

Pedagogical Practice of Process-Oriented Writing Instruction Based on Intelligent Writing Platforms: A Case Study of the Applied Writing Course

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Abstract: Applied writing courses in higher education hold strong pedagogical value due to their genre normativity and practical orientation but often face challenges like limited process guidance, delayed teacher feedback, and insufficient opportunities for revision. The emergence of generative artificial intelligence has introduced intelligent writing platforms as novel instructional tools, yet their pedagogical functions, implementation models, and potential risks in the classroom setting, especially as perceived by teachers, remain underexplored. Situated in the context of an applied writing course, this study investigates the role and significance of intelligent writing platforms for process-oriented writing instruction from teachers' perspective. Adopting qualitative case study design, the research involved six university instructors who participated in the pedagogical practice. Data were collected through semi-structured interviews focusing on the teachers' perceptions of intelligent writing platforms, instructional changes, and the benefits, challenges, and risks they perceived. The analysis centered on identifying and interpreting shared teaching experiences across the instructor group rather than emphasizing individual-level differences. The findings reveal that teachers largely adopt a cautiously positive stance, treating intelligent writing platforms as auxiliary scaffolding tools. When integrated into the pre-writing, writing, and post-writing stages, these platforms facilitate a transition from product-focused to process-oriented writing instruction. At the same time, their application prompts critical reflections on issues regarding writer agency, instructional design complexity, and assessment authority. The study suggests that the pedagogical value of intelligent writing platforms depends on teacher guidance within clearly defined instructional goals and boundaries.

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Ethical Statement: This study received formal approval from the Research Ethics Committee of Guangxi University of Foreign Languages (GUFL). All research activities involving human subjects were conducted in accordance with institutional ethical requirements as well as internationally accepted ethical principles. Throughout the study, particular attention was given to safeguarding participants' rights, privacy, and overall well-being.

Statement of Informed Consent: Prior to participation, all respondents were asked to provide written informed consent. They were fully informed about the objectives of the study, research procedures, possible risks, and their right to discontinue participation at any stage without any consequences. By signing the consent form, participants indicated their voluntary agreement and clear understanding of the research. All collected information was treated as confidential and used exclusively for scholarly purposes.

AI Declaration: The authors affirm that artificial intelligence did not contribute to the process of preparing the work. Ethical Statement.

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Introduction

WITHIN the tertiary writing curriculum, applied writing as a course holds an important pedagogical position due to its distinct genre normativity and clear practical orientation. However, in instructional practice, the course has faced persistent challenges, particularly, insufficient instructional guidance throughout the writing process and delayed feedback. Ni (2025) points out that in applied writing instruction, heavy grading workloads and limited classroom time often lead teachers to focus primarily on the evaluation of final drafts, making it difficult for them to address the full writing process. Similarly, Shang (2025) notes that in applied writing courses at both vocational colleges and universities, the principles of process-oriented writing instruction have not been adequately implemented on the practical level. Recent advances in generative artificial intelligence (AI) and intelligent writing platforms have brought new forms of technological support to writing instruction. From the perspective of human–AI collaboration, Wang et al. (2023) argue that generative AI offers possibilities for extending cognitive capacities and restructuring instructional processes in writing pedagogy. In international academia, AlAfnan et al. (2023) note that generative AI holds potential for improving feedback efficiency and learning support in business writing and writing courses. In short, the emergence of intelligent writing platforms provides a new practical context for addressing the longstanding issue of insufficient process support in traditional applied writing instruction.

Despite the new possibilities introduced by intelligent writing platforms, their application in authentic instructional settings remains accompanied by numerous unresolved challenges. In a systematic review, Aljuaid (2024) emphasizes that the pedagogical effectiveness of AI-based writing tools is highly dependent on teachers' instructional design and regulatory strategies; without such guidance, these tools are likely to be reduced to merely instrumental use. Rad et al.'s (2024) study further reveal that, in the absence of explicit instructional guidance, students tend to apply technological feedback to make surface-level revisions rather than promote deep writing learning. Within the Chinese context, Zhu (2024) and Liu (2025) both observe that the integration of generative AI into writing instruction poses new challenges to teachers' roles, writer agency, and the authority of assessment. Meanwhile, Lin et al. (2025) find that teachers' primary concerns regarding the instructional application of AI center more on professional responsibility and pedagogical boundaries than on technical feasibility. However, existing research has largely approached intelligent writing platforms from the perspectives of student learning outcomes or technological functionalities, paying insufficient attention to how teachers understand, employ, and reflect upon these platforms in specific pedagogical practices. Particular-

ly, empirical studies focusing on applied writing courses—characterized by a high degree of genre normativity—remain scarce. Therefore, there is a need to adopt a teacher-centered perspective to systematically investigate the practical changes, advantages, challenges, and risks associated with intelligent writing platform-assisted instruction of process-oriented applied writing. This constitutes the central focus of the present study. Furthermore, this study emphasizes the shared pedagogical experiences of teachers rather than focusing on individual-level variations.

Literature Review

Integration of Intelligent Writing Technologies and Writing Instruction

With the advancement of generative AI technologies, the application of intelligent writing tools in writing instruction has become a focal topic drawing increasing scholarly attention both internationally and in China. Global studies generally suggest that generative AI can provide real-time assistance in areas such as idea generation, language feedback, and revision suggestions. For instance, AlAfnan et al. (2023), in their research on business writing and writing courses, highlight the advantages of tools like ChatGPT in enhancing feedback efficiency and learning accessibility. Aljuaid (2024), through a systematic review, further emphasizes that AI writing tools are reshaping feedback practices in higher education writing instruction. Similarly, Li et al. (2024) find, within the context of medical English writing, that generative AI can effectively support the academic writing processes of non-native English speakers. In the Chinese context, a comparable trend is evident. Chen and Zheng (2025) note that generative AI has expanded the temporal and spatial dimensions of writing support in teaching Chinese as an international language. Zhu (2024), from a pedagogical perspective, summarizes the multifaceted value of ChatGPT in empowering Chinese language writing instruction. Collectively, these studies underscore that intelligent writing technologies have become a key element in contemporary writing pedagogy.

On the other hand, existing research also emphasizes that the pedagogical value of intelligent writing tools is not inherent but is highly contingent on specific instructional contexts and implementation methods. Noonan and Baek (2024), in their review, warn that without proper instructional guidance, generative AI may encourage only surface-level writing engagement. From the perspective of students writing literacy, Alzubi (2024) stresses the necessity of integrating technological support with the cultivation of writing awareness. Research in China has echoed these concerns. Wang (2025), in the context of creative writing instruction, argues that AI

should serve as a tool for stimulating thinking and raising revision awareness, rather than as a substitute for human writers. Wang et al. (2023) propose the concept of “human–AI symbiotic composite brain,” advocating that technological tools should be incorporated into the teaching process rather than being allowed to dominate it. In the domain of applied writing instruction, Ni (2025) cautions against the potential of AI to diminish students’ writer agency and awareness of genre conventions. Overall, while current studies acknowledge the potential of intelligent writing tools in writing instruction, they all emphasize the importance of aligning their application with instructional goals and the core nature of writing itself.

Research on Human–AI Collaborative Instruction from the Perspective of Process-Oriented Writing

Process-oriented writing theory conceptualizes writing as a dynamic process encompassing planning, drafting, revising, and reflecting. This framework offers a strong theoretical foundation for integrating intelligent writing platforms into writing instruction. Wang (2022), in a study on college English writing instruction, discovered that AI-assisted feedback enhanced the students’ revision behaviors. Similarly, Rad et al. (2024) argue that intelligent feedback tools help improve students’ feedback literacy and engagement in writing tasks. Among Chinese researchers, Liu (2025) demonstrates, through high school Chinese writing instruction, that a human–AI collaborative model can effectively activate students’ engagement in the revision stage; Liu et al. (2025), in their empirical research into middle school students’ English writing, find that generative AI helps extend the writing process and facilitated multiple rounds of revision; and Shang (2025) emphasizes that in applied writing courses, intelligent technologies create favorable conditions for the implementation of process-oriented writing. Together, these studies validate the feasibility of technology-assisted instruction of process-oriented writing across diverse educational phases and writing genres.

Nonetheless, human–AI collaboration in writing instruction from a process-oriented perspective remains a subject of ongoing debate and an area with underexplored challenges. Lin et al. (2025) report that teachers often express concerns about professional responsibility and pedagogical boundaries when integrating AI in instruction. Zhang (2025) argues that the incorporation of technology may challenge teachers’ evaluative authority and disrupt established curricular norms. Utami et al. (2024), from a cultural perspective, stress that teachers’ acceptance and adaptation to technology are key determinants of the success of pedagogical reform. Within the Chinese context, both Zhu (2024) and Ni (2025) highlight the risks of students overly relying on generative AI and the potential threats to academic integrity in the absence of clear implementation guidelines. From the standpoint of educa-

tional reform, Yu and Guo (2023) characterize the role of generative AI for instructional models as a “double-edged sword.” Overall, while existing literature has explored potential pathways for human–AI collaborative instruction of writing from both theoretical and practical angles, there remains a notable lack of empirical research on how teachers understand, implement, and critically reflect on intelligent writing platforms in specific curricular contexts—especially in courses with distinctive genre conventions like applied writing.

A synthesis of the existing research reveals three major limitations. First, most studies focus primarily on student learning outcomes or the technical functions of AI tools, with inadequate attention paid to how teachers perceive and position intelligent writing platforms within concrete instructional contexts. Second, current investigations into generative AI use in writing instruction often isolate specific teaching stages or remain at the level of abstract pedagogical models, lacking systematic analysis of how AI reshapes the entire writing process in practice. Third, although some studies have acknowledged the potential risks associated with technology use, there remains a scarcity of empirical inquiry into how teachers navigate the trade-offs between benefits, challenges, and risks in actual instruction. To address these gaps, this study focuses on the applied writing course in Chinese higher education and adopts a teacher-centered perspective. Through semi-structured interviews, it explores how process-oriented writing instruction is enacted and transformed applying intelligent writing platforms, and how such application prompts changes in pedagogical understanding, instructional practices, and professional reflection. The goal is to clarify the practical role and pedagogical boundaries of intelligent writing platforms in applied writing instruction.

Research Objectives

The study aims to achieve the following three primary research objectives:

RO1: To analyze teachers’ perceptions of and attitudes toward the role of intelligent writing platforms in process-oriented writing instruction.

RO2: To examine the pedagogical changes in applied writing instruction following the application of intelligent writing platforms.

RO3: To summarize the benefits, challenges, and risks perceived by teachers in the process of pedagogical practice.

In pursuing these objectives, the research focuses on identifying and interpreting the shared experiences among the teachers, rather than comparing differences across individual teachers.

Methodology

Table 1. Background Information of the Interview Participants.

ID	Teaching Role	Years of Teaching	Academic Background	Experience in Applied Writing Instruction	Use of Intelligent Writing Platforms
T1	Full-time university instructor	10 years	Chinese Language and Literature / Writing Studies	Long-term instructor for the applied writing course	Systematic use of platforms throughout the course
T2	Full-time university instructor	7 years	Education / Chinese Language Education	Taught applied writing-related courses multiple times	Continuous use of platforms in instruction
T3	Full-time university instructor	3 years	Journalism and Communication	Experience in applied and practical writing instruction	Selective use of platforms in certain instructional stages
T4	Full-time university instructor	12 years	Chinese Language and Literature / Stylistics	Extensive experience in applied writing instruction	Cautious attitudes toward platform use
T5	Full-time university instructor	8 years	Educational Technology / Curriculum and Instruction	Participant in the pedagogical practice of applied writing instruction	Using platforms in feedback and revision stages
T6	Full-time university instructor	11 years	Humanities and Social Sciences- related fields	Long-term instructor of writing-related courses	Integrating platforms into process-oriented writing instruction

Research Design

This study adopts qualitative research design, utilizing semi-structured interviews as the primary means of data collection. The aim is to gain in-depth insights into teachers' perspectives, pedagogical shifts, and professional reflections in "the pedagogical practice of intelligent writing platform-assisted instruction of process-oriented writing" (hereinafter referred to as the pedagogical practice). Compared with questionnaire surveys, interviews are more effective in capturing teachers' nuanced understanding of the teaching processes, instructional decision-making, and potential risks, which makes them particularly suitable for research focusing on the lived experience of teachers.

The research is situated within the context of an applied writing course in higher education. This course is characterized by strict genre conventions, a strong practical focus, and significant variations in students' writing abilities. It has faced chronic instructional challenges such as insufficient teaching guidance throughout the writing process and delayed feedback. In the pedagogical practice in question, intelligent writing platforms were applied in the pre-writing, writing, and post-writing steps to support the implementation of process-oriented writing instruction.

Participants

The participants in this study are university instructors engaged in the pedagogical practice for the applied writing course. Their years of service and disciplinary backgrounds vary, but they all have practical experience teaching applied writing and applying intelligent writing platforms in classroom instruction, as shown in **Table 1**. To protect the participants' privacy, indi-

vidual identities are anonymized using codes (e.g., T1, T2), and no personally identifiable information is disclosed.

Data Collection: Semi-structured Interviews

This study employed semi-structured interviews as the primary method of data collection. The interview protocol was organized around the following core themes: (1) Teachers' perceptions of and attitudes toward the role of intelligent writing platforms in process-oriented writing instruction; (2) Specific changes in instructional practices following the adoption of intelligent writing platforms; (3) Benefits, challenges, and risks perceived by the teachers in the pedagogical practice. The interviews were conducted either online or in person during November 2025, with each session lasting between approximately 30 and 45 minutes. Emphasis was placed on eliciting reflective responses based on the teachers' actual instructional contexts, rather than abstract evaluations of the technological tools themselves. This context-anchored approach aimed to deepen the understanding of how intelligent writing platforms influence real classroom practices and pedagogical thinking.

To ensure both relevance and comparability of interview data, the semi-structured interview protocol was developed to include a series of open-ended questions, such as:

1. What is your perception of the role of intelligent writing platforms in the applied writing course?
2. Has the integration of the platform brought any changes to your writing instruction? Please elaborate, taking account of specific stages of instruction (before writing, during writing, and after writing).
3. Could you share a memorable teaching scenario in which a student completed a writing task with the support of the platform?
4. In what ways do you think the use of the platform benefits students compared with traditional instruction? Are there any problems or concerns related to its use?
5. Have you observed any signs of student dependency on the platform? If so, how do you address this issue in your teaching?
6. Since using the intelligent writing platform, do you feel your role as a teacher has changed? If so, in what ways?
7. When evaluating students' writing outcomes, do you refer to platform-generated feedback, or do you guide students to reflect on the differences between platform suggestions and teacher feedback?

Questions like these were applied flexibly throughout the interviews. Follow-up and probing questions were adapted in real time based on the interviewees' responses, with the purpose of eliciting authentic pedagogical experiences and deeper reflections.

Data Analysis

The interview data were analyzed using thematic analysis. The researcher first conducted open coding of the transcribed texts and subsequently multiple rounds of categorization and synthesis to develop thematic categories aligned with the study's research objectives. The analytical process focused on identifying shared experiences among the group of instructors in the pedagogical practice, rather than individual-level differences. It is noteworthy that the interview quotations presented in this paper are not direct verbatim transcriptions. Instead, they represent synthesized viewpoints derived from systematic coding and thematic summarization of the interview data. These illustrative excerpts are intended to reflect the common patterns of understanding and experience shared by teacher participants regarding the pedagogical practice. This approach not only foregrounds the core research themes but also reduces the risk of distorting research findings due to idiosyncratic individual experiences.

Following transcription, the data were systematically analyzed using thematic analysis. A single-coder approach was adopted for both coding and interpretation. To enhance the credibility of the qualitative analysis, multiple strategies aligned with the trustworthiness criteria proposed by Lincoln and Guba (1985) were employed. Through iterative reading and constant comparison, the codes and themes were firmly grounded in the raw data. Representative viewpoints synthesized were selected to illustrate key themes for the report of the findings. These expressions, though not verbatim, were derived from a rigorous process of coding and thematic integration and intended to reflect the collective perspectives and core understandings of the teachers, thereby circumventing bias from selective quotation. Throughout the analysis, reflexive writing was used to examine how the researchers' positions may have influenced data interpretation; when necessary, data were revisited to revise interpretations. The findings were continually cross-checked against the research objectives and theoretical framework to ensure logical consistency and interpretative coherence. Although the study adopted the single-coder approach, full documentation of the analytic procedures and thematic refinements was maintained to ensure the transparency and dependability of the study.

The synthesized viewpoints presented in this study represent aggregated expressions distilled from multiple interview excerpts with shared meanings and content. This inductive process was guided by the logic of identifying representative consensus from the data. By integrating recurring or analytically salient statements, the researchers constructed typical expressions that encapsulate key patterns of instructional understanding and practice. This method helped preserve the essential meaning of the teachers' original perspectives while minimizing redundancy and fragmentation asso-

Table 2. Teachers' Perceptions of and Attitudes Toward Intelligent Writing Platforms.

Analytical Dimensions	Core Perspectives	Detailed Descriptions	Representative Quotes	Theoretical/Pedagogical Implications
Overall Attitude	General endorsement with a cautious stance	Teachers generally acknowledge the supporting value of intelligent writing platforms in idea generation, language feedback, and revision, while emphasizing the irreplaceability of the teacher's role.	"The platform helps mitigate the problem of delayed feedback, but it cannot replace the teacher's central role in guiding students' writing."	Reflects teachers' emphasis on their instructional authority and professional responsibility
Functional Understanding	Process-oriented scaffolding tool	Teachers view the platform as a tool that supports the writing process, rather than a writing agent that produces final drafts.	"The platform is mainly used to help students understand tasks, identify issues, and revise their writing."	Emphasizes the platform's scaffolding function in process-oriented writing
Role Positioning	"Process scaffold" rather than "writing agent"	Teachers clearly differentiate between the platform's supportive functions and the student's role as the central writing agent.	"The platform should assist student thinking, but not do the writing for them."	Aligns with process-oriented writing theory that emphasizes learner agency
Student Agency	Emphasis on learner autonomy	Teachers express concern about students becoming overly reliant on the platform and highlight the importance of engaging students in writing-related thinking and revision.	"The essence of writing instruction lies in students' own understanding, judgment, and expression."	Aims to prevent technology from undermining student agency in writing
Attitudinal Foundation	Rooted in pedagogical beliefs	Teachers' acceptance of the platform is influenced by their beliefs about the nature of writing instruction.	"Teachers who view writing as a dynamic process are more receptive to platform application."	Pedagogical beliefs shape technology adoption strategies
Risk Awareness	Professional vigilance, not technological rejection	Teachers are concerned about risks associated with platform use, such as over-reliance and the standardization of writing.	"Technology must be guided by clear instructional boundaries."	Highlights the teacher's leading role in human-AI collaboration
Value Orientation	Instructionally goal-driven	Teachers are not driven by technology per se but instead assign pedagogical meaning to its use.	"Whether the platform is useful depends on whether it serves our teaching goals."	Rejects technological determinism; emphasizes instructional rationality

ciated with direct quotation, thereby enhancing thematic clarity and supporting analytical abstraction.

Findings and Discussion

Teachers' Perceptions of and Attitudes Toward the Role of Intelligent Writing Platforms in Process-Oriented Writing Instruction

Based on an in-depth analysis of interview data, this section organizes and categorizes teachers' perceptions of and attitudes toward intelligent writing platforms across seven dimensions. **Table 2** provides a systematic summary of key viewpoints and specific meanings within each dimension, along with their corresponding theoretical implications.

Overall, the teachers did not perceive intelligent writing platforms merely as a “technological fix,” but rather evaluated their pedagogical value based on an understanding of the essence of writing instruction and the core principles of process-oriented pedagogy. The teachers widely recognized the platform's supportive functions in areas such as idea generation, language feedback, and revision. However, they also firmly asserted the irreplaceable role of the teacher in instructional leadership. Regarding functionality and role positioning, the teachers tended to define the platform as a scaffold-like tool that assists the writing process, rather than as a writing agent capable of generating complete texts. They placed strong emphasis on students' active engagement and deep thinking throughout the writing process. Moreover, the teachers' attitudes were closely related to their pedagogical beliefs. Those who emphasized the recursive and reflective nature of writing were more receptive to the application of such platforms, whereas those who prioritized normative rigor and instructional control suggest heightening the awareness of potential risks. In essence, **Table 2** reflects the instructional rationality and professional judgment teachers exhibit in response to the application of intelligent writing platforms in instruction, highlighting a goal-oriented, non-deterministic view of technology and illustrating a human–AI collaboration paradigm centered on pedagogical intent rather than technical novelty.

Interview findings reveal that the teachers generally held a cautiously positive attitude toward the use of intelligent writing platforms in process-oriented writing instruction. This stance is not a simple binary choice between “support” and “opposition”; rather, it reflects a nuanced understanding based on the teachers' conceptions of the nature of writing instruction, the philosophy of process writing, and their professional responsibilities. Most interviewees acknowledged that platform application enhances instructional efficiency, yet they also emphasized the importance of ensuring students' genuine engagement in writing-related thinking and expression.

Broadly speaking, most of the teachers viewed intelligent writing platforms as valuable auxiliary tools for process-oriented writing instruction. The interviewees noted that these platforms could provide immediate support in areas such as idea generation, language feedback, and revision suggestions, thereby addressing common challenges of traditional writing instruction, such as delayed feedback and insufficient guidance. As one participant observed, the use of such platforms enables students to revise their work based on system-generated feedback rather than passively waiting for teacher corrections. Nonetheless, nearly all the teachers explicitly stated that

intelligent writing platforms should not—and cannot—replace the teacher’s central role in instruction. Some interviewees stressed that the essence of writing instruction lies in fostering students’ ability to develop clear thinking and awareness of conventions—capacities that technology cannot fully assume.

Regarding the functional role of intelligent writing platforms, the teachers demonstrated a clear awareness of their “boundaries” as technological tools. The interviews indicated that the teachers tended to conceptualize these platforms as scaffolds in the writing process rather than as autonomous writing agents. The primary value of the platform, they argued, lies in facilitating students’ understanding of writing tasks, identifying problems, and supporting revision, rather than generating a finished text ready for submission. As one teacher pointed out, the platforms can offer prompts and suggestions, but ultimate judgment and expression should remain the responsibility of the student. This perspective underscores teachers’ emphasis on learner agency in process-oriented writing and reflects their professional discernment in the integration of technological tools into the pedagogical practice.

On a deeper level, the teachers’ attitudes toward intelligent writing platforms were closely related to their underlying pedagogical beliefs about writing instruction. Teachers who conceptualized writing as a dynamic process were more receptive to the platform’s assistance across various stages of writing. One interviewee commented that writing is inherently a multi-draft endeavor, and that the platform’s staged feedback effectively promotes students’ development as writers. Conversely, those who prioritized writing normativity and instructional control were more concerned about the risk of student overreliance on platform use, fearing that unguided interaction with platform feedback might lead to superficial revisions and a weakened grasp of writing fundamentals. This finding aligns with prior studies that suggest teachers often adopt a “cautiously optimistic” stance toward generative AI while further revealing how such attitudes are grounded in divergent pedagogical philosophies.

In conclusion, teachers’ perceptions of intelligent writing platforms are not driven by technological determinism but are deeply anchored in instructional goals and the principles of process-oriented writing. The interviewees commonly argued that the critical issue is not whether to use the platform, but how to use it in ways that serve pedagogical aims. This indicates that in the context of applied writing instruction, teachers are not passively driven by technology. Instead, they actively assign instructional value to intelligent writing platforms, striving to maintain a balance between technological utilization and pedagogical legitimacy.

Table 3. Pedagogical Shifts in Applied Writing Instruction Following the Application of Intelligent Writing Platforms.

Writing Stages	Traditional Instructional Practices	Changes After the application of Intelligent Writing Platforms	Transformation of the Teacher's Role	Instructional Effects and Process-Oriented Significance
Pre-writing	Teachers provided uniform explanations of writing tasks and genre conventions; students passively received task descriptions	Platforms assisted students in understanding writing tasks and genre norms, offering situational analysis and exemplary models	Shift from a knowledge transmitter to a task designer and facilitator	Lowered cognitive threshold for task initiation; improved classroom efficiency and enhanced task comprehension
Drafting & Revising	Students typically submitted a single draft; feedback was delayed; revision opportunities were limited	Platforms offered real-time feedback, enabling students to revise iteratively; writing became more recursive and reflective	Shift from a final product evaluator to a process-oriented guide	Activated the revision stage; strengthened process awareness; promoted deeper engagement with writing
Post-writing	Instruction focused primarily on final text quality; limited opportunities for process reflection	Teachers guided students to review the writing process and compare platform-generated feedback with teacher input	Shift from a grader to a reflection facilitator	Advanced formative assessment; enhanced students' metacognitive awareness of writing
Overall Orientation	Product-oriented; emphasis on final outputs	Process-oriented; emphasis on writing development and revision paths	Human-AI collaboration under teacher leadership	Suggested the feasibility of implementing process-oriented writing pedagogy in an intelligent instructional environment

Pedagogical Changes in Applied Writing Instruction Following the Application of Intelligent Writing Platforms

Following the discussion on teachers' perceptions of intelligent writing platforms, this section focuses on examining the specific pedagogical changes in the applied writing course brought about by technological integration. **Table 3** gives a systematic overview of the changes in teaching approaches, teacher roles, and instructional outcomes across the pre-writing, writing, and post-writing stages, highlighting the significant role of the platform in reshaping the writing process.

Table 3 clearly illustrates an overall pedagogical shift from a product-focused approach to a process-oriented writing framework. From the pre-writing to the post-writing stage, the application of the platform did not displace the teachers' instructional roles; rather, it prompted a structural transition in these roles—from a knowledge transmitter, final-text evaluator, and rater to a task designer, process facilitator, and reflection guide. As a result, the students encountered fewer entry barriers to writing tasks, engaged in more iterative revision practices, and increasingly incorporated writing reflection into the scope of instructional assessment. The changes presented in

Table 3 indicate that embedding the intelligent writing platform in the entire writing process can provide practical support for the implementation of process-oriented writing in applied writing instruction. At the same time, these changes highlight the crucial role of teachers in orchestrating instruction and guiding interaction within human–AI collaboration, which contributes to the smooth enactment of the pedagogical practice.

Interview findings demonstrate that the application of intelligent writing platforms had a significant impact on the instruction of the applied writing course. This impact extended across the entire writing process, from task preparation to text production and revision, prompting comprehensive adjustments in instructional practices. The participants agreed that the platform’s integration had not only transformed the tools used in the classroom but also restructured the overall instructional workflow.

In the pre-writing stage, the teachers observed notable changes in their instructional guidance. In traditional classroom settings, teachers typically relied on direct lecturing to help students comprehend writing tasks and genre conventions. With the use of the intelligent writing platform, however, components like “task understanding” and “paradigmatic examples” can now be partially delivered by the platform. Most of the participants noted that this shift effectively lowered the students’ cognitive load and enhanced instructional efficiency. Consequently, the teachers increasingly acted as “task designers” and “facilitators,” guiding the students to analyze writing scenarios and define learning objectives with the assistance of the platform. Several teachers added that those students having better grasp of the writing context and goals due to platform use experienced more focused and smooth entry into the writing process.

In the drafting and revising stage, the pedagogical changes were the most evident. The majority of the interviewees emphasized that the real-time feedback mechanism of the intelligent writing platform significantly altered students’ revision behaviors. Unlike the conventional approach of “one-off writing followed by delayed correction,” the students involved in this pedagogical practice were more likely to conduct multiple rounds of revision with the platform’s assistance, resulting in a more iterative and reflective writing process. The teachers observed that it was increasingly common for the students to adjust their texts repeatedly in response to the platform’s feedback. Additionally, some participants noted a pedagogical shift in their focus, from evaluating the students’ final written product to assessing their cognitive engagement with feedback, particularly how they interpreted and made use of revision suggestions. This shift can revitalize the revision stage, which has been an underdeveloped step in process-oriented writing, thereby aligning instructional practice more closely with the theoretical emphasis on recursive drafting and refinement.

In the post-writing stage, the teachers' approaches to evaluation and reflection also evolved. Some of the interviewees made deliberate efforts to guide students to reflect on the entire writing process, comparing platform-generated feedback with teacher comments and incorporating the writing process into the assessment framework. One teacher reported encouraging students to articulate which revisions were prompted by the platform and which originates from their own independent thinking, to underscore the pedagogical value of the learning processes. This instructional shift not only affected the operational dimension of teaching but also prompted the educators to reconsider assessment priorities in applied writing instruction, inspiring a move from a sole emphasis on the final product to a more balanced appreciation of the writing process, growth, and reflection.

Taken together, intelligent writing platforms have not simply "replaced" traditional teaching methods but have instead been embedded in the entire writing process, facilitating a pedagogical shift in applied writing instruction from a product-focused to a process-oriented approach. The core value of these platforms lies in enabling students to engage more fully with the stages of ideation, text generation, revision, and reflection, thereby fostering more self-directed and coherent writing cognition. This pedagogical transformation exemplifies a meaningful model of human–AI collaborative instruction, where technology use supports rather than supplants educational goals.

Benefits, Challenges, and Risks Perceived by the Teachers in the Pedagogical Practice

Building upon the analysis of how intelligent writing platforms shape specific instructional stages, this section turns to an in-depth examination of the teachers' multidimensional perceptions of the benefits, challenges, and potential risks associated with platform use in the pedagogical practice. Through systematic organization of qualitative data from teacher interviews, this section seeks to present a comprehensive picture of the educators' rational judgments and regulatory strategies which were formed within authentic teaching contexts. These insights provide an empirically grounded foundation for understanding the complex implications of technological integration in process-oriented writing instruction.

Table 4 synthesizes the teachers' overall reflections on the pedagogical practice across three dimensions—benefits, challenges, and risks—presenting a rational and balanced evaluative framework. In terms of benefits, the teachers recognized the positive role of intelligent writing platforms in enhancing instructional efficiency, strengthening process-oriented support, and extending the temporal and spatial boundaries of writing instruction. These benefits, in turn, enabled the teachers to invest more in cultivating

Table 4. Benefits, Challenges, and Risks Perceived by the Teachers in the Pedagogical Practice.

Analytical Dimensions	Core Components as Perceived by Teachers	Specific Manifestations	Impacts on Teaching Practice	Direction of Instructional Regulation
Benefits	Enhanced teaching efficiency and process support	The platform provides instant feedback, reducing teachers' repetitive workload in language-level correction	Teachers can allocate more effort to guidance provision in terms of ideas, structure, and genre conventions	Optimize professional role differentiation and strengthen higher-order writing skill instruction
	Extension of instructional time and space	Writing guidance is no longer confined to the classroom; students can continue revising after class	A more complete writing process and more flexible learning pace	Conducive to the sustained implementation of process-oriented writing
Challenges	Students' "superficial revision"	Students make hasty revisions based on platform feedback without necessarily achieving understanding	Limited improvement in writing quality; constrained process learning outcomes	Strengthen teacher intervention and explanatory guidance
	Increased complexity of instructional design	Teachers have to continually adjust task requirements and modes of platform use	Increased instructional workload and decision-making pressure	Higher expectations of teachers' professional judgment and instructional design competence
	Tendency towards technological dependence	Some students overly rely on platform feedback	Potential weakening of students' independent thinking	Prevent technological dependence through task design
Risks	Weakened writer agency	Students may treat platform-generated content as final output	Diminished training of writing cognition	Clarify boundaries of platform use and emphasize learner responsibility
	Writing integrity and originality	Platform-generated content may blur the boundary between assistance and ghostwriting	Compromises the authenticity of writing assessment	Establish clear instructional norms and usage rules
	Obscured authority of teacher evaluation	Students may over trust technological feedback	Teachers' professional judgment may be weakened	Reinforce teachers' final adjudicative authority in assessment
Overall Assessment	Rational adoption rather than technological rejection	Teachers acknowledge platform value while emphasizing regulated use	Pedagogical practice proceeds with caution	Uphold human-AI collaboration under teacher leadership

higher-order writing skills in applied writing in the students. At the same time, **Table 4** reveals multiple practical challenges of the platform's application, including students' superficial revisions, increased complexity of instructional design, and tendencies towards technological dependence, all of which pose higher requirements for teachers' professional judgment and instructional regulation. In terms of risks, the teachers remained highly alert to the technology's potential threats to writer agency, writing integrity, and evaluative authority. Notably, these risks did not lead the teachers to negate the pedagogical value of intelligent writing platforms; instead, they prompted efforts to define clearer instructional boundaries, regulate technology use, and adhere to the principle of teacher-led human-AI collaboration. Overall, **Table 4** exhibits the teachers' sense of professional responsibility and reflexivity in the pedagogical practice, offering important insights for the respon-

sible integration of intelligent writing platforms into process-oriented writing instruction.

In the interviews, the teachers offered systematic reflections on the benefits, challenges, and risks encountered in the pedagogical practice in question. Their responses revealed a rational yet nuanced evaluative stance. Most participants emphasized that the intelligent writing platform is neither a panacea nor a tool to be relied upon uncritically; rather, its educational value depends on how effectively teachers integrate and utilize it within their instructional designs.

Regarding perceived benefits, the teachers generally agreed that intelligent writing platforms displayed significant value in instructional efficiency enhancement and process-level support. Several interviewees noted that the platform's real-time feedback mechanism alleviated the burden of repetitive linguistic correction, allowing instructors to focus more on guiding students in developing writing logic, structural coherence, and awareness of genre conventions. Certain participants further observed that the platform's feature of basic language feedback largely reduced the heavy workload of grammar correction, enabling a pedagogical shift towards deeper engagement with writing structure and cognitive processes. Furthermore, the teachers commonly acknowledged that the platform effectively extends the temporal and spatial dimensions of writing instruction. Writing is no longer confined to discrete in-class sessions; instead, it becomes a recursive, extended process, in which students can revise and refine their work beyond the classroom, fostering a more iterative writing experience.

Despite these strengths, the teachers also identified several practical challenges. Some observed that the students often engaged with platform feedback only superficially, without deeper understanding of the rationale behind revisions. Most of the interviewees reported that the students tended to make superficial revisions based on automated prompts without critically evaluating the need for such changes. Furthermore, the teachers expressed concerns about increased complexity in instructional design. With the application of intelligent writing platforms, the instructors must continually adjust writing task specifications and platform-use strategies to prevent students from becoming overly dependent on technology. Some participants noted that when task objectives are not sufficiently clear, students may rely inordinately on platform-generated suggestions, potentially undermining the development of independent writing competence. These issues, according to most of the interviewees, do not stem from the technology itself, but rather reflect the heightened requirements for teachers' pedagogical judgment and instructional design capabilities within intelligent learning environments.

As to perceived risks, the teachers expressed considerable concern regarding student authorship and academic integrity. A few participants pointed out that, without proper instructional guidance and clear regulatory

norms, students might treat platform-generated content as their own effort, thereby bypassing the cognitive and expressive processes central to writing. One teacher remarked that the greatest risk arises when students submit texts largely generated by the platform, substantially undermining the educational purpose of writing training. In addition, several teachers discussed the “masking effect” that technological feedback might have on professional assessment. For instance, some students reportedly placed greater trust in the platform’s suggestions than in their teacher’s comments, which posed a challenge to the authenticity and fairness of instructional evaluation. These concerns do not represent a negation of the educational value of intelligent writing platforms but instead reflect teachers’ professional commitment to safeguarding the integrity of process-oriented writing assessment.

Overall, the risks perceived by the teachers do not imply a denial of the pedagogical value of intelligent writing platforms. Rather, they illustrate their strong senses of professional responsibility and reflective practice. The teachers consistently emphasized that only when instructional boundaries are clearly defined, process-focused guidance is reinforced, and the teacher retains a central guiding role, can intelligent writing platforms truly support the goals of process-oriented writing instruction. As one participant explicitly noted, the platform’s effectiveness depends ultimately on how teachers design and facilitate its use in practice.

Summary of Results

The study finds that the teachers typically adopt a stance of cautious acceptance toward the role of intelligent writing platforms in process-oriented writing instruction for applied writing courses. Instead of being grounded on an evaluation of the technology per se, this stance is deeply rooted in the teachers’ understanding of the nature of writing instruction and the core principles of process-oriented writing. As per Wang et al.’s (2023) argument for the “human–AI symbiosis” framework for writing instruction, generative AI is more appropriately treated as a form of cognitive scaffolding rather than as a writing agent. Consistent with this view, the teachers in the present study largely conceptualized intelligent writing platforms as auxiliary tools that support the writing process. Similarly, Zhu (2024) notes that teachers’ attitudes toward AI application in writing instruction are often marked by “cautious adoption,” a pattern further corroborated by the findings of this study. In addition, studies by AlAfnan et al. (2023) and Aljuaid (2024) in higher education writing contexts emphasize that roles of generative AI cannot replace teachers’ pedagogical judgment or their responsibility for writing guidance. Building on existing literature, the present study further reveals that differences in teachers’ attitudes toward intelligent writing platforms are essentially manifestations of the variations in their underlying conceptions of

writing instruction, particularly in terms of how they understand the significance of the writing process, normative expectations, and instructional control.

The study also suggests that the application of intelligent writing platforms has exerted a significant and systematic impact on instructional practices in the applied writing course, the core feature of which is a reconstruction of writing instruction across the entire process. Ni (2025) argues that the value of AI to applied writing instruction lies not in replacing teaching but in reshaping the process structure of writing guidance, a view resonating with the findings of this study. Specifically, in the pre-writing stage, the teachers gradually shifted from intensive explanation toward task design and contextual scaffolding; in the writing stage, instant feedback mechanisms markedly promoted multiple rounds of student revision; and in the post-writing stage, writing assessment increasingly incorporated dimensions of process-oriented reflection. Shang (2025) similarly emphasizes that the integration of AI facilitates a transition from product-focused to process-oriented approaches in applied writing instruction in vocational contexts. Moreover, Liu (2025) finds that in Chinese writing instruction, human–AI collaboration effectively strengthens the revision stage, while Liu et al. (2025), through empirical research in English writing, demonstrate that generative AI can foster sustained student engagement with the writing process. To recap, the present study further substantiates the practical feasibility of applying process-oriented writing theory to university-level applied writing courses with the assistance of intelligent technologies.

The study reveals that in evaluating the intelligent writing platforms-assisted pedagogical practice, the teachers developed a multidimensional reflective framework encompassing perceived benefits, challenges, and risks. In the dimension of benefits, the teachers recognized the positive role of intelligent writing platforms in enhancing instructional efficiency and strengthening process support, a finding that closely aligns with Rad et al. (2024), who report that AI can promote teachers' feedback literacy. Wang (2025), in research into creative writing instruction, likewise notes that AI can free up teachers' time and energy for cultivating higher-order writing skills. However, alongside these positive evaluations, the teachers also demonstrated a clear awareness of practical challenges in instructional implementation. Noonan and Baek (2024) point out in their review of generative AI application in writing instruction that students are prone to technological dependence and superficial revision, and Ni (2025) issues similar warnings in applied writing contexts. On a deeper level of risk perception, Lin et al. (2025) emphasize teachers' widespread concerns about the potential impact of AI on professional educational values, while Zhang (2025) further argues that evaluative authority and instructional responsibility may be weakened through technological intervention. The present study highlights

that teachers' attention to these risks does not stem from a rejection of technology but rather embodies their professional responsibility and reflexivity in the pedagogy practice. These insights have important implications for the regulated and pedagogically grounded use of intelligent writing platforms in applied writing instruction.

Conclusion

According to the interview results, the teachers mostly held a cautiously positive attitude toward intelligent writing platforms. Their views on them were not simply about accepting or rejecting the technology itself, but were shaped by their teaching goals, beliefs in process-oriented writing, and senses of professional responsibility. Most of them saw these platforms as tools to support rather than replace their own and the students' roles in the writing instruction process. Second, the use of intelligent writing platforms did not change the overarching goals of applied writing instruction. Instead, their application before, during, and after writing encouraged a shift from focusing only on the final product to emphasizing the writing process. This shift also instigated a transition in the teachers' role, from one centered on "explaining and judging" to one on "designing, guiding, and reflecting." Third, in reflecting on teaching practice, the teachers recognized the platform's ability to improve efficiency and support the writing process. However, they also voiced concerns, such as students making only surface-level revisions, increased complex in teaching design, over-reliance on technology, and potential threats to students' agency as writers and teachers' authority as assessors. These concerns mirror teachers' awareness of their professional responsibility when they incorporate AI tools into classroom instruction. The study suggests that the value of intelligent writing platforms in applied writing instruction is not inherent in the technology itself but instead is realized through teachers' capacity to guide and manage its use according to clearly defined teaching goals and boundaries. It should be noted, however, that this study primarily focuses on identifying shared beliefs and experiences among teachers, which may have downplayed the uniqueness and subtle variations in individual teaching practices. Future research could extend this work by exploring how individual differences among teachers manifest in their instructional strategies, patterns of platform usage, and reflective practices. Additionally, incorporating students' perspectives, classroom observations, or learning process data may further illuminate the long-term impact of intelligent writing platforms on students' cognitive engagement with writing and their writing development.

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