Academic Writing in Higher Education: A Systematic Literature Review of Psychological, Pedagogical, and Technology-Enhanced Perspectives

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ABSTRACT

Academic writing is central to success in higher education, yet research on what shapes students' writing motivation and performance remains divided across psychological, pedagogical and technological lines of inquiry. This systematic literature review synthesises recent empirical evidence on academic writing motivation in higher education. Following the PRISMA 2020 guidelines and using the PICo framework to define the review questions, Scopus and Web of Science were searched for studies published between 2022 and 2026. Of 327 records identified, 18 peer-reviewed empirical journal articles met the inclusion criteria and were quality appraised. Thematic synthesis produced three themes. Psychological, motivational and learner-related factors were examined most often (11 studies, 61.11%), with self-efficacy, goal orientation, anxiety, engagement and perceived difficulty emerging as key influences on writing behaviour and quality. Technology-enhanced writing, feedback, assessment and AI-supported learning formed the second theme (4 studies, 22.22%). These studies covered e-portfolios, digital storytelling, computer-based feedback and artificial intelligence (AI). Their benefits depended on instructional design, digital readiness, learner motivation and continued human support, and evidence of a direct effect of AI on writing performance was limited. Pedagogical and instructional approaches formed the third theme (3 studies, 16.67%): problem-based and socio-constructivist instruction were associated with stronger motivation, self-regulation, engagement and performance. Interpreted through Social Cognitive Theory, Social Constructivist Theory and Activity Theory, the findings suggest that writing outcomes depend on how learner beliefs, instruction and tools work together, although few studies examined these interactions directly. The review recommends integrated writing support and calls for longitudinal, cross-context research on these interactions, including the ethical use of AI in academic writing.

Keywords: Academic writing; higher education; writing motivation; self-efficacy; technology-enhanced learning

INTRODUCTION

Background of the study

Academic writing is a core requirement of higher education. Students are expected to engage with disciplinary knowledge, build arguments from sources and demonstrate their learning through assignments, reports and theses. Many students, particularly those writing in a second or foreign language, find these demands difficult,

and the difficulty is not only linguistic. Students' beliefs about their ability, their reasons for writing and their emotional responses to writing tasks all influence how much effort they invest and how well they perform (Pajares, 2003; Philippakos et al., 2023).

Recent studies continue to show the importance of these psychological factors. Peer scaffolding and emotional support can strengthen motivation and encourage students to take risks in their writing (Khoi et al., 2026). In contrast, fear of failure and low confidence have been linked with greater vulnerability to academic misconduct (Ajit et al., 2024). At the same time, students' writing experiences are shaped by the instruction they receive and, increasingly, by the digital tools available to them.

Statement of Problem

Instructional approaches such as problem-based learning and socio-constructivist instruction have been associated with stronger motivation, engagement and writing performance (Bilgin & Yildiz, 2024; Wu et al., 2026; Yang, 2024). Digital tools, including e-portfolios, digital storytelling, computer-based feedback and artificial intelligence (AI), offer further forms of support (Meletiadou, 2022; Ngui et al., 2022). However, these benefits are not automatic. They depend on instructional design, learner motivation, digital readiness and continued human guidance (Alnasser & Almoaily, 2026; Mwilongo & Mwita, 2025). Generative AI is now widely available to students, so universities need a clearer picture of how learner, instructional and technological factors combine to support academic writing.

Research Gap

Three earlier reviews are relevant to this study. Pajares (2003) reviewed research on self-efficacy beliefs, motivation and achievement in writing and concluded that writers' confidence in their own capabilities is closely related to their writing performance and to other motivational constructs. Camacho et al. (2021) later conducted a systematic review of empirical research on writing motivation published in the early twenty-first century, documenting the wide range of motivational constructs examined in the field. Both reviews, however, concentrated largely on writers in school settings and predate the arrival of AI-supported writing tools. More recently, Nur et al. (2025) reviewed motivation in second language (L2) academic writing, tracing the development of motivational frameworks and discussing learners' self-efficacy, task characteristics, the learning environment, and feedback and technology-based interventions, including generative AI. Their review proposes a model in which motivation arises from the interaction of identity, agency and context. The present review complements this work in three ways: it focuses specifically on higher education; it follows a transparent PRISMA 2020 protocol with an explicit database search and quality appraisal of recent empirical studies (2022–2026); and it interprets the evidence through three complementary theories that correspond to the psychological, pedagogical and technological dimensions.

In higher education, psychological factors, pedagogical practices and technology-enhanced approaches are usually examined in separate studies, which leaves a fragmented understanding of how they relate to one another. Evidence on emerging technologies is also inconsistent. For example, Mwilongo and Mwita (2025) found that the relationship between AI use and academic performance operated through students' intrinsic motivation, and they found insufficient evidence that AI use in academic writing directly improved performance. A synthesis that brings the three perspectives together, using recent evidence from higher education, is therefore needed. This review addresses that gap.

Research Questions

The research questions were formulated using the PICo framework (Population, phenomenon of Interest, Context; Lockwood et al., 2015), as described in Section 3.0. The review addresses three research questions:

RQ1

What psychological, motivational and learner-related factors influence students' academic writing experiences, engagement and performance in higher education?

RQ2

What pedagogical and instructional approaches are used to enhance students' motivation, engagement and performance in academic writing?

RQ3

How are technology-enhanced approaches, including digital feedback, assessment tools and artificial intelligence, used to support students' academic writing motivation and performance?

LITERATURE REVIEW

Theoretical Framework

Social Cognitive Theory and Learner-Related Factors

Social Cognitive Theory (SCT; Bandura, 1986, 1997) provides a strong basis for examining the psychological, motivational and learner-related factors in academic writing. The theory explains human learning and behaviour as the product of reciprocal interactions among personal factors, behaviour and the environment. Its central concept, self-efficacy, refers to a person's belief in their ability to perform a particular task successfully. In writing, students with high self-efficacy tend to be more confident, persistent and motivated, and more willing to apply appropriate writing strategies, whereas students with low self-efficacy are more likely to experience anxiety, avoidance or fear of failure (Pajares, 2003). SCT also highlights the roles of self-regulation, goal setting, feedback and social support in shaping learning behaviour. These processes are evident in academic writing, where students must manage complex tasks, respond to feedback and persist through difficulty. SCT therefore offers an appropriate lens for understanding how motivation, confidence, anxiety, self-beliefs and environmental support influence students' engagement and performance in academic writing.

Social Constructivist Theory and Pedagogical Approaches

This review draws on Social Constructivist Theory (Vygotsky, 1978) to examine the pedagogical and instructional approaches that enhance writing motivation and performance. From this perspective, learning is an active and social process in which students construct new knowledge through interaction with instructors and peers. In academic writing, competence develops not through solitary practice alone but through instructor guidance, peer collaboration, feedback, discussion and structured learning activities. Vygotsky's Zone of Proximal Development describes the gap between what learners can do independently and what they can achieve with support. The related concept of scaffolding (Wood et al., 1976) explains how temporary, adjustable support enables learners to complete writing tasks they could not yet manage alone. These ideas align with learner-centred approaches such as problem-based learning, collaborative writing and socio-constructivist instruction, in which students participate actively and build knowledge through authentic writing tasks. Social Constructivist Theory therefore helps to explain how interactive and supportive instructional environments may promote students' motivation and performance in academic writing.

Activity Theory and Technology-Enhanced Writing

Activity Theory, particularly the framework developed by Engeström (1987), offers a useful lens for understanding technology-enhanced writing, feedback, assessment and AI-supported learning. The theory views learning as an activity system in which a subject works towards an object (the goal of the activity) through mediating tools, within a community that is governed by rules and organised by a division of labour. Digital technologies such as e-portfolios, digital storytelling, computer-based feedback and AI can be understood as mediating tools that shape how students engage in academic writing. Activity Theory emphasises that a tool alone does not guarantee successful learning. Its effectiveness depends on how it fits with instructional design, teacher guidance, peer interaction, institutional expectations, and students' motivation and digital readiness. This makes the theory particularly relevant to technology-supported academic

writing, because it accounts for both the benefits and the constraints of digital tools within a wider learning context. Activity Theory thus helps to explain how learners, technologies, teaching practices and social support interact to influence writing motivation, feedback processes, assessment and performance.

CONCEPTUAL FRAMEWORK

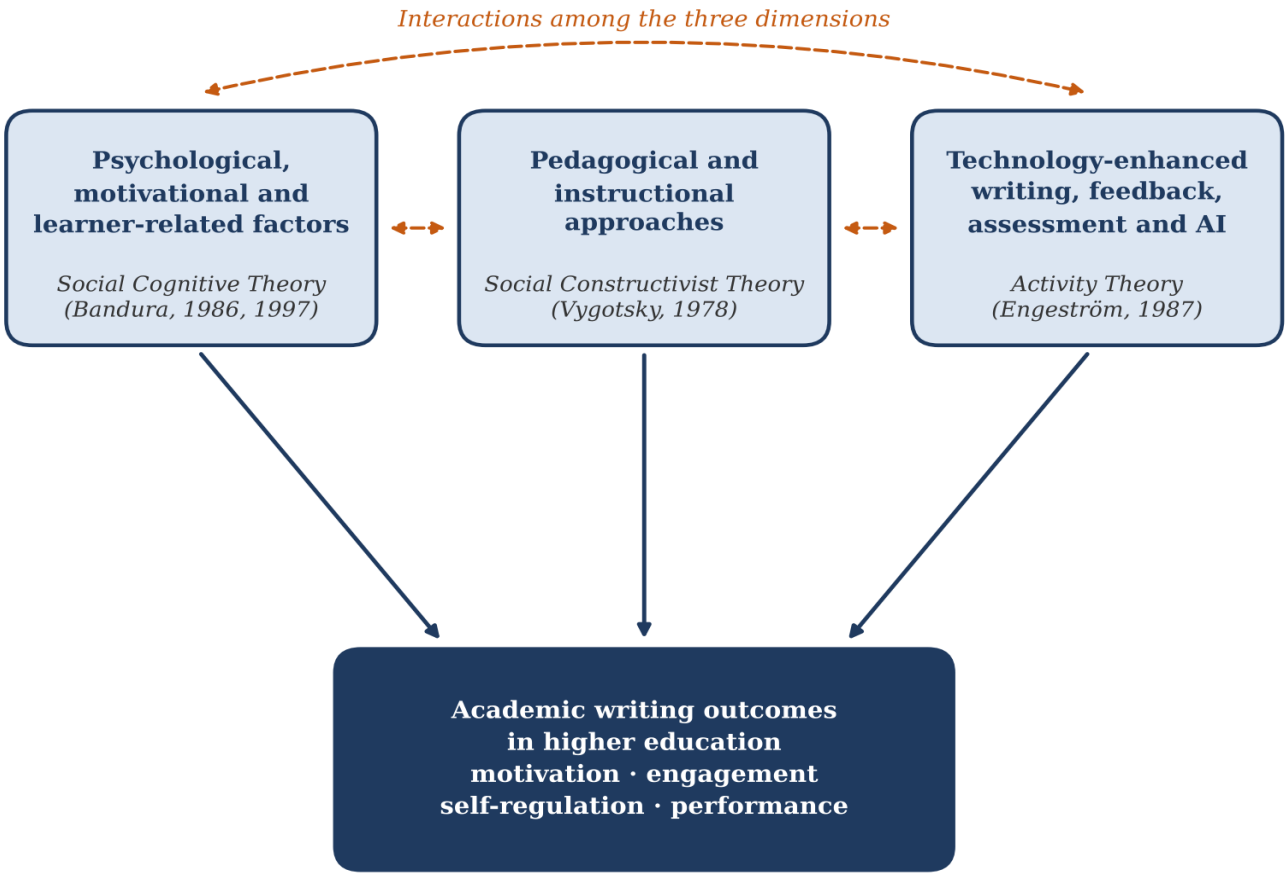


FIGURE 1: Conceptual Framework

Figure 1 presents the conceptual framework that guided the synthesis. Each of the three dimensions of academic writing is paired with the theory used to interpret it: psychological, motivational and learner-related factors with Social Cognitive Theory; pedagogical and instructional approaches with Social Constructivist Theory; and technology-enhanced writing, feedback, assessment and AI with Activity Theory.

All three dimensions are expected to influence academic writing outcomes, namely motivation, engagement, self-regulation and performance. The dashed links represent the proposition, examined in Section 4.3.4, that the dimensions also interact. For example, the effect of a technology may depend on learners' motivation, and the effect of an instructional approach may depend on learners' self-beliefs.

MATERIAL AND METHODS

This systematic literature review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement (Page et al., 2021), a widely accepted standard that promotes transparency, completeness and methodological consistency. PRISMA provides structured guidance for identifying, screening and selecting studies. The review process was also informed by the systematic review guidelines of Kitchenham and Charters (2007).

The PICo framework (Lockwood et al., 2015) was used to formulate the research questions and define the scope of the review. The **Population** was higher education students. The phenomenon of **Interest** was the

psychological, pedagogical and technology-related factors associated with academic writing motivation, engagement and performance. The **Context** was higher education writing settings.

The records were screened by the authors. Two major bibliographic databases, Scopus and Web of Science, were searched because of their broad coverage of peer-reviewed journals in education and the social sciences.

The search terms centred on academic writing and motivation. Pedagogical and technology-related studies were therefore not searched for directly. Instead, these perspectives emerged inductively from studies that examined motivation in relation to instruction or technology.

The review proceeded through identification, screening, eligibility and inclusion, followed by data abstraction and analysis and quality appraisal, as described in the following subsections.

Identification

The identification phase aimed to achieve comprehensive coverage of the literature while minimising the risk of selection bias. Keyword combinations relating to academic writing, motivation and higher education were entered into Scopus and Web of Science. Both databases were searched in September 2026, and the search strings are presented in Table 1.

The search yielded 227 records from Scopus and 100 from Web of Science, a combined total of 327 records before duplicate removal. Using two databases broadened coverage across research traditions and geographical contexts, although it cannot fully eliminate database-specific bias. The search terms were designed to capture terminological variation while remaining focused on the review's central topic.

TABLE 1 The search string.

Database	Search string	Date searched / records
Scopus	TITLE-ABS-KEY (("academic writing" OR "scholarly writing" OR "university writing" OR "higher education writing") AND (motivation OR "motivational factors" OR "academic motivation" OR "student motivation") AND (university OR "higher education" OR "tertiary education" OR college*))	September 2026; 227 records
Web of Science	TS=(("academic writing" OR "scholarly writing" OR "university writing" OR "higher education writing") AND (motivation OR "motivational factors" OR "academic motivation" OR "student motivation") AND (university OR "higher education" OR "tertiary education" OR college*))	September 2026; 100 records

Screening

Screening began with the refine functions of each database. Results were limited by publication year (2022–2026), document type (journal articles) and language (English). These filters removed 250 records and left 77 (Scopus = 55; Web of Science = 22). The records from the two databases were then compared, and one duplicate was removed, leaving 76 unique records.

Consistent with the criteria in Table 2, reviews, books and book chapters, conference proceedings and other non-empirical formats were excluded, and only peer-reviewed empirical journal articles written in English and published in final form between 2022 and 2026 were retained. Publication year was determined by the year of the journal issue. One included study was first published online before 2022 but appeared in a 2023 issue (Philippakos et al., 2023).

Eligibility

The titles and abstracts of the 76 records were then screened to confirm that each study addressed academic writing, motivation and higher education empirically and met all inclusion criteria. Fifty-six records were excluded because their titles or abstracts did not relate to the review objectives or their participants fell outside the review population. Full texts were sought for the remaining 20 articles; two could not be retrieved and were excluded. The remaining 18 articles were included in the review. The inclusion and exclusion criteria are presented in Table 2, and the selection process is summarised in the PRISMA flow diagram (Figure 2).

TABLE 2 The selection criteria.

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line	2022 – 2026	< 2022
Literature type	Peer-reviewed empirical journal article	Conference, book, book chapter, review
Publication stage	Final	In press
Subject area	Academic writing motivation in higher education	Studies not addressing academic writing motivation in higher education

Data Abstraction and Analysis

This review adopted an integrative approach to synthesise findings from quantitative, qualitative and mixed-methods studies. Bibliographic details and abstracts of the 18 included articles were exported from Scopus and Web of Science into a standardised spreadsheet, and each study's context, research design, participants and key findings relating to academic writing, motivation and higher education were recorded.

Themes were developed through iterative reading and comparison of the extracted data. The final themes and sub-themes were reviewed for clarity, relevance and coherence. The data extraction and theme coding are presented in Appendix 1.

Quality of Appraisal

Following Kitchenham and Charters (2007), the quality of each included study was assessed. The six quality assessment questions proposed by Abouzahra et al. (2020) were applied (Table 3). Each criterion was rated "Yes" (1 point) if fully met, "Partly" (0.5) if met with some gaps, or "No" (0) if not met, giving a total score of 0 to 6 for each study.

Each study was appraised from its full text. Studies scoring at least 3.0 (50%) were retained. Studies were classified as high quality (80% or above), moderate quality (60–79%) or lower quality (below 60%). The results are shown in Table 4.

TABLE 3 Quality assessment questions (Abouzahra et al., 2020).

No	Question
QA1	Is the purpose of the study clearly stated?
QA2	Is the interest and the usefulness of the work clearly presented?
QA3	Is the study methodology clearly established?
QA4	Are the concepts of the approach clearly defined?
QA5	Is the work compared and measured with other similar work?
QA6	Are the limitations of the work clearly mentioned?

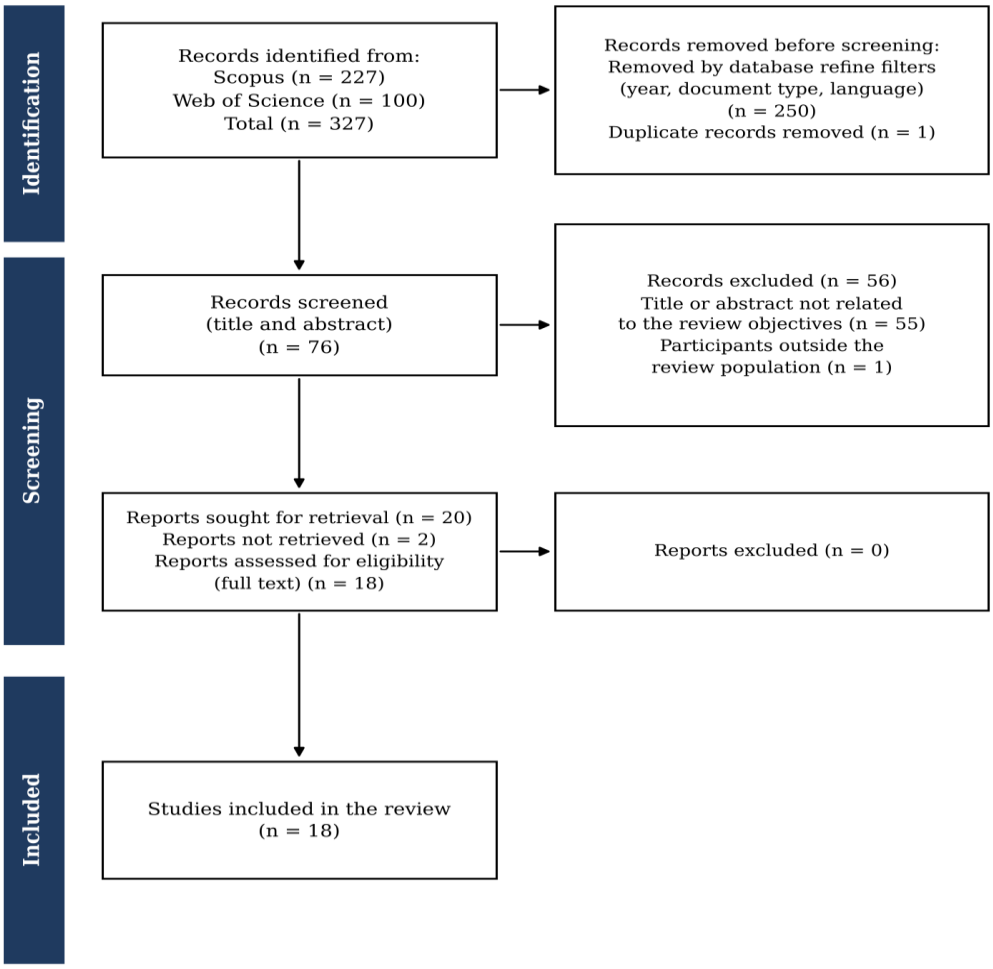


FIGURE 2: PRISMA 2020 flow diagram of the study selection process (adapted from Page et al., 2021)

RESULT AND FINDING

Quality of Assessment

Table 4 presents the quality appraisal results. All 18 studies exceeded the 3.0 threshold, so none was excluded on quality grounds. Total scores ranged from 4.0 (66.67%) to 6.0 (100%). Fifteen studies were rated high quality and three moderate quality; none fell below 60%. All studies clearly stated their purpose (QA1) and presented the interest and usefulness of their work (QA2). All studies also compared their findings with previous work (QA5). Partial ratings were concentrated in conceptual definition (QA4), methodology (QA3) and reporting of limitations (QA6), typically where key terms, sampling procedures or instruments were not fully specified, or where limitations were mentioned only briefly. Overall, the included studies were of acceptable to high quality.

TABLE 4 Quality assessment of the 18 included studies.

PS	Author & Year	Title of Document	QA1	QA2	QA3	QA4	QA5	QA6	Total Mark	Percentage (%)
PS1	Khoi et al. (2026)	Affective and Motivational Dynamics in Peer Scaffolding for Academic Writing Among Vietnamese University EFL Students	Y	Y	P	P	Y	N	4.0	66.67

PS2	Ajit et al. (2024)	Fear of failure: a student-facing investigation into the motivations for contract cheating and academic misconduct	Y	Y	P	P	Y	Y	5.0	83.33
PS3	Bilgin & Yildiz (2024)	Fostering EFL Learners' Writing Competence through Problem-Based Learning	Y	Y	P	P	Y	Y	5.0	83.33
PS4	An & Thanh (2025)	A Student-Centered Framework for Understanding EFL Thesis Writing Difficulties in Vietnam	Y	Y	P	P	Y	Y	5.0	83.33
PS5	Ngui et al. (2022)	E-portfolio as an academic writing assessment tool in higher education: Strengths and challenges	Y	Y	Y	P	Y	Y	5.5	91.67
PS6	Mwilongo & Mwita (2025)	The role of artificial intelligence on the academic performance of university students: The mediating role of intrinsic motivation to learn	Y	Y	Y	P	Y	P	5.0	83.33
PS7	Meletiadou (2022)	Using Educational Digital Storytelling to Enhance Multilingual Students' Writing Skills in Higher Education	Y	Y	P	P	Y	P	4.5	75.00
PS8	Doenyas et al. (2023)	A non-Western adaptation of the Situated Academic Writing Self-Efficacy Scale (SAWSES)	Y	Y	Y	Y	Y	Y	6.0	100.00
PS9	Wolanin (2025)	Academic writing skills in the eyes of university students of English and their teachers	Y	Y	P	P	Y	P	4.5	75.00
PS10	Wu et al. (2026)	Integrating computational thinking into problem-based learning in EAP writing: Effects on motivation and writing performance	Y	Y	Y	Y	Y	Y	6.0	100.00
PS11	Mudau et al. (2025)	First-year students' perceptions of factors affecting academic writing	Y	Y	P	P	Y	Y	5.0	83.33

PS12	Alnasser & Almoaily (2026)	Sustaining EFL Learners' Motivation in Writing Classrooms Via Computer-Based and Peer Feedback	Y	Y	Y	P	Y	Y	5.5	91.67
PS13	Averina & Kanasya (2025)	Unravelling Thai EFL Undergraduate Students' Motivation-Engagement Profiles in Academic Writing Along with Their Challenges	Y	Y	P	Y	Y	P	5.0	83.33
PS14	Mendoza et al. (2022)	Exploring first-year university students' learning journals: Conceptions of second language self-concept and self-efficacy for academic writing	Y	Y	Y	Y	Y	Y	6.0	100.00
PS15	Ozfidan et al. (2026)	The Role of Motivation and Anxiety in Writing Strategy Use: Focus on Saudi EFL Learners	Y	Y	P	P	Y	Y	5.0	83.33
PS16	Xu & Zheng (2025)	Does student assessment literacy matter between motivational constructs and engagement in L2 writing? A survey of Chinese EFL undergraduates	Y	Y	Y	Y	Y	Y	6.0	100.00
PS17	Yang (2024)	Fostering EFL university students' motivation and self-regulated learning in writing: A socio-constructivist approach	Y	Y	Y	Y	Y	Y	6.0	100.00
PS18	Philippakos et al. (2023)	Writing Motivation of College Students in Basic Writing and First-Year Composition Classes: Confirmatory Factor Analysis of Scales on Goals, Self-Efficacy, Beliefs, and Affect	Y	Y	Y	Y	Y	Y	6.0	100.00

Themes

TABLE 5 Analysis for themes.

Theme	Study Numbers	No. of Studies	Percentage (%)
Theme 1: Psychological, Motivational, and Learner-Related Factors in Academic Writing	PS1, PS2, PS4, PS8, PS9, PS11, PS13, PS14, PS15, PS16, PS18	11	61.11%

Theme 2: Pedagogical and Instructional Approaches for Enhancing Writing Motivation and Performance	PS3, PS10, PS17	3	16.67%
Theme 3: Technology-Enhanced Writing, Feedback, Assessment, and AI-Supported Learning	PS5, PS6, PS7, PS12	4	22.22%
Total	PS1–PS18	18	100.00%

Thematic analysis of the 18 studies produced three themes (Table 5). Theme 1, psychological, motivational and learner-related factors, was the largest (11 studies, 61.11%), indicating that more than half of the recent research focuses on learners' motivation, self-efficacy, anxiety, engagement, confidence and perceptions.

Theme 3, technology-enhanced writing, feedback, assessment and AI-supported learning, comprised four studies (22.22%) and reflects growing interest in digital support for academic writing. Theme 2, pedagogical and instructional approaches, comprised three studies (16.67%). Learner-related factors therefore continue to dominate the field, while instructional and technology-supported approaches form smaller but developing areas of research.

The 18 studies were published between 2022 and 2026: three in 2022, two in 2023, three in 2024, six in 2025 and four in 2026. The number of studies increased over the period, which suggests growing research interest in academic writing motivation in higher education. Most studies were conducted with English as a foreign or second language learners, frequently in Asian and Middle Eastern contexts such as Vietnam, Thailand, China, Taiwan, Indonesia, Malaysia, Turkey, Saudi Arabia and Iraq; others were set in Cyprus, Poland, Finland, the United Kingdom, the United States, South Africa and Tanzania.

Sample sizes ranged from six students in qualitative case studies to 425 students in a large-scale survey. Designs included qualitative (n = 6), survey-based or psychometric (n = 6), mixed-methods (n = 3) and quasi-experimental (n = 3) studies. The characteristics and key findings of each study are summarised in Appendix 1.

Theme 1 (T1): Psychological, Motivational, and Learner-Related Factors in Academic Writing

Study No.	Author and Year	Article Title
PS1	Khoi et al. (2026)	Affective and Motivational Dynamics in Peer Scaffolding for Academic Writing Among Vietnamese University EFL Students
PS2	Ajit et al. (2024)	Fear of failure: a student-facing investigation into the motivations for contract cheating and academic misconduct
PS4	An & Thanh (2025)	A Student-Centered Framework for Understanding EFL Thesis Writing Difficulties in Vietnam
PS8	Doenyas et al. (2023)	A non-Western adaptation of the Situated Academic Writing Self-Efficacy Scale (SAWSES)
PS9	Wolanin (2025)	Academic writing skills in the eyes of university students of English and their teachers
PS11	Mudau et al. (2025)	First-year students' perceptions of factors affecting academic writing
PS13	Averina & Kanasya (2025)	Unravelling Thai EFL Undergraduate Students' Motivation-Engagement Profiles in Academic Writing Along with Their Challenges
PS14	Mendoza et al. (2022)	Exploring first-year university students' learning journals: Conceptions of second language self-concept and self-efficacy for academic writing
PS15	Ozfidan et al. (2026)	The Role of Motivation and Anxiety in Writing Strategy Use: Focus on Saudi EFL Learners

PS16	Xu & Zheng (2025)	Does student assessment literacy matter between motivational constructs and engagement in L2 writing? A survey of Chinese EFL undergraduates
PS18	Philippakos et al. (2023)	Writing Motivation of College Students in Basic Writing and First-Year Composition Classes: Confirmatory Factor Analysis of Scales on Goals, Self-Efficacy, Beliefs, and Affect

The studies in this theme show that learners' beliefs, goals, emotions and perceptions consistently shape their writing behaviour and outcomes. Four sub-themes were identified.

Self-efficacy and self-beliefs. Three studies examined writers' beliefs about their own capability. Philippakos et al. (2023) validated writing motivation scales covering goals, self-efficacy, beliefs and affect with 371 first-year college students. They found that higher essay quality was associated with stronger self-efficacy and with valuing the substance of writing, while lower quality was associated with avoidance-oriented goals and with valuing mechanics. Doenyas et al. (2023) adapted the Situated Academic Writing Self-Efficacy Scale (SAWSES) into Turkish with 300 undergraduates, confirming its original three-factor structure and providing the first non-Western version of the scale. Mendoza et al. (2022) analysed 74 learning journals written by first-year students at a Finnish university where English is the medium of instruction. Students with emerging, positive self-efficacy described a sense of familiarity with academic writing, whereas those with low self-efficacy described it as new and reported needing more guidance and feedback; negative second language self-concept tended to co-occur with low self-efficacy.

Motivation, anxiety and engagement. In a survey of 206 Saudi EFL learners, Ozfidan et al. (2026) found that writing strategy use correlated positively with writing motivation and negatively with writing anxiety, and that both predicted strategy use, with motivation the stronger predictor. Xu and Zheng (2025) surveyed 425 Chinese university students and found that L2 writing motivation, growth mindsets, academic buoyancy and student writing assessment literacy all positively predicted writing engagement, with assessment literacy mediating the effect of motivation on engagement. Averina and Kanasya (2025) surveyed 68 Thai EFL undergraduates and found adaptive cognition to be the dominant motivation-engagement profile, followed by adaptive behaviour. Students' overall profiles were generally positive despite difficulties with language use, paraphrasing, coherence and cohesion.

Affective and social support. Several studies highlighted the emotional side of academic writing and the importance of support. In a mixed-methods study involving 150 survey respondents, interviews and observed peer dyads, Khoi et al. (2026) found that peer scaffolding and emotional support increased Vietnamese EFL students' motivation and encouraged cognitive risk-taking, forming what the authors call an "emotional ZPD", although Confucian face-saving norms also constrained critical peer feedback. An and Thanh (2025) interviewed six Vietnamese undergraduates writing their theses. All participants struggled with language use and academic tone and experienced emotional strain from deadlines and low confidence. Timely supervisor feedback, peer collaboration and the ethical use of AI tools helped them manage these difficulties. In a mixed-methods study of 117 students at a UK university, Ajit et al. (2024) found that fear of failure and low confidence in academic English writing contributed more to students' likelihood of outsourcing their work than international student status did, which underlines the need for accessible writing support.

Perceived difficulties. Two studies examined how students perceive the challenges of academic writing. Wolanin (2025) surveyed 67 university students of English and 15 of their teachers. Both groups regarded academic writing as challenging: teachers found it difficult to set clear objectives, while students reported problems with text analysis and motivation, and attitudes were mostly negative. Mudau et al. (2025) conducted focus groups with 25 first-year students in South Africa and found that limited preparation in secondary school made the transition to university writing particularly difficult.

Taken together, these studies indicate that writing motivation is not a fixed trait. It is shaped by students' self-beliefs, goals and emotions, and by the support available to them.

Theme 2 (T2): Pedagogical and Instructional Approaches for Enhancing Writing Motivation and Performance

Study No.	Author and Year	Article Title
PS3	Bilgin & Yildiz (2024)	Fostering EFL Learners' Writing Competence through Problem-Based Learning
PS10	Wu et al. (2026)	Integrating computational thinking into problem-based learning in EAP writing: Effects on motivation and writing performance
PS17	Yang (2024)	Fostering EFL university students' motivation and self-regulated learning in writing: A socio-constructivist approach

The three studies in this theme show that instructional design can improve students' writing motivation, engagement, self-regulation and performance. In a 12-week mixed-methods study with 50 first-year students in Iraq, Bilgin and Yildiz (2024) found that EFL students taught through problem-based learning (PBL) achieved stronger writing performance, higher motivation and better critical thinking than students who received traditional instruction. Wu et al. (2026) extended this approach in a quasi-experimental study with 58 third-year university students in Indonesia, integrating computational thinking into PBL in an English for Academic Purposes (EAP) writing course. Compared with conventional PBL, the computational-thinking group showed significantly higher motivation and better expository writing performance, particularly in organisation and language use. In a qualitative case study of six first-year EFL students with exam-focused writing backgrounds, Yang (2024) showed that a year-long, socio-constructivist writing course supported positive changes in task interest, outcome expectations, goal orientation and self-efficacy through social and collaborative activities. The students also used self-regulated learning strategies such as goal setting, self-evaluative standards and self-selected models to manage their writing development. Collectively, these studies suggest that well-structured, collaborative and learner-centred pedagogies can strengthen both the motivational and the performance dimensions of academic writing.

Theme 3 (T3): Technology-Enhanced Writing, Feedback, Assessment, and AI-Supported Learning

Study No.	Author and Year	Article Title
PS5	Ngui et al. (2022)	E-portfolio as an academic writing assessment tool in higher education: Strengths and challenges
PS6	Mwilongo & Mwita (2025)	The role of artificial intelligence on the academic performance of university students: The mediating role of intrinsic motivation to learn
PS7	Meletiadou (2022)	Using Educational Digital Storytelling to Enhance Multilingual Students' Writing Skills in Higher Education
PS12	Alnasser & Almoaily (2026)	Sustaining EFL Learners' Motivation in Writing Classrooms Via Computer-Based and Peer Feedback

The four studies in this theme show that technology can support academic writing by improving access, feedback, motivation, self-regulation and engagement, but that its effectiveness depends on how well it is integrated into instruction. Based on interviews with 18 students and 3 instructors at a Malaysian public university, Ngui et al. (2022) found that e-portfolios supported the stages of writing, personalised learning, feedback, communication, accessibility and motivation, despite challenges such as poor internet connections and difficulty adapting to the technology. In a quasi-experimental case study with 50 undergraduate ESL student-teachers, Meletiadou (2022) reported that educational digital storytelling strengthened multilingual students' writing performance, critical thinking, self-confidence and intercultural awareness, although some students faced technological barriers.

Regarding AI, Mwilongo and Mwita (2025) surveyed 170 undergraduates and, using structural equation modelling, found that using AI for knowledge and skills acquisition was associated with academic performance when students had intrinsic motivation to learn. However, they found insufficient evidence that AI use for academic writing directly improved performance. In a 12-week quasi-experimental study with 40

Saudi EFL undergraduates, Alnasser and Almoaily (2026) found that combining peer and computer-based feedback did not produce significant differences in writing motivation at post-test, as students continued to regard teachers as the most credible source of feedback. Overall, these studies suggest that technology can benefit academic writing only when it is combined with sound instructional design, learner motivation, digital readiness and appropriate human support.

DISCUSSION

This review synthesised 18 recent studies on academic writing motivation in higher education. This section interprets the three themes through the theoretical framework and considers how the dimensions interact.

Learner Factors through the Lens of Social Cognitive Theory

The prominence of Theme 1 is consistent with Social Cognitive Theory, which places self-efficacy at the centre of motivated behaviour (Bandura, 1997). The clearest evidence comes from Philippakos et al. (2023), who linked stronger self-efficacy to higher essay quality, a finding that echoes Pajares's (2003) conclusion that writers' confidence predicts their performance. The studies also illustrate SCT's principle of reciprocal determinism: students' beliefs were shaped by their environment, including peer support (Khoi et al., 2026), supervisor feedback (An & Thanh, 2025) and prior schooling (Mudau et al., 2025), and in turn shaped how much guidance students sought (Mendoza et al., 2022). The negative side of the motivational picture is equally important. Avoidance goals, anxiety and fear of failure were associated with weaker writing, less effective strategy use and, in some cases, academic misconduct (Ajit et al., 2024; Ozfidan et al., 2026; Philippakos et al., 2023). Writing support that develops skills without addressing students' beliefs and emotions is therefore likely to be incomplete.

Pedagogy through the Lens of Social Constructivist Theory

The instructional approaches in Theme 2 share the features that Social Constructivist Theory emphasises: social interaction, guided participation and scaffolded support. Problem-based learning and socio-constructivist instruction placed students in collaborative, authentic tasks (Bilgin & Yildiz, 2024; Yang, 2024), and the addition of computational thinking provided extra structure within the learners' Zone of Proximal Development (Wu et al., 2026). In terms of scaffolding (Wood et al., 1976), such structured support helps students manage complex writing tasks that they cannot yet complete independently, and it can be withdrawn as their competence grows. Peer scaffolding in Theme 1 (Khoi et al., 2026) shows the same principle operating outside formal interventions. However, only three studies examined instructional approaches directly, which limits how far these conclusions can be generalised.

Technology through the Lens of Activity Theory

The mixed results in Theme 3 are best explained by Activity Theory's view of technology as a mediating tool whose effects depend on the wider activity system (Engeström, 1987). Where tools fitted the rules, community and division of labour of the classroom, as with e-portfolios and digital storytelling, benefits were reported (Meletiadou, 2022; Ngui et al., 2022). Where they conflicted with established expectations, effects were weaker. In Alnasser and Almoaily (2026), students' belief that teachers are the most credible source of feedback, an aspect of the division of labour, limited the motivational value of peer and computer-based feedback. Infrastructure problems (Ngui et al., 2022) and students' motivation (Mwilongo & Mwita, 2025) acted as further conditions on whether tools were effective. Technology, in short, mediated writing outcomes rather than causing them.

Interactions among the Three Dimensions

Although none of the included studies was designed to test interactions among learner, pedagogical and technological factors, several provide evidence of them. Mwilongo and Mwita (2025) showed that the benefit of AI depended on students' intrinsic motivation, which is an interaction between technology and learner factors. Alnasser and Almoaily (2026) showed that students' beliefs about feedback shaped their response to

technology-mediated feedback. An and Thanh (2025) described how emotional strain, supervisor and peer support, and AI tools jointly influenced thesis writing. Khoi et al. (2026) found that the motivational value of a pedagogical practice, peer scaffolding, was moderated by cultural norms. These cases support the integrated perspective proposed in Figure 1, but direct empirical tests of such interactions remain rare. Two further patterns deserve attention. First, evidence on AI is still thin: only one study examined AI as its main focus, despite the rapid spread of generative AI among students. Second, most studies were conducted in Asian and Middle Eastern EFL contexts, so the findings may not transfer directly to other linguistic and cultural settings.

CONCLUSION

Summary of Findings

This review synthesised 18 empirical studies published between 2022 and 2026 and identified three interrelated perspectives on academic writing in higher education. Psychological and learner-related factors formed the largest theme. Self-efficacy, goal orientation, anxiety, engagement and perceived difficulty shaped students' writing behaviour and outcomes, and support from peers and supervisors shaped those beliefs in turn. Problem-based and socio-constructivist instruction were associated with stronger motivation, self-regulation, engagement and performance. Technology-enhanced practices, including e-portfolios, digital storytelling, computer-based feedback and AI, also showed potential, but their benefits depended on instructional design, learner motivation, digital readiness and human support. Read together through Social Cognitive Theory, Social Constructivist Theory and Activity Theory, the findings suggest that academic writing outcomes emerge from the interaction of learner beliefs, instruction and tools rather than from any one factor alone.

Implications and Suggestions for Future Research

For higher education institutions, the findings imply that academic writing should be treated as a multidimensional process. Writing programmes should combine explicit, scaffolded instruction with deliberate attention to students' self-efficacy and writing anxiety, for example through structured peer feedback, collaborative writing tasks and timely supervisor feedback. Technology should be introduced with clear instructional purposes, adequate infrastructure and continued teacher involvement, rather than as a replacement for human support. Clear institutional guidance on the ethical use of AI in academic writing is also needed.

This review has several limitations. First, only Scopus and Web of Science were searched, so relevant studies indexed only in education-specific databases such as ERIC and PsycINFO may have been missed. Second, only English-language articles were included. Third, the search terms focused on academic writing and motivation, so pedagogical and technology-focused studies were captured only when they addressed motivation. This may explain the small number of studies in Themes 2 and 3 and the limited evidence on AI. Fourth, the review covered a five-year window, and publication year was determined by journal issue. Fifth, the quality appraisal instrument (Abouzahra et al., 2020) was developed for software engineering research and may not capture all aspects of quality in educational research designs. Finally, the heterogeneity of the included studies did not permit a meta-analysis, so the synthesis is narrative.

For researchers, three directions stand out. First, studies should examine how learner, pedagogical and technological factors interact, rather than treating them separately. Second, longitudinal and cross-context studies are needed to establish whether benefits are sustained over time and transfer across disciplines and cultural settings, particularly beyond Asian and Middle Eastern EFL contexts. Third, more empirical work is needed on the direct contribution of AI-supported writing, automated feedback and emerging assessment technologies to writing quality, self-regulation, ethical practice and long-term academic performance.

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Conflicts of Interest

The authors declare that they have no conflicts of interest to report regarding the present study.

Ethics Statement

Ethical approval was not required for this study because it is a review of published literature and did not involve human participants.

Data Availability Statement

The data supporting this review are drawn from the published studies listed in the References and summarised in Appendix 1. The Scopus and Web of Science search exports are available from the corresponding author on reasonable request.

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APPENDIX 1: DATA EXTRACTION AND THEME CODING

T1 = psychological, motivational and learner-related factors; T2 = pedagogical and instructional approaches; T3 = technology-enhanced writing, feedback, assessment and AI-supported learning.

PS	Author(s) and year	Context	Design and participants	Theme	Key findings relevant to the review
PS1	Khoi et al. (2026)	Vietnam (EFL)	Mixed methods; surveys, interviews and observation; 150 surveyed; 20 interviewed; 10 peer dyads observed	T1	Peer scaffolding and emotional support raised motivation and cognitive risk-taking; face-saving norms limited critical feedback.
PS2	Ajit et al. (2024)	United Kingdom	Mixed methods; online survey and interviews; 117 survey respondents (103 international); 6 interviewees	T1	Fear of failure and low confidence in English academic writing outweighed international status in explaining contract cheating.
PS3	Bilgin & Yildiz (2024)	Iraq (EFL)	Mixed methods; experimental and control groups over 12 weeks; 50 first-year students	T2	PBL group outperformed control group in writing performance, motivation and critical thinking.
PS4	An & Thanh (2025)	Vietnam (EFL)	Qualitative; semi-structured interviews; 6 undergraduate thesis writers	T1	Thesis writers struggled with language, tone, deadlines and confidence; supervisor feedback, peers and ethical AI use helped.
PS5	Ngui et al. (2022)	Malaysia (ESL)	Qualitative; interviews; 18 students; 3 instructors	T3	E-portfolios supported writing stages, feedback, accessibility and motivation; connectivity and adaptation were challenges.
PS6	Mwilongo & Mwita (2025)	Tanzania	Online survey; structural equation modelling; 170 undergraduates (management and administration)	T3	AI use for knowledge and skills related to performance with intrinsic motivation; no evidence for AI in writing.
PS7	Meletiadou (2022)	Cyprus	Quasi-experimental case study; mixed methods; 50 undergraduate ESL student-teachers	T3	Digital storytelling improved writing, critical thinking, confidence and intercultural awareness; some technology barriers.
PS8	Doenyas et al. (2023)	Turkey	Scale adaptation; confirmatory factor analysis; 300 undergraduates	T1	Turkish SAWSES confirmed three-factor structure (16 items) with high reliability.
PS9	Wolanin (2025)	Poland	Diagnostic survey; 67 students of English; 15 teachers	T1	Students and teachers saw academic writing as challenging; students reported motivation problems; attitudes mostly negative.
PS10	Wu et al. (2026)	Indonesia (EAP)	Quasi-experimental; 58 third-year students	T2	Computational-thinking-enhanced PBL raised motivation and expository

					writing, especially organisation and language use.
PS11	Mudau et al. (2025)	South Africa	Qualitative case study; focus groups; 25 first-year students	T1	Limited secondary-school preparation made the transition to university writing difficult.
PS12	Alnasser & Almoaily (2026)	Saudi Arabia (EFL)	Quasi-experimental; pre- and post-questionnaires over 12 weeks; 40 undergraduates (21 experimental; 19 control)	T3	Peer plus computer-based feedback produced no significant post-test change in motivation; teachers seen as most reliable.
PS13	Averina & Kanasya (2025)	Thailand (EFL)	Descriptive qualitative; questionnaire with open-ended items; 68 undergraduates	T1	Adaptive cognition was the dominant motivation-engagement profile despite language and coherence challenges.
PS14	Mendoza et al. (2022)	Finland (EMI)	Qualitative analysis of learning journals; 74 journals by first-year students	T1	Low self-efficacy linked to need for guidance and feedback; negative L2 self-concept co-occurred with low self-efficacy.
PS15	Ozfidan et al. (2026)	Saudi Arabia (EFL)	Survey; correlation and regression; 206 EFL learners	T1	Strategy use correlated positively with motivation and negatively with anxiety; motivation the stronger predictor.
PS16	Xu & Zheng (2025)	China (EFL)	Survey; structural equation modelling; 425 university students	T1	Motivation, mindsets, buoyancy and assessment literacy predicted engagement; assessment literacy mediated motivation.
PS17	Yang (2024)	Taiwan (EFL)	Qualitative case study; interviews, reflections and drafts; 6 first-year EFL students (English majors)	T2	Socio-constructivist course increased task interest, goal orientation, self-efficacy and self-regulated strategy use.
PS18	Philippakos et al. (2023)	United States	Confirmatory factor analysis; structural equation modelling; 371 first-year college students (142 basic writing; 229 first-year composition)	T1	Self-efficacy and valuing substance predicted higher essay quality; avoidance goals predicted lower quality.