

The Confidence Authenticity Paradox in AI-Assisted English: Evidence from Indonesian EFL Learners

Scott Buntun

LSPR Institute of Business and Communication, Indonesia

Email: scott.b@lspr.edu

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ABSTRACT

Generative AI has become increasingly embedded in second language use in Indonesia, yet its impact on learners' communicative experience remains underexplored. Previous research has focused on performance gains and affective benefits, but little is known about how AI-assisted language production shapes a learner's sense of authenticity. This study examined whether Self-generated and AI-assisted English production differ in their effects on perceived communicative confidence and authenticity among Indonesian EFL learners. A within-subjects survey design was employed with 271 undergraduate students, which evaluated AI-assisted and self-generated English use across learners' typical English communicative practices. Paired-samples analysis found no significant difference in perceived confidence between AI-assisted and self-generated production. However, perceived authenticity was significantly lower in AI-assisted production, indicating a divergence between identity expression and functional performance. Additionally, correlation analysis revealed confidence and authenticity remained positively related across both conditions. The findings suggest that AI supports communicative performance, but simultaneously disrupts learners' sense of authorship. This study contributes to human-machine communication by conceptualizing AI as a co-authoring agent that redistributes communicative agency, and highlights the need for pedagogical approaches that fosters identity-safe AI use and spaces in second language environments.

INTRODUCTION

Generative artificial intelligence (AI) systems are increasingly used to compose emails, academic assignments, and online messages (Khaustov et al., 2024; Liu et al., 2024). Recent large-scale analyses illustrate that AI-assisted writing appears across corporate and institutional communication, indicating a broader shift in everyday written discourse (Liang et al., 2025). Similarly, English language learning mirrors this development, with recent language education research showing that learners frequently rely on conversational AI tools to draft, revise, and structure communication rather than solely to receive feedback or correction (Du & Daniel, 2024; Lai & Lee, 2024). Under these mediated conditions, learners are not simply receiving instructional support but are producing communicative acts through an intelligent system that contributes to message formulation. This shift moves the debate away from linguistic performance to ask whether learners actually feel a sense of ownership over language produced by an intelligent system.

Communication technologies not only transmit messages but fundamentally shape how they are produced and interpreted (McLuhan, 1964). Contemporary communication research conceptualizes this influence as a form of mediated communication, where technological systems actively reconfigure the nature of human interaction (Yao & Ling, 2020). The increasing participation of intelligent systems in interaction extends this

perspective to human-machine communication, where technological agents perform communicative roles within social exchange (Spence, 2019). In turn, users may also respond to conversational agents as social partners, effectively positioning them as interlocutors rather than tools (Skjuve et al., 2021). Within this framework, AI-mediated communication refers to human communication in which a generative intelligent system modifies or produces messages on behalf of a human communicator (Hancock et al., 2020). Since the system contributes directly to message formulation, linguistic output becomes co-constructed rather than solely produced by the user, and distributes authorship between human and machine. This shared authorship may influence perceived ownership of the expression, meaning language produced with AI cannot be considered fully self-generated communication.

This study draws on AI-mediated communication (AI-MC) theory (Hancock et al., 2020; Yao & Ling, 2020) and Identity Theory (Burke & Stets, 2009), and conceptualizes AI-assisted language production as a form of technological mediated authorship. In this model, communicative agency is distributed between human user and generative system (Latour, 2005). Within this framework, linguistic output is not just a tool-assisted product, but a co-constructed communicative act, where the user's expression is actively reconfigured by the generative AI. From an identity-theoretical perspective, individuals evaluate these mediated acts against internal identity standards. That is, the mental templates of who individuals believe themselves to be as communicators. Furthermore, an identity-standard discrepancy arises when generative AI modifies or produces messages that fall outside of the learner's linguistic reach (Burke & Stets, 2009). Thus, the learner's self-verification process is disrupted by the externally shaped expression, frequently, resulting in the learner no longer recognizing their own authentic voice (Mieczkowski et al., 2021). Essentially, the message no longer feels like a reflection of who they are. Consequently, while generative AI provides performance reassurances and reduces anxiety (Gröpel & Wegner, 2021), it potentially undermines the communicative ownership and authenticity required for a unified sense of self during language use.

Generative AI has also seen rapid incorporation into second language learning practices, typically through the use of conversational agents and writing assistants to generate ideas, revise drafts, and check linguistic accuracy (Du & Daniel, 2024; Lo, 2024). Accordingly, research has focused primarily on the learning effectiveness of AI tools, with improvements in task performance and learning effectiveness reported across educational contexts, including language learning (Deng et al., 2024). Additionally, systematic reviews have highlighted the affective benefits of AI chatbots, with learners reporting enhanced engagement, motivation, communicative confidence and reduced anxiety during language practice alongside broader improvements in affective-motivational states observed across learning contexts (Du & Daniel, 2024; Deng et al., 2024). These processes are usually attributed to how AI supports the production process itself by providing adaptive feedback and repeated opportunities for practice during interaction (Hapsai & Wu, 2022; Lin & Mubarak, 2021). In writing contexts, AI tools assist learners in idea generation, revision, and drafting (Ahmadi et al., 2025; Alsaedi, 2024). Therefore, AI systems are commonly framed as instructional scaffolds that support drafting, revision, and error correction rather than as a component of the communicative act itself. This literature is focused on performance improvement and task outcomes as the primary outcomes rather than the communicative experience of producing language. Thus, language education research predominantly conceptualizes AI as performance-support technology.

AI-mediated interactions are consistently associated with language anxiety reductions. Both experimental and quasi-experimental studies have demonstrated that learners report lower foreign language anxiety alongside greater emotional comfort when practicing with conversational AI systems compared to traditional interaction (Tai & Chen, 2023; Wang et al,

2024; Zhang, Meng, & Ma, 2024). As willingness to communicate is strongly constrained by anxiety, this emotional shift equates to greater communicative participation. Accordingly, intervention studies demonstrate significant increases in willingness to communicate following AI-supported activities (Fathi et al., 2024; Tai & Chen, 2023; Zhang, Wu, & Fu, 2024). As participation increases, learners receive more opportunities to successfully express meaning. Consequently, learners who interact with AI conversational agents report higher self-perceived communicative competence and greater readiness to express ideas (Pham et al., 2025; Wang et al., 2024). Across the broader affective landscape, studies show learners experience increased confidence in AI-assisted language use and evaluate their output more positively after using generative systems (Deng et al., 2024; Karataş, 2024; Rahman, 2024). Combined, this literature suggests that AI functions as performance reassurance during production. Therefore, learners should expect to feel more confident when using AI-generated or AI-supported language. Yet, increased confidence in language production does not necessarily mean learners experience the produced language as authentically theirs.

In second language communication, utterances are expressions of identity (Norton, 2001), which allow speakers to position themselves socially in interaction (Peirce, 1995), while the linguistic choices function as a personal representation of the speaker (Wang, 2021). Similarly, changes in a learner's language use has been shown to reshape their sense of self over time (Nematzadeh & Narafshan, 2020). The concept of authenticity is central to this relationship, and is typically understood as an alignment between linguistic expression and the speaker's intended self-representation rather than focusing on the accuracy of the message conveyed (Wang, 2021). Furthermore, authenticity has been conceptualized as being true to the self both in philosophical and linguistic work (Taylor, 1991), while second language research has frames full proficiency as the ability to present one's real characteristics through a second language (Horwitz, 2009). Empirical research has further shown that learners judge their authenticity on whether they can adequately express who they are in the second language (Wang, 2021), and within language-assessment research, authenticity is treated as an alignment between expression and real-life meaning (Hasrol et al., 2022). Accordingly, a learner can produce grammatically correct language, but feel it does not represent them (Kramsch, 2012; Wang, 2021). This is because learners evaluate their language on both correctness and if it reflects their personal voice. Therefore, when external expectations or adopted identities shape expression, a reduced sense of ownership over the message can emerge even if communication is successful (Gu, 2008; Roberts & Cooke, 2009). In this view, perceived communicative competence, often reflected in confidence, and communicative authenticity constitute separable evaluations. Competence concerns the effective conveyance of meaning, while authenticity refers to whether that meaning is experienced as self-expressed and achieves a state of self-verification (Burke & Stets, 2009; Wang, 2001).

This distinction becomes particularly salient in the context of AI-mediated production, which shifts language use toward a co-constructed model, where an external system actively generates or reformulates the learner's linguistic output. Therefore, generative AI's contribution to lexical choice, phrasing, and discourse structure facilitates a delegation of agency that may result in messages being experienced as jointly produced rather than personally authored (Hancock et al., 2020). This co-construction creates an inherent risk of identity-standard discrepancy, as learner's communicative effectiveness may remain high while their sense of authorship is compromised (Burke & Stets, 2009; Mieczkowski et al., 2021). In turn, generative AI may induce a divergence between learners' perception of ownership over their language and their perceived communicative success or confidence.

While language education research has consistently demonstrated that AI-assisted interaction enhances confidence, participation, and perceived communication competence, how AI-mediated authorship affects learner's experiences of communicative authenticity has

received little attention. AI-mediated communication suggests that technological systems redistribute communicative agency, and Identity theory indicates that authenticity depends on successful self-verification against internal standards. Together, these frameworks imply that AI-assisted production could strengthen perceived communicative confidence, while simultaneously weakening learner's experience of communicative authenticity. This potential divergence between communicative confidence and communicative authenticity is an under researched area within the second language context, and is yet to be empirically examined.

Therefore, this study investigates whether learner's perceived communicative confidence and perceived communicative authenticity differ between AI-assisted and self-generated English production, and whether they are related across conditions. Based on this objective, the study addresses the following research questions: 1) RQ1: How does AI-assisted English production compare with self-generated English production in terms of Indonesian EFL Learner's perceived confidence? 2) RQ2: How does AI-assisted English production compare with self-generated English production in terms of learners' perceived authenticity of communication? 3) RQ3: Is there a significant relationship between perceived confidence and perceived authenticity across AI-assisted and self-generated English conditions.

METHOD

Research Design

This study used a quantitative, cross-sectional survey design to examine EFL learners' perceived confidence and authenticity when producing English with AI assistance compared to Self-generated English. A within-subjects design was adopted, whereby each participant evaluated both AI-assisted and unaided English production. This paired structure enabled direct comparison of perceptions across conditions while controlling for individual differences. This enabled comparison between learners perceived confidence and authenticity across AI-assisted and self-generated English use.

Participants and Context

A total of 271 Indonesian EFL learners participated in the study. The participants were aged between 18 and 26 years, with the majority aged 18–20 years (86.0%), followed by 21–23 years (13.3%), and 24–26 years (0.7%). All participants were enrolled in undergraduate degree programmes at a private higher education institution in Indonesia that specialises in communication and business studies. Participants were either in their first or second year of study and had completed between one and three compulsory English subjects at the time of data collection. To minimise potential power imbalances, the institution is not named.

This specific demographic provides a unique vantage point for examination. First, the participants are part of the Generation Z cohort and are characterised as “digital natives” who are deeply engaged in digital media and frequently use AI in both academic and social spheres (Andika et al., 2025; IDN Research Institute, 2024). Secondly, as students in Jakarta, a major Indonesian urban hub, they are often early adopters of technology, reflecting the broader patterns of AI adoption in Indonesian Higher education (Helmiatin et al., 2024). Finally, the existing literature establishes that AI-mediated interactions reduce foreign language anxiety (Tai & Chen, 2023; Wang et al., 2024); however, the specific impact on the authentic voice of learners remains under-explored, particularly in the Indonesian EFL context.

English proficiency scores were self-reported using the Common European Framework of Reference for Languages (CEFR). Reported proficiency levels were A1 (1.5%), A2 (8.1%), B1 (43.5%), B2 (43.9%), C1 (3.0%), indicating most participants fell within the intermediate (B1) to upper-intermediate (B2) range.

Frequency of AI use for English-related tasks was also self-reported: never (2.6%), less than once a month (19.6%), 1–3 times per month (32.1%), 1–3 times per week (29.9%), and

daily or almost daily (15.9%). All participants were at least 18 years old and provided informed consent prior to participation.

Defining AI-Assisted Production

AI-assisted production is defined as a co-constructed model of language use where a generative system contributes directly to message formulation, including lexical choice and discourse structure. As AI-assisted writing has become a normalised component of contemporary discourse (Liang et al., 2025), a naturalistic survey design was adopted for participants to anchor their responses in their typical communicative practices rather than a controlled laboratory task. Thus, ecological validity was prioritised. Participants were asked to reflect on their general experiences with Generative AI Tools, such as ChatGPT, Gemini, or Grammarly to draft, revise, and structure their communication. Consequently, creating a sufficient basis to report perceptions of authorship and agency within the current technical landscape.

Instrument

A structured online questionnaire administered via Google Forms was used to collect the data. The survey comprised eight sections: (a) consent and eligibility screening, (b) demographic and background information, (c) perceived confidence in AI-assisted English, (d) perceived confidence in self-generated English, (e) perceived authenticity in AI-assisted English, (f) perceived authenticity in self-generated English, (g) an attention-check item, and (h) an optional open-ended question.

Perceived confidence and authenticity were each measured using parallel four-item Likert-type scales referring to AI-assisted and self-generated English. Confidence items assessed communicative confidence, clarity, comfort with submission, and uncertainty, while authenticity items addressed voice, naturalness, ownership, and personal expression.

As AI-mediated communication is an emerging field, the survey items were developed to align to the theoretical frameworks implemented. Perceived confidence items were designed to capture performance reassurance and self-efficacy to reflect the affective benefits and communicative ease associated with AI-assisted language use (Du & Daniel, 2024). While perceived authenticity items were grounded in identity-based perspectives of second language use, and assess the extent to which linguistic output aligned to learners' internal identity standards in terms of voice, naturalness, and ownership (Wang, 2021).

All attitudinal items were rated on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). Negatively worded items were reverse-coded prior to reliability analysis to ensure high scores consistently reflected higher perceived confidence or authenticity. Composite scores were calculated by averaging item responses for each construct and condition. An attention-check item was included to ensure data quality, and responses failing this check were removed.

Procedure

The survey was distributed online and completed voluntarily. Prior to participation, an information sheet outlining the study's purpose, the voluntary nature of participation, and assurances of anonymity was distributed to respondents. Informed consent was electronically obtained and no identifying information was collected. Participants could withdraw at any time by exiting the survey. As the study involved anonymous self-report data and posed minimal risk to participants, it conformed to local institutional research guidelines for exempt research.

Data Analysis

Statistical analyses were conducted using *jamovi* (version 2.6.44; The Jamovi Project, 2024). Data were screened for completeness and accuracy prior to analysis and internal consistency for each scale was assessed using Cronbach's alpha.

Paired-sample *t*-tests were used to compare perceived confidence and authenticity between AI-assisted and Self-generated English conditions, where assumptions of normality were violated, Wilcoxon signed-rank tests were also conducted. Effect sizes were calculated using Cohen's *d*. relationships between perceived confidence and perceived authenticity were examined using Pearson correlation coefficients. Statistical significance was set at $p < .05$.

Additionally, a 2 x 2 repeated-measures analysis of variance (ANOVA) was conducted to examine the interaction between condition (AI-assisted vs self-generated) and construct (confidence vs authenticity). This analysis was performed to determine whether the effect of AI assistance differed across the two communicative constructs.

Measures

Following reliability analysis, reverse-coded items were removed as they reduced internal consistency. The final instrument consisted of three positively worded items per scale. The Confidence (AI) scale demonstrated acceptable consistency ($\alpha = .70$), while the Confidence (Self) scale showed marginal but acceptable reliability for exploratory research ($\alpha = .66$). the Authenticity (AI) scale demonstrated good internal consistency ($\alpha = .79$), and the Authenticity (Self) scale showed acceptable reliability ($\alpha = .66$).

Consistent with recommendations for exploratory research using short, adapted scales, internal consistency values in the mid-0.60 range were considered acceptable (Taber, 2018).

RESULT AND DISCUSSION

Preliminary Analyses

Internal consistency reliability for all scales is reported in the Measures section. All scales demonstrated acceptable reliability for subsequent analyses. Descriptive statistics for all measures are presented in Table 1. Preliminary analysis for the data included data screening for violations of the assumptions underlying the parametric testing, revealing a significant deviation from normality for the confidence scores as indicated by a Shapiro-Wilk test ($W = 0.96, p < .001$). Despite, the paired-samples *t*-test robustness with $N = 271$ sample size, a Wilcoxon signed-rank test was performed to verify the consistency of the results.

Table 1 Descriptive Statistics for Study Variables (N=271)

Scale	M	SD
Confidence (AI)	3.33	0.66
Confidence (Self)	3.28	0.61
Authenticity (AI)	2.76	0.76
Authenticity (Self)	3.56	0.67

Research Question 1/Hypothesis 1

Paired-samples comparisons were conducted to examine whether confidence differed between AI-assisted and unaided production conditions. As shown in Table 1, mean confidence scores were similar in the AI-assisted condition ($M = 3.33, SD = 0.66$) and the self-generated condition ($M = 3.28, SD = 0.61$). The difference was not statistically significant, $t(270) = 0.79, p = .428, d = 0.05$. A Wilcoxon signed-rank test yielded a consistent non-significant result ($p = .135$). Additionally, a sensitivity analysis confirmed the study had 80% power to detect an effect size as small as $d = 0.17$, suggesting the observed difference represents a true null effect. These findings do not support H1.

Research Question 2/Hypothesis 2

Paired-samples comparisons were conducted to examine whether authenticity differed between AI-assisted and unaided production conditions. As shown in Table 1, mean authenticity scores were lower in the AI-assisted condition ($M = 2.76, SD = 0.76$) than in the self-generated condition ($M = 3.56, SD = 0.67$). The difference was statistically significant, $t(270) = -12.00, p < .001, d = 0.73$. These findings support H2 and reflects a clear pattern in

which perceived authenticity was consistently lower in the AI-assisted condition compared to the self-generated condition. Paired-samples comparison statistics are summarised in Table 2.

Table 2 Paired-Samples Comparisons Between AI-assisted and Self-Generated Conditions

Construct	AI (M, SD)	Self (M, SD)	<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
Confidence	3.33 (0.66)	3.28 (0.61)	0.79	270	.428	0.05
Authenticity	2.76 (0.76)	3.56 (0.67)	-12.00	270	< .001	0.73

To further examine whether the magnitude of the AI effect differed across constructs, a 2 x 2 repeated-measures ANOVA was conducted with condition (AI-assisted vs self-generated) and construct (confidence vs authenticity) as within-subjects factors. The ANOVA revealed significant main effects for both condition $f(1,270) = 50.90, p < .001, \eta_p^2 = 0.16$, and construct, $f(1,270) = 19.10, p < .001, \eta_p^2 = .07$. Nevertheless, these main effects were qualified by a significant interaction effect, $f(1,270) = 165.80, p < .001, \eta_p^2 = .38$. The interaction reflected a divergence in perceptions: a stable level of perceived confidence across both conditions, contrasted with a substantial decline in authenticity within the AI-assisted condition. Bonferroni-adjusted post-hoc comparisons confirmed that while the mean difference for confidence was negligible ($MD = 0.05, p = .428$), the AI-driven decrease in authenticity was both large in magnitude and statistically significant ($MD = -0.80, p < .001$). This large effect size ($\eta_p^2 = .381$) indicates that 38.1% of the variance in scores is attributable to the specific interplay between the production condition and the construct being measured. Combined, these results reinforce the paired-samples findings and demonstrate the effect of AI-assistance is construct-dependent, with minimal impact on confidence but a pronounced effect on perceived authority.

Research Question 3/Hypothesis 3

Pearson correlation analyses were conducted to examine the relationship between confidence and authenticity within each production condition. As shown in Table 3, confidence was positively correlated with authenticity in both the AI-assisted condition ($r = .35, p < .001$) and the self-generated condition ($r = .37, p < .001$). The 95% confidence intervals for the AI-assisted condition [.24, .45] and the self-generated condition [.26, .47] showed substantial overlap, indicating no significant difference in the strength of the relationship between conditions. These findings support H3.

Table 3 Correlations Between Confidence and Authenticity Within Each Condition

Condition	<i>r</i>	<i>p</i>
AI-Assisted	.35	< .001
Self-Generated	.37	< .001

This study examined whether AI-assisted and self-generated English production has differing effects on learners perceived communicative confidence and perceived communicative authenticity. Contrary to expectations, there was no significant difference in learner confidence between AI-assisted and self-generated English production. However, learners' perceived authenticity was substantially lower when using AI-assisted language. These findings indicate that AI-mediated conditions are associated with a divergence between confidence and authenticity, and while confidence and authenticity were positively related across both conditions, only authenticity differed between AI-assisted and self-generated conditions. This suggests that AI does not appear to significantly influence learners perceived communicative confidence, but may disrupt their sense of ownership over linguistic expression.

The rejection of H1 is a significant departure from the existing AI-as-scaffold narrative within language education research. Much of the existing scholarship suggests that generative AI consistently boosts confidence and reduces anxiety (Deng et al., 2024; Wang et al., 2024). However, this study's findings indicate that AI-assisted English production did not significantly enhance Indonesian EFL learners' sense of assurance. This result directly contrasts recent evidence suggesting AI chatbots significantly increase self-efficacy and willingness to communicate (Almusharraf, 2025; Tai & Chen, 2023). This confidence paradox suggests that while AI-assisted production provides a functional scaffold to the learner, it does not translate into heightened communicative confidence.

One explanation for this discrepancy may lie in the specific identity and academic background of the participants. As students specialising in communication and business studies, this cohort may value communicative agency more highly than other EFL learners. Additionally, confidence may not derive solely from grammatical accuracy, but from their ability to influence the audience through a unique, personal voice. Consequently, the performance reassurance typically associated with AI may be counteracted by a critical awareness of the system's limitations to capture nuanced personal intent (Rahman, 2024). Furthermore, as digital natives deeply engaged in digital media (Andika et al., IDN Research Institute, 2024), AI-assisted English may be viewed as a baseline standard for professional discourse rather than as a superior version of their voice. Participants' baseline proficiency largely fell within the intermediate range, and they likely possess sufficient linguistic competence to evaluate AI output. Therefore, the cognitive labour to verify AI output's meaning may neutralise any confidence gained from improved grammatical accuracy.

In contrast, the results for H2 revealed a substantial and statistically significant decline in perceived authenticity during AI-assisted production, suggesting AI-mediated English is relatively invisible in its effects on confidence, but highly visible in its impact on learners' sense of self. Within Identity Theory, this drop reflects a clear identity-standard discrepancy (Burke & Stets, 2009). This discrepancy suggests a signal transformation that replaces the learner's idiosyncratic voice with a standardised professional polish. The participants, whose identity is likely built on the strategic use of a unique voice, may perceive this polish as a loss of authorship rather than an improvement.

Furthermore, these findings suggest a form of linguistic alienation. As generative AI contributes directly to lexis and discourse structure, it shifts the learner from primary author to a secondary curator. Viewed through AI-mediated communication theory (Hancock et al., 2020), the AI ceases to function as a passive tool and instead operates as a co-author that actively contributes to message construction. Within broader Human-Machine Communication, this positions the AI as a communicative agent rather than a neutral intermediary (Spence, 2019). This shared agency may disrupt the self-verification process, resulting in the message output recognised as grammatically correct but not as theirs. This supports the assertion that authenticity is not a product of linguistic accuracy, but an alignment between expression and the speaker's internal identity standard (Wang, 2021). Ultimately, this divergence suggests a fundamental tension exists between the functional benefits of AI and the preservation of the learner's voice.

Nevertheless, the positive correlation between confidence and authenticity across both conditions suggests that, for these learners, feeling both authentic and confident are intertwined. Importantly, this relationship remains stable even as perceived authenticity declines in the AI-assisted condition. This indicates that although AI-mediated production alters the level of perceived authenticity, it does not fundamentally disrupt the underlying association between authenticity and confidence. This relationship challenges the notion that competence and identity function as separable silos in the digital age. Rather, it suggests that confidence in a second language is fundamentally linked to the ability to project one's real

characteristics (Horwitz, 2009), even when those characteristics are perceived to be diminished. Overall, AI-assisted English production appears to shift the level of authenticity without altering its role in shaping learner confidence.

Limitations of the study

Despite the robust sample size, several limitations present themselves. First, the study relied on self-reported measures to capture perceived confidence and authenticity, and although these perceptions are central to the constructs, they remain subject to inherent participant bias. Future research should incorporate behavioural or text-based analyses to examine how these perceptions corresponds to features of AI-assisted production. Second, the cross-sectional design limits conclusions about how AI-mediated language use develops over time. It is unclear if the divergence between confidence and authenticity persists or changes as learners become more habituated to AI-mediated language. Longitudinal research is required to examine how repeated exposure shapes identity alignment and perceived authenticity. Third, generalisability is constrained by the participants being limited to Indonesian EFL learners in higher education. Future research should examine diverse learner populations to determine if these findings hold across contexts. Finally, this study does not differentiate between types of AI assistance, and future research should examine how differing levels of AI assistance influences perceptions of confidence and authenticity.

Implications of the study

Theoretical implications

These findings suggest that second language acquisition frameworks must be extended to account for AI-mediated communication. Traditional frameworks position technology as a passive support tool with linguistic productions conceptualised as primarily human-driven. However, the decline in perceived authenticity while confidence remains stable indicates that generative AI functions as a co-authoring agent that redistributes communicative agency rather than as a tool. Thus, learner agency is more accurately understood as distributed between human and machine. This limitation reveals a gap in SLA frameworks, which lack the conceptual tools to account for non-human participation in language production. Integrating Human-Machine Communication perspectives allows for a clearer conceptualisation of communication occurring between human and non-human actors. From this perspective, the divergence between confidence and authenticity reflects that machine participation now fundamentally shapes the learner's identity. Consequently, communicative competence must be redefined to account for how learners balance shared authorship with personal identity.

Pedagogical Implications

Pedagogically, these findings suggest that AI integrations must move beyond performance enhancement toward supporting communicative identity. Despite AI tools likely improving linguistic accuracy, this gain often comes at the cost of reduced perceived authenticity. Educators should emphasise identity-safe AI use by prioritising the learner's personal voice during AI-assisted production. In practice, this requires training learners to critically evaluate AI output and refine prompts to reflect their intended tone. Additionally, by framing learners as active curators of AI-assisted language rather than passive learners may aid in preserving learner agency and reduce linguistic alienation.

CONCLUSION

This study examined how AI-assisted and self-generated English production differ in their effects on learners perceived communicative confidence and authenticity. Despite AI-assisted production having no meaningful influence on confidence, it is associated with a significant reduction in perceived authenticity. This reveals a confidence paradox where functional performance is sustained while identity expression diminishes. Consequently, the findings position generative AI as a co-authoring agent that reshapes how learners experience authorship. The increasing embedding of AI in language practice makes it essential to understand how learners negotiate this shared communicative space. Ultimately, effective second language use depends on more than linguistic output; it requires that the production is experienced as the learner's own voice.

REFERENCE

- Ahmadi, A., Samsudin, D., & Ismail, S. F. S. (2025). Writing and artificial intelligence (AI): A systematic literature review. *International Journal of Education*, 18(1), 117–124. <https://doi.org/10.17509/ije.v18i1.76636>
- Alsaedi, N. (2024). ChatGPT and EFL/ESL writing: A systematic review of advantages and challenges. *English Language Teaching*, 17(5), 41–55. <https://doi.org/10.5539/elt.v17n5p41>
- Andika, J. D., Andreevna, K. N., Herda, R. K., Savitskaya, E. S., Titania, F. N., & Ivashova, E. (2025). Investigating AI usage in English language learning: Frequency, preferences, and perceived effectiveness on speaking and writing skills. *Jurnal Wahana Pendidikan*, 12(2), 263–274. <https://doi.org/10.25157/jwp.v12i2.18734>
- Burke, P. J., & Stets, J. E. (2009). *Identity theory*. Oxford University Press.
- Deng, R., Jiang, M., Yu, X., Lu, Y., & Liu, S. (2025). Does ChatGPT enhance student learning? A systematic review and meta-analysis of experimental studies. *Computers & Education*, 227, 105224. <https://doi.org/10.1016/j.compedu.2024.105224>
- Du, J., & Daniel, B. K. (2024). Transforming language education: A systematic review of AI-powered chatbots for English as a foreign language speaking practice. *Computers and Education: Artificial Intelligence*, 6, 100230. <https://doi.org/10.1016/j.caeai.2024.100230>
- Fathi, J., Rahimi, M., & Derakhshan, A. (2024). Improving EFL learners' speaking skills and willingness to communicate via artificial intelligence-mediated interactions. *System*, 121, Article 103254. <https://doi.org/10.1016/j.system.2024.103254>
- Gu, M. Y. (2008). Identity construction and investment transformation: College students from non-urban areas in China. *Journal of Asian Pacific Communication*, 18(1), 49–70.
- Hancock, J. T., Naaman, M., & Levy, K. (2020). AI-mediated communication: Definition, research agenda, and ethical considerations. *Journal of Computer-Mediated Communication*, 25(1), 89–100. <https://doi.org/10.1093/jcmc/zmz022>
- Hasrol, S. B., Zakaria, A., & Aryadoust, V. (2022). A systematic review of authenticity in second language assessment. *Language Testing in Asia*, 12(1). <https://doi.org/10.1016/j.rmal.2022.100023>
- Helmiatin, H., Hidayat, A., & Kahar, M. R. (2024). Investigating the adoption of AI in higher education: A study of public universities in Indonesia. *Cogent Education*, 11(1), Article 2380175. <https://doi.org/10.1080/2331186X.2024.2380175>
- Horwitz, E. K. (2009). Cultural identity and language anxiety. In P. K. Cheng & J. X. Yan (Eds.), *Cultural identity and language anxiety* (pp. 57–69). Guangxi Normal University Press.

- IDN Research Institute. (2024). Indonesia Gen Z report 2024: Understanding and uncovering the behavior, challenges, and opportunities. IDN Media. <https://cdn.idntimes.com/content-documents/indonesia-gen-z-report-2024.pdf>
- Karataş, F., Abedi, F. Y., Gonyel, F. O., Karadeniz, D., & Kuzgun, Y. (2024). Incorporating AI in foreign language education: An investigation into ChatGPT's effect on foreign language learners. *Education and Information Technologies*, 29, 19343–19366. <https://doi.org/10.1007/s10639-024-12574-6>
- Khaustov, O. N., Tormyshova, T. Y., & Sukhanova, N. I. (2024). Teaching students to write academic papers through the use of generative artificial intelligence tools. *Tambov University Review. Series: Humanities*, 29(5), 1194–1207.
- Kramersch, C. (2012). Imposture: A late modern notion in poststructuralist SLA research. *Applied Linguistics*, 33(5), 483–502. <https://doi.org/10.1093/applin/ams051>
- Lai, W. Y. W., & Lee, J. S. (2024). A systematic review of conversational AI tools in ELT: Publication trends, tools, research methods, learning outcomes, and antecedents. *Computers and Education: Artificial Intelligence*, 7, 100291. <https://doi.org/10.1016/j.caeai.2024.100291>
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.
- Liang, W., Zhang, Y., Codreanu, M., Wang, J., Cao, H., & Zou, J. (2025). The widespread adoption of large language model-assisted writing across society. *arXiv*. <https://doi.org/10.48550/arXiv.2502.09747>
- Liu, Y., Park, J., & McMinn, S. (2024). Using generative artificial intelligence/ChatGPT for academic communication: Students' perspectives. *International Journal of Applied Linguistics*, 34(4), 1437–1461.
- Lin, C.-J., & Mubarak, H. (2021). Learning analytics for investigating the mind map-guided AI chatbot approach in an EFL flipped speaking classroom. *Educational Technology & Society*, 24(4), 16–35.
- Lo, C. K. (2023). What is the impact of ChatGPT on education? A rapid review of the literature. *Education Sciences*, 13(4), 410. <https://doi.org/10.3390/educsci13040410>
- Mieczkowski, H., Hancock, J. T., Naaman, M., Jung, M., & Hohenstein, J. (2021). AI-mediated communication: Language use and interpersonal effects in a referential communication task. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1), 1–14. <https://doi.org/10.1145/3449091>
- McLuhan, M. (1964). *Understanding media: The extensions of man*. McGraw-Hill.
- Nematzadeh, A., & Narafshan, M. H. (2020). Construction and re-construction of identities: A study of learners' personal and L2 identity. *Cogent Education*, 8(1). <https://doi.org/10.1080/23311908.2020.1823635>
- Norton, B. (2001). Non-participation, imagined communities, and the language classroom. In M. Breen (Ed.), *Learner contributions to language learning: New directions in research* (pp. 159–171). Pearson Education.
- Peirce, B. N. (1995). Social identity, investment, and language learning. *TESOL Quarterly*, 29(1), 9–31. <https://doi.org/10.2307/3587803>
- Pham, H. T. U., Dinh, T. T. L., & Tran, X. T. (2025). The impact of ChatGPT voice on non-majored students' willingness to communicate in a Vietnamese university. *AsiaCALL Online Journal*, 16(1). <https://doi.org/10.54855/acoj.2516116>
- Rahman, M. M. (2024). Reducing anxiety and enhancing motivation: Gemini AI voice chat for ESL speaking practice in Bangladesh. *Journal of Linguistics and Language Studies*, 1(2).
- Roberts, C., & Cooke, M. (2009). Authenticity in the adult ESOL classroom and beyond. *TESOL Quarterly*, 43(4), 620–642. <https://doi.org/10.1002/j.1545-7249.2009.tb00189.x>

- Spence, P. R. (2019). Searching for questions, original thoughts, or advancing theory: Human-machine communication. *Computers in Human Behavior*, 95, 285–287. <https://doi.org/10.1016/j.chb.2018.09.014>
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Tai, T.-Y., & Chen, H. H.-J. (2023). The impact of Google Assistant on adolescent EFL learners' willingness to communicate. *Interactive Learning Environments*, 31(3), 1485–1502. <https://doi.org/10.1080/10494820.2020.1841801>
- Taylor, C. (1991). *The ethics of authenticity*. Harvard University Press.
- The jamovi project. (2024). jamovi (Version 2.6.44) [Computer software]. <https://www.jamovi.org>
- Wang, Y. (2021). Authenticity of identity and second language learning. *SAGE Open*. <https://doi.org/10.1177/21582440211068516>
- Wang, C., Zou, B., Du, Y., & Wang, Z. (2024). The impact of different conversational generative AI chatbots on EFL learners: An analysis of willingness to communicate, foreign language speaking anxiety, and self-perceived communicative competence. *System*, 127, Article 103533. <https://doi.org/10.1016/j.system.2024.103533>
- Yao, M. Z., & Ling, R. (2020). What is computer-mediated communication?—An introduction to the special issue. *Journal of Computer-Mediated Communication*, 25(1), 4–8. <https://doi.org/10.1093/jcmc/zmz027>
- Zhang, C., Meng, Y., & Ma, X. (2024). Artificial intelligence in EFL speaking: Impact on enjoyment, anxiety, and willingness to communicate. *System*, 121, Article 103259. <https://doi.org/10.1016/j.system.2024.103259>
- Zhang, D., Wu, J. G., & Fu, Z. (2024). From shy to fly: Facilitating EFL learners' willingness to communicate with an AI chatbot and an intelligent tutoring system. *System*, 127, Article 103501. <https://doi.org/10.1016/j.system.2024.103501>