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PERCEIVED LEARNER AUTONOMY AND FOREIGN LANGUAGE ENJOYMENT IN CHATGPT-ASSISTED L2 WRITING: EVIDENCE FROM SAUDI EFL UNIVERSITY LEARNERS

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ABSTRACT

Recent improvements in artificial intelligence have transformed educational approaches, providing novel opportunities to enhance second language writing and learner growth. This study examined Saudi EFL university students' perceptions of learner autonomy and foreign language enjoyment in the context of ChatGPT-assisted second language writing, along with the correlation between these two constructs. Data were gathered through a quantitative cross-sectional survey using a questionnaire administered to 421 females Saudi EFL university students. The data were examined using descriptive statistics, Pearson's correlation, and one-way analysis of variance. The findings revealed that learners exhibited high levels of perceived autonomy, reflected in independent decision-making and persistence, and foreign language enjoyment, indicated by creativity, reduced anxiety, ease of use, and perceived support. A strong statistically significant correlation was identified between learner autonomy and enjoyment, suggesting that increased perceived autonomy is associated with greater enjoyment in ChatGPT-assisted writing. Analyses also showed that autonomy tended to be higher among older learners and those at higher academic levels, whereas enjoyment levels remained consistently high across all groups. This study contributes to AI-assisted language learning research by emphasizing the interrelated cognitive and affective advantages of employing ChatGPT in a Saudi EFL writing environment.

KEYWORDS: AI-Assisted Language Learning, Chatgpt, Foreign Language Enjoyment, Learner Autonomy, Saudi EFL Learners, L2 Writing.

1. INTRODUCTION

Over the last decade, artificial intelligence (AI) has been extensively integrated into education, particularly in language learning. AI tools provide various educational benefits, including the enhancement of personalized learning experiences (Abas et al., 2023) and learner autonomy (Amonova et al., 2023), and the availability of various learning materials (Nurjanah et al., 2024). These innovations in technology have provided language learners with enhanced opportunities for engagement with their target languages, offering authentic, interactive environments that develop linguistic skills in a meaningful and engaging manner (Bin-Hady et al., 2020). Learner autonomy is fostered by the integration of technology, allowing learners to move along their educational journeys with greater effectiveness (Gutiérrez, 2023).

Among the different AI tools available for independent English learning, ChatGPT has emerged as a popular choice for English as a foreign language (EFL) student. Nonetheless, second language (L2) writing is a challenging skill that demands proficiency in linguistic, structural, and stylistic principles along with clarity of expression, critical thinking, and autonomy (Alzahrani, 2025). Autonomous learners take active responsibility for their educational goals, making informed choices about what, how, and when to learn while skillfully regulating their learning processes in digital and autonomous learning environments (Benson, 2007). Prior studies have established a consistent link between autonomy and enhanced academic performance, increased motivation to learn, and emotional responses in the classroom, emphasizing the importance of autonomy in fostering self-directed learning (Mammadov & Schroeder, 2023; Patrick et al., 1993; Pulfrey et al., 2013).

However, autonomy alone does not guarantee successful learning outcomes; positive affective experiences, particularly foreign language (FL) enjoyment, play an important role in shaping effective learning experiences. FL enjoyment is recognized as a significant factor in language acquisition, promoting learners' self-regulation, perseverance, and attainment through positive emotions including feelings of joy, optimism, and pride (Dewaele & Alfawzan, 2018; Li, 2022; Pekrun et al., 2002).

In technology-mediated language learning contexts, instructional tools may influence FL enjoyment by shaping learners' emotional engagement, such as reducing anxiety or increasing interest. Consequently, ChatGPT has proven to be a

useful resource for language learning; however, its efficacy is dependent upon both its technological capabilities and the emotional and psychological factors of learners.

In the Saudi context, research concerning the integration of AI in EFL has increased; however, it remains insufficient, particularly regarding university-level EFL learners' perceptions and interactions with these technologies in relation to autonomy and enjoyment in L2 writing. Several studies have investigated learners' perceptions of ChatGPT in writing (Alshammri, 2024; Al-Sofi, 2024; Alyami et al., 2025; Othman, 2025), while others have focused on ChatGPT's impact on learner autonomy (Almohesh, 2024; Jaashan, 2025) and the enjoyment associated with ChatGPT in various learning contexts (Al-Abdullatif & Alsubaie, 2024; Alharthi, 2024; Ismail & Alharkan, 2024; Jamshed et al., 2024). However, these studies have generally explored enjoyment within broader learning contexts, not specifically in L2 writing, or investigated autonomy separately from FL enjoyment, and, in some cases, have not directly incorporated AI tools. Accordingly, the present study addresses these gaps by investigating Saudi EFL university learners' perceptions of autonomy and FL enjoyment when using ChatGPT. The study focuses on L2 writing, a skill that remains particularly challenging for Saudi EFL learners, given the limited opportunities to use English in authentic contexts outside the classroom. Specifically, this study extends previous research in three ways. First, it focuses explicitly on ChatGPT-assisted L2 writing, as L2 writing is a skill that remains underexplored in the Saudi EFL context despite its well-documented difficulty. Second, it jointly examines learner autonomy and FL enjoyment within a single empirical model, rather than treating these constructs in isolation. Third, it provides large-scale evidence from 421 Saudi female EFL university learners, thereby offering contextually grounded insights that can inform curriculum design and policy decisions in AI-supported language education.

Within this context, the study seeks to answer the following research questions:

1. What are Saudi EFL learners' perceptions of autonomy when using ChatGPT in L2 writing?
2. What are Saudi EFL learners' perceptions of FL enjoyment when using ChatGPT in L2 writing?
3. To what extent does a relationship exist between learners' perceptions of autonomy and enjoyment in the context of ChatGPT-assisted L2 writing?

2. LITERATURE REVIEW

2.1. *Chatgpt In L2 Writing*

Generative AI (GenAI) technologies have demonstrated considerable educational potential by enhancing learning outcomes, facilitating personalized instruction, and fostering collaboration and engagement in the learning process. Among these technologies, ChatGPT, created by OpenAI and released in November 2022, represents one of the most notable examples of GenAI tools implemented within the field of education (OpenAI, 2022). Researchers have highlighted the model's widespread potential to assist learners in various learning environments (Maurya & Sinha, 2024; Nugroho et al., 2023). In language learning and writing courses, researchers have explored how ChatGPT can offer personalized feedback on writing, foster students' creative writing, help with organizing outlines for term papers (Polakova & Ivenz, 2024), and offer targeted guidance to students (Almohesh, 2024).

Recently, the increasing implementation of AI in language education has led to numerous studies investigating EFL learners' perceptions of ChatGPT. Although numerous studies have examined learners' overall attitudes and experiences with the tool, others have focused on its efficacy and perceived value in improving writing performance. Darma et al. (2023) reported that EFL university students generally supported the incorporation of ChatGPT and recognized its potential to improve their language proficiency and critical thinking. However, concerns existed regarding academic integrity and overreliance. In a similar study, Song and Song (2023) found that students appreciated ChatGPT's role in enhancing motivation and writing quality while also expressing apprehension regarding contextual accuracy and potential dependency.

In the Saudi EFL context, various studies have examined learners' perceptions of ChatGPT, particularly regarding its perceived effectiveness in improving writing skills. Alshammri (2024) indicated that ChatGPT helped students to organize content and provide feedback and personalized support, thus, improving students' writing experiences. Additionally, Al-Sofi (2024) indicated that learners were mostly satisfied with how ChatGPT helped them improve their writing performance. In line with these results, Othman (2025) found that most students had positive feelings about how ChatGPT

helped them improve their writing, particularly those related to motivation, grammar, and ease of use. Alyami et al. (2025) found comparable results, confirming that learners generally had a positive attitude toward AI technology, particularly when it related to writing accuracy, instant feedback and grammar, and vocabulary support.

2.2. *Chatgpt And Autonomy*

Autonomy is defined as the ability of individuals to take charge of their learning (Holec, 1981, p. 3). It also reflects a basic psychological need, expressing a person's desire to behave freely and autonomously in controlling their behavior without outside interference (Lai et al., 2023). The literature on learner autonomy underscores numerous critical insights pertaining to its characteristics and evolution. Learner autonomy grows slowly and incorporates both social and personal aspects. This means that teachers need to adjust their roles, and students need to become active planners of their own learning (Sinclair, 2000).

As technology becomes more integrated into education, researchers have increasingly investigated how digital tools might promote learner autonomy in language acquisition. For example, Agustini (2023) discovered that ChatGPT facilitates personalized learning and self-reflection. Lai et al. (2023) further stated that the model allows students to learn anywhere and at any time. According to Annamalai et al. (2025), this flexibility provides students with the freedom to ask as many questions as they want and receive immediate answers. Furthermore, AI technologies assist learners in recognizing their strengths and weaknesses and enable independent practice of language skills, thereby fostering confidence and motivation (Gutiérrez, 2023).

Recent research has progressively examined the incorporation of ChatGPT into language learning, emphasizing its capacity to enhance learner autonomy by facilitating self-regulated and independent learning methods. Macaskill and Taylor (2010) developed a comprehensive scale that measures university students' autonomy and distinguishes between learning independence and study habits. Based on this idea, recent studies have investigated how the use of ChatGPT may develop similar aspects of autonomy among language learners. For example, Annamalai et al. (2025) revealed that ChatGPT enables students to manage their learning by allowing them to determine their pace, receive instant feedback, and make autonomous decisions.

Concerning the Saudi EFL context, numerous studies have investigated the role of ChatGPT in enhancing learner autonomy. Jaashan (2025) reported that employing the large language model ChatGPT for grammar instruction improved learners' autonomy by encouraging self-directed learning. Alqasham (2023) indicated that Saudi learners perceived ChatGPT as an innovative digital teacher that enhanced autonomy by making them more confident, fluent, and engaged. A similar finding emerged from Almohesh (2024), who discovered that ChatGPT improved students' feelings of autonomy in a variety of ways and emphasized the need to reconceptualize autonomy in the digital age.

2.3. *Chatgpt And Foreign Language Enjoyment*

Recent research on language acquisition has shifted from studying negative emotions such as anxiety to examining positive emotions, with a focus on FL enjoyment (MacIntyre et al., 2020). FL enjoyment is described as the joy, excitement, and satisfaction derived from participating in significant and challenging language activities and occurs when learners' psychological needs are satisfied, and balance between challenge and skill is attained (Mierzwa, 2019). Such positive emotions increase awareness and attentiveness to language inputs and foster resilience (Dewaele & MacIntyre, 2014). Multiple studies have associated FL enjoyment with enhanced learner performance and behavior in class (Li, 2022; Zhu & Aslan, 2023). Among the most prominent contributions, Dewaele and MacIntyre (2014) conducted a survey of 1,746 FL learners and discovered that those with more experience, confidence, and competency were associated with higher levels of FL enjoyment. Their study led to the development of the FL Enjoyment Scale, comprising three sub-dimensions: social, private, and teacher-support enjoyment (Dewaele & MacIntyre, 2016). This scale has served as the basis for subsequent research that has adopted or adapted this measure in diverse language learning settings.

In this regard, according to recent research, AI-powered tools such as ChatGPT can promote positive emotional engagement and learning enjoyment (Shao et al., 2020; Anjarani, et al., 2024). Foroughi et al. (2024) found that using ChatGPT resulted in high levels of enjoyment, usability, and performance expectancy. Luo and Zou (2024) found similar results, demonstrating that enjoyment in ChatGPT-supported learning had a positive effect on motivation and psychological needs for both men and women.

Several recent studies in the Saudi setting have investigated the enjoyment associated with ChatGPT in general learning contexts. Al-Abdullatif and Alsubaie (2024) discovered that perceived enjoyment significantly predicted students' desire to utilize ChatGPT. According to Alharthi (2024), Saudi students found comprehension and communication assignments to be particularly enjoyable. Ismail and Alharkan (2024) found that learners who used AI-based tools had higher levels of satisfaction, self-efficacy, and resilience compared to those in traditional environments. Similarly, Jamshed et al. (2024) recognized students' enthusiasm and positive emotional involvement with ChatGPT while also addressing ethical and critical-thinking concerns.

Existing Saudi research has also examined learners' perceptions of ChatGPT in writing instruction, its influence on fostering learner autonomy, and its impact on FL enjoyment; however, these aspects have generally been separately investigated rather than in an integrated manner (Al-Abdullatif & Alsubaie, 2024; Alshammri, 2024; Jaashan, 2025). Furthermore, most of these studies have focused on general learning contexts rather than on L2 writing, which still presents considerable obstacles for Saudi learners.

Taken together, the reviewed literature suggests that ChatGPT can simultaneously shape both the cognitive-behavioral and affective dimensions of language learning. Its interactive and adaptive features may foster learners' sense of control,

responsibility, and self-regulation, thereby strengthening learner autonomy. In addition, the same features can create a supportive, low-anxiety environment that promotes interest, enjoyment, and resilience. Building on this dual perspective, the present study treats autonomy and FL enjoyment as interrelated outcomes of learners' engagement with ChatGPT-assisted L2 writing, rather than as separate phenomena.

To address the above-mentioned gaps related to the lack of integrated research on learner autonomy and FL enjoyment in ChatGPT-assisted L2 writing and the relationship between them, the present study examines Saudi EFL learners' perceptions of utilizing ChatGPT to enhance learner autonomy and FL enjoyment in L2 writing. Additionally, it explores the potential correlation between these two constructs, offering a comprehensive explanation of how ChatGPT-assisted writing may affect learners' autonomy and enjoyment in L2 writing.

3. METHODOLOGY

3.1. *Research Design*

This study employed a quantitative, cross-sectional survey methodology to examine Saudi EFL university learners' perceptions of learner autonomy and FL enjoyment when utilizing ChatGPT for L2 writing. A correlational method was used to investigate the relationship between learner autonomy and enjoyment in the context of ChatGPT-assisted writing.

3.2. Participants

The initial pool of participants consisted of 440 female students aged 18–25 years enrolled in the Department of English Language and Translation at a Saudi university. Participants had prior exposure to L2 writing through a sequence of university-level EFL writing courses (English Writing I and II; Essay Writing I and II) and had studied EFL for at least 8 years in Saudi public schools before entering university.

Participants were selected using convenience sampling, as they were accessible during the data collection stage. Although the convenience sampling technique may restrict the generalizability of the results, it was deemed suitable considering the study's focus on a particular institutional context.

Prior to data analysis, responses from participants who indicated they had no previous use of ChatGPT for L2 writing were excluded, yielding a final sample of 421 Saudi female EFL university students. Table 1 presents detailed demographic information about the participants.

3.3. Research Instrument

This study utilized a questionnaire to assess Saudi EFL university students' perceptions of learner autonomy and FL enjoyment in the context of ChatGPT-assisted L2 writing. Prior to the main data collection, a pilot study with 10 Saudi EFL university students occurred to assess the clarity, suitability, and efficacy of the questionnaire. In light of the findings from the pilot study, I concluded that offering the questionnaire in both English and Arabic would improve clarity and guarantee accurate comprehension. I translated the questionnaire, which was then examined by two bilingual translators proficient in both languages to ensure linguistic accuracy and conceptual equivalence. The questionnaire consisted of three key sections. The first section gathered demographic information, including age, academic year, and frequency of ChatGPT use. The second consisted of 12 items measuring learner autonomy, and the third included 12 items assessing FL enjoyment in the context of

ChatGPT-assisted L2 writing. All items were measured using a five-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

The items were derived from previously validated scales reported in previous research, including that by Annamalai et al. (2025), Macaskill and Taylor (2010), and Dewaele and MacIntyre (2014). Items were selected based on their relevance to the underlying constructs of learner autonomy and FL enjoyment.

Specifically, items measuring learner autonomy were adapted from the autonomous learning scale (Macaskill & Taylor, 2010) and autonomy-related items identified in Annamalai et al. (2025). These items were selected to reflect learners' self-directed engagement in ChatGPT-assisted L2 writing while retaining the original conceptual meaning. FL enjoyment items were adapted from the FL Enjoyment Scale designed by Dewaele and MacIntyre (2014) and rephrased to assess learners' positive emotional experiences when they use ChatGPT for L2 writing. Conceptually overlapping items were revised to eliminate redundancy and to ensure comprehensive coverage of each item.

3.4. Reliability And Validity

Content validity was established via expert evaluation and preliminary testing prior to the main data collection. Two experts in applied linguistics and L2 writing assessed the clarity, relevance, and representativeness of the items, leading to minor modifications based on their feedback.

Cronbach's alpha was used to evaluate the reliability of internal consistency. The learner autonomy ($\alpha = .83$) and FL enjoyment ($\alpha = .87$) subscales surpassed the required threshold of .70, thus, demonstrating satisfactory internal consistency.

3.5. Data Collection

Data were gathered through an online questionnaire via Google Forms for efficient distribution and subsequent collection of responses. The questionnaire link was distributed through class communication channels and social media platforms. Participation was voluntary, and participants were informed of the study's objectives, confidentiality, and their right to withdraw at any time. Informed consent was obtained by clicking "agree to participate" on the first page of the questionnaire. No compensation was offered. Anonymity was ensured by not collecting identifying information and by analyzing responses in aggregate form. Participants were advised to express their honest opinions.

3.6. Data Analysis

Data were analyzed with SPSS (version 29.0). Prior to analysis, the data were screened for completeness and accuracy. Additionally, prior to computing the learner autonomy composite score, the negatively worded item ("I often make excuses for not doing my English writing tasks, even though ChatGPT is available to help me") was reverse-coded (1↔5, 2↔4, 3=3) to ensure that higher scores consistently indicated higher levels of learner autonomy. Descriptive statistics, including means and standard deviations, were calculated to assess learners' perceptions of autonomy and enjoyment. Pearson's correlation coefficient was employed to examine the relationship between learner autonomy and FL enjoyment. A one-way analysis of variance (ANOVA) was also performed to analyze variations in autonomy and enjoyment relative to demographic characteristics (age and academic level). Statistical significance was established at $p < .05$ for all analyses.

3.7. Ethical Considerations

The study adhered to institutional and national ethical guidelines for research involving human participants. Ethical approval was obtained from the relevant institutional review board prior to data collection. Participation was entirely voluntary, and no identifying information was collected. Informed consent was obtained electronically on the first page of the questionnaire, on which participants were informed about the purpose of the study, the approximate time required, their right to withdraw at any stage without penalty, and the confidential treatment of their responses.

4. RESULTS

4.1. Participants Characteristics and Patterns of Chatgpt Use

The original study sample comprised 440 Saudi EFL university learners enrolled in university-level English language programs. However, because the study measures and outcomes focused on experiences and perceptions related to actual ChatGPT use, only participants who reported prior use of ChatGPT for English writing were retained for analysis. Accordingly, 421 learners who had used ChatGPT were included, and 19 learners who reported no prior use were excluded, in line with the study specifications and measurement requirements (Table 1). Most participants were aged 18–20 years ($n = 202$, 48.0%), followed closely by those aged 21–24 years ($n = 203$, 48.2%), while a small minority were older than 25 years ($n = 16$, 3.8%; Table 1). Academic levels spanned Levels 1 to 10, which correspond to the university's English language program sequence, ranging from beginner (Level 1) to advanced proficiency (Level 10). The largest proportions were observed in Level 9 ($n = 71$, 16.9%) and Level 4 ($n = 69$, 16.4%), followed by Level 1 ($n = 66$, 15.7%) and Level 6 ($n = 61$, 14.5%). Level 3 included 51 learners (12.1%), whereas Levels 7 and 10 included 32 learners (7.6%) each. Level 8 accounted for 26 learners (6.2%), and Level 5 represented the smallest group ($n = 9$, 2.1%; Table 1). Regarding patterns of ChatGPT use for English writing, the largest share of learners reported using ChatGPT sometimes ($n = 198$, 47.0%), followed by those who used it often ($n = 128$, 30.4%), and those who always used it ($n = 57$, 13.5%). A smaller proportion reported using it rarely ($n = 38$, 9.0%; Table 1).

Table 1: The Distribution of Participants' Characteristics and Chatgpt Use.

Variable	Category	n (%)
Age (years)	18-20	202 (48.0%)
	21-24	203 (48.2%)
	> 25	16 (3.8%)
Academic level (1-10)	Level 1	66 (15.7%)
	Level 2	4 (1.0%)
	Level 3	51 (12.1%)
	Level 4	69 (16.4%)
	Level 5	9 (2.1%)
	Level 6	61 (14.5%)
	Level 7	32 (7.6%)
	Level 8	26 (6.2%)
	Level 9	71 (16.9%)
	Level 10	32 (7.6%)
Frequency of ChatGPT use for English writing	Rarely	38 (9.0%)
	Sometimes	198 (47.0%)
	Often	128 (30.4%)
	Always	57 (13.5%)

Note: N = 421 Saudi EFL University Learners Enrolled in English Language Programs at the University Level.

4.2. Learner Autonomy Related to Chatgpt Use

Table 2 presents the descriptive statistics for learner autonomy items related to ChatGPT use among the 421 Saudi EFL university learners included in the final analysis. The overall average score for learner autonomy was 3.64 ± 0.56 , which falls within the “high” range according to Oxford’s scoring system (high = 3.5 or above, medium = 2.5–3.4, low = 2.4 or lower). This finding indicates that, on average, participants reported they felt a high level of autonomy when using ChatGPT in their English writing.

At the item level, most statements reflected high levels of autonomy. Learners reported feeling free to decide how and when they used ChatGPT for their writing tasks (3.93 ± 0.89 , high). They also felt comfortable using ChatGPT to learn and develop their English writing (3.85 ± 0.90 , high). Participants indicated that they felt free to express themselves, their opinions, and their concerns when using ChatGPT for English writing (3.71 ± 0.99 , high; Table 2).

Autonomous engagement with challenging writing tasks was also strong. When writing tasks were difficult, learners reported that they continued working and used ChatGPT to improve (4.12 ± 0.79 , high), which resulted in one of the highest autonomy-related scores. They similarly reported enjoying searching for information and ideas for writing topics using ChatGPT (4.05 ± 0.96 , high) and being willing to try new ways of completing familiar

writing tasks with ChatGPT support (4.04 ± 0.81 , high).

Responsibility and self-regulation components of autonomy were also rated positively. Learners indicated that they took responsibility for their writing development with the help of ChatGPT (3.82 ± 0.93 , high) and that they enjoyed the challenge of improving their writing through ChatGPT feedback (3.85 ± 0.94 , high). Motivation to complete writing tasks on time when using ChatGPT was also high (3.67 ± 0.98 , high; Table 2).

Time management and independent work showed similarly favorable patterns. Participants reported organizing their time effectively when working on English writing tasks using ChatGPT (3.56 ± 0.97 , high) and meeting deadlines for submitting writing tasks with ChatGPT support (3.72 ± 1.09 , high). They also felt satisfied when working independently on their English writing with the help of ChatGPT (3.78 ± 1.03 , high).

Nonetheless, one item showed a comparatively low mean within the autonomy set. The statement “I often make excuses for not doing my English writing tasks, even though ChatGPT is available to help me” had a mean of 2.07 ± 1.04 , which falls in the “low” range (Table 2). Because this statement is negatively worded, it was reverse-coded when calculating the overall autonomy score. This low level of agreement suggests that most learners did not frequently avoid their writing tasks despite having access to ChatGPT, which aligns with the generally high autonomy profile observed across the remaining items.

Table 2: Descriptive Statistics of Learner Autonomy Items Related to Chatgpt Use.

Item (statement)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean ± SD
I feel comfortable using ChatGPT to learn and develop my English writing.	6 (1.4%)	23 (5.5%)	99 (23.5%)	192 (45.6%)	101 (24.0%)	3.85 ± 0.90
I feel free to decide how and when to use ChatGPT in my writing tasks.	6 (1.4%)	22 (5.2%)	80 (19.0%)	202 (48.0%)	111 (26.4%)	3.93 ± 0.89
I feel free to express myself, my opinions, and my concerns when using ChatGPT for English writing.	8 (1.9%)	45 (10.7%)	104 (24.7%)	169 (40.1%)	95 (22.6%)	3.71 ± 0.99
My instructor supports my choice to use ChatGPT in learning English writing.	53 (12.6%)	82 (19.5%)	183 (43.5%)	81 (19.2%)	22 (5.2%)	2.85 ± 1.04
Even when writing tasks are difficult, I keep working and use ChatGPT to improve.	3 (0.7%)	16 (3.8%)	43 (10.2%)	226 (53.7%)	133 (31.6%)	4.12 ± 0.79
I enjoy searching for information and ideas for writing topics using ChatGPT.	11 (2.6%)	23 (5.5%)	48 (11.4%)	190 (45.1%)	149 (35.4%)	4.05 ± 0.96
I am willing to try new ways to complete familiar writing tasks with the help of ChatGPT.	5 (1.2%)	13 (3.1%)	63 (15.0%)	221 (52.5%)	119 (28.3%)	4.04 ± 0.81
I take responsibility for my writing development with the help of ChatGPT.	8 (1.9%)	31 (7.4%)	87 (20.7%)	198 (47.0%)	97 (23.0%)	3.82 ± 0.93
I enjoy the challenge of improving my writing through ChatGPT feedback.	7 (1.7%)	33 (7.8%)	82 (19.5%)	195 (46.3%)	104 (24.7%)	3.85 ± 0.94
I feel motivated to complete my writing tasks on time when using ChatGPT.	10 (2.4%)	46 (10.9%)	96 (22.8%)	189 (44.9%)	80 (19.0%)	3.67 ± 0.98

I often make excuses for not doing my English writing tasks, even though ChatGPT is available to help me.	141 (33.5%)	173 (41.1%)	56 (13.3%)	40 (9.5%)	11 (2.6%)	2.07 ± 1.04
I organize my time effectively when working on English writing tasks using ChatGPT.	10 (2.4%)	53 (12.6%)	111 (26.4%)	185 (43.9%)	62 (14.7%)	3.56 ± 0.97
I meet deadlines for submitting writing tasks with the help of ChatGPT.	16 (3.8%)	47 (11.2%)	86 (20.4%)	161 (38.2%)	111 (26.4%)	3.72 ± 1.09
I feel satisfied when working independently on my English writing with the help of ChatGPT.	13 (3.1%)	39 (9.3%)	84 (20.0%)	178 (42.3%)	107 (25.4%)	3.78 ± 1.03
Overall learner autonomy average score	3.64 ± 0.56					

Note: N = 421 Saudi EFL University Learners Enrolled in English Language Programs at the University Level.

Level classification according to Oxford's scoring system (2001): high = 3.5 or above, medium = 2.5–3.4, low = 2.4 or lower.

4.3. *Enjoyment Related to Chatgpt Use*

Table 3 presents the descriptive statistics for enjoyment items related to ChatGPT use among the 421 Saudi EFL university learners included in the final analysis. The overall enjoyment mean score was 3.80 ± 0.61 , which falls within the "high" range according to Oxford's scoring system. This indicates that, overall, learners experienced a high level of enjoyment when using ChatGPT for English writing.

At the item level, learners reported strong positive affect and engagement. They agreed that they could be creative when using ChatGPT in English writing (3.95 ± 0.95 , high). They also reported that they did not feel embarrassed when making mistakes while using ChatGPT for writing (3.75 ± 1.11 , high), and they perceived writing with ChatGPT as enjoyable and fun (3.81 ± 1.01 , high; Table 3).

Perceptions of personal growth and self-expression were also favorable. Participants reported that they learned to express themselves better when using ChatGPT for English writing (3.72 ± 1.03 , high) and that they learned interesting things through ChatGPT use (4.15 ± 0.85 , high), which produced one of the highest enjoyment-related scores. In contrast, a

smaller set of items related to identity and self-worth fell within the medium range. The statement "I feel like a different person when writing using ChatGPT" had a mean of 3.11 ± 1.13 (medium). Similarly, "I feel valued as a learner when using ChatGPT in English writing" (3.21 ± 1.11 , medium) and "I feel proud of my achievements when writing using ChatGPT" (3.18 ± 1.13 , medium) reflected moderate levels of agreement (Table 3).

The learning environment surrounding ChatGPT use was rated very positively. Learners agreed that ChatGPT provides a positive environment for learning English writing (4.05 ± 0.83 , high) and viewed making mistakes during ChatGPT-assisted writing as a natural part of learning (4.03 ± 0.95 , high). ChatGPT was also perceived as motivating and encouraging learners to continue improving (3.99 ± 0.93 , high). Its ease of use and supportive function received the highest ratings: learners strongly agreed that ChatGPT is easy to use for writing (4.24 ± 0.82 , high) and that it supports them when they face difficulties in English writing (4.31 ± 0.79 , high), with the latter providing the highest mean in the enjoyment scale. Finally, learners reported a shared social dimension of enjoyment, indicating that they and their classmates share situations and jokes about writing with ChatGPT (3.73 ± 1.10 , high; Table 3).

Table 3: Descriptive Statistics of Enjoyment Items Related to Chatgpt Use.

Item (statement)	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean ± SD
I can be creative when using ChatGPT in English writing.	8 (1.9%)	28 (6.7%)	68 (16.2%)	190 (45.1%)	127 (30.2%)	3.95 ± 0.95
I do not feel embarrassed when I make mistakes while using ChatGPT for writing.	14 (3.3%)	53 (12.6%)	79 (18.8%)	153 (36.3%)	122 (29.0%)	3.75 ± 1.11
Writing using ChatGPT is enjoyable and fun.	10 (2.4%)	34 (8.1%)	100 (23.8%)	160 (38.0%)	117 (27.8%)	3.81 ± 1.01
I feel like a different person when writing using ChatGPT.	32 (7.6%)	101 (24.0%)	131 (31.1%)	105 (24.9%)	52 (12.4%)	3.11 ± 1.13
I learned to express myself better when using ChatGPT in English writing.	12 (2.9%)	45 (10.7%)	94 (22.3%)	170 (40.4%)	100 (23.8%)	3.72 ± 1.03
I feel valued as a learner when using ChatGPT in English writing.	33 (7.8%)	70 (16.6%)	149 (35.4%)	113 (26.8%)	56 (13.3%)	3.21 ± 1.11
I learned interesting things when using ChatGPT in English writing.	6 (1.4%)	13 (3.1%)	48 (11.4%)	198 (47.0%)	156 (37.1%)	4.15 ± 0.85
I feel proud of my achievements when writing using ChatGPT.	38 (9.0%)	66 (15.7%)	158 (37.5%)	100 (23.8%)	59 (14.0%)	3.18 ± 1.13

ChatGPT provides a positive environment for learning English writing.	5 (1.2%)	9 (2.1%)	78 (18.5%)	199 (47.3%)	130 (30.9%)	4.05 ± 0.83
Making mistakes while using ChatGPT is a natural part of learning English writing.	11 (2.6%)	21 (5.0%)	56 (13.3%)	191 (45.4%)	142 (33.7%)	4.03 ± 0.95
ChatGPT encourages and motivates me to continue improving my English writing.	8 (1.9%)	19 (4.5%)	80 (19.0%)	178 (42.3%)	136 (32.3%)	3.99 ± 0.93
ChatGPT is easy to use for writing.	4 (1.0%)	11 (2.6%)	47 (11.2%)	176 (41.8%)	183 (43.5%)	4.24 ± 0.82
ChatGPT supports me when I face difficulties in English writing.	4 (1.0%)	9 (2.1%)	35 (8.3%)	179 (42.5%)	194 (46.1%)	4.31 ± 0.79
My classmates and I share situations and jokes about writing using ChatGPT.	24 (5.7%)	31 (7.4%)	91 (21.6%)	164 (39.0%)	111 (26.4%)	3.73 ± 1.10
Overall enjoyment mean score						3.80 ± 0.61

Note: N = 421 Saudi EFL University Learners Enrolled in English Language Programs at the University Level.

Level classification according to Oxford’s scoring system (2001): high = 3.5 or above, medium = 2.5–3.4, low = 2.4 or lower.

4.4. Relationship Between Learner Autonomy and Enjoyment

The relationship between overall learner autonomy and overall enjoyment was examined using Pearson’s correlation coefficient (Table 4). There was a strong, positive, and statistically significant correlation between the overall learner autonomy average score and the overall enjoyment

mean score ($r = 0.779, p < .001; N = 421$). This correlation indicates that higher levels of perceived autonomy were associated with higher levels of enjoyment in ChatGPT-assisted English writing among the participants.

Figure 1 illustrates this relationship visually. The scatter plot shows a clear upward trend, indicating that as learners’ autonomy scores increased, their enjoyment scores also tended to increase, which was consistent with the large correlation coefficient reported in Table 4.

Table 4: Correlation Matrix Between Overall Learner Autonomy and Overall Enjoyment Mean Scores.

Variable	Learner autonomy average score	Enjoyment mean score
1. Overall learner autonomy average score	1.000	0.779**
2. Overall enjoyment mean score	0.779**	1.000

Note: N = 421 Saudi EFL University Learners Enrolled in English Language Programs at the University Level.

** Correlation Is Significant at the 0.01 Level (2-Tailed).

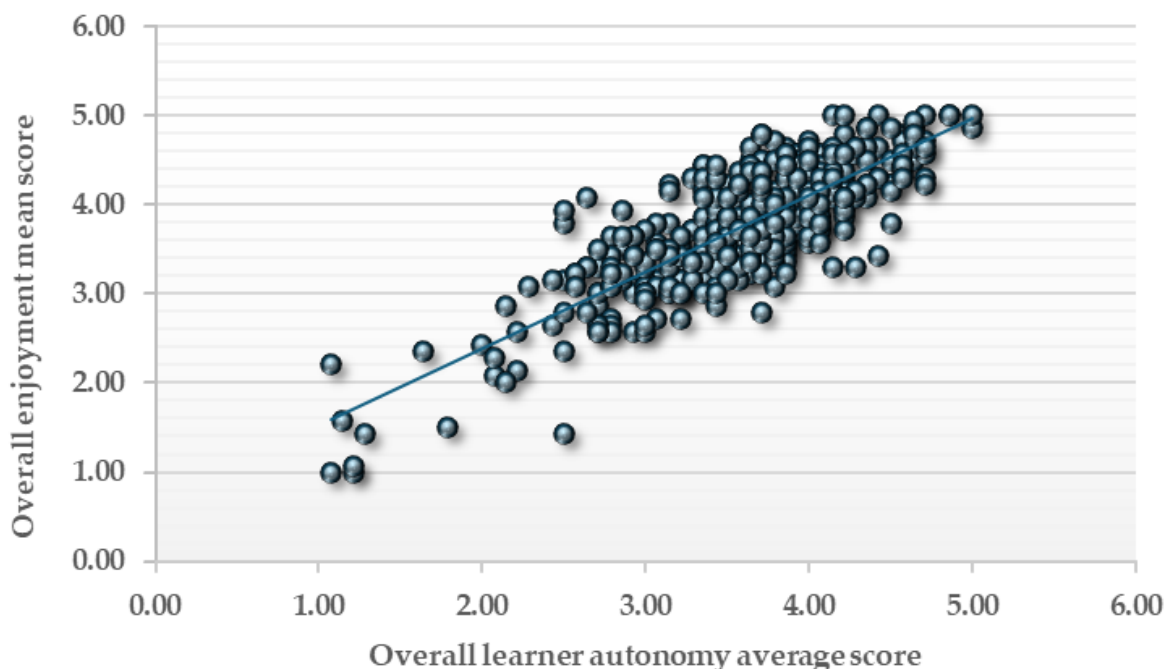


Figure 1: Relationship Between Overall Learner Autonomy and Overall Enjoyment Mean Scores in Chatgpt-Assisted L2 Writing.

Note: N = 421 Saudi EFL University Learners Enrolled in English Language Programs at the University Level)

4.5. Differences In Autonomy and Enjoyment by Demographic and Chatgpt-Use Variables

Table 5 presents the mean scores for learner autonomy and enjoyment across age and academic level, along with the corresponding p -values from the one-way ANOVA. For age, learner autonomy differed significantly across age groups ($p = 0.031$). Learners aged 18–20 years reported a mean autonomy score of 3.57, compared with 3.71 among those aged 21–24 years, and 3.67 among those older than 25 years (Table 5). In contrast, enjoyment did not differ significantly according to age ($p = 0.113$), although the mean enjoyment score showed a small upward trend from 3.74 (18–20 years) to 3.86 (21–24 years) and 3.89 (> 25 years; Table 5).

With regard to academic level, autonomy scores varied significantly across levels ($p = 0.007$). The lowest autonomy mean was observed at Level 5 (3.11), whereas the highest means were recorded at Level 8 (3.82) and Level 6 (3.79), followed by Level 9 (3.75; Table 5). Enjoyment scores also differed significantly according to academic level ($p = 0.040$). Enjoyment ranged from a low of 3.19 at Level 5 to a high of 3.97 at Level 8, with relatively higher values also seen at Level 6 (3.91) and Level 9 (3.90; Table 5).

Because the final analytical sample included only learners who reported prior ChatGPT use for English writing ($N = 421$), between-group comparisons involving “previous use” (users vs. non-users) were not applicable in the updated analysis.

Table 5: Mean Learner Autonomy and Enjoyment Scores by Demographic and Chatgpt-Use Variables.

Variable	Category	Autonomy (Mean)	p -value	Enjoyment (Mean)	p -value
Age (years)	18–20	3.57	0.031	3.74	0.113
	21–24	3.71		3.86	
	> 25	3.67		3.89	
Academic level	Level 1	3.62	0.007	3.77	0.040
	Level 2	3.59		3.89	
	Level 3	3.54		3.75	
	Level 4	3.53		3.72	
	Level 5	3.11		3.19	
	Level 6	3.79		3.91	
	Level 7	3.60		3.73	
	Level 8	3.82		3.97	
	Level 9	3.75		3.90	
	Level 10	3.65		3.80	

Note: $N = 421$ Saudi EFL University Learners Enrolled in English Language Programs at the University Level.

5. DISCUSSION

This study examined Saudi EFL university learners' perceptions of learner autonomy and FL enjoyment while utilizing ChatGPT for L2 writing, along with the relationship between these two constructs. The results indicated high levels of perceived autonomy and enjoyment in ChatGPT-assisted writing, along with a significant positive correlation between the two measures.

The high autonomy scores indicate that ChatGPT served as a supportive tool for personalized and self-directed learning, helping learners to recognize their strengths and weaknesses and to persist when faced with difficult writing tasks. This finding aligns with previous research emphasizing the importance of AI tools to encourage self-directed and autonomous learning (Agustini, 2023; Almohesh, 2024; Lai et al., 2023; Annamalai et al., 2025). Specifically, learners indicated that persistence, responsibility for writing improvement, and time management are consistent with the definition of autonomy that prescribes assuming control over one's own learning in digital environments (Benson,

2007; Macaskill & Taylor, 2010).

Equally, learners reported high levels of FL enjoyment when using ChatGPT for L2 writing, including increased creativity, reduced anxiety, ease of use, and perceived support. The findings are consistent with research suggesting that AI-enhanced learning environments promote positive emotional engagement and reduce affective obstacles in learning a new language (Foroughi et al., 2024; Luo et al., 2024; Shao et al., 2020). The findings also add to those of previous Saudi-based studies (Al-Abdullatif & Alsubaie, 2024; Ismail & Alharkan, 2024) by illustrating that enjoyment is present not only in general language learning environments but also in the cognitively and affectively challenging area of L2 writing.

The strong positive relationship between autonomy and enjoyment suggests that learners who felt more autonomous when using ChatGPT also experienced increased enjoyment. This supports the idea that autonomy-supportive learning environments enhance positive emotions and engagement (Dewaele & Alfawzan, 2018; Dewaele &

MacIntyre, 2014; Pekrun et al., 2002; Pulfrey et al., 2013).

These findings can also be interpreted through the lens of self-determination and control-value perspectives on academic emotions. From a self-determination standpoint, learners who perceive greater autonomy over their use of ChatGPT are more likely to experience intrinsic motivation and positive emotions, which in turn sustain their engagement with challenging writing tasks (Deci & Ryan, 2012). Similarly, control-value theory posits that enjoyment arises when learners feel both competent and in control of valued activities (Pekrun et al., 2002). In the present study, ChatGPT appears to enhance students' perceived control over the writing process and to increase the perceived value of L2 writing by making it more manageable and personally meaningful, thereby supporting higher levels of FL enjoyment.

The demographic analyses indicated that older learners and those at higher academic levels exhibited greater autonomy, although enjoyment remained consistently high across all levels. These patterns suggest that experience and academic progression may strengthen learners' sense of control over ChatGPT-assisted writing, while positive emotions associated with using the tool are broadly shared among students.

6. CONCLUSION

In response to the first research question, this study revealed that Saudi EFL university students perceive high levels of learner autonomy and FL enjoyment when utilizing ChatGPT for L2 writing. The findings indicated that learners regarded ChatGPT as a useful tool that assisted them in managing their learning, enduring difficult writing assignments, and exploring new concepts while being engaging and easy to use. Regarding the second research question, the results revealed a positive and statistically significant relationship between learner autonomy and FL enjoyment, suggesting that students who experienced greater autonomy when using ChatGPT also tended to report high levels of enjoyment.

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From a pedagogical perspective, the findings suggest that ChatGPT can be purposefully integrated into EFL writing curricula as a scaffold rather than a replacement for learners' own efforts. For example, instructors could encourage students to use ChatGPT for idea generation, planning, and revising drafts while explicitly guiding them to critically evaluate and adapt the model's suggestions. Teacher-led activities that ask students to reflect on how ChatGPT supports their decision-making, time management, and emotional regulation could further strengthen autonomy and enjoyment. At the institutional level, clear guidelines on ethical and responsible AI use are essential to maximize the learning benefits of ChatGPT while minimizing overdependence and academic integrity concerns.

The findings indicate that, when carefully incorporated into writing instruction, ChatGPT can serve as an effective scaffolding technique that enhances self-regulation and positive affect in L2 writing. Nonetheless, the results also show there is a need for educational guidance to prevent dependency and promote ethical AI use. Several limitations should be acknowledged. First, the convenience sample was drawn from a single Saudi university and included only female participants, which limits the generalizability of the findings. Second, the study relied on a cross-sectional self-report design which may be subject to common-method variance and social-desirability bias. Moreover, the cross-sectional nature of the data does not allow for causal interpretations of the observed relationships. Therefore, future studies could adopt longitudinal or intervention-based designs to track how autonomy and enjoyment evolve as learners gain more sustained experience with ChatGPT-assisted writing. Experimental comparisons between AI-supported and traditional writing instruction would also help disentangle the specific contribution of ChatGPT to cognitive and affective outcomes. In addition, mixed-methods approaches that combine survey data with classroom observations, think-aloud protocols, or analysis of learners' written products would provide a richer account of how students actually engage with ChatGPT during the writing process.

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