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From ChatGPT-Supported English Learning to Communicative Confidence: The Mediating Roles of Motivation and Learning Autonomy among University EFL Learners

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ABSTRACT: This study investigates how ChatGPT-supported English learning contributes to university students' motivation, learning autonomy, and communicative confidence in an English as a Foreign Language (EFL) context. Drawing on technology acceptance, self-determination, learner autonomy, and communicative confidence perspectives, the study examines the relationships among ChatGPT-supported English learning, learner–ChatGPT interaction, perceived usefulness of ChatGPT, intrinsic motivation, extrinsic motivation, learning autonomy, and communicative confidence. A quantitative research design was adopted, and data were collected through a structured questionnaire from 304 university students who had experience using ChatGPT for English learning. The data were analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicated that ChatGPT-supported English learning, learner–ChatGPT interaction, and perceived usefulness of ChatGPT significantly predicted both intrinsic and extrinsic motivation. Intrinsic and extrinsic motivation, in turn, positively predicted learning autonomy, which subsequently predicted communicative confidence. The indirect effect results further showed that ChatGPT-related factors contributed to communicative confidence through motivation and learning autonomy. These findings suggest that ChatGPT may support EFL learning not only as a technological tool but also as part of a broader motivational and autonomous learning process. The study offers implications for integrating ChatGPT strategically, critically, and responsibly into English language learning.

INTRODUCTION

Generative artificial intelligence (AI) has rapidly reshaped the ecology of higher education, particularly after the public release of ChatGPT in November 2022. ChatGPT is designed for conversational interaction and can respond to follow-up questions, produce explanations, revise language, and generate text based on prompts (OpenAI, 2022). In English as a Foreign Language (EFL) contexts, these features are pedagogically relevant because learners often need more exposure to English, more opportunities for practice, and more immediate feedback than classroom time alone can provide.

In language education, ChatGPT has been discussed as a tool for grammar explanation, vocabulary support, writing feedback, idea generation, conversation simulation, and self-directed learning. Kohnke et al. (2023) argue that ChatGPT offers language teachers and learners several affordances, including flexible input generation and task support, while also requiring digital competencies and ethical awareness. More recent review evidence confirms that ChatGPT has been widely applied in ESL/EFL education, especially for writing, feedback, and learner support; however, quantitative evidence on motivation and non-writing language outcomes remains comparatively limited (Lo et al., 2024).

The present study responds to this gap by examining how ChatGPT-supported English learning relates to students' motivation, learning autonomy, and communicative confidence. These constructs are important because effective language learning depends not only on access to technological tools but also on learners' willingness to engage, take responsibility for learning, and feel confident using the language. A student may have access to ChatGPT, but this access does not automatically lead to meaningful learning. The learning value of ChatGPT depends on how students perceive its usefulness, how actively they interact with it, and whether its use supports sustained motivation and independent learning.

Three ChatGPT-related factors are central to this study. First, ChatGPT-supported English learning refers to students' general use of ChatGPT to support English learning activities such as asking for explanations, receiving examples, revising texts, preparing speaking ideas, and completing learning tasks. Second, learner-ChatGPT interaction refers to the active process of communicating with ChatGPT through prompts, follow-up questions, clarification requests, and evaluation of responses. Third, perceived usefulness refers to students' belief that ChatGPT helps improve their English learning performance, a construct derived from the Technology Acceptance Model (Davis, 1989).

This study also examines two forms of motivation: intrinsic motivation and extrinsic motivation. Self-Determination Theory distinguishes between engaging in an activity because it is enjoyable and personally meaningful and engaging in it because it leads to valued external outcomes (Deci & Ryan, 1985; Ryan & Deci, 2000). In an EFL context, ChatGPT may support intrinsic motivation by making learning more interactive, private, and personalized, while also supporting extrinsic motivation by helping students prepare for academic tasks, examinations, presentations, and career-related language needs.

Learning autonomy is positioned as a key mediating construct. Learner autonomy refers to the capacity to take charge of one's own learning, including setting goals, selecting strategies, monitoring progress, and evaluating outcomes (Holec, 1981; Benson, 2011). ChatGPT may facilitate autonomy because learners can access support at any time and control the direction of their practice. However, autonomy should not be assumed merely because a tool is available. Students need motivation and critical judgment to use ChatGPT for learning rather than simply for answer production.

Finally, the study focuses on communicative confidence as an affective outcome. Communicative confidence refers to learners' belief in their ability to use English for communication. It is conceptually related to willingness to communicate, which is influenced by both linguistic and psychological factors such as perceived competence, motivation, and confidence (MacIntyre et al., 1998; Yashima, 2002). In this study, communicative confidence is treated as a self-reported learning-related outcome, not as a direct measure of English proficiency.

Using survey data from 304 university students who had used ChatGPT for English learning, this study tests a structural model in which ChatGPT-supported English learning, learner-ChatGPT interaction, and perceived usefulness predict intrinsic and extrinsic motivation; motivation predicts learning autonomy; and learning autonomy predicts communicative confidence. By examining these direct and indirect relationships, the study offers a more mechanism-based explanation of how ChatGPT may support EFL learners in higher education.

Research Question 1: To what extent does ChatGPT-supported English learning predict students' intrinsic motivation and extrinsic motivation in English language learning?

Research Question 2: To what extent does learner–ChatGPT interaction predict students' intrinsic motivation and extrinsic motivation in English language learning?

Research Question 3: To what extent does perceived usefulness of ChatGPT predict students' intrinsic motivation and extrinsic motivation in English language learning?

Research Question 4: How do intrinsic motivation and extrinsic motivation predict students' learning autonomy in English language learning?

Research Question 5: To what extent does learning autonomy predict students' communicative confidence in English?

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

ChatGPT and Generative AI in EFL Learning

ChatGPT is a generative AI chatbot that can produce human-like responses to natural language prompts. For EFL learners, this means that language support can become more immediate, interactive, and personalized. Learners may ask ChatGPT to explain grammar, suggest vocabulary, correct sentences, generate sample answers, or simulate conversational exchanges. Unlike static learning materials, ChatGPT allows learners to refine prompts and ask follow-up questions, which can potentially support more active learning.

At the same time, the use of ChatGPT in language education requires caution. Kohnke et al. (2023) emphasize that the tool has both affordances and drawbacks and that teachers and learners require digital competencies to use it effectively and ethically. Lo et al. (2024) similarly report both educational affordances, such as expanded learning opportunities and personalized support, and

concerns, including inaccurate information, privacy issues, and academic dishonesty. Therefore, ChatGPT should be understood as a supplementary learning tool rather than a replacement for teachers, classroom interaction, or learners' own critical thinking.

In EFL education, recent research has shown growing interest in ChatGPT for writing support, feedback, vocabulary learning, grammar practice, and communication preparation. Boudouaia et al. (2024) examined ChatGPT-4 in EFL writing learning and highlighted its potential to support writing development, while studies on ChatGPT feedback also warn that AI-generated feedback can be generic or insufficiently actionable if not guided by clear pedagogical purposes. These findings suggest that students' learning outcomes depend not only on whether they use ChatGPT but also on how they use and interpret it.

Perceived Usefulness and Technology Acceptance

The Technology Acceptance Model (TAM) provides a useful framework for understanding students' perceptions of ChatGPT. Davis (1989) defines perceived usefulness as the extent to which a person believes that using a technology will enhance performance. In educational settings, students are more likely to adopt and continue using a tool when they believe it helps them learn more effectively, complete tasks more efficiently, or achieve academic goals. In this study, perceived usefulness refers to students' belief that ChatGPT can improve their English learning by providing explanations, examples, feedback, and learning assistance.

TAM-based research has been extended in many educational technology contexts, including language learning. In the case of ChatGPT, perceived usefulness is especially important because students may use the tool voluntarily outside the classroom. If students perceive ChatGPT as useful for English learning, they may be more motivated to engage with it and use it as part of their learning routine. However, perceived usefulness alone may not explain all learning outcomes. The present study therefore connects perceived usefulness with motivation, autonomy, and communicative confidence.

Motivation, Autonomy, and Communicative Confidence

Motivation is a central construct in second and foreign language learning because language development requires sustained effort, practice, and persistence. Drawing on Self-Determination Theory, this study distinguishes intrinsic motivation from extrinsic motivation. Intrinsic motivation involves learning English because it is interesting, enjoyable, or personally meaningful, whereas extrinsic motivation involves learning English for external goals such as academic achievement, examinations, career opportunities, or institutional requirements (Ryan & Deci, 2000). ChatGPT may support both forms of motivation by making English learning more accessible and by helping students achieve practical learning goals.

Learner autonomy is another key construct in language education. Holec (1981) conceptualizes autonomy as the ability to take charge of one's own learning, while Benson (2011) emphasizes learners' control over learning management, cognitive processes, and learning content. ChatGPT may support autonomy because learners can independently decide what to ask, when to practice, how to revise prompts, and how to use feedback. However, autonomous learning requires more than access to technology; it requires motivation, strategy use, and critical evaluation. Recent evidence from higher education further suggests that effective learning is closely associated with students' self-regulatory and cognitive engagement processes, with stronger cognitive engagement contributing to more adaptive academic behaviors (Thanh et al., 2026).

Communicative confidence refers to learners' belief in their ability to use English in communication. It is closely related to willingness to communicate, which MacIntyre et al. (1998) define as a readiness to enter into discourse in a second language under particular conditions. Confidence matters because learners may avoid communication even when they possess adequate linguistic knowledge. ChatGPT may indirectly support communicative confidence by helping students prepare ideas, rehearse expressions, and develop autonomous learning habits in a low-pressure environment.

Hypotheses

Based on the theoretical and empirical literature, the study proposes the following hypotheses:

H1: ChatGPT-supported English learning positively predicts intrinsic motivation.

H2: ChatGPT-supported English learning positively predicts extrinsic motivation.

H3: Learner-ChatGPT interaction positively predicts intrinsic motivation.

H4: Learner-ChatGPT interaction positively predicts extrinsic motivation.

H5: Perceived usefulness of ChatGPT positively predicts intrinsic motivation.

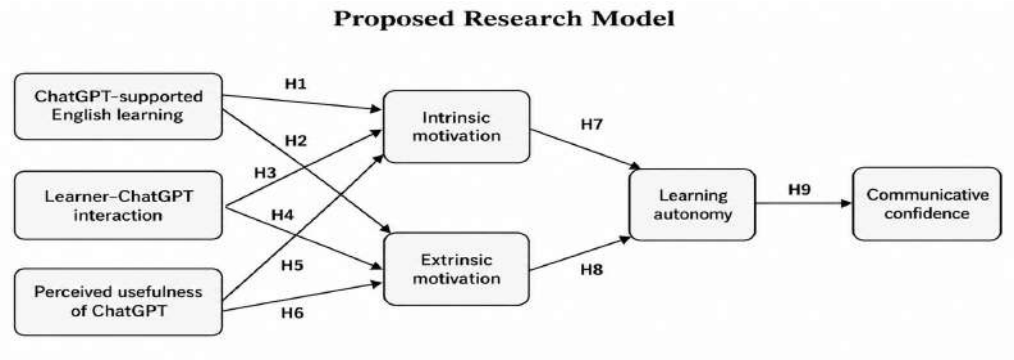
H6: Perceived usefulness of ChatGPT positively predicts extrinsic motivation.

H7: Intrinsic motivation positively predicts learning autonomy.

H8: Extrinsic motivation positively predicts learning autonomy.

H9: Learning autonomy positively predicts communicative confidence.

H10: ChatGPT-related factors have indirect effects on communicative confidence through motivation and learning autonomy.



METHODOLOGY

Research Design

This study employed a quantitative cross-sectional survey design. This design was appropriate because the study aimed to measure latent constructs through questionnaire items and test hypothesized relationships among those constructs at one point in time. The analysis focused on students' self-reported experiences and perceptions of using ChatGPT for English learning.

Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to assess the measurement and structural models. PLS-SEM is suitable for prediction-oriented models that involve multiple latent variables, direct effects, and indirect effects (Hair et al., 2022). In this study, PLS-SEM was used to examine whether ChatGPT-related factors predicted motivation, whether motivation predicted autonomy, and whether autonomy predicted communicative confidence.

Participants and Sampling

The participants were 304 university students who had used ChatGPT for English learning. All valid respondents reported prior experience using ChatGPT to support their English learning, which met the inclusion criterion of the study. The sample included 127 male students (41.8%) and 177 female students (58.2%). Participants were distributed across four academic years: Year 1 (n = 60, 19.7%), Year 2 (n = 73, 24.0%), Year 3 (n = 76, 25.0%), and Year 4 (n = 95, 31.3%). A non-probability sampling approach was used because the study required participants who had relevant experience with ChatGPT-supported English learning.

Table 1. Demographic Profile of Participants

Variable	Category	Frequency	Percentage
ChatGPT use for English learning	Have used	304	100.0%
Gender	Male	127	41.8%
	Female	177	58.2%
Year of study	Year 1	60	19.7%
	Year 2	73	24.0%
	Year 3	76	25.0%
	Year 4	95	31.3%
Main device	Smartphone	102	33.6%
	Tablet	79	26.0%
	Laptop/Desktop computer	112	36.8%
	Other	11	3.6%
Frequency of ChatGPT use	Very rarely	55	18.1%
	Occasionally	60	19.7%
	Frequently	78	25.7%
	Very frequently	83	27.3%
	Every day	28	9.2%

Instrument

The research instrument was a structured questionnaire consisting of demographic/background items and Likert-scale items measuring seven constructs: ChatGPT-supported English learning (CGPT), learner-ChatGPT interaction (LCGI), perceived usefulness of ChatGPT (PU), intrinsic motivation (IM), extrinsic motivation (EM), learning autonomy (LA), and communicative confidence (CC). Multi-item scales were used because the constructs are latent psychological and educational variables that cannot be directly observed through a single item. The questionnaire structure is summarized in Table 2.

Table 2. Structure of the Questionnaire

Construct	Code	Number of items
ChatGPT-supported English learning	CGPT	4
Learner-ChatGPT interaction	LCGI	4
Perceived usefulness of ChatGPT	PU	5
Intrinsic motivation	IM	4
Extrinsic motivation	EM	4
Learning autonomy	LA	5
Communicative confidence	CC	4

DATA ANALYSIS

Data analysis included descriptive statistics, measurement model assessment, and structural model assessment. Descriptive statistics were used to summarize demographic characteristics and item-level response patterns. The measurement model was evaluated through outer loadings, Cronbach's alpha, rho A, composite reliability, average variance extracted (AVE), Fornell-Larcker criterion, and HTMT ratio. The structural model was evaluated through VIF values, path coefficients, t-values, p-values, R-square values, f-square values, and indirect effects.

ETHICAL CONSIDERATIONS

Participation was voluntary, and respondents were informed that their responses would be used for research purposes. The questionnaire was designed so that participants could proceed only if they agreed to participate. The data were analyzed anonymously and reported in aggregate form. Because the study used a non-invasive survey with university students and did not collect sensitive personal identifiers, formal clinical trial registration was not applicable.

RESULTS

Descriptive Statistics

The descriptive results indicated generally positive perceptions across the main constructs. Intrinsic motivation and communicative confidence showed relatively high mean scores, suggesting that students tended to report interest in English learning and confidence in using English. ChatGPT-supported English learning, learner-ChatGPT interaction, perceived usefulness, extrinsic motivation, and learning autonomy also had mean scores above the midpoint of the scale, indicating favorable perceptions of ChatGPT-supported learning experiences.

Table 3. Descriptive Statistics of Main Constructs

Construct	Item range	Mean range	SD range
ChatGPT-supported English learning	CGPT1-CGPT4	3.77-3.93	0.783-0.892
Learner-ChatGPT interaction	LCGI1-LCGI4	3.79-3.84	0.796-0.882
Perceived usefulness of ChatGPT	PU1-PU5	3.73-3.92	0.791-0.875
Intrinsic motivation	IM1-IM4	4.02-4.08	0.808-0.875
Extrinsic motivation	EM1-EM4	3.74-3.88	0.769-0.909
Learning autonomy	LA1-LA5	3.81-3.98	0.842-0.917
Communicative confidence	CC1-CC4	3.96-4.14	0.811-0.892

Measurement Model Assessment

All outer loadings were acceptable, ranging from 0.706 to 0.853. Reliability and convergent validity were also supported. Cronbach's alpha values ranged from 0.741 to 0.817, composite reliability values ranged from 0.838 to 0.880, and AVE values ranged from 0.547 to 0.647. These results indicate adequate internal consistency reliability and convergent validity for all constructs.

Table 4. Reliability and Convergent Validity Results

Construct	Cronbach's alpha	rho_A	Composite reliability	AVE
ChatGPT-supported English learning	0.741	0.743	0.838	0.563
Communicative confidence	0.800	0.815	0.869	0.625
Extrinsic motivation	0.756	0.759	0.845	0.578
Intrinsic motivation	0.817	0.821	0.880	0.647
Learning autonomy	0.793	0.794	0.858	0.547
Learner-ChatGPT interaction	0.791	0.797	0.864	0.614
Perceived usefulness of ChatGPT	0.805	0.807	0.865	0.562

Discriminant validity was supported through the Fornell-Larcker criterion and HTMT ratios. The square roots of AVE on the diagonal were higher than the corresponding inter-construct correlations, and all HTMT values were below conservative threshold levels. The highest HTMT value was 0.690 for perceived usefulness and learning autonomy, which remained below 0.85. These results indicate that the constructs were empirically distinct.

Table 5. HTMT Results

Construct pair	HTMT
CGPT-CC	0.403
CGPT-EM	0.417
CGPT-IM	0.557
CGPT-LA	0.539
CGPT-LCGI	0.124
CGPT-PU	0.490
CC-EM	0.248
CC-IM	0.484
CC-LA	0.600
CC-LCGI	0.180
CC-PU	0.587
EM-IM	0.297
EM-LA	0.556
EM-LCGI	0.409
EM-PU	0.621
IM-LA	0.568
IM-LCGI	0.296
IM-PU	0.499
LA-LCGI	0.185
LA-PU	0.690
LCGI-PU	0.286

Structural Model Assessment

Collinearity was not a concern because all VIF values were low, ranging from 1.000 to 1.227. The path analysis supported all nine direct hypotheses. ChatGPT-supported English learning significantly predicted intrinsic motivation ($\beta = 0.330$, $p < .001$) and extrinsic motivation ($\beta = 0.154$, $p = .018$). Learner-ChatGPT interaction significantly predicted intrinsic motivation ($\beta = 0.159$, $p = .006$) and extrinsic motivation ($\beta = 0.218$, $p < .001$). Perceived usefulness significantly predicted intrinsic motivation ($\beta = 0.244$, $p = .001$) and extrinsic motivation ($\beta = 0.377$, $p < .001$). Intrinsic motivation ($\beta = 0.377$, $p < .001$) and extrinsic motivation ($\beta = 0.344$, $p < .001$) both significantly predicted learning autonomy, and learning autonomy significantly predicted communicative confidence ($\beta = 0.484$, $p < .001$).

Table 6. Path Coefficients and Hypothesis Testing

Hypothesis	Path	β	t-value	p-value	Decision
H1	CGPT -> IM	0.330	4.769	0.000	Supported
H2	CGPT -> EM	0.154	2.367	0.018	Supported
H3	LCGI -> IM	0.159	2.752	0.006	Supported
H4	LCGI -> EM	0.218	3.770	0.000	Supported
H5	PU -> IM	0.244	3.332	0.001	Supported
H6	PU -> EM	0.377	5.495	0.000	Supported
H7	IM -> LA	0.377	6.100	0.000	Supported
H8	EM -> LA	0.344	5.210	0.000	Supported
H9	LA -> CC	0.484	7.909	0.000	Supported

The R-square values indicated that the model explained 30.0% of the variance in extrinsic motivation, 28.1% of the variance in intrinsic motivation, 32.2% of the variance in learning autonomy, and 23.4% of the variance in communicative confidence. These values suggest that the model had meaningful explanatory power for the motivational and autonomous learning constructs, while communicative confidence was explained to a moderate degree by learning autonomy.

Table 7. Coefficient of Determination

Endogenous construct	R^2	Adjusted R^2
Extrinsic motivation	0.300	0.293
Intrinsic motivation	0.281	0.273
Learning autonomy	0.322	0.317
Communicative confidence	0.234	0.232

Effect-size analysis showed that perceived usefulness had a medium effect on extrinsic motivation ($f^2 = 0.165$), intrinsic motivation had a medium effect on learning autonomy ($f^2 = 0.198$), extrinsic motivation had a medium effect on learning autonomy ($f^2 = 0.164$), and learning autonomy had a medium-to-large effect on communicative confidence ($f^2 = 0.306$). These results highlight the importance of perceived usefulness for externally oriented motivation and the central role of autonomy in explaining communicative confidence.

Table 8. Effect Size Results

Predictor relationship	f^2	Interpretation
CGPT -> EM	0.029	Small
CGPT -> IM	0.130	Small to medium
LCGI -> EM	0.064	Small
LCGI -> IM	0.033	Small
PU -> EM	0.165	Medium
PU -> IM	0.067	Small
EM -> LA	0.164	Medium
IM -> LA	0.198	Medium
LA -> CC	0.306	Medium to large

Indirect Effects

The indirect-effect results generally supported the mediation logic of the proposed model. ChatGPT-supported English learning had significant total indirect effects on learning autonomy and communicative confidence. Learner-ChatGPT interaction and perceived usefulness also had significant indirect effects on both learning autonomy and communicative confidence. At the specific-path level, most indirect paths from ChatGPT-related factors to communicative confidence through motivation and autonomy were significant. The only non-significant or marginal path was the path from ChatGPT-supported English learning to communicative confidence through extrinsic motivation and learning autonomy ($\beta = 0.026$, $p = .053$).

Table 9. Specific Indirect Effects

Indirect path	β	t-value	p-value	Decision
CGPT -> EM -> LA -> CC	0.026	1.939	0.053	Not significant/marginal
LCGI -> EM -> LA -> CC	0.036	3.061	0.002	Significant
PU -> EM -> LA -> CC	0.063	3.158	0.002	Significant
CGPT -> IM -> LA -> CC	0.060	3.269	0.001	Significant
LCGI -> IM -> LA -> CC	0.029	2.231	0.026	Significant
PU -> IM -> LA -> CC	0.044	2.178	0.029	Significant

DISCUSSION

ChatGPT-Related Factors and Motivation

The results show that ChatGPT-supported English learning, learner-ChatGPT interaction, and perceived usefulness significantly predicted both intrinsic and extrinsic motivation. These findings suggest that ChatGPT may contribute to EFL learning not only by providing language support but also by shaping students' reasons for engaging in English learning. When students use ChatGPT to receive explanations, examples, feedback, and practice opportunities, they may experience English learning as more accessible and manageable.

ChatGPT-supported English learning had a stronger effect on intrinsic motivation than on extrinsic motivation. This result suggests that general experiences of using ChatGPT for English learning may make learning more interesting, flexible, and personally satisfying. Students can ask questions privately, repeat explanations, request simpler examples, and explore language without the immediate pressure of classroom performance. Such features may support enjoyment and personal engagement, which are central to intrinsic motivation.

Learner-ChatGPT interaction significantly predicted both types of motivation. This finding highlights the importance of active use. Students who engage in follow-up questioning, clarification, and response evaluation are more likely to experience ChatGPT as an interactive learning partner rather than a passive answer machine. This supports the view that the pedagogical value of ChatGPT depends on the quality of learner interaction, not merely the frequency of tool use.

Perceived usefulness showed the strongest effect on extrinsic motivation. This is consistent with TAM, which argues that users are more likely to accept a technology when they believe it enhances performance (Davis, 1989). In English learning, students may be externally motivated when they perceive that ChatGPT helps them complete assignments, prepare for examinations, improve presentations, or develop skills for future academic and career opportunities.

Motivation and Learning Autonomy

Both intrinsic and extrinsic motivation significantly predicted learning autonomy. This result suggests that motivated students are more likely to take responsibility for their own English learning. Intrinsically motivated students may use ChatGPT because they enjoy exploring English, improving their expressions, or receiving immediate explanations. Extrinsically motivated students may use ChatGPT because it helps them achieve academic or professional goals. In both cases, motivation can encourage students to seek resources, practise independently, and monitor their own progress.

The findings also indicate that autonomy in ChatGPT-supported learning should be understood as an outcome of motivational engagement rather than a direct consequence of access to technology. Having ChatGPT available does not automatically make students autonomous. Students become more autonomous when they have reasons to learn, use the tool purposefully, and make decisions about their learning process. This distinction is important for teachers who wish to integrate ChatGPT into language learning. Students may need guidance in setting goals, evaluating AI responses, and transforming ChatGPT output into learning input.

Learning Autonomy and Communicative Confidence

Learning autonomy significantly predicted communicative confidence and showed a medium-to-large effect size. This is one of the most important findings of the study. It suggests that students who take greater responsibility for their English learning are more likely to feel confident using English for communication. Autonomous students may practise more frequently, prepare ideas before speaking, revise their expressions, and monitor their learning progress. These behaviors may reduce uncertainty and increase confidence.

This finding aligns with willingness-to-communicate perspectives, which emphasize that second language communication is influenced by affective and psychological variables as well as linguistic competence (MacIntyre et al., 1998). ChatGPT may not directly guarantee communicative competence, but it may provide a private practice space where learners can prepare language and develop confidence before engaging in real communication. Therefore, communicative confidence may emerge when ChatGPT-supported learning becomes part of a broader autonomous learning routine.

Mediation Effects and Research Contribution

The indirect-effect results support the argument that ChatGPT-related factors contribute to communicative confidence through motivation and learning autonomy. In other words, ChatGPT is unlikely to improve communicative confidence simply because students use it. Rather, students may develop greater confidence when ChatGPT-supported learning enhances their motivation, and when that motivation helps them become more autonomous learners.

This mediation pathway is the main contribution of the study. Previous literature has often discussed ChatGPT's affordances, learner perceptions, writing support, and feedback functions. However, fewer studies have integrated technology acceptance, motivation, autonomy, and communicative confidence in one structural model. By testing these relationships, the present study shows that ChatGPT-supported English learning should be understood as a motivational and self-regulatory process rather than a purely technological phenomenon.

The results also offer a more cautious interpretation of ChatGPT's role in EFL learning. The study does not claim that ChatGPT directly improves English proficiency or speaking performance. Instead, it shows that students' perceptions and interactions with ChatGPT are associated with motivational and affective outcomes. This distinction is important because self-reported confidence is not the same as objectively measured communicative competence. Future research should therefore examine whether these motivational and confidence-related outcomes translate into actual language performance over time.

THEORETICAL AND PRACTICAL IMPLICATIONS

Theoretical Implications

Theoretically, this study contributes to technology-enhanced language learning by integrating constructs from TAM, Self-Determination Theory, learner autonomy theory, and willingness-to-communicate research. The findings show that perceived usefulness remains relevant in the context of generative AI, but its role is better understood when connected to motivation and autonomy. Perceived usefulness was particularly important for extrinsic motivation, suggesting that students value ChatGPT when they believe it helps them achieve academic and practical goals.

The study also extends motivation research by showing that both intrinsic and extrinsic motivation can support autonomy in ChatGPT-assisted EFL learning. This is important because generative AI tools may support different motivational orientations. Some learners may use ChatGPT because it makes English learning enjoyable and personalized; others may use it because it helps them complete tasks and prepare for future opportunities. Both pathways can contribute to autonomous learning.

Finally, the study contributes to research on communicative confidence by identifying learning autonomy as a direct predictor. This suggests that confidence in English communication may be strengthened not only by classroom interaction but also by self-directed learning practices supported by digital tools.

Practical Implications

For teachers, the findings suggest that ChatGPT should be integrated through structured learning tasks rather than left as an unguided tool. Teachers can ask students to use ChatGPT to generate ideas, compare model answers, request grammar explanations, revise drafts, practise question-and-answer exchanges, and reflect on improvements. However, students should also be trained to evaluate ChatGPT responses critically and avoid over-reliance.

For students, the findings indicate that ChatGPT may be most beneficial when it is used as a learning partner rather than a shortcut. Students can use ChatGPT to ask why an expression is incorrect, request alternative phrases, practise with follow-up questions, or create self-study exercises. These practices may support motivation and autonomy more effectively than simply asking ChatGPT to produce final answers.

For universities and curriculum designers, the study highlights the need for AI literacy in English language programs. Institutions should provide clear guidelines on ethical use, privacy, academic integrity, and responsible prompting. This aligns with broader perspectives on digital transformation in education, which emphasize that digital competence should extend beyond technical skills to include critical evaluation, ethical technology use, and the preservation of learner agency (Thanh, 2026). Students should also understand how ChatGPT can support learning without replacing teacher feedback, peer interaction, and authentic communication.

LIMITATIONS AND FUTURE RESEARCH

This study has several limitations. First, it used a cross-sectional design, which means that the results show associations among variables but cannot establish long-term causal effects. Future longitudinal studies should examine whether continued ChatGPT use leads to sustained changes in motivation, autonomy, and communicative confidence.

Second, the study relied on self-reported questionnaire data. Although self-report measures are appropriate for examining perceptions, motivation, autonomy, and confidence, they may be influenced by social desirability or response bias. Future research should include interviews, learning logs, classroom observations, or actual ChatGPT interaction records to provide richer evidence.

Third, the study measured communicative confidence rather than actual English proficiency or speaking performance. Therefore, the findings should not be interpreted as direct evidence that ChatGPT improves speaking ability. Future studies should include performance-based measures such as speaking tests, presentation rubrics, pronunciation analysis, or standardized proficiency scores.

Fourth, the sample was limited to university students who had experience using ChatGPT for English learning. The results may not generalize to younger learners, students who have never used ChatGPT, learners from different proficiency levels, or non-university contexts. Future research should compare different learner groups and examine how proficiency, frequency of use, prompting skill, and teacher guidance influence outcomes.

CONCLUSION

This study examined how ChatGPT-supported English learning is related to university EFL learners' motivation, learning autonomy, and communicative confidence. Based on survey data from 304 students and PLS-SEM analysis, the findings showed that ChatGPT-supported English learning, learner-ChatGPT interaction, and perceived usefulness significantly predicted intrinsic and extrinsic motivation. Motivation significantly predicted learning autonomy, and learning autonomy significantly predicted communicative confidence. The indirect-effect results further showed that ChatGPT-related factors contributed to communicative confidence through motivation and autonomy.

The findings suggest that ChatGPT may support English learning when it becomes part of a purposeful and autonomous learning process. Its value does not lie only in producing language output, but in helping learners ask questions, receive feedback, practise independently, and build confidence. For this potential to be realized, teachers and institutions should guide students to use ChatGPT critically, ethically, and strategically. Future research should move beyond self-reported perceptions and examine how ChatGPT-supported motivation and autonomy translate into measurable language development over time.

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