frequency and participation in feedback processes significantly predicted improvements in speaking proficiency and learner autonomy. The content analysis identified cultural vlogs, language tutorials, and narrative storytelling as the dominant genres, reflecting sociocultural influences across contexts. The study proposes a data-informed model of digital content creation integrating sociocultural interaction, multiliteracies, and self-regulated learning in Arabic CALL contexts.

To cite this article: Baharun, S., Hanifansyah, N., Habib, M. T., Arifin, A., Syaifullah, M., & Faqihah, N. A. (2026). Youtube content production for arabic language learning: Cross-national study. *Online Learning in Educational Research, 6*(1), 13-27. https://doi.org/10.58524/oler.v6i1.982

INTRODUCTION

The accelerated digitization of language education has led to significant changes in teaching methodologies (Adimayuda et al., 2025; Arisandi & Habib, 2025; Bahy et al., 2024; Munapi et al., 2025; Ramadhan et al., 2025; Riadi et al., 2024). The process of learning has shifted from the simple reception of content to the production of multimodal texts, in which students have become producers rather than consumers (Chen et al., 2025; Chen & Liu, 2025; Chiu, 2024; Pellas, 2025). YouTube has become an evolving learning space that fosters creativity, cooperation, and authenticity (Ahmadi et al., 2024; Maryam et al., 2025; Surya et al., Yassin, 2024). This development carries crucial implications for Arabic language education, which has long relied on teacher-

* **Corresponding Author**
Segaf Baharun, Universitas Islam Internasional Darullughah Wadda'wah, INDONESIA ✉ segafbaharun@uiidalwa.ac.id

centered approaches that struggle to cultivate communicative competence among non-native learners (Abdel-Malek, 2023; Al-Abdullatif & Alsubaie, 2022; Habib, 2025).

Nevertheless, learners of Arabic in Southeast Asia still face various challenges in their language learning, such as limited access to linguistic environments, limited opportunities for oral communication, and significant cultural and linguistic differences from native speakers (Ghani et al., 2022). Educational technology offers tremendous opportunities for addressing such limitations in language learning (Alasmari, 2025; Al-Mallahma, 2025; Hamid, 2025; Morales et al., 2023). In this respect, digital content production has been proven to facilitate language learners in their performance by promoting more expressive output, self-monitoring, social interaction, and the construction of multiliteracies (Li et al., 2025; Liang et al., 2023). However, little research has been conducted on student-generated content on YouTube in the context of learning Arabic.

Malaysia and Indonesia are interesting cases for comparative analysis in terms of their Islamic heritage, multilingual sociolinguistic setting, and focus on digital education (Omar et al., 2021; Samah et al., 2026; Sukmayadi & Yahya, 2020). However, there are significant differences in their systems of Arabic education. Malaysia has a strong advantage in terms of national curriculum standards, teacher training, and continuous government support for infrastructure and curriculum development. In contrast, Indonesia still faces various challenges in terms of teacher competency, resource availability, and curriculum management at the local level (Khusnadin et al., 2025).

Whilst some research studies have explored technology-mediated Arabic language acquisition in Southeast Asia, including mobile-based vocabulary acquisition, digital games, online speaking tools, and technology-mediated instruction within an LMS (Al-Abdullatif & Alsubaie, 2022; Ghani et al., 2022; Haq et al., 2024; Nuangchalerm, 2025), such research endeavors remain restricted to single-country settings. This limits the capacity to fully explore the extent to which learning outcomes can be generalized across different contexts or to what extent such outcomes can be viewed as specific to particular contexts. In this regard, the field of Arabic CALL research may run the risk of overgeneralizing research findings and underestimating the contribution of multilingual ecologies, religious-cultural orientations, and digital literacy systems to the processes of language acquisition.

More importantly, however, existing literature still favors receptive digital consumption over learner production in multimodal forms. This is limiting progress in theory building since production-centered activities involve unique cognitive, interactional, and self-regulatory processes that are fundamentally dissimilar from those in consumption-centered learning. Without a systematic investigation of how multimodal production influences linguistic complexity, learner autonomy, and identity formation, current understandings of Arabic digital pedagogy remain limited. This gap is particularly significant in the case of YouTube-based learner production, which provides opportunities for public interaction, iterative feedback cycles, and sociocultural positioning processes that align closely with Sociocultural Theory and Multiliteracies perspectives but remain underexplored in Arabic CALL literature.

These limitations create both theoretical and pedagogical uncertainties. Theoretically, there is still no integrated explanation of how multimodal production mediates language development across different contexts of Islamic senior secondary education. Pedagogically, educators lack evidence-based guidance regarding whether structured digital production generates comparable or context-specific outcomes in multilingual Southeast Asian settings. Addressing these unresolved issues requires cross-national and mechanism-oriented investigations that move beyond simple technology adoption studies.

To address this need, the present study conducts a cross-national mixed-methods investigation of learner-generated YouTube videos in Arabic language programs in Malaysia and Indonesia. Drawing on Sociocultural Theory, Multiliteracies Pedagogy, and Learner Autonomy perspectives, the study examines how structured digital content production mediates language proficiency, learner autonomy, and communicative practices within different institutional and sociocultural contexts. By integrating comparative empirical evidence with theoretical insights, this research contributes to the development of a production-oriented model of Arabic Computer-Assisted Language Learning and provides a framework for scalable and context-sensitive Arabic language instruction in multilingual Islamic senior secondary education.

METHOD

This study adopted a convergent-parallel mixed-methods design (Creswell & Clark, 2017), enabling quantitative and qualitative data to be collected and analyzed simultaneously to develop a holistic understanding of YouTube-based content production in Arabic language learning. The study was conducted with 240 students from Arabic language classes in Southeast Asia, consisting of 120 students from three Islamic senior secondary schools in Malaysia (Madrasah Aliyah equivalent) and 120 students from three Islamic senior secondary schools in Indonesia (Madrasah Aliyah). Stratified random sampling was used to ensure proportional representation of CEFR bands for both datasets, consisting of 60 low-band and 60 high-band learners per country, and equal proportions of male and female students (50% male and 50% female). Stratification was used to eliminate biases in the study and to make it representative and comparable across nations.

Eligible participants were required to be non-native Arabic speakers aged 15–18 years, enrolled in formal Arabic study programs, possessing CEFR-aligned A2–B2 proficiency levels (Abu-Rabiah, 2025; Albarqi, 2025; Arkan, 2026; Boulaares, 2025; Mahmudi et al., 2025), demonstrating baseline digital literacy, and providing informed consent. Students with prior YouTube content-creation experience or incomplete participation were excluded to control for prior exposure effects.

For the qualitative multimodal analysis, a purposive sampling approach was applied to select 240 videos from a validated corpus of 600 finalized YouTube uploads. This approach was considered to obtain depth of analysis and balance in terms of task type (individual and collaborative), genre types, levels of proficiency, and established minimum criteria of technical-linguistic quality. Through purposive sampling, it was possible to conduct a systematic analysis of multimodal characteristics while ensuring cross-national comparability. To provide a clearer overview of the overall research procedure from participant selection and intervention implementation to data collection and analysis, the workflow of the cross-national YouTube content-creation study is illustrated in Figure 1.

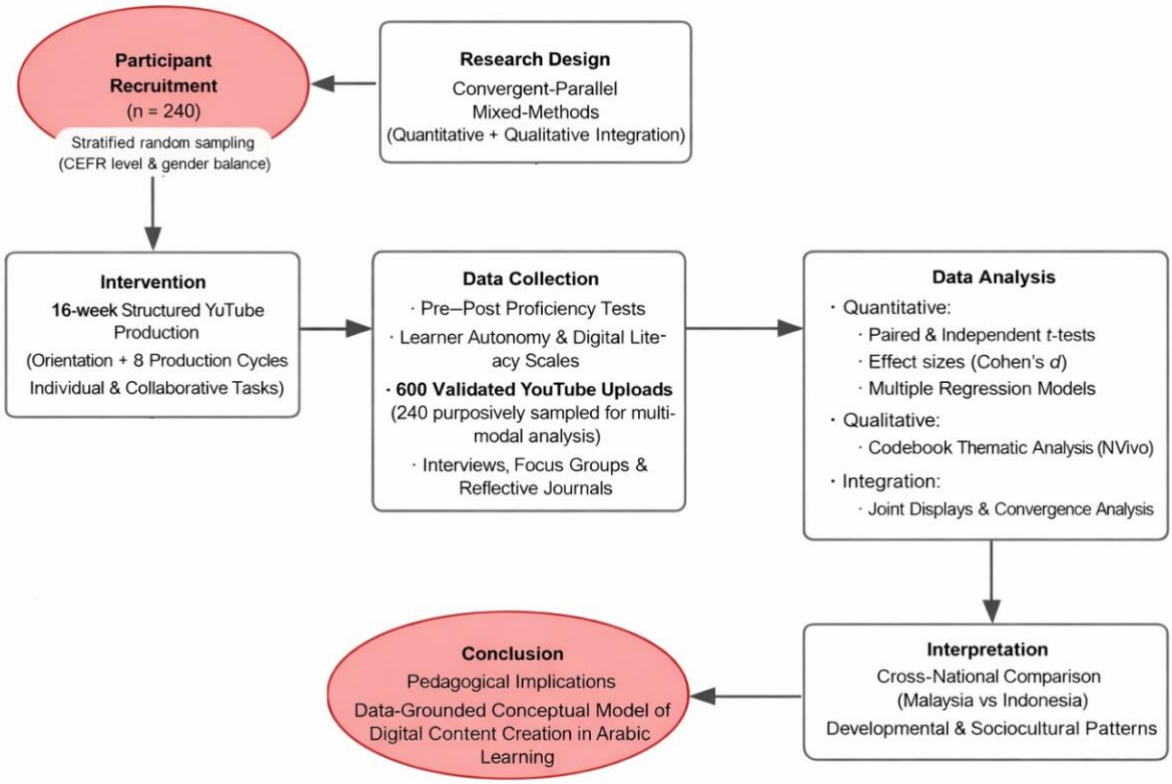

Figure 1. Research Flow of the Cross-National YouTube Content-Creation Study.

This diagram illustrates the overall process for this comprehensive research methodology, including participant sampling (n = 240), a sixteen-week production intervention based on YouTube (eight video production tasks with initial training), and multimodal data collection

(proficiency, autonomy/digital literacy scales, interviews, journaling, and a validated corpus of 600 finalized videos from YouTube, including 480 individual and 120 collaborative videos). From this overall data set, 240 multimodal data points were purposively sampled for analysis, including quantitative and qualitative analysis (t-tests, effect size calculation, and thematic NVivo analysis with joint display integration). During the intervention, each student completed multiple cycles of individual and collaborative video production tasks. Only the videos that met predefined criteria for quality, duration, and linguistic comprehensibility were included as finalized uploads to YouTube.

The current study employed two different levels of sampling. Initially, stratified random sampling was used to select participants to ensure representativeness in terms of proficiency levels, gender, and institutional settings. Subsequently, purposive sampling was used to select student videos to conduct multimodal analysis. The definition of the different levels of sampling used in this study is associated with the two different levels of focus of the current study.

The process of instruction was spread over sixteen weeks. It was also integrated into the existing Arabic language courses. In the first two weeks, the students were given an orientation about digital storytelling, video recording techniques, and how to use the YouTube website. For the next twelve weeks, each student was given four cycles of individual production (3 to 5 minutes) and four cycles of collaborative production (5 to 8 minutes). However, only two individual videos of each student were finally produced and uploaded to the YouTube website. Two other videos produced by each student were internal versions.

For collaborative activities, students formed groups of four. Over four cycles of collaborative activities, each group produced two final uploads that met the criteria for publication. The remaining cycles were for internal practice production. The content remained flexible for authenticity and creativity, yet aligned with language learning objectives in Arabic. Scaffolding for instruction included script consulting, pronunciation assistance, and technical support. The final two weeks consisted of class presentations, peer assessment, and reflective portfolios.

While the design of instruction allowed for eight production cycles per learner, only the uploaded videos that were finalized and fulfilled predetermined requirements for quality, length, and comprehensibility of language were incorporated into the analytical corpus. The entire corpus consisted of 480 individual videos and 120 collaborative videos, totaling 600 videos of YouTube uploads from 240 participants of the study. A total of 240 videos were purposefully selected from this corpus, balancing proficiency levels, tasks, and national contexts.

A multi-method research design was applied to collect the necessary data. Quantitatively, the research utilized pre- and post-standardized tests to measure the participants' speaking, listening, reading, and writing abilities ($\alpha = 0.89$); a 30-item scale to measure learner autonomy, based on Gu et al. (2025) ($\alpha = 0.87$); another 25-item scale to test digital literacy ($\alpha = 0.84$); and YouTube usage indicators such as views, watches, likes, and comments. The qualitative methods involved analyzing 240 videos created by the students (120 videos per country); interviews with 40 participants (20 per country); weekly reflective journals; and focus-group discussions with eight groups to explore the collaborative learning process.

Quantitative analysis employed paired-samples t-tests for pre-post analysis and independent-samples t-tests for group comparisons across national contexts. These tests were complemented by regression analysis that examined predictors of linguistic improvement. To calculate the effect size, Cohen's d statistic was used. Results with $p < 0.05$ were considered statistically significant. Quantitative analysis is based on Cohen, (1988). Qualitative data analysis employed a thematic analysis based on a codebook by Braun and Clarke (2006). Provide guidelines for this type of analysis. A hybrid inductive-deductive coding framework was used in NVivo for qualitative data analysis. An iterative codebook was constructed. Collaborative coding cycles were used to ensure consistency in analysis across data sets. Reliability tests using Cohen's κ statistic yielded a coefficient of 0.82, indicating substantial agreement. Discrepancies in coding were resolved through discussions. Integration of results: Display matrices and convergence-divergence analysis were used to integrate results from quantitative and qualitative data analysis (Campbell et al., 2020).

In order to further examine the predictors of linguistic development and the expansion of learner autonomy, two multiple linear regression models were calculated. In Model 1, the outcome variable was the gain in speaking proficiency, measured as the post-test minus pre-test score. In

Model 2, the outcome variable was the gain in learner autonomy, measured as the post-intervention minus pre-intervention composite score.

The independent variables used in this research were: (1) Production Frequency, or the number of finalized uploads per participant; (2) Peer Feedback Engagement, or the mean peer evaluation score and feedback interaction frequency; and (3) Instructor Scaffolding Intensity, or the instructor consultation frequency across cycles. For the control variables, the research used baseline proficiency, gender, and national context. All predictors used in this research were standardized before running the regression. To assess the model's fitness, the researchers used the R^2 and the Adjusted R^2. Statistical significance was also set at $p < .05$. Before running the regression, diagnostic tests were conducted to ensure that all statistical assumptions were met. For example, multicollinearity was not observed among the predictors, as all Variance Inflation Factor (VIF) values were less than 2.0. Residual plots also showed that the residuals approximated normality and homoscedasticity. There were also no influential outliers based on the threshold of the standardized residuals.

Ethical clearance for the study was approved by the institutions before data collection. Informed consent for participation and the use of the videos in education was granted by the students and their guardians. Since the intervention included YouTube videos, additional steps were taken to ensure the privacy of the students. They were made aware of the audience that would view their videos and the possible interaction with people commenting on the videos.

The students also maintained their right to anonymize their personal information, disable comments when needed, and remove their contributions from the analysis at their discretion. All information was safely stored, and the reports used in the analysis did not specify individual students or schools. Ethical measures ensured that all guidelines for social media-based educational research were met, including informed consent, digital identity protection, audience interaction, and creating public content responsibly.

RESULTS AND DISCUSSION

Through quantitative and qualitative analyses, the same pattern in development was identified in the two national contexts. The positive changes in the students' Arabic language abilities, specifically speaking, occurred alongside measurable improvements in their learner autonomy and digital literacy skills. The degree of growth linguistically, with respect to, for example, greater complexity of multimodal production due to genre variance, greater variance in vocabulary, and longer sentences from video productions, coincided with the degree to which students demonstrated proficiency and autonomy growth as demonstrated through cross-national comparisons. The variation between the two countries was primarily related to genre choice and sociocultural expression; the developmental trajectory was very similar. The regression analysis also suggests that the number of times a student produced a multimodal product and how often they engaged in the feedback process is positively correlated to their improvement in both autonomy and speaking ability. Together, these findings suggest that repeated multimodal product production, subsequent reflective revision, and public interaction coincide with the development of linguistic, metacognitive, and digital competencies regardless of institutional context.

Arabic Language Proficiency Development

The results indicate a substantial advancement for both Malaysian and Indonesian students in total Arabic language abilities due to a content creation intervention using YouTube video production as a classroom resource. Overall skill areas were improved, and the results of video production as an intervention can be validated via pre- and post-test differences, therefore demonstrating the effectiveness of using video as a pedagogical device in supporting improved Arabic performance in Upper Secondary Students in both countries. To quantify the extent of improvement in overall Arabic language proficiency, paired pre-posttest comparisons were conducted for both national cohorts. The descriptive statistics and inferential results are summarized in Table 1.

Table 1. Pre–Post Arabic Language Proficiency Test Results

Country	Pre-test M (SD)	Post-test M (SD)	t	p	d
Malaysia	67.8 (12.6)	78.4 (11.9)	8.73	< .001	0.86
Indonesia	66.2 (13.4)	76.1 (13.4)	8.21	< .001	0.76

Before and after the 16 weeks of the intervention in both cohorts, the increase in overall proficiency listed above was significant (Malaysia: $t(119) = 8.73$, $p < .001$, $d = 0.86$; Indonesia: $t(119) = 8.21$, $p < .001$, $d = 0.76$). Also, as would be expected from production-intensive pedagogical designs (Cohen, 1988). The effect sizes validate that the improvement in overall proficiency in produce-production programs is very large. There was no statistically significant overall proficiency gain between the 2 national cohorts ($p = .14$), which suggests that there is not a significant difference in developmental impact across institutional contexts.

To examine whether the magnitude of proficiency gains differed between national cohorts, an independent-samples t-test was conducted on gain scores (post-test minus pre-test). The difference in overall proficiency gain between Malaysian ($M = 10.6$, $SD = 6.8$) and Indonesian students ($M = 9.9$, $SD = 7.1$) was not statistically significant, $t(238) = 1.49$, $p = .138$, Cohen's $d = 0.19$. Nonetheless, the lack of a statistically significant difference does not imply that both groups exhibit formal equivalence; an equivalence test would have been needed to perform equivalence testing. Therefore, while both groups had meaningful within-group improvements, the magnitude of improvement was similar across countries.

Skill-specific analysis revealed a differentiated developmental pattern. Speaking ability demonstrated the strongest improvement in both groups (Malaysia: $d = 1.04$; Indonesia: $d = 0.94$), reflecting the oral-productive demands of video creation tasks. Listening skills also improved substantially ($d = 0.76–0.81$), consistent with the iterative self-review and peer-evaluation processes embedded in the intervention. Writing gains were moderate ($d = 0.58–0.63$), attributable primarily to scripting and revision activities. Reading comprehension, however, showed comparatively modest improvement (Malaysia: $d = 0.41$; Indonesia: $d = 0.38$), a pattern expected given the intervention's limited emphasis on text-based receptive tasks and consistent with task-specificity principles in CALL research. To further illustrate the magnitude of improvement across specific language skills, effect sizes were calculated for each skill domain. The results are presented in Table 2.

Table 2. Skill-Specific Effect Sizes for Arabic Language Proficiency Gains

Skill	Malaysia d	Indonesia d	Note
Speaking	1.04	0.94	Largest gains; consistent with oral-productive focus of video creation tasks
Listening	0.81	0.76	Substantial improvement; attributable to iterative self-review and peer evaluation
Writing	0.63	0.58	Moderate gains; primarily derived from scripting and revision activities
Reading	0.41	0.38	Modest gains; reflecting limited emphasis on text-based receptive tasks in the intervention

Note: Effect sizes interpreted using Cohen's (1988), where small effects are indicated by $d = 0.20$, medium effects by $d = 0.50$, and large effects by $d = 0.80$. All effect size calculations are based on paired sample comparisons ($n = 120$ per country).

The improvement in pronunciation and speaking skills is consistent with recent technological advances in speech analysis systems that facilitate accurate diagnosis and improvement in pronunciation (Liu et al., 2023). Although this study does not use technological systems for peer and instructor feedback, the video production process itself is a self-improvement tool for pronunciation. This process could be more effectively harnessed in the future by incorporating technological systems for pronunciation improvement.

Content Analysis of YouTube Videos

The content analysis of 240 student-produced videos demonstrated three dominant genres across both contexts, with notable variations between Malaysian and Indonesian learners in their genre preferences. To examine the distribution of genres across the student-produced videos, a content classification was conducted based on dominant communicative purposes and narrative structures. The distribution of these genres across the two national cohorts is presented in Table 3.

Table 3. Distribution of Student-Produced Video Genres

Genre	Malaysia n (%)	Indonesia n (%)	Total n (%)
Cultural vlogs	49 (40.8%)	43 (35.8%)	92 (38.3%)
Language tutorials	35 (29.2%)	44 (36.7%)	79 (32.9%)
Narrative storytelling	27 (22.5%)	24 (20.0%)	51 (21.3%)
Other (documentary, interview, etc.)	8 (6.7%)	10 (8.3%)	18 (7.5%)
Total	120 (100%)	120 (100%)	240 (100%)

Note: Independent coders did systematic multimodal analyses and achieved perfect inter-coder reliability with regard to genre classification ($\kappa = 0.82$). The category labelled “Other” is intended for documentary-style productions, interviews, and hybrid genre productions that do not clearly fall into either one of the three main categories. The Malaysian students preferred cultural vlogs; the Indonesian students had a preference for language tutorial-type formats.

Content analysis identified four genre categories in the two national contexts. Cultural vlogs dominated overall (38.3%), though Malaysian students used this genre to a higher extent (40.8%) compared to Indonesian students (35.8%), possibly due to the emphasis on Islamic heritage and religious cultural identity. Indonesian students used language tutorial formats to a slightly higher extent (36.7%) compared to Malaysian students (29.2%), which may relate to the explicit instruction-based culture in Indonesian Islamic secondary education. The small but theoretically interesting category of 'Other' (7.5%) included hybrid and documentary formats, suggesting genre innovation in higher proficiency students.

In terms of genre, cultural vlogs and language tutorials dominated in both cohorts. However, there were more Islamic spaces and cultural heritage-related content from the Malaysian students, and more tutorial-style instructional videos from Indonesian students, reflecting their more explicit teaching tradition. Thematic analysis also indicated some recurring themes in terms of content. These included religious identity, daily life, traditional and modern culture, academic life, food traditions, travel, experiences in language learning, social issues, and humor. More religious content emerged from the Malaysian students, whereas more sociocultural diversity in content emerged from Indonesian students.

The linguistic analysis showed increased grammatical complexity and lexical variety over the intervention period, as well as unique code-switching tendencies that were affected by the multilingual settings of the countries. The Malaysian learners showed code-switching tendencies between Arabic, Malay, and English, while the Indonesian learners showed code-switching tendencies between Arabic and Indonesian. The sentence length and lexical variety increased over the cycles of production, indicating linguistic development through the repetition of video production.

Increased metalinguistic awareness and more strategic uses of language were connected with more complex interactions with multiple modes over time, as evidenced by the linguistic complexity found in the videos later produced. Other studies have reported similar trajectories among learners who produced video stories by using iterative processes of production and revision. Iterative production and revising resulted in increased sophistication of vocabulary and elaboration of sentences in digital storytelling and learner-created videos. (Jao et al., 2025; Liang et al., 2023). Studies on multimodal composition in second language contexts have also shown that publicly oriented digital composition is related to greater focus on linguistic form and communicative clarity (Chen et al., 2025; Lim et al., 2021). In this study, the public nature of composition for YouTube upload was related to observable enhancements in linguistic refinement across production cycles, including notable enhancements in lexical diversity and syntactic length.

Learner Autonomy Development

Both cohorts reported substantial gains in learner autonomy, reflected through improvements in goal-setting, self-monitoring, self-evaluation, and resource-management abilities. Changes in learner autonomy were measured through a pre–post questionnaire covering four key dimensions of self-regulated learning. The descriptive statistics for each dimension across the two national cohorts are presented in Table 4.

Table 4. Learner Autonomy Questionnaire Scores (Pre–Post)

Dimension	Malaysia Pre	Malaysia Post	Indonesia Pre	Indonesia Post
Goal-setting	3.38 (0.81)	4.21 (0.69)	3.31 (0.84)	4.18 (0.73)
Self-monitoring	3.14 (0.87)	3.98 (0.76)	3.19 (0.82)	3.94 (0.78)
Self-evaluation	3.30 (0.79)	4.11 (0.71)	3.24 (0.83)	3.96 (0.74)
Resource mgmt.	3.48 (0.74)	4.19 (0.67)	3.41 (0.77)	3.98 (0.71)

Note: All pre–post comparisons were statistically significant ($p < .001$). Effect sizes calculated using Cohen's d. Score range: 1–5 (Likert scale). Effect sizes across autonomy dimensions ranged from d = 0.69 (resource management, Indonesia) to d = 1.06 (goal-setting, Malaysia), all falling within the medium-to-large range (Cohen, 1988).

Multiple regression analyses were conducted to identify predictors of speaking proficiency gain and learner autonomy development. As shown in Table 6, production frequency emerged as the strongest predictor of speaking gain ($\beta = .38$, $p < .001$), followed by peer-feedback engagement ($\beta = .29$, $p < .001$) and instructor scaffolding ($\beta = .19$, $p = .003$). The overall model explained 42% of the variance in speaking improvement ($R^2 = .42$).

A similar pattern was observed for autonomy development. Production frequency ($\beta = .34$, $p < .001$), peer-feedback engagement ($\beta = .27$, $p < .001$), and instructor scaffolding ($\beta = .23$, $p < .001$) significantly predicted autonomy gain, accounting for 38% of the variance ($R^2 = .38$). Control variables, including gender and national context, were not statistically significant predictors in either model. These findings indicate that structured production intensity and feedback engagement systematically contributed to both linguistic and metacognitive development across contexts.

The results found in this research can be characterized as congruent with a growing body of literature about how learners develop autonomy through digital media. Specifically, these findings are consistent with prior work on developing metacognitive strategies and self-regulated learning behaviours (Chong & Reinders, 2025). In addition, there was a marked increase in the amount of autonomous behaviour exhibited by the learners on the two dimensions of goal setting and self-evaluation, indicating that many activities in content creation focus on supporting reflection and will continue to do so after language acquisition has been completed.

Digital Literacy Competencies

Students achieved notable development in digital literacy across all evaluated domains, with content-creation skills showing the greatest improvement. To assess the extent of digital literacy development associated with the intervention, effect sizes were calculated across six competency domains. The results are summarized in Table 5.

Table 5. Effect Sizes for Digital Literacy Gains

Competency Domain	Malaysia *d*	Indonesia *d*	Combined *d*
Technical skills	1.02	0.89	0.96
Information literacy	0.71	0.68	0.69
Communication & collaboration	0.88	0.79	0.84
Digital content creation	1.09	0.98	1.04
Critical thinking	0.61	0.58	0.59
Problem solving	0.74	0.71	0.72

Note: Effect sizes interpreted using Cohen's (1988) conventions: small (d = 0.20), medium (d = 0.50), large (d = 0.80). Malaysia consistently demonstrated marginally higher gains in technically demanding domains. To identify which instructional factors most strongly contributed to speaking proficiency improvement, a multiple regression analysis was conducted using production frequency, peer-feedback engagement, and instructor scaffolding as predictors. The results of the regression model are presented in Table 6.

Table 6. Multiple Regression Model Predicting Speaking Proficiency Gain (N = 240)

Predictor	B	SE	β	t	p	95% CI
Production frequency	0.42	0.08	.38	5.12	< .001	[.26, .58]
Peer-feedback engagement	0.31	0.07	.29	4.43	< .001	[.17, .45]
Instructor scaffolding	0.18	0.06	.19	3.01	.003	[.06, .30]
Baseline proficiency	0.27	0.09	.21	2.98	.003	[.09, .45]
Gender (control)	0.04	0.05	.05	.82	.412	[-.06, .14]
National context	0.07	0.06	.08	1.11	.269	[-.05, .19]

Model Summary: R^2 = .42 | Adjusted R^2 = .40 | F(6, 233) = 27.84, p < .001. A second regression analysis was conducted to examine predictors of learner autonomy development. The results of this model are reported in Table 7.

Table 7. Multiple Regression Model Predicting Learner Autonomy Gain (N = 240)

Predictor	B	SE	β	t	p	95% CI
Production frequency	0.36	0.07	.34	4.97	< .001	[.22, .50]
Peer-feedback engagement	0.28	0.06	.27	4.21	< .001	[.15, .41]
Instructor scaffolding	0.22	0.05	.23	3.88	< .001	[.11, .33]
Baseline autonomy	0.19	0.08	.17	2.45	.015	[.04, .34]
Gender (control)	0.03	0.04	.04	.73	.468	[-.05, .11]
National context	0.05	0.05	.06	.94	.349	[-.05, .15]

Model Summary: R^2 = .38 | Adjusted R^2 = .36 | F(6, 233) = 23.41, p < .001. Note. B = unstandardized coefficient; β = standardized coefficient. All predictors were standardized before estimation. This confirms that language-learning tasks incorporating media production meaningfully build transferable 21st century competencies, reinforcing multiliteracies pedagogy principles.

The substantial gains in digital content creation competencies confirm that language learning tasks can simultaneously develop 21st century digital fluencies. Research on multimodal content creation with educational technologies demonstrates similar patterns, where students perceive significant benefits in both linguistic and technological domains (Jao et al., 2025). These dual outcomes position Arabic language programs as valuable contributors to broader institutional goals around digital citizenship and technological literacy. In addition to learning outcomes, descriptive engagement metrics from YouTube analytics were examined to contextualize audience interaction with the student-produced videos. The descriptive statistics for these engagement indicators are presented in Table 8.

Table 8. Descriptive Statistics of YouTube Engagement Metrics by Country

Metric	Malaysia Median (IQR)	Indonesia Median (IQR)
Views	412 (260–785)	538 (310–940)
Likes	28 (15–47)	35 (18–62)
Comments	6 (2–11)	9 (4–16)
Watch time (minutes)	134 (88–241)	168 (102–295)

Note: The values shown here represent the median and IQR of each engagement metric because the distributions of those metrics are not normally distributed. All of these were used descriptively as contextual indicators of audience engagement/interaction and were not treated as inferential outcome variables in the statistical models.

YouTube analytics indicated that there was a high level of audience engagement for the Indonesian audiences we studied. Analysis of comments indicated that comment writers are creating authentic and constructive feedback communities and that a large proportion of comments referred to language choices used by the individuals in the comments, cultural content, and production quality. This level of authentic interaction created communication relevance to the real world and created value in peer-driven learning that extends beyond formal boundaries.

The students reported that through iterative editing, they improved their speaking confidence, cultural awareness, and opportunities for meaningful communication as well as their metacognitive skills. The collaborative nature of group assignments contributed to students' co-learning experiences, enhancing their ability to creatively express themselves. Digital media skills were viewed as an important asset for future academic and career settings. Students reported several challenges in completing the assignments, including time pressures, technical obstacles, and anxiety related to speaking fluently in Arabic. Malaysian students indicated they had higher expectations of being "perfect" (performance perfectionism) than Indonesian students; conversely, Indonesian students experienced more frequent limitations related to the country's infrastructure.

The students also exhibited tendencies related to cross-cultural style, tone, and language use in the video content they created. Malaysian students tended to select more formal linguistic registers, place a greater emphasis on Islamic culture, and utilize more conservative design styles compared to Indonesian students. Indonesian students utilized more informal linguistic registers, created more visually colorful and diverse videos, and created more collaborative videos than Malaysian students. These tendencies demonstrate how sociocultural identity influenced students' public performances of the Arabic language through digital media.

This research offers conclusive proof that Arabic language proficiency, especially speaking proficiency, can be greatly improved through YouTube-based content creation, while at the same time promoting autonomy, digital literacy, and cultural competence. The results are in line with, and in some areas exceed, the findings of similar CALL intervention studies of comparable length, thus confirming the validity of using authentic digital production environments for learning. The cross-national similarities in language development support the generalizability of this approach, while the cultural differences in content demonstrate the need to enable students to articulate their identity and context in Arabic.

The intervention supported key concepts of sociocultural learning theory consider, for example, Vygotskian interaction and feedback, while also resonating with multiliteracies pedagogy in its focus on multimodal meaning-making, and autonomy theory in its emphasis on self-regulated learning practices. The challenges identified suggest a continued need for greater scaffolding, equitable and comprehensive access to technology, and a more nuanced approach to assessment. A conceptual framework is thus developed from this research, referred to as the Digital Content Creation Framework, which conceptualizes digital content production as a cognitive activity (supporting language learning), a social activity (enabling authentic communication), and an identity-building process (constituting voice and representation). Future research should expand to include participants of varying levels of proficiency, track participants longitudinally, and explore these concepts using other digital tools in order to further generalize findings.

Our results show that tasks centred on content creation for YouTube result in large gains in speaking ability and autonomy. This extends the remit of existing Arabic EdTech research, which was largely consumption- or tool-based (Al-Abdullatif & Alsubaie, 2022; Haq et al., 2024). By shifting from exposure to authentic multimodal production, this study operationalizes the multiliteracies agenda for Education 4.0 advanced by Lim et al. (2021), and demonstrates a clear transfer to digital literacy and speaking ability. The autonomy gains confirm that digitally enabled learning can promote self-regulation and critical agency (Chen & Liu, 2025), Moreover, the effect sizes indicate that participatory content creation with feedback support is more effective than conventional classroom learning and most game- or platform-based interventions in Arabic Computer-Assisted Language Learning (CALL) (Ghani et al., 2022; Saad et al., 2025).

Crucially, the cross-national study moves the frontiers of sociocultural theorizing forward by illustrating how the religio-formal register in Malaysia and the diverse, informal creative practices in Indonesia impact learners' public performance of Arabic in online environments, thus directly responding to regional under-documentation as recently identified in bibliometric and trend analyses (Khusnadin et al., 2025). From a methodological standpoint, our convergent-parallel mixed-methods approach, with 240 participants and a rigorously sampled collection of 240 multimodal artifacts from a validated corpus of 600 finalized uploads, adds significant scope and ecological validity to the field of Arabic CALL (Creswell & Clark, 2017). From a research perspective, the combined theoretical framework for creating digital content emphasizing Sociocultural Theory, Multiliteracies Pedagogy, and Learner Autonomy is used to illustrate a pathway of development in which multimodal observation through interactional mediation supports self-regulated learning cycles that connect structured output with proficiency growth within the area of digital content creation (Liang et al., 2023; Li et al., 2025).

Although future research should incorporate randomized controls and longitudinal follow-ups, the present findings already support policy-level integration of structured content-creation tasks to address persistent gaps in authentic communication, youth engagement, and 21st century competencies in Arabic senior secondary education (Chiu, 2024; Pellas, 2025). The results have implications for teaching Arabic in terms of teaching Arabic as a second/foreign language using technology (digitally mediated) and integrating all three areas of development (speaking development), learner independence, and digital skills. This means integrating structured multimodal content creation tasks within the Arabic curriculum to support the development of speaking skills, learner independence, and digital skills in students at the same time, instead of treating technology (digital tools) as an adjunct resource. The authors recommend that the use of video production cycles, peer review, and revision with regard to the use of video production cycles be embedded as essential instructional elements of the curriculum in the multilingual (Islamic) senior secondary classroom, where there is little to no opportunity to practice authentic communication.

From a theoretical standpoint, the research will advance Arabic CALL research by putting forth a production-based developmental model, where interactional mediation, multimodal noticing, and self-regulated learning cycles are linked to measurable improvements in proficiency. In addition to its cross-national geographic design, this research will further establish that these developmental models do not exist within a singular ecological system, and thus enhance the generalizability of production-oriented Arabic pedagogy in comparable Southeast Asian contexts.

On the policy front, the results of this research promote the following: institutional investment in digital content creation infrastructure, faculty development in multimodal assessment, and curriculum change that integrates Arabic language education with the communicative needs of the 21st century. These implications situate digital production by learners not only as an innovation but also as a structurally informed pedagogical practice for sustainable Arabic language development.

In addition to having short-term gains in students' language acquisition, the results support a realignment of how Arabic is taught in a participatory model of digital or electronic production as opposed to a transmission model. The iterative multimodal creation that occurs through the implementation of formal curriculum in Arabic programs has the potential to decrease the historical gap between what students learn in a classroom setting and how to use the target language in real life by creating a bridge of opportunity for students to engage in authentic language use. The patterns of development identified through cross-national comparisons illustrate that production-based models of instruction represent an adaptation of pedagogical practices that can be used in many different multilingual Islamic educational contexts. Therefore, student-created digital or electronic production represents not only an advancement in technology for teaching but also a sustainable model of instructional design that is in alignment with recent theories of mediated learning, identity development, and the development of competencies needed to be successful in the 21st century.

LIMITATIONS

There are some limitations to this study that need to be kept in mind when interpreting results. All participants were high school-aged and were from Islamic-centered educational institutions (Madrasah Aliyah). As such, results may have limited applicability to university students, elementary schools, and/or non-Islamic educational institution environments. The intervention resulted in a total of 600 learner-created videos, but only 240 of those videos were used for the multi-modal analysis. Therefore, there may have been some video production patterns that were not captured through the selection of recordings. The absence of a randomized control group limits the strength of causal inferences regarding the intervention's effectiveness, situating the findings within a quasi-experimental rather than fully experimental design. In addition, while the sixteen-week time frame is pedagogically appropriate, it limits the ability to analyze long-term learning retention and autonomy development. Differences in technical infrastructure and available resources across sites might also have impacted the participants' ability to learn and perform in a digital environment. Longitudinal, multi-level, and experimental research on Arabic CALL that addresses these limitations will help develop stronger theoretical and pedagogical claims for future research.

CONCLUSION

This cross-national study offers robust empirical support for the claim that YouTube content creation is a transformative and culturally responsive pedagogy for Arabic language learning in Southeast Asia. By placing learners at the centre of the learning process as active producers rather than passive recipients, this intervention has made a profound impact on language proficiency, especially speaking proficiency, while also promoting autonomy, digital competency, and deep engagement with Arabic as a dynamic communicative practice. This study offers a contribution to the growing body of research on creative digital language pedagogies by illustrating that content creation offers a range of affordances for linguistic noticing, self-regulated learning, cultural expression, and identity performance. These findings confirm theoretical claims made in the literature on sociocultural theories of learning and multiliteracies, extending these theories into the Arabic language learning domain, which has traditionally been characterized by text-based and teacher-centered pedagogies. The cross-national research design and methodology used in this study add important comparative data to a body of literature that remains dominated by single-country studies. The analysis of Arabic learning in two different but related settings suggests the applicability of digital content creation strategies while underscoring the importance of culturally responsive implementation. The results of this study are of particular importance to Arabic learning in multilingual Islamic societies, where language learning objectives often overlap with religious, cultural, and transnational communicative needs. While this study is circumscribed by its attention to sample specificity, the lack of randomized controls, short-term longitudinal data, multimodal analysis of artifacts, and variations in contextualized institutional support, it is important to note that these limitations do not affect the methodological rigor and cross-national focus of the study.

Future studies should employ longitudinal and experimental methodologies, investigate the implementation process at various levels of proficiency as well as in different institutional settings, and investigate the variability of platforms in new digital media environments. The topics of infrastructure equity, digital ethics, and culturally responsive scaffolding are, of course, also important and relevant to the expanding use of technology-enhanced Arabic learning.

AUTHOR CONTRIBUTIONS

SB was the supervisor of this work, and he provided project-level guidance and helped in the development of the research design. NH played a key role in the writing process, and he developed the theoretical framework and integrated the results of the mixed-methods approach. MTH helped in designing the methodological procedures and assisted in the field implementation of the research. AA played a key role in the quantitative statistical analysis and helped in the validation of the results. MS helped in the qualitative coding and assisted in the validation of the themes. NAF

coordinated data collection in Malaysia, ensured consistency in cross-national procedures, and contributed to the comparative interpretation of results.

ACKNOWLEDGMENT

The authors express their sincere gratitude to Universitas Islam Internasional Darullughah Wadda'wah (UII Dalwa), Universitas Islam Negeri Jurai Siwo Lampung, Universitas Ma'arif Lampung, and the International Islamic University Malaysia for their institutional support throughout the research process. The authors are also indebted to the lecturers, facilitators, and students who actively participated in the YouTube-based learning intervention and contributed valuable insights during data collection. Their commitment and collaboration made this cross-national study possible. The participating schools were academically supervised or affiliated with the aforementioned higher education institutions.

REFERENCES

Abdel-Malek, M. (2023). *Arabic genre pedagogy: Teaching, learning, and assessing in context* (1st edn). Routledge. https://doi.org/10.4324/9781003193265

Abu-Rabiah, E. (2025). Effects of idioms on teacher ratings of L2 writing quality and lexical diversity, and assessment challenges. *LLT Journal: A Journal on Language and Language Teaching*, *28*(2), 882–901. https://doi.org/10.24071/llt.v28i2.12112

Adimayuda, R., Suhandi, A., Samsudin, A., Suhendi, E., Setiawan, A., & Fratiwi, N. J. (2025). Breaking misconceptions: Technology-integrated MORE model for meaningful learning of momentum and impulse. *Online Learning In Educational Research (OLER)*, *5*(1), 25–40. https://doi.org/10.58524/oler.v5i1.606

Ahmadi, A., Ilmiani, A. M., Febrianta, R., & Daud, M. (2024). Optimising Arabic language learning management: Digitalisation efforts. *Al-Ta'rib : Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya*, *12*(1), 215–228. https://doi.org/10.23971/altarib.v12i1.8325

Al-Abdullatif, A. M., & Alsubaie, M. A. (2022). Using digital learning platforms for teaching Arabic literacy: A post-pandemic mobile learning scenario in Saudi Arabia. *Sustainability*, *14*(19), 11868. https://doi.org/10.3390/su141911868

Alasmari, T. (2025). Artificial intelligence and m-learning in Arabic countries: Innovations, trends, and regional perspectives. *International Journal of Interactive Mobile Technologies (iJIM)*, *19*(05), 170–194. https://doi.org/10.3991/ijim.v19i05.52735

Albarqi, G. (2025). Speech fluency among L1 Arabic elementary and intermediate learners of English as a foreign language. *International Review of Applied Linguistics in Language Teaching*. https://doi.org/10.1515/iral-2024-0176

Al-Mallahma, M. S. I. (2025). Technological advancements in Arabic language pedagogy: Bridging the gap between tradition and innovation. In A. M. A. Musleh Al-Sartawi, A. I. Nour, & I. Abdeljawad (Eds), *Business resilience and business innovation for sustainability* (Vol. 587, pp. 2855–2868). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-87584-7_209

Arisandi, Y., & Habib, M. T. (2025). Optimizing YouTube for interactive arabic learning in pesantren: Effective content creation strategies. *International Journal of Arabic Language Teaching*, *7*(02), 239–254. https://doi.org/10.32332/ijalt.v7i02.10363

Arkan, Z. (2026). Evaluation of listening activities in Arabic language teaching textbooks used in Turkey in light of the CEFR criteria. *Asian-Pacific Journal of Second and Foreign Language Education*, *11*(1), 10. https://doi.org/10.1186/s40862-025-00366-5

Bahy, M. B. A., Ainin, Moh., Rosyidi, A. W., Rahman, A., Syaifullah, M., & Naf'an, A. W. (2024). Digitalization of Arabic language textbook based on communicative learning to improve the linguistic competence of Madrasah Tsanawiyah students. *An Nabighoh*, *26*(1), 67–78. https://doi.org/10.32332/annabighoh.v26i1.67-78

Boulaares, D. (2025). Cultural immersion and advanced L2 Arabic speaking: A CEFR-aligned quasi-experimental study. *Traduction et Langues*, *24*(2), 104–135. https://doi.org/10.52919/translang.v24i02.1053

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Campbell, R., Goodman-Williams, R., Feeney, H., & Fehler-Cabral, G. (2020). Assessing triangulation across methodologies, methods, and stakeholder groups: The joys, woes, and politics of interpreting convergent and divergent data. *American Journal of Evaluation*, *41*(1), 125–144. https://doi.org/10.1177/1098214018804195

Chen, A., Zhang, Y., Jia, J., Liang, M., Cha, Y., & Lim, C. P. (2025). A systematic review and meta-analysis of AI -enabled assessment in language learning: Design, implementation, and effectiveness. *Journal of Computer Assisted Learning*, *41*(1), e13064. https://doi.org/10.1111/jcal.13064

Chen, L., & Liu, C. (2025). Critical learner autonomy in the digital language learning context. *TESOL Journal*, *16*(1), e906. https://doi.org/10.1002/tesj.906

Chiu, T. K. F. (2024). Future research recommendations for transforming higher education with generative AI. *Computers and Education: Artificial Intelligence*, *6*, 100197. https://doi.org/10.1016/j.caeai.2023.100197

Chong, S. W., & Reinders, H. (2025). Autonomy of English language learners: A scoping review of research and practice. *Language Teaching Research*, *29*(2), 607–632. https://doi.org/10.1177/13621688221075812

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd edn). Routledge. https://doi.org/10.4324/9780203771587

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. SAGE Publications.

Ghani, M. T. A., Hamzah, M., Wan Daud, W. A. A., & Muhamad Romli, T. R. (2022). The impact of mobile digital game in learning Arabic language at tertiary level. *Contemporary Educational Technology*, *14*(1), ep344. https://doi.org/10.30935/cedtech/11480

Gu, B., Siraj, S. B., & Ismail, Z. B. (2025). The effectiveness of a digital literacy-integrated syllabus for Arabic-speaking courses in teacher education universities in China. *Journal of Curriculum and Teaching*, *14*(1), 202. https://doi.org/10.5430/jct.v14n1p202

Habib, M. T. (2025). Classroom action research on digital interactive learning for Arabic speaking development in islamic junior high schools. *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab*, *1*(1), 12–22. https://doi.org/10.38073/almuhawaroh.v1i1.2495

Hamid, M. O. (2025). Pedagogy as bountiful giving: L2 Arabic for adult learners beyond formal education. *Language Teaching Research*, 13621688251394494. https://doi.org/10.1177/13621688251394494

Haq, A. Z., Akmansyah, M., Erlina, E., & Koderi, K. (2024). Technology integration in arabic language learning: A literature review on the effectiveness of e-learning and mobile applications. *Journal of Research in Instructional*, *4*(2). https://doi.org/10.30862/jri.v4i2.473

Jao, C.-Y., Fu, J. S., & Yeh, H.-C. (2025). Exploring students' perceived benefits of multimodal content creation with social robots in language learning. *Interactive Learning Environments*, 1–14. https://doi.org/10.1080/10494820.2025.2498538

Khusnadin, M. H., Mandaka, D. A. P., Fadhlurrahman, Z., Anwar, Z., & Safrudin, R. (2025). The research on technology in Arabic language learning: A bibliometric analysis (1993-2024). *LINGUA: Jurnal Bahasa, Sastra, Dan Pengajarannya*, *21*(2), 309–324. https://doi.org/10.30957/lingua.v21i2.1045

Li, Y., Zhou, X., Yin, H., & Chiu, T. K. F. (2025). Design language learning with artificial intelligence (AI) chatbots based on activity theory from a systematic review. *Smart Learning Environments*, *12*(1), 24. https://doi.org/10.1186/s40561-025-00379-0

Liang, J.-C., Hwang, G.-J., Chen, M.-R. A., & Darmawansah, D. (2023). Roles and research foci of artificial intelligence in language education: An integrated bibliographic analysis and systematic review approach. *Interactive Learning Environments*, *31*(7), 4270–4296. https://doi.org/10.1080/10494820.2021.1958348

Lim, F. V., Towndrow, P. A., & Tan, J. M. (2021). Unpacking the teachers' multimodal pedagogies in the primary English language classroom in Singapore. *RELC Journal*, *54*(3), 729–743. https://doi.org/10.1177/00336882211011783

Liu, L., Li, W., Morris, S., & Zhuang, M. (2023). Knowledge-based features for speech analysis and classification: Pronunciation diagnoses. *Electronics*, *12*(9), 2055. https://doi.org/10.3390/electronics12092055

Mahmudi, I., Putri, S. F., Islami, D. F., Nabila, K., & Azizah, R. N. (2025). Arabic vocabulary test standars for beginners according to Common European Framework of Reference for Languages (CEFR). *Arabiyat : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban*, *12*(2), 157–172. https://doi.org/10.15408/a.v12i2.47096

Maryam, S., Sutaman, S., Huda, M., Rasyid, M., & Dissanayake, B. Y. (2025). Student engagement with the Arabic language on social media: A media exposure approach to language learning. *Izdihar : Journal of Arabic Language Teaching, Linguistics, and Literature*, *8*(1), 87–104. https://doi.org/10.22219/jiz.v8i1.36201

Morales, U., Lopez, V., Joanan, S., & Julia, H. (2023). Artificial intelligence as a support for Arabic language learning in higher education with VOSviewer analysis. *Journal International Inspire Education Technology*, *1*(3), 25–37. https://doi.org/10.55849/jiiet.v1i3.207

Munapi, M., Abdurrahman, M. F., Ibad, M. I., & Mubarak, F. (2025). Integrating technology in remote Arabic language education: Opportunities and challenges. *Al-Muhawaroh: Jurnal Pendidikan Bahasa Arab*, *1*(1), 36–46. https://doi.org/10.38073/almuhawaroh.v1i1.2645

Nuangchalerm, P. (2025). Optimization of teachers ' digital competence in the development of wordwall as interactive learning platform. *Interdisciplinary Journal of Pedagogy and Research in Media Technology*, *01*(01), 1–10. https://doi.org/10.64268/inspire.v1i1.1

Omar, S., Shaharuddin, W. Y. W., Azim, N. A. F. A., Nawi, N. S. M., Zaini, N., & Syahfutra, W. (2021). Academic motivation in English online classes: A comparative study of Universities in Malaysia and Indonesia. *Indonesian Journal of Applied Linguistics*, *11*(2). https://doi.org/10.17509/ijal.v11i2.34538

Pellas, N. (2025). Effects of generative AI feedback and interactive video assessment on student learning achievement in philological content creation courses. *Journal of Educational Computing Research*, 07356331251372800. https://doi.org/10.1177/07356331251372800

Ramadhan, G., Rahmawati, R., Hadi, S., & Gustian, N. (2025). Designing an innovative digital learning material for Arabic vocabulary in Madrasah Tsanawiyyah. *An Nabighoh*, *27*(2), 323–342. https://doi.org/10.32332/an-nabighoh.v27i2.323-342

Riadi, B., Fuad, M., Yulianti, D., & Firdaus, R. (2024). Social, Cognitive, Teaching, and Technology Presence in Blended Inquiry Learning: A Higher Education Study. *Online Learning In Educational Research (OLER)*, *4*(2), 143–155. https://doi.org/10.58524/oler.v4i2.507

Saad, R., Baharudin, H., & Nik Yusoff, N. M. R. (2025). The use of digital teaching tools to support Arabic speaking skills in secondary school: A systematic literature review. *Educational Process International Journal*, *17*(1). https://doi.org/10.22521/edupij.2025.17.404

Samah, R. B., Rosni, N. B., Isahak, A. B., & El Saeid, H. A. (2026). The preferred strategies among high-achieving students in Malaysian religious secondary schools for learning the Arabic language. *Ijaz Arabi Journal of Arabic Learning*, *8*(3). https://doi.org/10.18860/ijazarabi.v8i3.34752

Sukmayadi, V., & Yahya, A. H. (2020). Indonesian education landscape and the 21st century challenges. *Journal of Social Studies Education Research*, *11*(4), 219–234.

Surya, J., Suryani, Y., & Saregar, A. (2022). Physics vlogs learning videos on parabolic motion on youtube channels based on scientific approach. *Online Learning In Educational Research (OLER)*, *2*(1), 19–29. https://doi.org/10.58524/oler.v2i1.108

Yassin, B. (2024). Enhancing English as a foreign language learning in Saudi Arabia: The academic contribution of YouTube in EFL learning and cultural awareness. *Frontiers in Education*, *9*, 1451504. https://doi.org/10.3389/feduc.2024.1451504