

Between Assistance and Dependence: Adolescent EFL Learners' AI Use in Informal Islamic Education

Anis Khoirunnisa Syahrussalamah¹, Dedi Sulaeman², Anugrah Imani³

UIN Sunan Gunung Djati Bandung

Email: anissyahrussalamah@gmail.com

Abstract

This study examines how adolescent EFL learners in a low-exposure informal Islamic education context perceive and use AI tools for English language learning. Using a survey-based descriptive design, data were collected from 41 learners aged 11-17 at a Taman Pendidikan Qur'an (TPQ) in semi-urban West Java, Indonesia, via a bilingual questionnaire administered in April-May 2026. Findings show that Google Translate dominates AI tool use (90%), with ChatGPT adopted by 54% of respondents. Three recurring attitudinal tensions emerged: assistance versus dependence, curiosity versus caution, and informal use versus limited AI literacy. A supplementary comparison of ChatGPT users (n = 22) and non-users (n = 19) indicates that ChatGPT users report lower writing confidence (9% vs. 32%) yet higher cognitive off-loading awareness (59% vs. 47%). A near-unanimous demand for guided AI instruction (71%; zero disagreement) points to an unmet institutional need. These findings suggest that digital access to AI tools does not automatically produce critical AI literacy and that structured instructional scaffolding is needed in low-exposure EFL contexts.

Keywords: *EFL; AI tools; AI literacy; learner autonomy; adolescent learners; low-exposure informal education.*

INTRODUCTION

The swift emergence of AI language tools like neural machine translation and LLM applications like ChatGPT has revolutionized informal language learning for adolescents globally. These tools are increasingly used by learners in English as a foreign language (EFL) contexts, where English is an academic subject and not a language of everyday life, to fill in the holes in their understanding and production beyond the formal classroom (Godwin-Jones, 2022; Kohnke et al., 2023; Javier & Moorhouse, 2024).

The Indonesian EFL context is fertile soil for investigating this. English is a subject in the curriculum, but most secondary learners have few opportunities to use it in any meaningful way outside of the classroom (Lie, 2007; Hamid & Baldauf, 2013). The "low-exposure context" in this study refers to limited use of English outside the classroom, limited exposure to English media, limited institutional

support for AI literacy, over-reliance on translation tools, and access to digital resources through the smartphone.

This research was carried out at Taman Pendidikan Qur'an (TPQ), an informal Islamic religious educational institution managed by the community and widely spread in Indonesian Muslim society that provides recitation of the Qur'an and basic Islamic teaching outside of school hours. English is learned here as a by-product, mostly through the use of AI translation apps on personal smartphones. These institutions serve millions of Indonesian children and adolescents, but they are under-represented in applied linguistics and CALL research. The TPQ captures low English exposure, weak institutional support, and non-formal community-based learning in dimensions not captured by studies of formal secondary schools (Javier & Moorhouse, 2024; Kohnke et al., 2023) or higher education (Golonka et al., 2014; Liu et al., 2024).

The research question guiding this study is, "How do adolescent EFL learners perceive and use AI tools in a low-exposure informal Islamic education setting, and what tensions in attitude do they experience?" Our intention here is not to evaluate the efficiency of the tool but to map the terrain of attitudes, perceived utility, concerns, and hopes that inform young teens' engagement with AI-assisted language learning in this understudied context.

The study makes three contributions to applied linguistics. The first part presents empirical data from an informal Islamic education context, an area that has been under-researched in AI-in-EFL research. Second, it provides a pre-planned comparative sub-analysis of users vs non-users of chatbots, leading to more nuanced attitudinal profiles than aggregate polling. Finally, its conclusions are located within the particular socio-educational constraints of the TPQ, and it therefore provides more contextually relevant pedagogical recommendations than studies conducted in high-exposure or technology-rich settings.

Previous studies have identified translation and grammar-checking as the most common AI-mediated activities among adolescent EFL learners (Golonka et al., 2014; Kohnke et al., 2023; Javier & Moorhouse, 2024). The frequency of use of generative applications (e.g., drafting or practicing conversations) is lower at the same time (Golonka et al., 2014; Kohnke et al., 2023; Javier & Moorhouse, 2024). Lack of literacy scaffolding constrains the perceived affordances of informal AI use by Chinese EFL learners. Liu et al. (2024) demonstrated that. This concern is expected to be more prominent in low-exposure scenarios. Javier and Moorhouse discovered in 2024 that with structured teacher-led activities, ChatGPT can enable

secondary students to participate in productive and critical ways. However, this advantage is contingent upon the instructional framing, which is lacking in informal contexts such as TPQs.

The ability to understand, evaluate, and critically use AI tools is a core skill of twenty-first-century learning (Long & Magerko, 2020; Ng et al., 2021). Swain's (1985) output hypothesis, which claims that productive conflict is helpful for interlanguage development and noticing, and Benson's (2011) definition of learner autonomy as the ability to self-direct learning are relevant to the issue of cognitive dependence. In the scaffolding concept of Vygotsky (1978), AI tools are used as a temporary scaffolding that will be taken away as competence develops. Liu et al. (2024), however, warn that informal use of chatbots could reinforce dependency instead, in the absence of literacy support. However, none of the previous studies have studied the use of AI tools in informal Islamic education for adolescents. So it is not yet clear how these theoretical tensions can be resolved without institutional infrastructure. It is the absence that provokes this inquiry.

METHODS

Research Design

This study used a survey-based exploratory descriptive design, appropriate for preliminary investigation of attitudinal patterns and self-reported behavior in an understudied population, where the goal is pattern identification rather than causal inference (Dörnyei, 2022).

Participants and Research Setting

Participants were a convenience sample from a TPQ in semi-urban West Java, Indonesia. Inclusion criteria were enrollment at the target TPQ, 11–17 years of age, and prior exposure to digital devices. The responses of forty-one participants were valid (female 54%, male 46%; modal age group 13-14, 56%). Institutional permission was obtained from TPQ leadership, and informed consent was obtained from parents or guardians prior to administration, consistent with ethical guidelines.

Research Instruments

Data were collected in April-May 2026 using a bilingual (Indonesian-English) self-report questionnaire on Google Forms. The questionnaire comprised five sections: demographics and self-rated proficiency; frequency of English use outside school; AI tool usage patterns; primary purposes of AI use (multiple response, maximum three); and seven Likert scale attitude items (1 = Strongly Disagree to 5

= Strongly Agree). Before the administration, two experts in EFL pedagogy were asked to check the content validity of the instrument. The seven items on attitude were designed to measure distinct dimensions (perceived utility, confidence, cognitive off-loading, self-efficacy, partner framing, long-term concern, and desire for guided instruction) and not one latent construct. Therefore, items are reported and interpreted separately, rather than as a composite reliability index.

Data Analysis

Frequency and percentage distributions were computed for all variables. Likert responses were coded as Agree, Neutral, or Disagree following standard survey practice in applied linguistics (Dörnyei, 2022). A supplementary descriptive comparison examined response patterns across ChatGPT users ($n = 22$) and non-users ($n = 19$); given the small, non-random subgroup sizes, this comparison is descriptive only, with no inferential tests or causal claims. Three recurring attitudinal tensions were then identified through theoretically informed thematic synthesis, interpreting response distributions against the constructs reviewed above.

FINDINGS AND DISCUSSION

Findings

To summarize the demographic profile of the 41 participants. Smartphone ownership was near-universal as the primary learning device (90%), while only 15% had laptop or computer access, underscoring the smartphone-mediated character of learning in this context. Despite 56% reporting at least weekly English use outside school, 46% rate themselves as basic-level users and 12% as beginners, suggesting frequent but largely passive exposure rather than communicative competence.

Google Translate is the near-universal tool of choice (90%), reflecting its accessibility and zero-cost availability, while ChatGPT use (54%) is notably high given the sample's age and proficiency profile, suggesting accessibility rather than linguistic confidence drives adoption (Kohnke et al., 2023). Only 5% report no AI tool use at all.

Translation remains the dominant purpose (88%), followed by understanding difficult texts (66%) and grammar checking (46%). Notably, completing school assignments (39%) outranks generative uses such as getting ideas for writing (27%) or drafting full text (24%), indicating that assignment

completion, not creative generation, is an emerging pattern that raises sharper questions about autonomous learning than comprehension-oriented uses do.

Discussion

Attitudinal Tensions

Table 1 presents the seven Likert-scale attitude items, interpreted individually rather than as a composite index. Three recurring tensions emerge from these distributions, read alongside the ChatGPT users-versus-non-users comparison in Table 2.

TABLE 1. Distribution of Likert-Scale Attitudinal Responses (N = 41)

Statement	Agree%	Neutral%	Disagree%
AI tools help me improve my English writing	39	51	10
I feel more confident writing in English when using AI	20	56	24
Using AI makes me less likely to think for myself in English	54	32	15
I could write a good paragraph without AI if I tried	63	32	5
AI tools are a useful learning partner, not just a shortcut	54	46	0
I worry that using AI too much will weaken my English long-term	59	29	12
I would like to learn to use AI tools responsibly	71	29	0

Note: Agree = Setuju + Sangat Setuju; Disagree = Tidak Setuju + Sangat Tidak Setuju.

TABLE 2. Agree Percentages: ChatGPT Users vs. Non-Users

Attitude Item	ChatGPT User agree %	Non-users agree %
AI helps improve English writing	36	42
Feel more confident writing when using AI	9	32
AI makes me less likely to think for myself	59	47
Could write a good paragraph without AI	50	79
AI is a useful learning partner, not a shortcut	55	53
Worry AI will weaken English long-term	55	63
Would like to learn to use AI responsibly	73	68

Note. Comparisons are descriptive frequency distributions; no inferential tests were conducted.

Tension I: Assistance vs. Dependence. Only 39% of respondents said AI tools aid their writing skills. However, 54% of the respondents agreed that the use of AI was harmful to independent thinking in English. The lower perceived gain and higher perceived cognitive cost as evidence of asymmetry might be an indication

of lack of instructional scaffolding. Students are more likely to use tools to off-load rather than learn without guidance from the teacher (Kohnke et al., 2023). This is consistent with Liu et al.'s (2024) claim that informal unsupported AI use may foster dependency rather than autonomy and with Swain's (1985) claim that interlanguage development is constrained by the avoidance of productive struggle. Compared to non-users, ChatGPT users show lower writing confidence (9% vs 32%) and higher off-loading awareness (59% vs 47%).

Tension II: Curiosity vs. Caution. Although adoption is high and voluntary (90% Google Translate, 54% ChatGPT), 59% are concerned about the long-term erosion of skill, and only 20% report increased writing confidence. Additionally, 24% are actively disputing. The contrast between the more optimistic findings from formal or higher-exposure settings and the combination of strong uptake, limited reported confidence gain, and substantial apprehension suggests a gap between curiosity about the tools and the caution that predominates without a structured framework for their use.

Tension III: Informal Use vs. Limited AI Literacy. Seventy-one percent (zero disagreement) want to learn to use AI tools responsibly, similar to the view that AI literacy needs to be intentionally cultivated rather than assumed from access alone (Long & Magerko, 2020; Ng et al., 2021), despite extensive autonomous use. Non-users report significantly higher writing self-efficacy than do users of the AI (79% vs. 50%). This is consistent with Liu et al.'s (2024) finding that informal reliance on AI can replace independent effort in the absence of literacy scaffolding.

These collective tensions suggest an informal literacy gap: learners are operating in AI-mediated environments without the scaffolding necessary to critically navigate them. This must be considered an institutional gap and not a failure of the learner and one that requires the partnership of formal and informal education providers. AI practice for students goes beyond the classroom.

CONCLUSION AND SUGGESTION

This study offers an empirical account of adolescent EFL learners' AI-mediated learning in a low-exposure Indonesian TPQ setting. Three recurring attitudinal tensions, assistance versus dependence, curiosity versus caution, and informal use versus limited AI literacy, indicate that learners are situated in AI-mediated contexts without the scaffolding needed to navigate them autonomously and critically. The near-unanimous demand for guided AI instruction (71%) signals an institutional need that has not yet been addressed.

Several practical steps follow. First, a short AI-orientation module could help learners examine sample AI-generated text and discuss when to delegate tasks to AI and when not to. Second, translation-verification tasks, in which learners back-translate and compare Google Translate output, can build metalinguistic awareness without banning a tool learners already rely on. Third, "AI reflection logs" can make assignment-related AI use visible and pedagogically productive rather than simply prohibited. Fourth, culturally resonant framings, such as the concepts of 'aql (rational deliberation), amanah (trustworthiness), and ikhtiyar (deliberate choice), may offer entry points for discussing responsible AI use in ways that connect to the TPQ community's existing moral vocabulary.

Given the exploratory, single-institution design (N = 41, convenience sample, self-report), these findings describe attitudinal trends rather than generalizable effects; cross-institutional and longitudinal work, ideally comparing cohorts with and without structured AI-literacy instruction, would help establish whether the ambivalence identified here resolves, intensifies, or transforms over time.

REFERENCES

- Benson, P. (2011). *Teaching and researching: Autonomy in language learning* (2nd ed.). Longman.
- Chapelle, C. A. (2001). *Computer applications in second language acquisition*. Cambridge University Press.
- Dörnyei, Z., & Dewaele, J. M. (2022). *Questionnaires in second language research: Construction, administration, and processing*. Routledge.
- Godwin-Jones, R. (2022). *Partnering with AI: Intelligent writing assistance and instructed language learning*.
- Golonka, E. M., Bowles, A. R., Frank, V. M., Richardson, D. L., & Freynik, S. (2014). Technologies for foreign language learning: A review of technology types and their effectiveness. *Computer assisted language learning*, 27(1), 70-105.
- Hamid, M. O., & Baldauf Jr, R. B. (2013). Second language errors and features of world Englishes. *World Englishes*, 32(4), 476-494
- Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *Relc Journal*, 54(2), 537-550.

- Lie, A. (2007). Education policy and EFL curriculum in Indonesia: Between the commitment to competence and the quest for higher test scores. *Teflin*, 18(1), 1-14.
- Liu, G. L., Darvin, R., & Ma, C. (2025). Exploring AI-mediated informal digital learning of English (AI-IDLE): A mixed-method investigation of Chinese EFL learners' AI adoption and experiences. *Computer Assisted Language Learning*, 38(7), 1632-1660.
- Long, D., & Magerko, B. (2020, April). What is AI literacy? Competencies and design considerations. In *Proceedings of the 2020 CHI conference on human factors in computing systems* (pp. 1-16).
- Moorhouse, B. L. (2024). Generative artificial intelligence and ELT. *ELT Journal*, 78(4), 378-392.
- Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education: Artificial Intelligence*, 2, 100041.
- Stockwell, G., & Reinders, H. (2019). Technology, motivation and autonomy, and teacher psychology in language learning: Exploring the myths and possibilities. *Annual Review of Applied Linguistics*, 39, 40-51.
- Sundqvist, P. (2019). Commercial-off-the-Shelf Games in the Digital Wild and L2 Learner Vocabulary. *Language Learning & Technology*, 23(1), 87-113.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. *Input in second language acquisition*, 15, 165-179.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.