

**A Review of the Literature on
Academic Writing Supports and Instructional Design Approaches
Within Blended and Online Learning Environments**

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A Message from the Research Team

This report provides a review of the literature on academic writing supports and approaches to instructional design within blended and online learning environments. The inspiration for this project emerged from a joint partnership between the Werklund School of Education (WSE) and Writing Support Services at the University of Calgary. Together, we have been developing a series of interactive learning modules to address the unique academic writing needs of rural and remote students within the blended learning environments of a new Community-Based BEd Program. Because the WSE does not currently offer a mandatory academic writing course, before creating these resources, we sought to better understand and appreciate the impact that specific technologies and approaches to instructional design have on the acquisition of academic writing skills within blended-learning environments. We believe this literature review will aid researchers, program developers, and instructors who are challenged to help students develop academic writing skills in teaching and learning environments that include a mix of asynchronous, synchronous, and face-to-face sessions.

While academic writing skills are key competencies that undergraduate students need to acquire during their degree studies, especially those who are in professional programs, the research literature is only at an emergent level of understanding about how this can be achieved in blended and online learning environments. To help better understand what is currently known, we have reviewed a broad range of literature. Relevant findings were identified primarily in peer-reviewed academic journals published in the last ten years. We offer a synthesis of this research within two main categories related to technology-enhanced learning and instructional design. In each section, we present summaries of the articles including the key findings and how the authors came to their particular conclusions. While our summaries engage with the scholarship in greater detail than most literature reviews, we encourage you to consult the original sources for further information and more nuanced insights.

We would like to thank the University of Calgary's Taylor Institute of Teaching and Learning for supporting this literature review through funding from a Scholarship of Teaching and Learning (SoTL) grant. We would also like to acknowledge Asher Ghaffar and Roxanne Ross from the Student Success Centre for their support in getting this project off the ground and for co-writing the SoTL grant application. Additionally, we appreciate Dennis Rovere's initial work in getting this literature review started. Finally, we would like to thank the students of the Community-Based BEd Program at the Werklund School of Education for serving as the inspiration for this work.

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Executive Summary

I. Evaluating the Effectiveness of Technologies that Seek to Enhance the Acquisition of Academic Writing Skills within Blended Learning Environments

This section reviews literature focused on evaluations of novel technologies that have been used to support academic writing in undergraduate classes. These tools, platforms, and software have been implemented in blended and online learning environments to aid in the acquisition of academic writing skills specifically (irrespective of the course focus/content).

- In the acquisition of academic writing skills, no one technology stood out as more effective than another. While much of the literature reviewed focused on wikis, this did not correlate to the technology's overall effectiveness. Study findings suggest that the use of technological supports such as wikis must be understood within the context of a larger complex process of fostering student learning.
- While the use of platforms such as wikis on their own do not generally lead to significant learning outcomes, the introduction of effective pedagogical practices can help to leverage the affordances that particular technologies offer.
- Whenever a technological tool is implemented as part of course instruction (as a means of improving academic writing), instructors need to effectively communicate a) the value of the tool to the students, b) its connection to positive learning outcomes and coursework, and c) best practices that can assist students as they engage with the technology. If not done effectively, the potential for the technology to assist students in the writing process is often negated.
- Although technology offers students great affordances for group collaboration outside the formal classroom environment, a number of factors can impede effective group work related to academic writing. These include lack of pedagogical supports, poor moderation of online social interactions and interpersonal issues that can emerge, and students' reluctance to engage with the tool until assignment deadlines approach.

II. Evaluating Instructional Design Approaches that Promote the Acquisition of Academic Writing Skills within Blended Learning Environments

This section surveys literature focused on instructional (pedagogy-driven) design approaches that have been used to support the academic writing skill acquisition of undergraduate students. Once again, these studies focus on blended and online university learning environments.

- Blended learning environments are effective for engaging students in academic writing in that instructors are able to recreate the informal elements of in-class discussion and interaction in an online space. However, the literature suggests that face-to-face interactions (either in-person or via distance) were needed from time to time to effectively offer feedback to students and provide reassurance.
- After reviewing the scholarship, most authors outlined that improving the academic writing skills of students in a blended learning environment is a time-intensive task. Although flipped models can streamline resource dissemination and increase oversight of student work and contributions, necessary pedagogical practices, such as providing quality feedback and explaining the value of the technological tools, were cumbersome for instructors.
- While this review focused on academic writing, much of the literature promoted the notion that instructors should design their courses around improving overall “literacy” (reading and writing) as a means of increasing the acquisition of academic writing skills. In this sense, students should be made aware of the clear connection between what they read (online or in class) and the writing they produce.

Terms of Reference

This report provides an overview of the current scholarship relating to undergraduate students' acquisition of academic writing skills in blended and online learning environments. The following research questions drove this literature review:

1. What *innovative technologies* (i.e., tools that promote the process of learning or problem solving) have been proven to promote and enhance the acquisition of academic writing skills in blended or online learning environments?
2. What approaches in the field of *instructional design* have been proven to promote and enhance the acquisition of academic writing skills in blended or online learning environments?

To create an overview of the research that offers insights into these questions, we initiated a rigorous and systematic search of publically available academic scholarship. We drew on number of strategies to access these data, including electronic searches on the following databases: Academic Search Complete, ERIC, Google Scholar, and Education Research Complete. In order to access relevant journal articles, we used groupings of one or more of the following search terms:

"academic writing" "writing support" "teaching writing" "collaborative writing"
"online writing" "team writing" "wikis" "blogs" "writing skills" "writing skill
acquisition" "blended" "online" "blended learning" "blended learning
environment" "online learning" "elearning" "wikis" "blogs" "discussion forums"
"instructional design" "university" "university students" "higher education"
"postsecondary" "instructors" "writing interventions" "writing assistance"
"technology" "educational technology" "learning management system" "writing
tutorials" "writing feedback"

This report lays the foundation for the 2-year study that, in the second phase of the research, will include research with first-year students in an on-campus introductory B.Ed course. While the report's driving research questions are specifically applicable to the larger study, it is our hope that the review of the literature, while not exhaustive, will assist researchers and practitioners with similar inquiries.

Background on Academic Writing and Blended Learning Environments

The initial impetus for this study emerged from a University of Calgary SToL grant written by Asher Ghaffer from Writing Support Services and David Scott from the Werklund School of Education. The focus of our proposed study centered on the extent to which embedded academic writing supports combined with online discussion forums (Bates, 2005; Babcock & Thonus, 2012) could enhance student interaction throughout the writing process towards the acquisition of academic writing skills. Within our initial review of the literature we discovered studies that suggested academic writing abilities are one of the strongest determinants of student success in professional programs (e.g., Saïdy, 2015). This literature review also suggested that a lack of student interaction is a key barrier for student success in online learning environments (Beldarrain, 2006; Muilenburg & Burg, 2005; Yang & Durrington, 2010), while other studies have found that it is the nature of the course structure that is the greatest barrier to online learning (Yang & Durrington, 2010). Given this reality, Bates (2005) argued that many instructors teaching in online environments are unfamiliar with ways to design courses to promote high quality learning (Bates, 2005).

In searching for ways to implement innovative teaching strategies and course structures to promote the acquisition of academic writing within online learning environments, composition studies have important insights to offer (Babcock & Thonus, 2012). This research has found that helping students learn through trial and error and initiating students into a collaborative dialogue about the writing process leads them to critically engage with their writing and build self-efficacy. However, although there is wide body of scholarship that examines how technology can be used to promote student engagement, there is a gap in understanding how embedded writing supports can promote student interaction throughout the writing process. Thus, in initiating a more extensive review of the literature, along with developing a better understanding of the possibilities of technology and changes to course design to promote the acquisition of academic writing, we sought to discover if this claim regarding a gap in the literature was in fact correct.

I. Evaluating the Effectiveness of Technologies that Seek to Enhance the Acquisition of Academic Writing Skills within Blended Learning Environments

This section reviews literature focused on evaluations of novel technologies that have been used to support academic writing in undergraduate classes. These tools, platforms, and software have been implemented in blended and online learning environments to aid in the acquisition of academic writing skills specifically (irrespective of the course focus/content).

- In the acquisition of academic writing skills, no one technology stood out as more effective than another. While much of the literature reviewed focused on wikis, this did not correlate to the technology's overall effectiveness. Study findings suggest that the use of technological supports such as wikis must be understood within the context of a larger complex process of fostering student learning.
- While the use of platforms such as wikis on their own do not generally lead to significant learning outcomes, the introduction of effective pedagogical practices can help to leverage the affordances that particular technologies offer.
- Whenever a technological tool is implemented as part of course instruction (as a means of improving academic writing), instructors need to effectively communicate a) the value of the tool to the students, b) its connection to positive learning outcomes and coursework, and c) best practices that can assist students as they engage with the technology. If not done effectively, the potential for the technology to assist students in the writing process is often negated.
- Although technology offers students great affordances for group collaboration outside the formal classroom environment, a number of factors can impede effective group work related to academic writing. These include lack of pedagogical supports, poor moderation of online social interactions and interpersonal issues that can emerge, and students' reluctance to engage with the tool until assignment deadlines approach.

Allen, M., & Tay, E. (2012). Wikis as individual student learning tools: The limitations of technology. *International Journal of Information and Communication Technology*, 8(2), 61-71. <https://doi.org/10.4018/jicte.2012040105>

This article examined higher education students' perceptions about whether wikis could help them improve an individual writing assignment before submission. Undertaken at Curtin University in Perth, Australia, within an Internet Commerce and Consumers course, the study focused on the potential of wikis to promote various individual cognitive processes within the writing process, including planning, reading, researching, developing ideas, writing, reviewing, revising, and editing (it did not focus on the collaborative capacities of wikis). Through an examination of student surveys, instances of wiki revisions, and comparisons of students' work, the researchers found that while students generally perceived wikis as easy to use and a valuable way to promote learning, the students did not demonstrate a strong willingness to engage in high-intensity editing nor did their academic writing abilities improve significantly. Specifically, 81% of students were either low or medium intensity users and failed to use the vast majority of affordances offered by wikis including writing down ideas, examining the work of colleagues for exemplary writing models, and participating in ongoing editing and revisions. Overall, the students' marks on later assignments did not change due to their initial use of wikis; weaker students continued to have lower marks and high performing students continued to have higher marks.

Allwardt, D. (2011). Writing with wikis: A cautionary tale of technology in the classroom. *Journal of Social Work Education*, 47(3), 597-605. doi:10.5175/JSWE.2011.200900126

Within the context of a Bachelor of Social Work class at a midsize public university in the U.S. Midwest, this pilot study examined the extent to which groups of 4-5 students using a collaborative wiki platform for a scholarly literature review assignment could promote both collaboration and a deeper understanding of writing processes. Through examining students' contributions to their group wiki, discussion group feedback, and comments in the course evaluations, the researchers compared the difference between two small classes where one section completed the assignment through traditional means while the other used wikis to collaborate online. The researchers found that based on concerns around time management, difficulties in coordinating group members, and the assignment parameters, students generally did not like the assignment. Moreover, students were reluctant to use the group wiki. Analysis of the research data suggested that students often failed to comment on their group members' contributions and were often only active within the wiki as the due date approached. Several students in the wiki group also expressed a desire to meet face-to-face because they felt alienated by the impersonal nature of wikis. Students in the face-to-face group traditional mode were more effective in integrating proper APA citations. In regards to assignment parameters, many students felt that more class time was needed to become familiar with wikis, and were often uncomfortable with editing their peers' work.

Birch, H. J. S. (2016). Feedback in online writing forums: Effects on adolescent writers. *Teaching/Writing: The Journal of Writing Teacher Education*, 5(1), 74-89.

This study examined the participation of adolescent writers in online writing forums and asks whether particular characteristics and procedures can be drawn into the pedagogy of teaching writing. Birch considered the following questions: a) Who participates in online writing communities? b) Why do people participate in online writing communities? and c) What do the members of online writing communities report about the effects of their participation in such communities? Data was collected through analysis of the online writing community *Critique Circle*, interviews with 5 core participants ages 12-17, and an online questionnaire completed by 13 auxiliary participants (all ages). The analysis concluded that adolescents are intrinsically motivated to write, give and receive critical feedback, and revise. Birch suggests that writing can more effectively be taught if teachers evoke an informal pedagogy that minimizes summative assessment (Assessment OF Learning). Accordingly, the author recommends possibilities for creating an informal pedagogy in the classroom: 1) teachers should “honour the literacies that students develop outside of school” (p. 85); 2) students should be offered more opportunities for choice in topics, in deciding which assignments to submit for formal Assessment OF Learning, and in deciding whether or not to revise their writing by incorporating critical feedback (p. 85); 3) students benefit from positive feedback, and once their confidence is built up they can better receive a “teacher’s instincts to correct errors and make suggestions throughout a student’s writing” (p. 86); 4) students should set their own writing goals; and 5) teachers should provide an authentic audience of peers or an online writing forum.

Coffin, C., & Hewings, A. (2005). Engaging electronically: Using CMC to develop students’ argumentation skills in higher education. *Language and Education*, 19(1), 32-49. <https://doi.org/10.1080/09500780508668803>

Within the context of a Master’s level distance-learning program in Applied Linguistics at the Open University in the U.K., this study investigated the extent to which computer conferencing within online learning environments helped students develop argumentation skills in ways that would improve their written assignments. Drawing on two computer conference groups where students could leave and read messages from their peers, the researchers compared the use of the functional linguistic concept of ENGAGEMENT, which involves proven strategies to argue more effectively. The researchers were particularly interested in the relationship between students’ conference-based and multi-party academic communication and argumentation, contrasted with forms of argumentation that emerged within students’ individually written assignments. Through examining the interactions that took place during the electronic conferences as well as work on the final assignment, the researchers found that electronic conferencing has the potential to offer a valuable means to take up and reflect on differing points of view; however, the results were mixed on whether this approach leads to stronger writing in

individual assignments. Overall, the researchers surmised that the use of ENGAGEMENT resources in electronic conferencing failed to ensure that students would adopt key processes of argumentation in subsequent written assignments. Given this, increased tutor intervention during the conference and more structured tasks positively impacted intergroup collaboration and led to a greater tendency to employ key argumentation processes in later work.

Dishaw, M., Eierman, M., Iversen, J., & Philip, G. (2011). Wiki or word? Evaluating tools for collaborative writing and editing. *Journal of Information Systems Education, 22*(1), 43-54.

This study examined the extent to which collaboratively writing and editing a paper is better supported through the use of a wiki application or by exchanging word processing documents via email. Within the context of a mandatory *Essentials of IS (Information Systems)* course for undergraduate business students, the researchers used the Task-Technology Fit (Dishaw and Strong, 1999) model to specifically compare the two approaches' "perceived ease of use, perceived usefulness, and perceived effort at collaboration" (p. 44). Through comparing survey responses from 262 students who used a wiki and 210 students who exchanged word processing documents via email, the researchers sought to determine which technology better supported distributed group writing. The survey data revealed that the students rated the word processing and email combination as both easier to use and more useful compared to the wiki. The researchers additionally ascertained that there was no difference between the two approaches in terms of the effort of collaboration.

Ellis, M. J. (2011). Peer feedback on writing: Is on-line actually better than on-paper? *Journal of Academic Language & Learning, 5*(1), 88-99.

This study examined the extent to which the quality of peer feedback was superior within a blog environment compared with a traditional context in which students exchanged paper copies of writing in class. Within the context of a second year Bachelor of Communication studies program, the researchers examined two parallel classes employing each approach. After analyzing 22 samples of feedback from each class, the researchers found a much higher level of structural comments for revision within the blog. In contrast, there was much more surface proofreading and feedback in the in-class paper environment. However, the researchers noted the emergence of interpersonal issues among students who used the blog. This study suggests that although using a blog can provide more in-depth peer feedback and advice, students need more structure and guidance to fully realize the potential of this platform. Ultimately, the researchers recommend that optimal results can be achieved through a mix of both approaches, whereby students use a hard copy for peer proof reading and a blog for more reflective commentary.

Ellis, R. (2006). Investigating the quality of student approaches to using technology in experiences of learning through writing. *Computers & Education*, 46(4), 371-390. <https://doi.org/10.1016/j.compedu.2004.08.006>

This study investigated the quality of different technology approaches students used when learning through writing. Within the context of an undergraduate science class in an Australian regional university, the researchers examined how 52 students engaged with a scientific writing database, a bulletin board for brainstorming ideas, and a word-processor during the writing process. Drawing data from a series of four questionnaires, the researchers examined what students thought they were learning as well as how they approached both their writing and the technology they were using. The researchers found that students who adopted a “surface” or reproductive approach to writing tended to achieve lower performance measures compared with students who adopted approaches that reflected a deeper understanding, such as the conceptual restructuring of texts, deeper engagement with the knowledge being written, and a greater understanding of the content matter under study.

Hewett, B. (2000). Characteristics of interactive oral and computer-mediated peer group talk and its influence on revision. *Computers and Composition*, 17(3), 265-288. [https://doi.org/10.1016/S8755-4615\(00\)00035-9](https://doi.org/10.1016/S8755-4615(00)00035-9)

This study examined the similarities and differences between group interactions and writing revisions for students who discussed their writing orally compared with computer-mediated communication (CMC). Data was collected from two sections of an upper-level undergraduate argumentative writing course at The Catholic University of America. Although interactions between peer groups in both environments focused primarily on their writing, there were significant differences in the nature of their talk and the ways this affected their subsequent writing revisions. Students in the oral environment tended to focus on the development of abstract and global ideas. In contrast, the conversations of students in the CMC environment was more concrete and focused on topics associated with the writing tasks and group management concerns. While both sets of students revised their work using ideas from their discussions, the revisions by the CMC students demonstrated more use of peer ideas. The revisions of the oral group, meanwhile, included comparatively more frequent use of imitative and self-generated ideas.

Miller, J. (2014). Building academic literacy and research skills by contributing to Wikipedia: A case study at an Australian university. *Journal of Academic Language and Learning*, 8(2), 72-86.

This study presented the results of a small-scale study about how writing with the purpose of uploading to Wikipedia affected the research and writing skills development

of 11 undergraduate students in Australia. In response to a perceived reliance on non-academic sources, the researcher used Willison and O'Regan's (2007) Research Skill Development Framework to implement a set of course activities designed to allow students to write for a real audience – in this case, Wikipedia. Students created and uploaded short writing samples to Wikipedia as entries on various topics. Students reported an increase in their research skills and reflected positively on the experience. This study has implications for postsecondary instructors or lecturers interested in capitalizing on their students' interests in digital media. The author found that the task presented several challenges including the inability of Wikipedia to support multiple authors/students using the same IP address, the need to ensure plagiarized material is not uploaded to a public space and the time-consuming nature of the task; however, these challenges did not overshadow the increase in skills for students.

Nallaya, S., & Kehrwald, J. (2013). Supporting academic literacies in an online environment. *Journal of Academic Language & Learning* 7(2), A79-A94.

This study examined whether a Language Literacies Learning (L3) website at the University of South Australia (UniSA) provided adequate writing and literacy support for students. The website used text, audio and video to introduce students to the academic literacies and genres within their disciplines. Data was collected through an online survey and eight semi-structured interviews. Interview participants completed a task that required them to locate information on the website. The majority of participants found the website easy to use and indicated that it helped them complete their assignments. Accordingly, researchers determined that the online resources on the website adequately supported the development of respondents' discipline-specific academic literacies. The researchers found that step-by-step directions, models and examples were the best online methods for supporting students' writing, and that online learning provides an easily accessible environment that students can revisit many times throughout their studies.

Stetson, S. (2016). Building up to collaboration: Evidence on using wikis to scaffold academic writing. *Journal of Academic Writing*, 6(1), 134-144.
<https://doi.org/10.18552/joaw.v6i1.288>

This article explored how wikis might promote collaborative writing as well as factors to consider before incorporating a wiki into an academic writing course. The author argued that the benefits of using wikis in academic writing include flexibility, skill building, and increased collaboration. Wikis enable instructors to create a context for different activities aimed at developing writing skills. In addition, wikis allow instructors to view student input in group writing. However, wikis can add to the workload for instructors and learners who have never used them before. Monitoring individual contributions can also increase instructor workload and students may find collaborative writing to be more work than individual writing. In addition, many students wait until immediately before an assignment is due to contribute to the wiki, thus diminishing any opportunity for

meaningful collaboration. Wikis are also not suited to all collaborative writing assignments. The author recommends that instructors use several preparatory assignments to help students learn to use wikis with confidence. Clear assignment instructions and explicit expectations for participation are also crucial for students to benefit from using a wiki in an academic writing course.

Wheeler, S., & Wheeler, D. (2009). Using wikis to promote quality learning in teacher training. *Learning, Media and Technology*, 34(1), 1-10.
<https://doi.org/10.1080/17439880902759851>

This study examined the potential of wikis to support students' writing skills, and whether the collaborative context provided through wikis could facilitate better quality writing. Email questionnaires were filled out by 35 Education students at various stages in their studies. In addition, the researchers analyzed the students' wiki discussion boards and wiki posts. The authors identified a number of affordances and limitations of this tool. Overall, most students felt they had increased their academic writing abilities. Students appreciated the ability to communicate their views about course work within a public forum. The use of this tool also led students to cultivate a more formal voice when writing whereby they moderated their opinions to minimize conflict and removed slang from their writing. The researchers also found that the public nature of this forum led students to pay greater attention to referencing (e.g., placing greater emphasis on accurately citing sources, checking the veracity of cited information, and appreciating intellectual property). However, the desire for students not to offend their peers, limited their ability to write collaboratively, and also made students more reluctant to discuss controversial topics.

Zheng, B., Niya, M., & Warschauer, M. (2015). Wikis and collaborative learning in higher education. *Technology, Pedagogy and Education*, 24(3), 1-18.
<https://doi.org/10.1080/1475939X.2014.948041>

This article both explored existing research on wiki use in education and tested a design-based approach to develop and implement a wiki-based learning activity for promoting collaborative learning in a face-to-face classroom. Data was collected using participant observation, interviews and surveys from students, and documents produced by students enrolled in three universities in the U.S. and one in China. Drawing on four iterations of wiki use in the various classroom environments, the researchers refined and revised the course at each stage in order to increase student participation and collaboration. As part of this process, they introduced scaffolding activities that consisted of developing teamwork skills, providing examples of prior student work, and identifying online behaviour guidelines. The authors suggested that collaborative writing on wikis creates opportunities for constructivist learning, the co-creation of knowledge and supports the development of learning communities. Specifically, all participants indicated that they liked using a wiki for collaborative learning, although only 21% felt obligated to

participate because it was a group assignment. The authors concluded that while wiki technology has the built-in features for supporting collaborative writing, pedagogical supports, including appropriate topic selection, discussion pages, and Wiki-assisted assessment, are required to leverage the full affordances of this tool.

II. Evaluating Instructional Design Approaches that Promote the Acquisition of Academic Writing Skills within Blended Learning Environments

This section surveys literature focused on instructional (pedagogy-driven) design approaches that have been used to support the academic writing skill acquisition of undergraduate students. Once again, these studies focus on blended and online university learning environments.

- Blended learning environments are effective for engaging students in academic writing in that instructors are able to recreate the informal elements of in-class discussion and interaction in an online space. However, the literature suggests that face-to-face interactions (either in-person or via distance) were needed from time to time to effectively offer feedback to students and provide reassurance.
- After reviewing the scholarship, most authors outlined that improving the academic writing skills of students in a blended learning environment is a time-intensive task. Although flipped models can streamline resource dissemination and increase oversight of student work and contributions, necessary pedagogical practices, such as providing quality feedback and explaining the value of the technological tools, were cumbersome for instructors.
- While this review focused on academic writing, much of the literature promoted the notion that instructors should design their courses around improving overall “literacy” (reading and writing) as a means of increasing the acquisition of academic writing skills. In this sense, students should be made aware of the clear connection between what they read (online or in class) and the writing they produce.

Balzotti, J., & McCool, L. (2016). Using digital learning platforms to extend the flipped classroom. *Business and Professional Communication Quarterly*, 79(1), 68-80. <https://doi.org/10.1177/2329490615606497>

This study examined an attempt to incorporate a series of video modules into three undergraduate professional/technical communication courses at a midwest university in the U.S. The videos, which documented the opinions of various industry experts about the knowledge that was important for new employees in their respective fields, adopted Holmberg's (1989) theory of guided didactic conversation. Through focus group interviews and post-reflection analyses, the researchers found that content designed to simulate informal in-class conversations can expand the possibilities of the flipped classroom model for higher education. Specifically, instructors felt this approach increased student engagement. Students enjoyed watching the videos and reflected that the subsequent in-class discussions allowed them to share their workplace experiences and talk more freely about ideas explored in the course. Students, however, identified the need for additional videos that addressed a larger number of industries, and noted the limitations of a static video format that does not allow for the spontaneous exchange of ideas. The authors concluded that simulated conversations are better integrated into the flipped classroom after instructors have first identified students' learning needs. The researchers also argued that guided didactic conversation in video format increases the motivation of students to learn when a friendly conversation style is employed.

Chanock, K., D'Cruz, C., & Bisset D. (2009). Would you like grammar with that? *Journal of Academic Language & Learning*, 3(2), 1-12.

This study examined the introduction of an online grammar and punctuation module in a first year Sex, Gender, and Identity class at an Australian university. Data was gathered through student questionnaires, focus group interviews, and monitoring the progress of students' work both before and after completing the writing skills module. The modules were reported as useful for the majority of students; however, rather than using the modules as a way to enhance their writing skills, most students were motivated to complete the module simply to obtain a grade. However, through completing the modules, students were still able to identify issues with their writing. Although the questionnaire responses indicated that students had gained writing skills, this did not always translate into their work. The authors concluded that the writing skills modules were more useful for students after they had received feedback on their first essays, when they were better able to understand the specific writing issues they needed to address.

Engin, M., & Donanci, S. (2016). Instructional videos as part of a 'flipped' approach in academic writing. *Learning and Teaching in Higher Education: Gulf Perspectives*, 13(1), 1-8. <https://doi.org/10.18538/lthe.v13.n1.231>

In this study, 40 United Arab Emirates university students learned academic writing skills through a ‘flipped classroom’ approach. The instructors experimented with this pedagogical shift whereby students arrived to class having watched five instructional videos and interacted with one another using the Educreations app (which turns an iPad into a “recordable whiteboard”) (p. 3). The instructors’ goals were to decrease the amount of class time spent “explaining” how to carry out activities and format writing, while increasing the time and attention involved with working in small groups, giving qualitative feedback and answering questions about the actual writing process. The primary finding drawing on feedback from 22 students was that they still required face-to-face teacher explanations after viewing the video instructions. The study’s authors concluded that low student confidence led to their perceived need to ask follow-up and clarification questions despite the repetition of the same information in the videos. Nevertheless, this study found that the flipped approach did reduce explanation times, engaged students prior to class, and increased thinking about the topic.

Goodfellow, R. (2005). Academic literacies and e-learning: A critical approach to writing in the online university. *International Journal of Educational Research*, 43(7-8), 481-494. <https://doi.org/10.1016/j.ijer.2006.07.005>

This article described an action research project within an online Masters program at the U.K. Open University, which sought to create and evaluate the effectiveness of “eWrite” – a website-based writing resource that supports distance learners in their writing practices. Data was gathered through accessing the website’s user statistics, along with email questionnaire-style interviews and follow-up email interviews. The website consisted of approximately 50 screen-pages, and took students 3-4 hours to read. Although the site included an introduction to writing, it went beyond asking students to simply write essays, and focused on “academic literacy practices” and “pedagogical and social activities” (p. 484) through online discussion posts and tutor-marked assessments. Approximately one quarter of students in the Masters program (~30 of 111) accessed eWrite as an online writing resource. Discourse analysis of the follow-up email interviews concluded, however, that even though writing ‘critically’ is valued by many students, few students adopted the eWrite’s ‘critically framed’ stance in their written reflections or tutor-marked assessments (TMAs).

Gunn, C., Hearne, S., & Sibthorpe, J. (2011). Right from the start: A rationale for embedding academic literacy skills in university courses. *Journal of University Teaching & Learning Practice*, 8(1), 1-10.

This article described a case study in which business instructors worked with librarians to develop course-specific tutorials that embedded academic (information) literacy skills into a first-year business course. The six tutorials aimed to be flexible, multimodal, interactive, accessible, and sequential to an assignment’s completion as well as to draw from experienced academic staff and to complement face-to-face instruction (p. 6). First-

year Management students completed the tutorials for 5% of their final grade. After completing the tutorials, students were permitted 10 attempts to complete a short quiz: a score of 100% gained students 1% towards their final grade. Results from 125 student surveys found that 92% of students completed all the quizzes, that it took most students between 2 and 4 attempts to achieve 100%, that 90% of students felt the tutorials achieved the objectives, and that 81% felt they had learned useful skills. The authors recommend that reusing and recycling tutorials necessitates that they are first customized and repopulated with relevant content in order to be meaningfully applied elsewhere.

Harris, H. S., & Greer, M. (2016). Over, under, or through: Design strategies to supplement the LMS and enhance interaction in online writing courses. *Communication Design Quarterly*, 4(4), 46-54. <https://doi.org/10.1145/3071088.3071093>

This study analyzed ways to better design and deliver online writing instruction through Learning Management Systems (LMS), such as Blackboard. The authors placed particular emphasis on the temporal dimension of online learning (arranging the virtual space to resemble face-to-face interactions), since this dimension has received far less attention in the academic literature than aspects such as visual and spatial design. The authors concluded that despite the generic and, sometimes, clumsy nature of LMS platforms, most can be managed and manipulated to achieve learning goals. The three foremost aspects of design for instructors to consider are: 1) using a ‘backward design’, whereby the course material and delivery is focused on the student user instead of the LMS; 2) using a “chunking model” to make asynchronous student interactions feel synchronous through frequent mini-lessons and activities; and 3) giving students choice in how to demonstrate their learning, access materials, and communicate with peers and instructors. Rather than feel constrained, the authors encourage course designers to focus on a student-centered approach and to implement creative ways of working over, under, and through their LMS platform.

Hewett, B. L. (2005). Synchronous online conference-based instruction: A study of whiteboard interactions and student writing. *Computers and Composition*, 23(1), 4-31. <https://doi.org/10.1016/j.compcom.2005.12.004>

This study presented the results of a small-scale investigation into the synchronous interactions of 23 undergraduate students when using an online whiteboard environment to engage in peer assistance for writing. The interactions were both initiated and directed by the students and were examined using linguistic analysis to determine the focus of participant talk. The study found that the majority of students engaged in interactions that, in contrast to the social orientation of everyday talk, were oriented around the writing tasks and focused on developing writing skills and generating ideas. Hewett notes the need for professional development for instructors using synchronous online whiteboard spaces. The author also suggests that instructors must recognize that the

online conferences engaged in by students may result in discrete changes in writing or there may be no change.

Hudson, L. S. A. (2011). *Enhancing academic writing competence in radiography education* (Unpublished Master of Technology Thesis). Cape Peninsula University of Technology, Cape Town.

This study examined the results of a qualitative inquiry into a writing intervention strategy for Radiography students at a small satellite campus of Cape Peninsula University in Cape Town, South Africa. Students in this first-year course were asked to engage in an iterative process consisting of writing instruction, essay construction and reflection. Findings highlighted three important aspects needed for the optimum enhancement of academic writing competence, which include collaborative guidance and support, peer mentoring, and technology. The primary implication of this research was a direct relationship between reading and writing and a need for institutions to ensure that students are made explicitly aware of this connection. Further implications exist including the need for technology integration and writing instruction conducted in a collaborative manner.

Lea, M. R., & Jones, S. (2011). Digital literacies in higher education: Exploring textual and technological practice. *Studies in Higher Education*, 36(4), 377-393.
<https://doi.org/10.1080/03075071003664021>

This article described a study involving 45 undergraduate students from three universities about the implications of varying literacy practices as they read, wrote, and negotiated digital texts. The researchers met with each participant three to four times and discussed their literacy practices along with observations of their engagement with various literacies. The study's findings suggested that while students were engaged with digital literacies and that these literacies could challenge more traditional texts, students still looked to their institution for validation of those literacies. Further, the study's authors suggested that by encouraging the use of digital literacies, post-secondary institutions are encouraging the disuse of more traditional forms of writing and reading. However, students were capable of being adept and flexible consumers of digital literacies.

Tuomainen, S. (2016). A blended learning approach to academic writing and presentation skills. *International Journal on Language, Literature and Culture in Education*, 3(2), 33-55. <https://doi.org/10.1515/llce-2016-0009>

This purpose of this study was to determine student perceptions of blended course mode, methods, workload, learning atmosphere and challenges in an English for Academic Purposes (EAP) course focused on academic writing and presentations. The author argued that blended learning lends itself to communication skills because the online

approach is flexible and convenient for students. In addition, blended learning offers the benefits of in-person classroom communication. The study included a feedback form that was collected at two points during the course: spring semester 2014 and autumn semester 2015. Participants were asked to indicate whether they preferred the blended learning environment, the face-to-face classroom, had no preference, or the opportunity to choose. Students were also asked to evaluate the learning and teaching methods used to deliver the course. The study found that the majority of students (n=18, 75%) preferred the blended learning option, and only a few (n=4) preferred the more traditional classroom learning environment. Most participants, 95.8%, indicated their satisfaction with the course's learning atmosphere. Participants appreciated the "convenience, flexibility and greater allowances for individual time management" offered by blended learning (p. 49). The author recommends further development of blended learning options for EAP writing and presentation skills. "The consistent and active use of weekly tasks, reflection and peer comments were considered essential to developing academic English communication skills in a blended learning environment" (p. 45). The blended learning environment also benefited from a balanced approach, including a "variety of tasks and the active use of peer comments and feedback and instructor comments" (p. 50).

Wijeyewardene, I., Patterson, H., & Collins, M. (2013). Against the odds: Teaching writing in an online environment. *Journal of Academic Language & Learning*, 7(2), A20-A34.

This study examined the design and development of the Pathways Enabling Course at the University of New England (UNE), which was created specifically to teach academic writing. The program, which used Moodle's database to inspire student engagement, participation and interactivity, was launched to assist students from educationally disadvantaged backgrounds to develop academic writing skills. The first course introduced students to a variety of academic texts and they completed various essay writing tasks, including "question analysis, essay planning, academic writing style and referencing" (p. A-22). In the second course, students focused on further improving their writing skills through instruction and feedback. Writers were supported through online discussion forums as well as "database tools, quizzes, interactive flash-based activities, screen casts, YouTube videos, PDF documents, Turnitin and Grademark" (p. A-23). The authors recommend strategies that require students to engage with the online tools, including encouraging students to assist one another in the discussion forums, which reduces the instructor's workload. The authors also recommend the use of the Moodle "database" tool, which enables students to upload a short essay on which they receive detailed and constructive feedback. One area of concern noted in the study involved the workload requirements of the course since providing constant feedback can be labour intensive for instructors.

Wingate, U., Andon, N., & Cogo, A. (2011). Embedding academic writing instruction into subject teaching: A case study. *Active Learning in Higher Education*, 12(1), 69-81.

This article presented a case study of the design, implementation, and evaluation of an academic writing intervention with first-year undergraduate students in an applied linguistics program in the U.K. Through embedding writing instruction directly into the course design, writing skills were taught alongside the regular subject. The researchers evaluated the pilot project through a review and analysis of both in-class and online writing projects and assessment, notes on classroom interaction, a student questionnaire and interviews, a text analysis of students' writing, and students' feedback comments. The authors found that through increased independent work and interaction with the students, instructors can successfully cover subject content while teaching writing skills at the same time. Overall, imbedded instruction on writing and assessment feedback were seen as the most beneficial element of this intervention. However, the authors noted that providing assessment feedback was very labour intensive for instructors and therefore recommend that teaching assistants fulfill this role.

Conclusion

The literature summarized and analyzed in this report can inform instructors, course facilitators, and educational technologists as they continue to develop new approaches for teaching academic writing for undergraduate students within blended and online learning environments.

In seeking to address the challenges of teaching academic writing in blended and online writing environments, this report suggests the need to shift attention away from a focus on the use of a single technology or set of technologies, towards the specific pedagogical techniques and instructional design measures that are likely to be effective in relation to the material being studied. In this way, the teaching of academic writing must be understood as part of a larger and complex process of fostering student learning. In doing this, instructors and curriculum developers are afforded opportunities to design their courses around improving overall “literacy” where students gain greater capacities for interpreting, analyzing, and synthesizing the insights and ideas they encounter in particular courses.

When understood in this way, enhanced learning outcomes can be accrued through linking technologies to productive pedagogical strategies where instructors, for example, provide opportunities for rich in-class discussion and iterative feedback loops. However, in doing this instructors and curriculum developers should proceed with caution. Contrary to popular belief, contemporary students are not necessarily digital natives. Instructors therefore need to better communicate why there is value in using particular tools and provide instruction about methods for using the tools most effectively. Given this, even when the usefulness and viability of technologies are well articulated and integrated into course structures, factors such as limited time, interpersonal issues, and difficulties in providing honest peer-to-peer feedback, can hinder their full potential.

As informal forms of writing and communicating continue to develop in the digital era, it is our hope that these and other still emergent insights will aid educators in promoting academic writing as an essential proficiency for university students—not only for their success in undergraduate programs but additionally as they take their place in a rapidly changing socio-economic landscape.

References

- Allen, M., & Tay, E. (2012). Wikis as individual student learning tools: The limitations of technology. *International Journal of Information and Communication Technology*, 8(2), 61-71. <https://doi.org/10.4018/jicte.2012040105>
- Allwardt, D. (2011). Writing with wikis: A cautionary tale of technology in the classroom. *Journal of Social Work Education*, 47(3), 597-605. doi:10.5175/JSWE.2011.200900126
- Babcock, R., & Thonus, T. (2012). *Researching the writing center*. New York: Peter Lang.
- Balzotti, J. & McCool, L. (2016). Using digital learning platforms to extend the flipped classroom. *Business and Professional Communication Quarterly*, 79(1), 68-80. <https://doi.org/10.1177/2329490615606497>
- Bates, T. (2005). *Technology, e-learning and distance education*. London: Routledge.
- Beldarrain, Y. (2006). Distance education trends: Integrating new technologies to foster student interaction and collaboration. *Distance Education*, 27(2), 139-153. <https://doi.org/10.1080/01587910600789498>
- Birch, H. J. S. (2016). Feedback in online writing forums: Effects on adolescent writers. *Teaching/Writing: The Journal of Writing Teacher Education*, 5(1), 74-89.
- Chanock, K., D'Cruz, C., & Bisset D. (2009). Would you like grammar with that? *Journal of Academic Language & Learning*, 3(2), 1-12.
- Coffin, C., & Hewings, A. (2005). Engaging electronically: Using CMC to develop students' argumentation skills in higher education. *Language and Education*, 19(1), 32-49. <https://doi.org/10.1080/09500780508668803>

-
- Dishaw, M., Eierman, M., Iversen, J., & Philip, G. (2011). Wiki or word? Evaluating tools for collaborative writing and editing. *Journal of Information Systems Education, 22*(1), 43-54.
- Ellis, M. J. (2011). Peer feedback on writing: Is on-line actually better than on-paper? *Journal of Academic Language & Learning, 5*(1), 88-99.
- Ellis, R. (2006). Investigating the quality of student approaches to using technology in experiences of learning through writing. *Computers & Education, 46*(4), 371-390. <https://doi.org/10.1016/j.compedu.2004.08.006>
- Engin, M., & Donanci, S. (2016). Instructional videos as part of a 'flipped' approach in academic writing. *Learning and Teaching in Higher Education: Gulf Perspectives, 13*(1), 1-8. <https://doi.org/10.18538/lthe.v13.n1.231>
- Goodfellow, R. (2005). Academic literacies and e-learning: A critical approach to writing in the online university. *International Journal of Educational Research, 43*(7-8), 481-494. <https://doi.org/10.1016/j.ijer.2006.07.005>
- Gunn, C., Hearne, S., & Sibthorpe, J. (2011). Right from the start: A rationale for embedding academic literacy skills in university courses. *Journal of University Teaching & Learning Practice, 8*(1), 1-10.
- Harris, H. S., & Greer, M. (2016). Over, under, or through: Design strategies to supplement the LMS and enhance interaction in online writing courses. *Communication Design Quarterly, 4*(4), 46-54. <https://doi.org/10.1145/3071088.3071093>
- Hewett, B. (2000). Characteristics of interactive oral and computer-mediated peer group talk and its influence on revision. *Computers and Composition, 17*(3), 265-288. [https://doi.org/10.1016/S8755-4615\(00\)00035-9](https://doi.org/10.1016/S8755-4615(00)00035-9)
-

-
- Hewett, B. L. (2005). Synchronous online conference-based instruction: A study of whiteboard interactions and student writing. *Computers and Composition, 23*(1), 4-31. <https://doi.org/10.1016/j.compcom.2005.12.004>
- Hudson, L. S. A. (2011). *Enhancing academic writing competence in radiography education* (Unpublished Master of Technology Thesis). Cape Peninsula University of Technology, Cape Town.
- Lea, M. R., & Jones, S. (2011). Digital literacies in higher education: Exploring textual and technological practice. *Studies in Higher Education, 36*(4), 377-393. <https://doi.org/10.1080/03075071003664021>
- Miller, J. (2014). Building academic literacy and research skills by contributing to Wikipedia: A case study at an Australian university. *Journal of Academic Language and Learning, 8*(2), 72-86.
- Muilenburg, L. Y., & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education, 26*(1), 29-48. <https://doi.org/10.1080/01587910500081269>
- Nallaya, S., & Kehrwald, J. (2013). Supporting academic literacies in an online environment. *Journal of Academic Language & Learning 7*(2), A79-A94.
- Saidy, C. (2015). We learned what?: Pre-service teachers as developmental writers in the writing methods class. *Teaching/Writing: The Journal of Writing Teacher Education, 4*(1), 108-124.
- Stetson, S. (2016). Building up to collaboration: Evidence on using wikis to scaffold academic writing. *Journal of Academic Writing, 6*(1), 134-144. <https://doi.org/10.18552/joaw.v6i1.288>
-

-
- Tuomainen, S. (2016). A blended learning approach to academic writing and presentation skills. *International Journal on Language, Literature and Culture in Education*, 3(2), 33-55. <https://doi.org/10.1515/llce-2016-0009>
- Wheeler, S., & Wheeler, D. (2009). Using wikis to promote quality learning in teacher training. *Learning, Media and Technology*, 34(1), 1-10. <https://doi.org/10.1080/17439880902759851>
- Wijeyewardene, I., Patterson, H., & Collins, M. (2013). Against the odds: Teaching writing in an online environment. *Journal of Academic Language & Learning*, 7(2), A20-A34.
- Wingate, U., Andon, N., & Cogo, A. (2011). Embedding academic writing instruction into subject teaching: A case study. *Active Learning in Higher Education*, 12(1), 69-81.
- Yang, Y., & Durrington, V. (2010). Investigation of students' perceptions of online course quality. *International Journal on E-Learning*, 9(3), 341-361.
- Zheng, B., Niya, M., & Warschauer, M. (2015). Wikis and collaborative learning in higher education. *Technology, Pedagogy and Education*, 24(3), 1-18. <https://doi.org/10.1080/1475939X.2014.948041>

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