

## **Academic Writing in the Health Professions: A Comparison of Two Writing-Intensive Course Models Within a Cross-Disciplinary Course**

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### **ABSTRACT**

Academic writing in higher education has been a long-standing priority, with a greater need for writing supports noted in the past decades (Wingate & Tribble, 2012) and an increasing focus on discipline-specific language in order for students to learn to write and communicate effectively as professionals in their chosen fields (Grzyb et al., 2018). This study examined student learning outcomes in two writing-intensive designated health professions courses (Nursing and Public Health). Students completed assignments throughout the semester. One course section required students to turn in a final paper without receiving feedback during the writing process while, in the other course, students received feedback on sections of the final paper throughout the semester. At the final exam stage, students were asked to reflect on their learning experience in the course. At the end of the semester, students submitted their final paper and completed a learning reflection to meet the course requirements. To inform a course revision, student paper and learning reflection narratives were analyzed. Narratives were de-identified and inductively coded by a single coder. First-round coding employed descriptive and in vivo coding to explore the data. The codebook for second-round coding was refined and codes were classified within the headings *descriptive*, *emotion*, and *value*. Findings indicate that students felt they had increased capacity for reflection when feedback was provided throughout the semester. They also felt they benefited from integrating feedback on the credibility of sources, organization, and citations. Integrating feedback and reflection opportunities contributed to greater student learning.

*Keywords:* writing-intensive course, interdisciplinary, health, reflections

## INTRODUCTION

There is much concern in higher education about the writing capabilities of students as they enter college and eventually select their major. Many students are not prepared for the rigors of academic writing (Wingate & Tribble, 2012). This concern is not new, with several iterations of the Language Across the Curriculum movement, later called Writing Across the Curriculum, beginning in the United States in the late 1960s, and the Academic Literacies Model in the UK in the 1990s (Bazerman, 1988; Lea & Street, 2006; Young, 2011). However, researchers in both the United States and UK have noted an increased need for writing support in that past few decades (Wingate & Tribble, 2012). While the reason for this is multifaceted and at times country-specific, a common underlying theme is deficiency in student preparedness for academic writing in higher education. When looking specifically at writing in the health professions, the concern remains, with research noting discipline-specific writing is best taught by those in the discipline (Grzyb et al., 2018). The assumption that students are able to apply skills learned in basic writing courses to more advanced, discipline-specific writing contexts ignores the varied expectations specific to each discipline (Grzyb et al., 2018). The lack of specific, detailed articles surrounding some disciplines' writing-intensive requirements is well demonstrated by Sasa (2020), who purports this article to be the only one describing an assignment created for a writing-intensive clinical nursing course. Our study examines learning outcomes from a writing-intensive course in the health professions by comparing two courses with different structures for the writing-intensive portion.

The National Assessment of Educational Progress in the United States found that approximately one-quarter of students write at only a “proficient” level upon high school graduation (National Center for Educational Statistics, 2012). It is important to note, however, that of the three options—“basic,” “proficient,” and “advanced,”—only three percent scored at the higher “advanced” level. The assessment also noted that those students who wrote four or more pages per week scored higher than those who wrote less, supporting the continuation of regular writing assignments in the post-secondary education years. As writing proficiency is a key element of student success in higher education, this growing issue has created a problem for universities around the world and sparked research on a variety of interventions (Hammann, 2005; Ragland, 1997). The requirement for writing-intensive courses is far reaching, with faculty in discipline-specific courses crafting assignments to work with the dissemination of research, marketing, and increasing students' critical thinking (Burk, 2020).

Writing in higher education has traditionally been taught in freshman-level writing courses (Kuh, 2008; Ragland, 1997). However, faculty in student majors often find writing deficits among students (Rawson et al., 2005). To address this problem, writing-intensive programs have been established to teach basic and

technical writing for a broad audience (Fallahi et al., 2006). Historically, as Griffin (1985) notes, writing-intensive courses have been viewed as “the purest manifestation of writing across the curriculum, since students are taught to write by specialists within a discipline and in the ‘modes’ and conventions of that discipline.” (p. 402). Furthermore, freshman and upper-level students alike can benefit from the impact of writing-intensive courses as writing is reinforced throughout the college experience (Griffin, 1985). Support for these programs comes with the acknowledgement that “learning to write in an academic discipline is not purely a linguistic matter that can be fixed outside the discipline” (Wingate & Tribble, 2012, p. 481), but requires understanding of the construction, application, and presentation of disciplinary knowledge. Richardson (2008) notes that what matters most in higher education is not basic writing skills, but rather that students master those genre-specific skills required for high-level academic discourse within a specific discipline. Miller et al. (2015) explain that those in the health professions are expected to communicate clearly, and they also note a correlation between writing ability and the ability to think critically. Despite the significant increase in demand for writing courses in the health professions, research has not looked at surrounding theory and pedagogy, nor writing in specific genres in the health professions (Gimenez, 2008; Kenzie & McCall, 2018).

It is well established in undergraduate education that many writing skills are discipline specific and that all disciplines need to teach writing within the context of learning the specific discipline (Geisler, 1994; Griffin, 1985). Writing-intensive programs aim to work within this discipline-specific context, but there has been an ongoing struggle to assess writing in ways that engage faculty across the disciplines (Good et al., 2012).

A key component of writing-intensive programs is allowing students an opportunity to revise at least some of their work (Griffin, 1985). Through formative assessment, which assessment scholars agree supports learning, students receive feedback in discipline-specific context and language (Shrestha & Coffin, 2012). Feedback is a major component of formative assessment, yet there is often disagreement between teachers and learners in regard to how they interpret and make use of feedback as a learning tool (van Heerden et al., 2017). Students often view feedback as offered too late to make a difference, feel it is only applicable to the individual assignment, or are dissatisfied with the feedback they receive for a variety of other reasons (van Heerden et al., 2017; Wingate & Tribble, 2012). Feedback as a writing tool is discussed inconsistently in the literature, and it is often discussed as being useful for bridging the gap between what a learner knows and needs to know. It is important to note, however, feedback can only be considered formative if a student engages with it and uses it to improve their work (Wingate & Tribble, 2012).

Although writing is essential to success in higher education and writing concisely and accurately about scientific content is a required skill in the health

professions, research has not focused on the link between writing assessment and writing development (Ragland, 1997; Shrestha & Coffin, 2012). Little research has focused on the development of writing in the health professions and even less has focused on embedded writing, with no noted “best practices” (Rawson et al., 2005; Wingate & Tribble, 2012). Wingate et al. (2011) note that educators and researchers have advocated for embedding writing within the context of discipline-specific education, rather than creating stand-alone writing courses, but that more research needs to be done in this area.

With sparse research on writing in the health professions or best practices for embedded writing and an increasing demand for such programs, we felt it was imperative for us to look critically at the interdisciplinary opportunity we had in front of us. This study investigates the writing process and outcomes in an undergraduate interdisciplinary Global Health course, which implements two different approaches for the course’s writing-intensive component.

## METHODS

Using a comparative qualitative case study design (Yin, 2017), this study examines students’ writing-specific learning in an interdisciplinary Global Health course offered in Spring 2019 to Nursing and Public Health majors as well as to students of any major as an elective. Students enrolled in the course participated in shared class time each week. They completed assignments for each discipline-specific course instructor in accordance with the course learning objectives and expectations although there was some alignment for assignments related to in-class time, including the country project and presentation, described in further detail below. The major difference in the course assignments was related to the written assignments submitted to each individual instructor.

The College Writing Intensive Program (WIP) designated both courses as writing intensive. Institutional writing-intensive courses are evaluated and approved based on their inclusion of a significant focus on writing with emphasis on different styles of writing and modes of communication, such as research writing, blogging, and oral presentation (with written visuals), among other forms. Shared assignments included the country project, in which students research a health issue in a specific country and serve as the in-class “expert” on that country each week during class discussion; a book club, for which students read a popular press book related to global health and engage in class discussion; and an Ignite-style presentation based on their country project. Ignite-style presentations use a series of 20 slides advancing every 15 seconds while the speaker focuses on main points, but is finished in five minutes (Forrest & Pettis, n.d.).

The key difference in the writing-intensive portion of the course was related to the amount of feedback on written assignments. Students enrolled in the Nursing section of the course completed the written research paper and submitted it at the end of the semester. Students enrolled in the Public Health section submitted the paper in seven installments and were provided written feedback during the semester, submitting a revised paper at the end of the term. As part of the assessment, all students completed a learning reflection for their final exam about content and the writing-intensive portion of the course. Following the semester, while reviewing course evaluations and reflecting on student learning experiences, course instructors discussed student learning with the WIP Director and decided to conduct a scholarship of teaching and learning investigation of the writing-intensive portion of the course. The instructors received “Exempt” approval for the research from the Institutional Review Board to use course materials completed as part of the required semester coursework to investigate differences in learning outcomes for students in each section of the course. This approval was granted under the criteria “Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as research on regular or special education instructional strategies, or research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods” (US Department of Health and Human Services, 2018, “Exempt Research”).

### ***Sample***

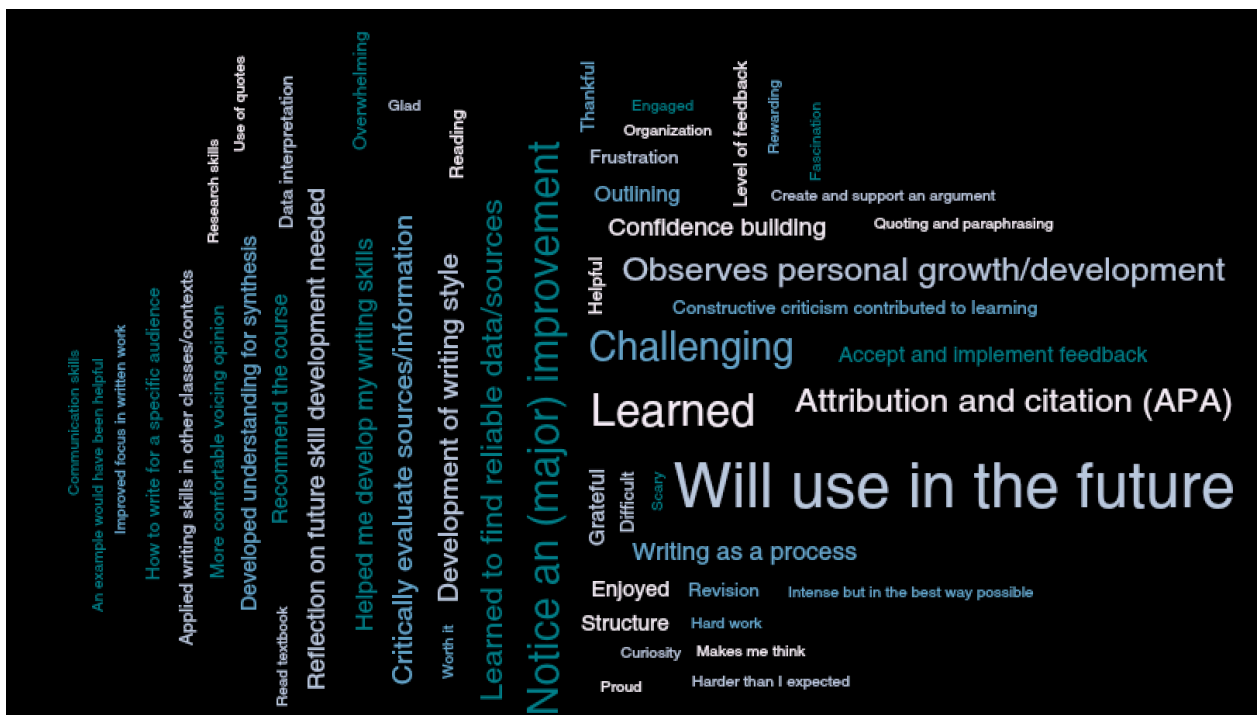
Eighteen students completed and submitted course assignments included in this analysis. All students were enrolled in the course for three credits and were female and native English speakers. The course instructors were also native English speakers, holding terminal degrees in their fields. Each was responsible for one of the three-credit courses. We examined student learning for the class as a whole as well as differences between students enrolled in the Nursing and Public Health sections of the course to determine differences in learning outcomes by course format for the research paper assignment.

### ***Data Analysis***

Student learning reflections on the writing-intensive component of the course were inductively coded by a single coder in Dedoose 8.3.17 (Dedoose, 2016). First-round coding employed descriptive and in vivo coding to explore the data. The codebook for second-round coding was refined and codes were classified as either descriptive codes or affective codes. Descriptive codes were used for concepts students learned about writing. Affective codes were used for evaluation of the learning experience, emotion that students reported feeling related to the writing-intensive portion of the course, and the value of the learning experience as expressed by students (Miles et al., 2014; Saldana & Omasta, 2017).

First-round coding assigned data into initial chunks (Miles et al., 2014) and resulted in 53 codes. These 53 codes were refined into four categories for second-round coding, including concept, emotion, evaluation, and value codes. The codebook from second-round coding included 21 concept, 13 emotion, 19 evaluation, and 9 value codes. A word cloud of all students for all second-round codes is presented to show codes most prominent in student learning reflections (see Figure 1).

**Figure 1. Packed Word Cloud of Second Round Codes for all Students**



## FINDINGS

In the following sections, we share observations about themes in student learning for each coding domain. We then discuss co-occurrence of codes across domains.

### Concepts

The prominent themes related to concepts learned as part of the writing-intensive course were connected to writing mechanics. Students described making major improvements with identifying reliable data sources and critically evaluating them. This was emphasized in the writing assignment as well as during class activities.

Reputable sources were highlighted throughout the semester and their credibility was discussed during class activities. Students were expected to use reputable sources that they could defend in their papers. When writing about culture and health, this became very difficult. Students cited several sources from travel, insurance, or other service-related organizations. While useful for services, these types of organizations have a clear agenda in the information presented. This analysis offered an opportunity to discuss sources of information and how to critically evaluate their reputability for the purposes of a research paper. Learning related to evaluating sources is illustrated in a student learning reflection about source material and synthesis in writing:

It has taught me I need to be more selective with the information I am presenting. I think part of the reason I had overrun the word limits was because I had too much information and not all of the information was germane to the points I was trying to make. I learned I needed to look at my source material using a more critical lens to ensure my source material fits with my writing objectives. By being more selective with my source material, it has helped me narrow the focus of my writing.

A second theme focused on proper attribution and citation using American Psychological Association (APA) Style. During class, the importance of using standard APA Style for attributing information to source material and communicating information in a style that is standard for the profession encouraged each student to demonstrate professionalism and to build their own credibility as an authority on the subject. Students struggled with this early in the semester, and their reflections demonstrate their learning. One student reflected:

Then it was a process learning how to do the in-text citations and references properly according to APA standards because there isn't really a class dedicated to learning that, even in previous English classes they don't teach you every single aspect of citations, so while it was frustrating I learned a lot about citations that I did not know before. All in all, writing the country papers this semester have helped me to develop my writing skills by teaching me to properly report data, grasp key concepts and learn how to properly cite sources.

### ***Emotion***

The emotions most shared by students in their reflections were positive, including such emotions as curiosity, enjoyment, gladness, gratitude, and pride. Secondary to positive emotions were some negative emotions including frustration, fear, and being overwhelmed. Many students reported both positive and negative emotions when talking about the learning process, but they reported mostly positivity when reflecting overall, reporting that learning occurred, noticing a big improvement, or describing how they would use what they learned in the future.

This is illustrated in a student reflection discussing the in-class presentation:

Another exciting thing that I want to reflect on is the Ignite presentation. It was an overwhelming experience, but I liked it better than a traditional PowerPoint presentation because a lot of information is given very quickly without making me want to fall asleep. From this class, I learned how to do an Ignite presentation in five minutes. Thinking about it is still scary and overwhelming, but I'm glad I had the experience and now I know how it is done.

Here the student expresses feelings of being overwhelmed and fearful, but also feelings of excitement and gladness for having had the experience. Another student expressed positive and negative emotions related to the writing-intensive experience and her evolution from negative feelings to positive feelings towards writing:

Writing, I feel is one of my weaker abilities for schoolwork, or maybe I just loathe it. I must say my writing skills have grown. Writing about data was hard at first, but with practice and assistance, I managed to develop writing skills I will need in an analytic career. Emerging myself into research became overwhelming at times with so much information but being able to put the pieces together and tell a story made me feel good about how far I have come in my writing at the end of the semester. Going into a career in analytics, being able to write about data will be essential and as I write this now, I can say how grateful I am that this was part of my coursework.

### ***Evaluation***

When examining how students evaluated the course in their learning reflections, overwhelmingly students expressed that they found the course challenging and that learning occurred, often describing that they noticed an improvement or major improvement in their writing. When examining co-occurrence of codes with concepts, no particular concept stands out as more related to an evaluation of learning or improvement. However, several students indicated that they found the course challenging and also noticed improvement. One student described her learning as follows:

If I can recommend global health to all students of all majors, I would. It was definitely a lot of hard work and effort, but it was very well worth it. I gained new knowledge about other countries that I never heard of before. I developed a writing skill that I will take with me to my future endeavors and career. This class was a process, but it all made sense in the end why I had to do certain things in a specific way. I'm thankful for this class.



The co-occurrence of these features highlights that when challenged, students who rise to the challenge learn. Further, students who mentioned that they noticed improvement and would use what they learned in the future also often shared gratitude for the experience.

### ***Value***

Examining student reflections shows that they valued their learning experiences in several ways. Many students discussed how they would use what they learned as part of the writing-intensive learning experience in the future, such as in future courses, in graduate studies, or as a professional working in the field. This is illustrated in one student's reflection discussing graduate studies and professional work:

Writing for global health was definitely a challenge every week, but I learned how to paraphrase information in a concise way (synthesizing, not summarizing) without overwhelming the reader [with] endless information that might not be necessary for the topic. Also, I learned how to properly cite sources without feeling doubtful in myself. With my improved writing skills, it would come in handy if I decide to go back for my Master's or in my professional work where I will probably have to write case notes or reports.

Many students also shared reflections on their personal growth or development related to the writing-intensive Global Health course. One student described her personal growth as a result of participating in the course:

Since beginning this Global Health class, I can honestly say I have finally noticed this drastic increase in my confidence level, and it has assisted me in my personal life with knowing what I deserve and my potential. It has also assisted me in getting out of a situation I didn't think I would be able to get out of.

A second student described her growth and development as a student:

I also learned through this WIP class the way that I prefer to write. I often found myself in the shared computer room on the [college] campus and found that I couldn't focus due to the other conversations that individuals were having in the same room. I learned through completing this project, that for myself as a student when it comes to writing assignments, such as research papers, that I need a quiet and secluded space to really get my thoughts onto the paper effectively.

Finally, students expressed an increase in confidence when reflecting on their participation in this writing-intensive course. One student shared that her confidence increased, and she experienced personal growth:

I was able to identify what sources are credible, reliable sources to use as references. This has given me confidence in my researching skills. I will be able to apply these skills to any class, no matter the content. I believe I am a more intelligent and well-rounded person because of this semester.

### ***Co-Occurrence of Learning Across Domains***

Across the four domains of coding, we identified themes about the writing-intensive learning process by looking at the co-occurrence of codes. Students' evaluations of what they learned, oftentimes learning a lot, co-occurred for more than one student, with concepts including accepting and implementing feedback, proper attribution and citation in APA Style, development of a writing style, and identifying and evaluating reliable data sources. This is highlighted in one student's description of her learning:

I have learned how to search for reliable data, which is not from WebMD. Real, factual, relevant information and data. Not only searching, but reading, understanding what the data is telling me and how that may or may not relate to my point of research. Numbers can just be numbers when you look at them it can be overwhelming at first, and to be honest it still is, but I know now how to perceive it. I know now how to break down information to interpret what is being relayed to me.

This demonstrates how students are processing learning key concepts, such as proper attribution and citation and use of high-quality data sources, and equating mastering these skills with successful learning. This aligns with student learning objectives for writing as evidenced in the assignment rubric domains for using quality data sources and proper attribution and citation.

We observed a second theme, when examining code co-occurrence, for the value recognized by students in regards to using what they have learned in the future. This code co-occurred for several students with concept learning codes for proper attribution and citation, identifying and evaluating reliable data sources, and the writing skill of outlining. This is highlighted in one student's description of her learning:

Going forward, I will take the skills that I have learned in Global Health into my future courses and career. I plan on utilizing this new writing technique into my next writing intensive course, *Minority Voices in American Literature*. After composing a large paper over the course of a

semester, I have learned that time management in the writing process is crucial and leads to a better outcome. I plan on utilizing my skills in my career by pulling information from current, reputable sources and applying it to a problem that I am given as well as being able to give a quality deliverable on a project. Lastly, as juvenile as it may seem, I will be able to apply these skills in my next Dungeons and Dragons campaign, a game in which has helped me in my public speaking skills and allowed me to explore my creativity in more than just a fantasy setting. I think this was a very important class to take and recommend it to anyone thinking about it.

This code, using what they learned, also co-occurred with the evaluation code of noticing an improvement, often stated with a magnitude such as a major improvement, and with the value codes that capture reflection on personal growth or development and reflection on future learning. This is highlighted by one student's description of learning:

Finding quality sources was vital to the success of my project. I am now confident in talking about the history in Ghana and their present-day issues. During this semester I have more thoroughly learned the writing process. It has allowed for me to determine what information is most important. In addition, I was able to identify what sources are credible, reliable sources to use as references.

### ***Differences Between Writing-Intensive Course Design***

When looking at differences in the themes by course section, several codes were applied to only one section. Examining these codes for themes highlights differences in learning outcomes by implementation style or the emphasis of different instructors. Nursing student reflections were coded with more research skill-oriented codes, including organization, reading, use of quotes, and communication skills in contrast to Public Health student reflections, which included more reflection about feedback, constructive criticism, and addressing feedback. This is attributable to the difference in the implementation style for the research paper in each course. The Nursing course included a final paper while the Public Health course required installments, with feedback provided on each before a final revision was due at the end of the semester. Students who reflected on the role of feedback and constructive criticism also more often discussed the work being challenging and identified learning during the course. This is illustrated in the following Public Health student reflection:

Over this semester my writing has developed into something I can be proud of. I have written research papers in the past but not to this degree with this level of feedback. I could not have improved as much as I did if there was not the feedback that was provided. Each week I think I

improved in something. Whether it was citations, or reporting data, which was another way thinking I have learned from this class. I consider myself a personable individual working in the health field and to write scientifically and professionally was a challenge at times.

Examining student learning outcomes and the learning process they shared in their reflections provides evidence for the benefits of the writing-intensive course format within the context of a health professions course and opportunities for improving student learning. Integrating feedback with opportunities for revision contributed to student learning and their own positive evaluation of the learning experience. Creating a challenging course that sets high expectations, commensurate with what students will be expected to do as professionals, results in a learning experience that is valued by students and that they evaluate as being useful to them in their future academic or professional lives. Finally, while students may complain or express that expectations are difficult, scary, or overwhelming, when reflecting on the experience after it has concluded, they ultimately find value and often express gratitude. We will end with a final quote that shows a student endorsement of the learning experience:

The last paper almost felt like second nature whereas the first paper took me an incredible amount of time to complete. Overall, I loved the structure of the class and the content that we covered. I would highly recommend any healthcare major to partake in this class as I truly got so much out of it.

## CONCLUSION AND IMPLICATIONS

Richardson (2008) notes that while introductory writing is often seen through a universal lens, with all of the requirements the same across disciplines, the practice of this results in significant success in one area, with large gaps as students change genres. Overall, students overwhelmingly appreciated the learning experience of a health professions writing-intensive course. Reflection and feedback, evaluating sources, organization, and citations were all areas students stated they appreciated, valued, or learned from in the writing-intensive portion of the courses. The value of feedback and revision was clear in our evaluation of the two different approaches to teaching writing in a writing-intensive health professions course. This finding highlights an opportunity for improvement in the Nursing course design that uses the common final research paper approach. In future semesters, students will be asked to submit at least one mid-semester installment of the research paper, offering an opportunity to provide feedback on the writing style as it relates to the health professions. On their final submission, students will be evaluated on how well they have addressed that feedback.

A second implication of this research is related to the value of reflection. Research shows that reflection is an essential tool for student learning (Ash & Clayton, 2009). The courses required a learning reflection as the final exam. Students expressed thoughtful ideas about their learning in this assignment. Through the integration of opportunities for reflection throughout the semester, student learning could be enhanced, resulting in greater learning progress throughout the semester. Evaluation of these reflections provides a process indicator of learning and an opportunity to identify barriers. In future semesters, an early and mid-point learning reflection will be added to the course design. For instructors teaching writing-intensive courses, integrating early and regular feedback and opportunities for reflection are important considerations for improving writing outcomes. Early and later-term reflections at a minimum encourage learning and are a process indicator of learning outcomes. Weekly learning reflections may result in even better outcomes.

### **AUTHOR BIOGRAPHY**

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## REFERENCES

- Ash, S. L., & Clayton, P. H. (2009). Generating, deepening, and documenting learning: The power of critical reflection in applied learning. *Journal of Applied Learning in Higher Education*, 1(1), 25–48.
- Bazerman, C. (1988). *Shaping written knowledge: The genre and activity of the experimental article in science*. University of Wisconsin Press.
- Burk, B. N. (2020). Strategies for teaching undergraduate writing intensive courses. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 1–5. <https://doi.org/10.1080/1937156X.2020.1763874>
- Dedoose. (2016). Dedoose, web application for managing, analyzing, and presenting qualitative and mixed method research data [computer software]. SocioCultural Research Consultants, LLC.
- Fallahi, C. R., Wood, R. M., Austad, C. S., & Fallahi, H. (2006). A program for improving undergraduate psychology students' basic writing skills. *Teaching of Psychology*, 33(3), 171–175. [https://doi.org/10.1207/s15328023top3303\\_3](https://doi.org/10.1207/s15328023top3303_3)
- Forrest, B., & Pettis, B. (n.d.). *Ignite Talks*. <http://www.ignitetalks.io/>
- Geisler, C. (1994). Literacy and expertise in the academy. *Language and Learning Across the Disciplines*, 1(1), 35–57.
- Gimenez, J. (2008). Beyond the academic essay: Discipline-specific writing in nursing and midwifery. *Journal of English for Academic Purposes*, 7(3), 151–164. <https://doi.org/10.1016/j.jeap.2008.03.005>
- Good, J. M., Osborne, K., & Birchfield, K. (2012). Placing data in the hands of discipline-specific decision makers: Campus-Wide writing program assessment. *Assessing Writing*, 17(3), 140–149. <https://doi.org/10.1016/j.asw.2012.02.003>
- Griffin, C. W. (1985). Programs for writing across the curriculum: A report. *College Composition and Communication*, 36(4), 398–403.
- Grzyb, K., Snyder, W., & Field, K. G. (2018). Learning to write like a scientist: A writing-intensive course for Microbiology/Health Science students. *Journal of Microbiology & Biology Education*, 19(1), 1–8. <https://doi.org/10.1128/jmbe.v19i1.1338>
- Hammann, L. (2005). Self-regulation in academic writing tasks. *International Journal of Teaching and Learning in Higher Education*, 17(1), 15–26.
- Hundarenko, O. (2019). Challenges of teaching academic writing skills in ESL classroom (Based on international teaching experience). *Revista Românească pentru educație multidimensională*, 11(4), 70–83. <https://doi.org/10.18662/rrem/158>
- Kenzie, D., & McCall, M. (2018). Teaching writing for the health professions: Disciplinary intersections and pedagogical practice. *Technical Communication Quarterly*, 27(1), 64–79. <https://doi.org/10.1080/10572252.2017.1402573>

- Kuh, G. D. (2008). Excerpt from "High-impact educational practices: What they are, who has access to them, and why they matter." *Association of American Colleges and Universities*. <https://www.aacu.org/node/4084>
- Lea, M. R., & Street, B. V. (2006). The "academic literacies" model: Theory and applications. *Theory into Practice*, 45(4), 368–377. [https://doi.org/10.1207/s15430421tip4504\\_11](https://doi.org/10.1207/s15430421tip4504_11)
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3<sup>rd</sup> ed.). Sage.
- Miller, L. C., Russell, C. L., Cheng, A., & Skarbek, A. J. (2015). Evaluating undergraduate nursing students' self-efficacy and competence in writing: Effects of a writing intensive intervention. *Nurse Education in Practice*, 15(3), 174–180. <https://doi.org/10.1016/j.nepr.2014.12.002>
- National Center for Educational Statistics. (2012). *The nation's report card: Writing 2011*. Institute of Education Sciences, U.S. Department of Education. <https://nces.ed.gov/nationsreportcard/pdf/main2011/2012470.pdf>
- Ragland, M. (1997). Leveling the playing field for developmental writers: A three year study. *Research and Teaching in Developmental Education*, 14(1), 5–11.
- Rawson, R. E., Quinlan, K. M., Cooper, B. J., Fewtrell, C., & Matlow, J. R. (2005). Writing-skills development in the health professions. *Teaching and Learning in Medicine*, 17(3), 233–238. [https://doi.org/10.1207/s15328015tlm1703\\_6](https://doi.org/10.1207/s15328015tlm1703_6)
- Richardson, M. (2008). Writing is not just a basic skill, *The Chronicle of Higher Education*. <https://www.chronicle.com/article/writing-is-not-just-a-basic-skill/>
- Saldaña, J., & Omasta, M. (2017). *Qualitative research: Analyzing life*. Sage.
- Sasa, R. I. (2020). Nursing care paper as a writing intensive requirement in clinical nursing courses. *Teaching and Learning in Nursing*, 15(2), 137–144. <https://doi.org/10.1016/j.teln.2020.01.008>
- Shrestha, P., & Coffin, C. (2012). Dynamic assessment, tutor mediation and academic writing development. *Assessing Writing*, 17(1), 55–70. <https://doi.org/10.1016/j.asw.2011.11.003>
- US Department of Health and Human Services. (2018). 45 CFR 46. Office of Human Research Protection. <https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=83cd09e1c0f5c6937cd9d7513160fc3f&pitd=20180719&n=pt45.1.46&r=PART&ty=HTML>
- van Heerden, M., Clarence, S., & Bharuthram, S. (2017). What lies beneath: Exploring the deeper purposes of feedback on student writing through considering disciplinary knowledge and knowers. *Assessment & Evaluation in Higher Education*, 42(6), 967–977.
- Wingate, U., Andon, N., & Cogo, A. (2011). Embedding academic writing instruction into subject teaching: A case study. *Active Learning in Higher Education*, 12, 69–81. <https://doi.org/10.1177/1469787410387814>

- Wingate, U., & Tribble, C. (2012). The best of both worlds? Towards an English for Academic Purposes/Academic Literacies writing pedagogy. *Studies in Higher Education*, 37(4), 481–495.  
<https://doi.org/10.1080/03075079.2010.525630>
- Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage.
- Young, A. (2011). *Teaching writing across the curriculum* (4<sup>th</sup> ed.). Pearson Prentice Hall.