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Affective affordances of artificial intelligence for the teacher: A scoping review of the emotional landscape in secondary schools

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Abstract: In recent years, Generative artificial intelligence (GenAI) is increasingly used in instructional design, teaching, assessment, and teacher professional development. This scoping review maps emotional and psychological experiences, professional autonomy and agency documented among in-service secondary school teachers. The review used the PCC framework and reported according to PRISMA-ScR; searches were conducted in Scopus, Web of Science, and ERIC. Eligible studies were English-language, peer-reviewed primary empirical journal articles and conference papers published between 2022 and 2026. Following deduplication, 340 records were screened, 154 reports underwent full-text assessment, and 62 were included. The evidence describes self-efficacy, anxiety and uncertainty, professional identity tensions, and efforts to retain pedagogical control through selective use, adaptation, verification, or refusal of GenAI. These findings highlights potential priorities for professional development addressing both emotional experiences and professional agency.

Keywords: Generative Artificial Intelligence (Gen AI), Teacher's Agency, Instructional Agency

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1. Introduction

Within the debate on teachers' engagement with generative artificial intelligence (GenAI), it is important to consider the relationship between emotional experience, perceptions of one's own abilities, and professional autonomy. Control-value theory provides a framework for examining how perceptions of control and the value attributed to activities are related to emotions associated with success (Pekrun, 2006).

This theoretical starting point lays the groundwork for the research question of this paper: What emotional and psychological experiences, as well as what forms of professional autonomy or agency, have been empirically documented in relation to GenAI among practicing secondary school teachers?

From an operational perspective, professional agency is understood here as the ability of teachers to select, adapt, question, adjust, or reject actions supported by GenAI for pedagogical purposes. Emotional and psychological experiences encompass reported affect, GenAI-related self-efficacy, perceived control, lived uncertainty, and tensions concerning professional identity. These dimensions are

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analytically distinct; their relevance becomes apparent when GenAI enters practices involving pedagogical responsibility.

A systematic mapping is therefore needed to establish what evidence addresses these questions, how relevant constructs are defined and assessed, and which aspects remain insufficiently examined. This requires distinguishing emotional and psychological experiences from technological acceptance, and professional agency from the frequency or sophistication of tool use. Positive attitudes, perceived usefulness, workload reduction, and trust in GenAI are insufficient, on their own, to establish enhanced well-being or professional autonomy. Findings from mixed educational populations also require scrutiny before they can inform conclusions about secondary school teachers.

A scoping review allows us to address this need by mapping the extent, characteristics, theoretical orientations, and evaluation approaches of the available evidence. The methodological approach is based on JBI guidelines, while the presentation of the results follows the PRISMA-ScR protocol (Peters et al., 2020; Tricco et al., 2018). The PCC (Population-Concept-Context) framework defines the scope of the inquiry, focusing on teachers currently working in lower and upper secondary schools. The theoretical perspectives introduced earlier support the interpretation of the data, without, however, determining the inclusion criteria or replacing the constructs and theoretical frameworks explicitly stated in the studies under review.

2. Materials and Methods

This scoping review used the PCC framework, JBI-informed methods, and PRISMA-ScR reporting (Peters et al., 2020; Tricco et al., 2018). Searches covered Scopus, Web of Science Core Collection, and ERIC. Eligibility covered: English-language, peer-reviewed primary empirical journal articles and full conference papers written between 2022 and 2026.

Participants were in-service secondary teachers (ISCED 2–3), including vocational pathways. Mixed samples required extractable secondary-teacher findings. Eligible evidence empirically connected identifiable GenAI with emotional experiences, specified psychological constructs, or professional autonomy/agency in formal secondary education or related professional activities. Direct use was unnecessary; attitudes, trust, usability, competence, workload, or intentions alone were insufficient.

After deduplication, title, abstracts and full texts were screened using hierarchical criteria, and were evaluated independently by two reviewers who resolved any borderline or uncertain cases through consensus. Charting recorded context, design, participants, technology, frameworks, measures, findings, and limitations. Related reports were linked to avoid double counting. The final data were collected and organized to create a descriptive map and a narrative summary of the results.

3. Results

3.1. Selection Results and Overview of Included Studies

Database exports yielded 564 records: 300 from Scopus, 203 from Web of Science and 61 from ERIC. After removing 224 duplicates, 340 records underwent title-and-abstract screening. Of these, 186 were excluded, and 154 reports were sought for retrieval. All 154 were retrieved and assessed for eligibility.

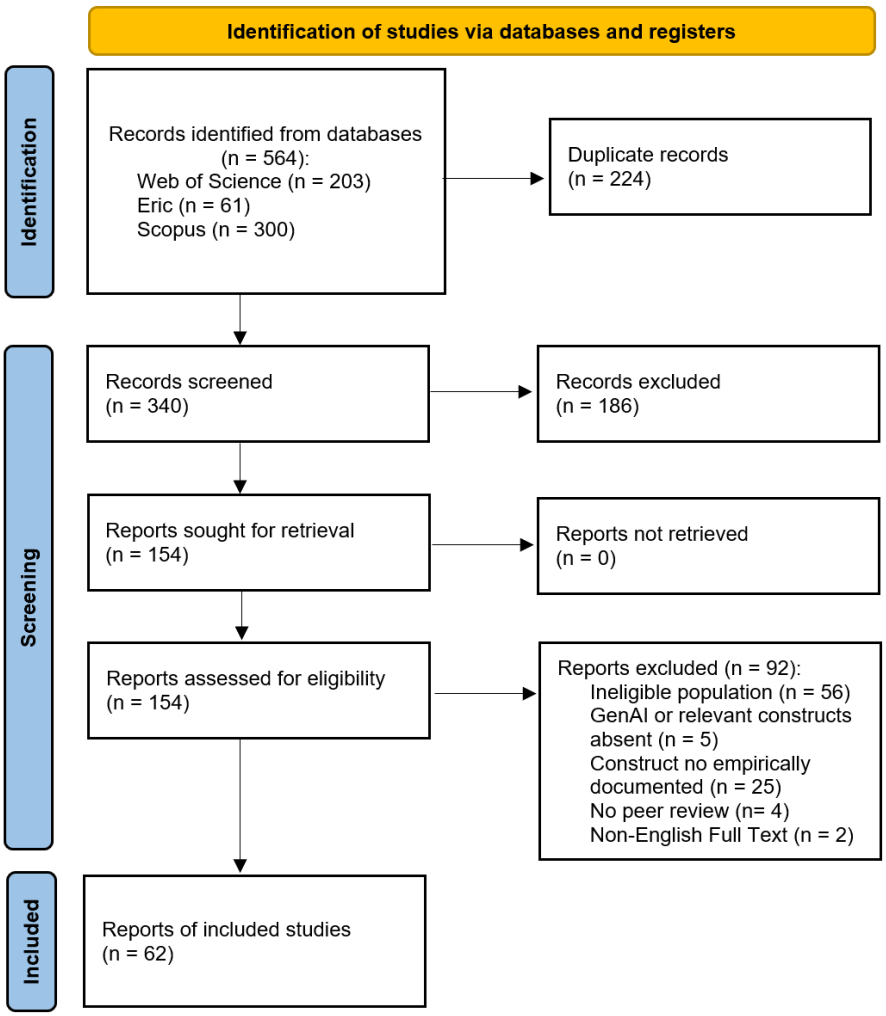
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Eligibility assessment resulted in 62 included reports and 92 exclusions. Following the predefined hierarchy, each excluded report received one primary reason: ineligible population or non-extractable secondary-teacher findings; absence of an identifiable GenAI component in the empirical investigation; absence of an eligible construct documented empirically; ineligible publication type or unmet peer-review requirements; non-English full texts. These eligibility criteria were adopted to capture peer-reviewed empirical evidence on GenAI-related experiences, capability, and agency among in-service secondary teachers.

The included reports were published between 2022 and 2026 and comprised peer-reviewed primary empirical journal articles and conference papers. They addressed emotional and psychological experiences and professional autonomy or agency among in-service secondary teachers across classroom practice, assessment and feedback, and professional development. For mixed samples, only findings explicitly attributable to secondary teachers were retained. Direct GenAI use was not required, whereas acceptance, intentions, usability, competence, workload reduction, or trust alone were insufficient.

The complete study selection process and screening flow are illustrated in Figure 1.

Figure 1. PRISMA flow diagram of the study selection process.



3.2. Theoretical perspectives and construct measurement

The included reports used diverse theoretical orientations and operationalisations. Technology-acceptance models incorporated self-efficacy and anxiety alongside adoption-related variables (Dalyanci et al., 2025). Resource-based approaches combined job demands–resources and conservation of resources theories, assessing GenAI self-efficacy through five items concerning anticipated teaching activities (Collie et al., 2024).

Professional-development research operationalised perceived capability in task-specific ways. Zhang and Tse (2025a, 2025b) reported complementary phases of one project: a quantitative assessment using the 24-item, six-dimensional TAICS questionnaire and qualitative interviews guided by the same dimensions. Career-support self-efficacy was assessed through a separate 36-item, six-dimensional instrument, supplemented by interviews (Park & Seo, 2026).

Identity and agency were investigated through contextual and interpretive approaches. Third-generation cultural-historical activity theory supported analysis of contradictions and professional identity development through interviews and

supplementary materials (Lyu & Lu, 2026). Sociocultural theory and communities of practice informed longitudinal narrative inquiry using interviews, reflective writing, and GenAI interaction records (Arefian & Esfandiari, 2026). Agency operationalisations ranged from Likert-scale evaluations of autonomy in tool configuration and monitoring to qualitative accounts of feedback oversight and pedagogical ownership (Ortega-Arranz et al., 2025; Kleveland et al., 2026).

These approaches captured different constructs and levels of evidence. The synthesis therefore retained study-specific definitions and distinguished explicitly adopted frameworks from the review's interpretative use of control-value and self-determination theories.

3.3. Affective and Psychological Outcomes

Reported experiences included curiosity, frustration, uncertainty, and changes in perceived professional capability. During chatbot-supported programming, interaction analysis identified explorer, frustrated, and mixed profiles, indicating different affective responses and scaffolding needs (Riahi et al., 2026). Accounting teachers at vocational schools expressed both caution and interest when discussing the role of GenAI models in their teaching, particularly regarding the models' ability to provide rapid feedback and the limitations of their responses (Amarulloh et al., 2025).

Professional-development studies reported changes in self-efficacy. In a controlled pre-post study involving 63 analysed teachers, perceived self-efficacy in AI-related knowledge, pedagogy, assessment, ethics, human-centred education, and professional engagement was assessed using the 24-item TAICS questionnaire. Total scores increased from 4.71 to 5.35 in the intervention group, compared with 4.89 to 4.87 in the comparison group (Zhang & Tse, 2025a). In another study, career-support self-efficacy increased from 3.96 to 4.34 among 20 teachers ($p < .001$) (Park & Seo, 2026).

The findings regarding professional identity described how teachers reevaluated their roles following the use of GenAI. Longitudinal reflective accounts documented a perceived renewal of professional identity, accompanied by digital fatigue and tensions related to teachers' authority (Arefian & Esfandiari, 2026). In another study that involved interviews, one teacher expressed concern about the possibility of being replaced by AI, while others emphasized the continued importance of the emotional and relational aspects of their role as teachers in an environment where AI is present (Hayes & Loper, 2026).

Interaction analyses and qualitative accounts documented emotional experiences, while self-efficacy scores reflected perceived capability. These findings alone did not establish improved professional competence or sustained psychological well-being. In feedback preparation, teachers described time savings and inspiration for developing feedback, but these perceived benefits were not accompanied by direct measures of psychological well-being (Kleveland et al., 2026).

4. Discussion

The analysis conducted in this review highlights a distinction between perceived capability, emotional experience, and professional autonomy. Across the 62 reports analyzed, these dimensions intersected, yet they did not represent equivalent outcomes. Regarding the preparation of formative feedback, educators reported saving time and gaining access to useful suggestions for drafting comments; however, the study did not directly measure whether these benefits translated into reduced stress or greater professional well-being for the teachers (Kleveland et al.,

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editoria scientifica dal 1952

2026). In the context of professional reflection supported by ChatGPT, educators described rethinking their own roles and the contribution of GenAI to their work. It is important to note the emergence of experiences involving digital fatigue and personal tension regarding how to preserve one's professional judgment and authority in pedagogical decision-making (Arefian & Esfandiari, 2026).

Perceived pedagogical value, demands for control, and frustration provide concrete points of connection with control-value theory, although their relationships were not directly tested (Kleveland et al., 2026; Pekrun, 2006; Riahi et al., 2026). From a self-determination perspective, retained decision-making, self-efficacy gains, and supportive professional communities offer evidence relevant to autonomy, competence, and relatedness (Ryan & Deci, 2000; Zhang & Tse, 2025a, 2025b). These connections support a theoretically grounded interpretation, while leaving the satisfaction of basic psychological needs and the proposed explanatory mechanisms to be tested directly.

The increase in self-efficacy reported in various studies highlights how the perception of one's own capabilities represents a significant outcome of teachers' professional development; it must be noted, however, that the interpretation of this outcome depends on the measurement methods and the methodological framework employed. A controlled pre-post study and an uncontrolled retrospective study (also of a pre-post nature) provide different bases for assessing change. In either case, higher self-efficacy scores are not, in themselves, proof of greater competence in the classroom or of lasting psychological well-being for teachers (Park & Seo, 2026; Zhang & Tse, 2025a). Future research should supplement these approaches with prospective analyses, observations of pedagogical decision-making, and long-term monitoring (such as follow-up assessments).

The limitations of this review stem from several factors: first, the search was restricted to three databases and to peer-reviewed publications in English, which may have led to the exclusion of relevant evidence. The heterogeneity of the constructs, instruments, and research designs made it difficult to compare the various studies. The context-specific nature of the selected samples limited the generalizability of the findings, while the reliance on self-reported data constrained the ability to draw conclusions regarding demonstrably proven changes. Future research should therefore address these gaps through methodologically transparent studies that employ independent samples, explicit definitions of constructs, and long-term monitoring.

5. Conclusions

This scoping review analyzed 62 studies addressing the emotional and psychological experiences, as well as the agency, or capacity to act of secondary school teachers in relation to GenAI. The evidence documents feelings of curiosity, frustration, and uncertainty, alongside perceptions of personal capability and tensions concerning professional identity. It also highlights the decisions teachers make to adapt, verify, regulate, or reject AI-generated content. These findings indicate that the integration of GenAI into teaching practice is closely linked to the professional judgment and responsibility of teachers.

The literature reviewed suggests that higher self-efficacy scores reflect a stronger perception of one's own capabilities, while reports of time savings point to practical benefits; however, neither of these, on its own, demonstrates an improvement in skills or long-term psychological well-being. Similarly, understanding teacher agency requires examining the underlying reasons and conditions that inform their choices—including the selective use or deliberate

rejection of GenAI. Control-value theory and self-determination theory offer relevant frameworks for investigating these relationships, though their explanatory mechanisms warrant further empirical verification.

In practical terms, these findings suggest that professional development for teachers should integrate several key elements: combining technical experimentation with critical assessment, or pairing ethical deliberation with peer reflection. Teachers require environments where they can examine how GenAI impacts their work and justify their decisions in light of pedagogical goals. Consequently, evaluations should account for emotional experiences and decision-making processes, rather than focusing solely on tool usage or perceived efficacy. Future research should link prospective measurements of psychological constructs with observations of professional practice and long-term follow-up. Clearer definitions of constructs, transparent reporting regarding the samples involved, and attention to institutional and cultural conditions would enhance comparability.

The priority is to establish the conditions under which GenAI supports teachers' work, while preserving informed pedagogical choices, professional responsibility, and well-being.

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