TEACHING ACADEMIC WRITING ONLINE: AN INNOVATIVE SYNTHESIS OF PROCESS- AND PRODUCT-ORIENTED APPROACHES

INSEGNARE LA SCRITTURA ACCADEMICA ONLINE: UNA SINTESI INNOVATIVA DEGLI APPROCCI ORIENTATI AL PROCESSO E AL PRODOTTO

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Double Blind Peer Review

Citation
Zagorulko, O., & Savoia, T. (2025). Teaching academic writing online: an innovative synthesis of process- and product-oriented approaches. *Giornale italiano di educazione alla salute, sport e didattica inclusiva*, 9(2).

Doi:
https://doi.org/10.32043/gsd.v9i2.1457

gsdjournal.it
ISSN: 2532-3296
ISBN: 978-88-6022-510-8

ABSTRACT
This article presents an innovative, theory-based framework for teaching academic writing in fully online settings. The framework blends product- and process-based approaches in an adaptable and scalable course model. The flexible backward design framework adopts and adapts the elements of learner-centered approach to meet students' needs and address distance learning challenges. The proposed model integrates digital formative assessments, scaffolding, peer collaboration, and reflection.

Questo articolo presenta un quadro teorico per l'insegnamento della scrittura accademica in modalità online. Il modello combina approcci basati sul prodotto e sul processo, all'interno di un corso adattabile e scalabile. Il backward design framework adatta elementi dell'approccio di learner-centered learning per rispondere ai bisogni degli studenti e affrontare le sfide dell'e-learning. Il modello proposto integra valutazioni formative digitali, scaffolding, collaborazione e riflessione.

KEYWORDS
Academic writing, course design, online learning, e-learning
Scrittura accademica, progettazione del corso, apprendimento online, e-learning

Received 30/04/2025
Accepted 29/05/2025
Published 20/06/2025

Introduction

Human communication fundamentally relies on the effective exchange of information through oral and written channels, with written communication serving as the primary vehicle for academic knowledge transmission. As an activity, writing is vied as a complex task that involves multiple cognitive processes, which might include retrieving whatever information is stored in a person's memory, organizing the ideas, formulating them in human language, transferring those formulations into text using either pen and paper or a computer keyboard, and at some point absence of changes to the written text (Wengelin, 2006).

Academic writing (AW), in turn, is seen as a different, more complex task. As it is suggested by its name, AW refers to writing activities within academic settings (Wardhana, 2022). According to Oshima and Hogue (2006), in contrast to other forms of writing, such as personal narratives, literary compositions, journalistic pieces, and business communication, it represents a style of writing explicitly designed for college-level work. Wardhana (2022) states that these distinctions are based on the audience, the tone and style implied, and the purpose of the text. Sultan (2013) defines AW as "a distinct style of writing used by those in academia and research communities that is noted for its detached objectivity, its use of critical analysis and its presentation of well-structured, clear arguments based on evidence and reason".

AW can be categorized as such based on several criteria. The key principles are rather straightforward (Wardhana, 2022): 1) it is created by the members of the academic community; 2) it has a scientific basis; 3) it is adherent to specific conventions. Murray and Hughes (2008) expand on this by categorizing texts as academic by the use of definitions, descriptions, classifications, causalities, comparisons, and argumentations. *These criteria operate on multiple levels: structural (e.g., syntax and paragraphing), content-based (e.g., descriptions, argumentations), and pragmatic (e.g., ethical principles)*. Key factors include clarity of purpose, audience engagement, logical organization, and proper citation (Whitaker, 2009). AW also requires adherence to ethical standards, including the avoidance of plagiarism, which is an integral part of AW (Carroll, 2002; Widyartono, 2021). Another vital criterion is academic register (Coffin, 2003): AW is often characterized by a formal tone, complex sentence structures, and the use of specialized terminology while avoiding personal pronouns.

However, when referring to writing, one must always have in mind that two levels are always implied. The process of writing and the product of writing process, i.e. the text (Savoia, 2020). The same applies to AW: it encompasses not only the characteristics of a written work but also a dynamic process of its creation. For students, AW involves

interpreting, making sense of, and taking ownership of content knowledge (Hyland, 2009). According to Widyartono (2021), AW refers to understanding the writing process and models, mastering accuracy, and following specific principles that guide structure and content. In turn, Wilson (2022) defines writing not as expressing thoughts, but as thinking itself. He also emphasizes that AW, as a process, requires a structured approach with a sequence of steps where each stage builds on the previous one.

AW serves multiple purposes. All of them are fundamentally tied to the pursuit of knowledge and understanding. According to Bailey (2018), one primary purpose is knowledge creation and sharing. That means that writers respond to specific questions, present new findings, propose fresh interpretations of familiar topics, or synthesize existing research. These actions shift the writer's role from merely absorbing knowledge to contributing original insights to academic discourse. As Wilson states (2022), "There are two ways to say something new: (1) tell your readers about the existence of something they don't already know about, or (2) give your readers a new interpretation of something that everyone already knows about".

In addition to its role in knowledge creation and dissemination, AW facilitates communication and integration into professional and disciplinary communities (Coffin et al., 2023). As students advance, they adopt the norms and conventions of a specific academic community. Writers often aim to demonstrate expertise or mastery, particularly when addressing an audience more knowledgeable than themselves (Swales & Feak, 2012). AW, thus, fosters a deeper connection between writers and their field (David & Anderson, 2022). Conversely, when speaking to a less knowledgeable audience, the objective is often instructional, as presented, for example, in textbooks and study materials (Swales & Feak, 2012). Coffin et al. (2023) underline two more key purposes of AW: learning and assessment. First, it helps students refine their reasoning and engage critically with disciplinary knowledge. Through reflective tasks, students demonstrate their understanding of course content through essays, reports, and exams.

Despite its critical role in academia, online instruction for AW remains an underexplored and undervalued domain, with significant gaps in translating traditional pedagogical practices to remote environments. The study (Mohamed, 2024) reveals a variety of advantages and challenges of online AW instruction. Although students appreciate the ability to quickly access materials and resources anywhere and anytime and the multimedia components increase their engagement and retention, they also list a range of challenges. Among the obstacles, such issues as

social and interaction barriers, isolation feeling, lack of peer collaboration, insufficient and delayed feedback, lack of structure, and self-regulation demands were mentioned. Thus, while online instruction offers flexibility and resource-rich environments, its success depends on fostering meaningful interaction and supporting students' self-regulation abilities.

Therefore, this article aims to present a scalable and adaptable theoretical framework for designing an effective and interactive AW course in fully online settings. Specifically, the research seeks to:

1. Model a course that combines product- and process-oriented approaches in teaching AW.
2. Implement digital formative assessments to scaffold the development of AW skills and competencies.
3. Adopt and adapt strategies that promote student engagement in fully online settings.

Based on this, the research contributes to the development of AW instruction methodology by addressing current gaps in transitioning ESP courses into online environments.

1. Literature Review

As stated by Celik (2020), “the ability to present ideas and arguments in a clear, concise, and logical manner is a critical skill for academics in all disciplines”. But what makes AW a complex and challenging activity?

First, rather complex conventions in this genre cannot be neglected (Majid & Stapa, 2017). The complexity, thus, requires from students development of complex competencies and sub-competencies. Kruse (2013) summarizes the main domains of AW skills as follows: disciplinary knowledge, writing processes, communicative understanding, media literacy, genre knowledge, and linguistic skills. Second, mastering AW is challenging because it requires intellectual engagement, such as generating ideas, planning, outlining, and developing various writing skills (Kiriakos & Tienari, 2018). Moreover, writing an academic paper can be highly challenging for non-native English-speaking students. Limited vocabulary, slower writing speed, and reliance on a basic writing style can hinder their ability to communicate effectively, which may also negatively impact their confidence and self-efficacy (Celik, 2020).

According to Trzeciak and Mackay (1994), AW involves the following categories of skills: (1) surveying and selecting suitable materials for a written work; (2) strong note-taking and summarizing abilities, which include capturing key information; (3) the skill to integrate and combine information from multiple sources, organize it, contrast and compare; (4) a clear understanding of ethical writing practices, particularly avoiding plagiarism; (5) mastery of citation and referencing conventions; (6) expertise in structuring written documents, including the effective presentation of text, tables, figures, and other manuscript components.

The research on the AW competencies challenges (Nurkamto & Prihandoko, 2022) highlighted two primary categories of difficulties faced by thesis students: (1) related to the writing elements and (2) the writing performances. Problematic competencies related to writing elements include positioning the research focus, critically engaging with sources, organizing thoughts, presenting results clearly, and discussing findings with analytical depth. The overall writing performance category highlights poor organization of ideas, a lack of outlining, and difficulties with using advanced academic vocabulary and complex grammatical structures. These challenges echo earlier findings by Matoti and Shumba (2011), who emphasized students' limited familiarity with academic terminology and structural conventions.

The issue related to the technical aspects of English writing has been highlighted in other research, such as that by Celik (2020). Non-native English-speaking students often need assistance with writing mechanics, including grammar, spelling, punctuation, vocabulary, and the use of transitional language. Additionally, students were reported to struggle to prepare fundamental components of academic papers (introductions, literature reviews, methodology, and discussion sections). Other areas of failure (or success) in AW, as reported by Li et al. (2023), include the following aspects: the use of coherence and cohesion tools (Biber et al., 2011), and syntax issues (Mazgutova and Kormos, 2015).

In the field of second or foreign language writing instruction, there are two dominant methods of AW teaching that shape curriculum design and teaching practices: product-oriented and process-oriented approaches (Samsudin, 2016).

1.1 Product-Oriented Approach

The product-oriented approach is primarily focused on covering so-called surface features of the written text using models for imitation (Coffin et al., 2003). In this teaching strategy, writing is viewed as a product of lexical and syntactic combinations, with an emphasis on formal accuracy at different levels of the text. Writers are

expected to convey knowledge using correct forms, which considers writing as a demonstration of linguistic knowledge (Samsudin, 2016). Teachers often act as examiners, focusing on accuracy over fluency (Samsudin, 2016; Mangesdorf & Schlumberger, 1992; Reid, 1984; Ferris, 2003). Students acquire writing skills through a three-step process: first, they study the proposed model alongside their instructors. Then, manipulate its elements and, finally, imitate it by producing a similar text.

These factors present the product-oriented approach as an extension of grammar learning lessons, reinforcing the skill acquisition process through habit formation (Hyland, 2003).

Among the key skills enhanced through the product-oriented approach, several broad categories with subskills can be identified:

1. Linguistic accuracy and lexical control.

Foremost, grammatical accuracy is supposed to be one of the major focuses of the product-oriented approach. It is taught explicitly via model structures, targeted exercises, and through error correction. Alongside with grammar, the use of accurate and varied vocabulary in final text is emphasized. Students are exposed to target vocabulary via sample texts and are required to imitate it.

2. Text structure and rhetorical organization.

Structural correctness, with a high focus on sentence and paragraph correctness (Hyland, 2003a), is another core component of the proposed approach. Students gain rhetorical conformity by learning formats such as compare-and-contrast, cause-and-effect, and classification (Silva, 1990). They imitate it through reproducing structures and styles from given examples (White, 1998). Model texts and rhetorical structures are also used to train students of paragraph coherence and cohesion.

3. Academic conventions and presentation

Analysis of model texts often includes instruction on elements related to academic integrity and presentation. Students are taught to avoid plagiarism through focusing on proper citation and referencing practices. The use and description of visual components, such as tables, graphs, and figures, are also addressed, contributing to a polished and formally correct academic product.

4. Writing for display

Finally, this approach aligns closely with exam and test preparation. It is extremely assessment oriented. It means that students are trained to produce texts that are suitable for display and external evaluation.

The majority of these skills can be referred to as writing mechanics mentioned above. Thus, the approach is particularly useful for helping learners master the formal presentation of written academic work, which can be a valuable skill, considering knowledge, expertise, and mastery demonstration within the chosen field. This approach supports the acquisition of AW conventions and is especially relevant in contexts where correctness and exam performance are prioritized (White, 1988; Raimes, 1991). However, critics argue that it overlooks the cognitive and developmental processes that underlie effective writing (Flower & Hayes, 1981), limiting opportunities for creativity, critical thinking, and learner autonomy (Horowits, 1986).

1.2 Process-Oriented Approach

A process-oriented approach, in contrast to a product-oriented one, does not focus on the final text as a result of writing, but rather on the writer and the process of composition. The writing in this context is equivalent to thinking (Wilson, 2022). Within the classroom, teachers guide students by helping them develop effective strategies for various stages of writing (Samsudin, 2016). Thus, this model acknowledges the complexity, individuality, and nonlinearity of the writing process, as it involves overlapping, interactive, and recursive stages. They typically include prewriting (planning and idea generation), composing (writing), rewriting (revising and editing), and post-writing activities (Samsudin, 2016). The learning process integrates motivation, collaboration, and reading as influential components (Kadmiry, 2021; Hyland, 2003). Collaborative writing environments help foster a positive and constructive experience, allowing students to engage more confidently and creatively with their writing (Silva, 1990). Teachers play a key role in establishing this environment by promoting discussion-based activities and offering meaningful, timely feedback (Castrillo, 2014).

The process-oriented approach is focused on training the following skills:

1. Cognitive and metacognitive skills

The central axis of the process approach is the development of students' planning, goal-setting, idea generation, and writing organization abilities. Students are instructed to identify the audience, the purpose of writing, and the rhetorical problem (Hayes, 2012). They are also encouraged to engage in pre-writing activities such as brainstorming, mapping, freewriting, and paper outlining. This focus on pre-writing activities enhances the metacognitive awareness of the writing process (Hayes & Olinghouse, 2015) and supports the development of logically structured and coherent arguments tailored to the intended audience and purpose.

2. Writing process organization

Writing is viewed as a recursive process, where students are guided through multiple drafts to promote their skills in self-monitoring, revising, and editing. This method trains them to identify and resolve issues related to content clarity, argument development, and textual coherence. Thus, students are focused on meaning-making rather than only on surface correctness.

3. Critical engagement and source integration

The ability to critically engage with academic texts is emphasized during the lessons. Students are trained to choose, evaluate, synthesize, and integrate multiple sources into their writing, developing their voice and stance. This supports competencies such as positioning the research focus, constructing literature reviews, and developing evidence-based arguments.

4. Disciplinary and genre awareness

Rather than imitating sample texts, students are taught to adapt their writing to different academic contexts. By interacting with texts across stages, learners gradually internalize genre norms while maintaining flexibility and making informed rhetorical choices.

Although the text mechanics are not mentioned among the key skills, it does not mean that they are ignored by this approach. In contrast to the product-oriented method, where these skills are taught explicitly, the process-oriented approach addresses these skills at different stages of writing, such as in the editing stage (grammar), through outlining and drafting (coherence and cohesion), or during feedback and revision (vocabulary use). It is worth saying that, thus, critics argue explicit instruction in academic conventions is necessary alongside process guidance to help students master disciplinary norms (Deplit, 1995).

1.3 Blended Approach

As demonstrated above, different approaches to AW instruction emphasize the development of different sets of skills. Both methods described have their strengths; however, neither covers the full range of competencies required for successful AW instruction. Although the comparison of learning outcomes of product- and process-oriented approaches (Kadmiry, 2021; Samsudin, 2016) demonstrated that the process approach had a more significant effect on students' writing performance than the product-oriented one, the strengths and weaknesses of both these methods cannot be neglected.

In this context, the blend of product-oriented and process-oriented approaches would be a solution. Such a hybrid approach allows for compensation for the weaknesses and gaps of either of these methodologies, ensuring a more comprehensive development of AW skills and competencies. The dual focus of a blended approach enables students to create high-quality texts while also learning a step-by-step process of their creation. The common core of component approaches includes grammar, vocabulary organization, and genre conventions, where grammar and vocabulary are explicitly incorporated by the product approach and refined during the revision and editing process. Moreover, while product-oriented components give the students clear understanding of targets and expectations, especially useful in assessment and professional settings, the process-oriented elements of the instruction offer scaffolding and interaction. In that way, the blended model can be further adapted to discipline-specific needs and support students in science, humanities, applied fields.

2. Course Design Process

According to Dagarin Fojkar and Bercnik (2023), the course design process is based on transactional theory, which defines online teaching through two fundamental elements: structure and dialogue. Although free and effective communication can be a challenge in the context of online learning, as stated by Kim and Kim (2021) and underlined by the authors of the course, effectively structured online courses mitigate the lack of direct interaction and enable learners to organize and showcase their acquired knowledge.

Designing the proposed course, we followed the backward learner-centered framework blend, which combines the systematic rigor of backward design with adaptive and learner-focused pedagogy. The backward design (Wiggins & McTighe, 2005; Richard, 2013) was chosen as the core framework for the course development process. This approach is characterized by its focus on setting learning objectives and outcomes before developing the methodology and course syllabus (Dagarin Fojkar & Bercnik, 2023). The latter are being designed based on the learning outcomes that have been set. Additionally, Graves' (1996) six-step framework was integrated and adapted into this course design structure, as it aligns well with the principles of backward design. Moreover, the overall scheme is aligned with the ADDIE model, which can be presented via the cyclical unfold of the following steps: (1) analysis; (2) design; (3) development; (4) implementation; and (5) valuation (Peterson, 2003; Muruganantham, 2015).

The process of our course creation unfolds through the following phases:

1. Analysis, desired results identification
    - Literature review
    - General course objectives and learning outcomes specification
2. Design phase
    - Choosing methodology
    - Conceptualizing content
    - Conceptualizing and designing assessments
3. Development and learner-centered adaptation
    - Course attendants needs assessment
    - Selecting and developing materials and activities
4. Implementation
    - Organizing content and activities (scaffolding, collaboration, reflection)
5. Evaluation of the course

All the phases of the design process are presented and described in the following sections.

2.1 Analysis

Following the backward curriculum approach, through the literature review, we identified critical AW skills and competencies, as well as common challenges faced by students. This contrived analysis enabled us to set the course aims in alignment with the major requirements and the most common problematic points. Thus, the course objectives can be specified as presented below:

1. Develop clarity and coherence in AW across disciplines.
2. Foster genre-specific competence.
3. Strengthen process-oriented strategies.
4. Address linguistic and mechanical challenges.
5. Cultivate critical self-efficacy.

These outcomes are supported through three interrelated components: learning content, learning activities and strategies, and evaluation of learning.

2.2 Design phase

Choosing methodology

As described in the literature review, prioritizing neither the product-oriented approach nor the process-oriented one will cover the wide spectrum of skills and

competencies students need to gain for successful writing in academic settings. Therefore, the course adopts a blended product-process methodology, which is expected to reconcile the gaps of these polar approaches. This hybrid model combines the strengths of both methods, compensating for their weaknesses.

Conceptualizing content

The course consists of five synchronous lectures, each addressing specific elements of AW, the writing process, and language focus (grammar and vocabulary), as demonstrated in Table 1.

No.	**Process**	**Elements**	**Language Focus**
1	Introduction to AW		
	Critical Reading	Understanding Titles and Planning	Approaches to vocabulary, nouns, adjectives, articles
2	Organization and Outlines	Introductions	Verbs, adverbs, and passive constructions
3	Organizing Paragraphs	Bodies and Body Sections	Coherence and cohesion
4	Avoiding Plagiarism	Results	Describing visual information
	Summarizing and Paraphrasing	Discussion	
	References and Quotations		
5	Rewriting and Proofreading	Conclusions	Punctuation

Table 1. Course content structure

Conceptualizing and designing assessments

To design assessments that align learning activities with specific learning outcomes, Bloom's Taxonomy (Bloom, 1956) was adopted. Each lesson concludes with a 30-question test covering *Remembering*, *Understanding*, and *Applying* levels, followed by a writing assignment (essay) to demonstrate mastery of the *Creating* level. The assessment includes different techniques for various cognitive levels:

- Remembering: multiple choice questions and matching tasks;
- Understanding: short-answer or open-ended questions;

- Applying to practical context: text analysis (e.g., identifying structural elements in a passage) fill-in tasks, and editing exercises;
- Create: writing assignments.

To ensure assessments remain responsive to individual and collective learner needs, the framework integrates learner-centered adaptation elements.

2.3 Learner-centered adaptation

A learner-centered approach positions the unique needs of each student, their backgrounds, and personal goals for taking the course at the center of its focus (Weimer, 2013). Thus, students become active participants in their learning path. While the backward design framework establishes course objectives based on literature-informed competencies, integrating a needs assessment stage into the design process ensures that these objectives are adapted to the real-world context of learners. This dual focus proves to be critical, especially when instructing a heterogeneous group, such as students with varied disciplinary expertise, linguistic proficiencies, and AW experience.

Needs Assessment

To ensure systematic and responsive course design, the needs assessment follows Stefaniak's (2021) five-step model: identification of a problem, identification of data sources, data collection, data analysis, and formulation of recommendations. The general problem identified is to design an AW course for a diverse cohort of students with varying levels of expertise, language proficiency, and research fields. As a source of data, a mixed-method questionnaire was chosen.

The questionnaire developed for this course includes six thematic blocks, each targeting critical dimensions of learner needs: (1) the research background section allows to align writing tasks with students' disciplines; (2) the specialized English proficiency section addressed self-rated levels of general and discipline-specific English; (3) writing skills confidence block included Likert-scale ratings of sub-skills; (4) grammar and vocabulary block informs the design with students' self-assessment of mechanics; (5) learning preferences block included the ranking of preferred methods and types of materials; (6) the language awareness block explores learners' perceptions of language's role in their academic, professional, and personal lives. By addressing these categories, the questionnaire ensures the course adapts to learners' linguistic, cognitive, and affective needs, fostering inclusivity and efficacy.

Then, the questionnaire was administered to the first-year students of the interdisciplinary PhD program in Digital Transformation. The data subjected to analysis includes Likert scale responses, multiple-choice and multi-select responses, and open-ended questions. Finally, the recommendations for each particular case or group are to be formulated.

Selecting and developing activities and materials

As mentioned above, the proposed course comprises five synchronous modules, each structured as a 90-minute lecture delivered via the university LMS (or platforms like Zoom and Google Meet). After each unit of the lecture, students engage in interactive tasks to reinforce learning. Our activity framework is based on the adapted and modified framework proposed by Dagarin Fojkar and Bercnik (2023): the exercises were designed as individual tasks and as the ones that presume social interaction and collaboration. The input activities (read/watch/listen) are presented through the synchronous lecture itself and additional reading materials or glossaries. Individual activities include quizzes and written assignments, while social interaction tasks involve polls, peer feedback, discussion posts, and chats. Examples of collaborative activities are brainstorming tasks, online discussions, and peer reviews. These tasks encourage teamwork and foster active learning and performance in the online course.

2.*4 Implementation*

During the implementation stage, the content and the activities are to be organized. The proposed course model integrates three core elements from the universal framework proposed by Acquaro (2020): scaffolding, collaboration, and reflection.

Scaffolding

As stated (Dabbagh, 2001), instructors should not expect effective self-regulation from students studying independently. Thus, according to Acquaro (2020), a clear and consistent online structure supported by deadlines can help instructors support students in developing their self-regulation abilities and following a course persistently. Following this framework, our course adopts a series of mini-deadlines as a form of scaffolding to assist students in managing their time and focusing their learning efforts. For instance, students receive post-lecture email recaps. These emails also inform course attendants about deadlines for personal assignments and tests and offers tips or frameworks for writing assignment completion.

Collaboration

Communities can form naturally based on shared interests or they can be created purposefully to promote information sharing in specific areas. This becomes an important aspect that addresses one of the challenges of online instruction - social and interaction barriers (Mohamed, 2024). In online learning, thus, each class session should include collaborative tasks aligned with the topic (online discussions or interactive group projects). Problem-solving and knowledge-sharing activities encourage collaboration, and students are urged to engage with peers, creating a supportive community of practice.

Reflection

Reflection-based activities enhance student engagement with the content (Baldwin, 2019), enable them to analyze their learning, and provide instructors with valuable feedback that helps adjust teaching strategies (Acquaro, 2020). First, our framework integrates pre- and post-course questionnaires that include the language awareness block. In this section of the needs assessment test, students articulate their goals, challenges, and perceptions of AW. A similar block of the post-course test allows instructors to compare the students' perceived level of writing. Second, we suggest that every post-lecture assessment test can include progress-based reflection questions. Assignment prompts encourage students to reflect freely on subjects, learning methods, and their own growth over time.

2.*5 Evaluation*

The evaluation of the course is a crucial stage in the ADDIE course design framework (Dousay & Logan, 2011). It follows a multilayered approach that enables the assessment of both learning outcomes and instructional design effectiveness. In our framework, theory assessment tests and rubric-graded writing tasks after each lecture (Hyland, 2003) are used to provide direct evidence of whether session-level objectives are achieved. A summative comparison of pre- and post-competency metrics (comparing the first and last writing tasks) provides additional evidence of progress (Peterson, 2003). For longitudinal tracking of learner development, a post-course questionnaire replicates the pre-course needs assessment. To evaluate course design quality, a post-course survey includes a separate section to analyze four dimensions of the course design: content relevance, activity engagement, material usefulness, and information clarity (Dousay & Logan, 2011).

Conclusions

This paper presents a theoretically grounded framework for designing completely online AW courses. The framework offers a flexible and scalable model and demonstrates how scaffolding, interactive tasks, peer collaboration, and reflective practices can eliminate isolation in digital learning environments and enhance the learning experience. The framework integrates a blend of product- and process-oriented approaches, allowing instructors to address the multifaceted challenges faced by students of AW in general and in online settings. This hybrid approach enhances both mechanical precision (via product-oriented strategies) and critical thinking (through process-oriented techniques), covering a comprehensive set of skills that are essential for academic success. The course leverages the desired learning outcomes with the students' needs and interests through the backward design model and through incorporating learner-centered adaptations supported by a pre-course needs assessment.

However, the study has limitations. Primary, the absence of empirical results from pre-/post-testing and lexicometric analysis, which are critical for validating the framework's efficacy. Future research should explore its adaptability across disciplines and the long-term impact on students' writing proficiency.

Despite these limitations, the proposed framework holds significant implications for online AW instruction. Practically, it provides a structured yet flexible template for learning that balances rigor structure with enhanced engagement during synchronous lectures and asynchronous activities. Theoretically, it contributes to ESP pedagogy by bridging the gap between traditional writing instruction and digital learning demands.

Author contributions

Teresa Savoia is author of the following parts: *Literature Review, Conclusion*
Oleksandra Zagorulko is author of the following parts*: Introduction, Course Design Process*
Both authors collaborated on the final review, revisions, and approval of the manuscript.

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