

34th Australasian Association for Engineering Education Conference

3 - 6 December 2023 - Gold Coast, QLD





Making collaboration work: Critical reflections on a cross-disciplinary project

Sheila Busteed¹; Dr. Chanelle Gavin².

¹ Division of Education, University of Waikato; ² School of Engineering, University of Waikato Corresponding Author Email: sb319@students.waikato.ac.nz

ABSTRACT

CONTEXT

At some higher education institutions, subject lecturers may have traditionally worked in their own bubble with minimal interaction between their sphere of influence and that of the language and literacies experts. However, cross-disciplinary collaboration is becoming a popular means of improving teaching and learning, thus helping university students adapt to the academic literacies demands of their chosen programmes. Recent literature tends to focus on top-down and/or large-scale collaborative arrangements, and such studies can offer limited practical guidance to other educators interested in implementing their own cross-disciplinary collaborative teaching project.

PURPOSE OF THE STUDY

This study aims to share insights gleaned from a small-scale, grassroots collaboration between an engineering lecturer and a PhD researcher investigating the application of critical reading skills in academic writing. The project required minor adaptations to an existing first-year engineering course taught at the University of Waikato in order to embed an academic literacies teaching intervention. This process has prompted us to ask the following research questions:

- a) What does it take to make a cross-disciplinary collaborative teaching project work?
- b) What strategies and wisdom can we share with others eager to partake in cross-disciplinary teaching collaboration?

METHODS

The authors engaged in collaborative autoethnography following the recent completion of the intervention. We reviewed meeting minutes and teaching logs, using this data to support the critical reflections. Notes from this post-intervention discussion were sorted into central ideas used to address the research questions.

OUTCOMES

Our critical reflections generated four key ideas linked to a successful cross-disciplinary collaborative project. They are the need for (a) communication between collaborators and all affected parties; (b) realistic goal setting and time management; (c) flexibility, negotiation, and adaptability; and (d) forward-thinking and disaster-proofing. These themes inform the advice we offer to other practitioners who may engage in a collaborative teaching project in the future.

CONCLUSIONS

The reflections and guidance shared in this study are relevant to anyone concerned with the practicalities of a successful cross-disciplinary teaching collaboration. Language and literacies experts can study this case, using its insights to help them plan other interventions alongside subject lecturers. The recommendations herein are applicable beyond engineering to any discipline taught at higher education institutions.

KEYWORDS

cross-disciplinary collaboration; academic literacies; engineering education

Introduction

At some higher education institutions, subject lecturers (SLs) may have traditionally worked in their own bubble with minimal interaction between their sphere of influence and that of the language and literacies experts (LLEs). However, cross-disciplinary collaboration is becoming a popular means of improving teaching and learning, thus helping university students adapt to the academic literacies demands of their chosen programmes. Borrego and Newswander (2008) noted that cross-disciplinary collaborative projects face unique challenges within engineering education; however, such partnerships can be complementary if "engineers provide the problem and context and ensure the results are applicable, [while] nonengineers provide structure to the project in the form of methods and theories" (p. 129). This study reflects on a recent collaboration between an engineering lecturer (Gavin) and a PhD researcher (Busteed) that used blended learning to develop undergraduate students' critical reading skills as applied to engineering writing tasks. This paper is made more distinctive within existing literature due to our use of collaborative autoethnography as the method for sharing insights about the partnership.

Literature Review

Numerous frameworks have been tied to discussions about cross-disciplinary teaching collaborations, varying from genre-based pedagogy and the academic literacies model to constructivism and Maslow's hierarchy of needs (Hakim, 2023; Khumalo & Reddy, 2021; Mort & Drury, 2012; Pennington, 2008). Recent literature tends to focus on top-down and/or large-scale collaborative arrangements. Examples of larger projects were described in literature by Clarence (2012); Dunham et al. (2011); Hakim (2023); Khumalo and Reddy (2021); and Mort and Drury (2012). In some instances, these projects were implemented institution-wide, while others involved a limited number of disciplines yet still had sizeable teams behind them. Engineering was linked to only three of the identified projects, and critical reflections were not the primary source of data in any of these studies. Furthermore, such studies can offer limited practical guidance to other educators interested in implementing a cross-disciplinary collaborative project.

Mort and Drury's (2012) project stands out as sharing several features with our study. It involved cross-disciplinary collaboration, part of its focus was on the engineering discipline, collaborators included SLs and LLEs, and online resources were used to facilitate student learning. Mort and Drury reported on the design of a website offering a series of modules on how to write different types of reports required in science and engineering. Even though the website was introduced with a level of embedding, its use was voluntary for students. While students were given plenty of learning materials to read as part of these modules, the article makes no mention of critical reading's role in the pre-writing stage of the writing process. One short section of this article shared reflections, focusing mainly on problems faced but offering minimal details in the way of examples, anecdotes, or guidance for other practitioners.

It is rarer still for published studies to employ the autoethnographic method to share critical reflections on a cross-disciplinary project. For example, Clarence (2012) shared a first-person account about collaborations between a writing centre at a university in South Africa and its politics and law programmes. While moments of reflexivity peppered this report, it examined the collaborations as case studies. Another article, which examined the challenges associated with interdisciplinary collaborations from the perspective of contributing postgraduate researchers, applied the methodology of retrospective collaborative autoethnography (Purvis et al., 2023). However, it focused more on the researchers' experiences with team dynamics, institutional politics, and the various cultural clashes that ensued between the disciplines. While engineering was one of several attached disciplines, the project sought to understand sustainable cities, thus did not relate to the academic literacies of engineering education. The third and most relevant example is Harran's (2011) article discussing challenges faced during an attempted collaboration between a language practitioner and the engineering faculty. While this text contains some anecdotes from the project, the reflections are more general in nature and presented as a case study instead of an autoethnography. Therefore, our paper addresses a gap in current literature:

an autoethnographic study of an academic literacies project designed for engineering education, wherein the SL and LLE contribute critical reflections together.

Purpose of the Study

This study aims to share insights gleaned from our small-scale, grassroots collaboration investigating the application of critical reading skills in academic writing. The project required minor adaptations to Engineering and Society, an existing first-year engineering course taught at the University of Waikato, in order to embed an academic literacies teaching intervention. Adaptations included the creation of a customised lecture teaching a critical reading formula, a series of critical reading online activities, and formative assessment resources linked to the three writing tasks of Assignment 2. The assignment's submission plan was adapted to establish a dual assessment system: Busteed provided students with formative feedback via Turnitin Feedback Studio, while Gavin and her marking assistants did the grading and offered final feedback through Moodle comments as done in the past. These adaptations ensured Busteed could collect data on students' written output for her PhD research, but she was not part of the grading team.

The process of designing and implementing this intervention has prompted us to ask the following research questions:

- a) What does it take to make a cross-disciplinary collaborative teaching project work?
- b) What strategies and wisdom can we share with others eager to partake in cross-disciplinary teaching collaboration?

Methods

We engaged in collaborative autoethnography following the recent completion of the intervention. This distinct method of qualitative research involves overlapping the qualities of ethnography, autobiography, and collaboration (Chang et al., 2016).

About Autoethnography

Autoethnography involves composing a reflexive narrative to connect self and community; in sharing one's personal experience, the writer is also analysing a cultural experience (Chang, 2016; Ellis & Bochner, 2003; Holman Jones et al., 2013; Muncey, 2010). This text genre allows researchers to present critical reflections using a blend of scientific and literary writing techniques, which helps them connect with their readers (Richardson, 2000). In doing so, they "make scholarship more human, useful, emotional, and evocative" (Holman Jones et al., 2013, p. 18). While autoethnography has become an established research method among practitioners in such fields as education, nursing, social sciences, and business, it is rarely applied in connection to engineering. In this study, the personal experience is that of our journey through the design and implementation of a cross-disciplinary collaborative project. Our narrative is shared through the cultural lens of the tertiary education sector and evolving ideas within this community about best practices for teaching engineering and academic literacies.

Our Collaborative Autoethnography

Collaborative autoethnography, as a shared narrative, offers another layer of complexity. According to Chang et al. (2016), it involves "a group of researchers pooling their stories to find some commonalities and differences and then wrestling with these stories to discover the meanings of the stories in relation to their sociocultural contexts" (p. 17). To compose our shared narrative, we reviewed pre-intervention meeting minutes and teaching logs kept during the intervention's implementation. This data was used to support our critical reflections, which occurred during a post-intervention meeting. Notes from this discussion were sorted via an ad hoc thematic analysis into central ideas used to address the research questions. These ideas are supported by detailed examples related to the planning and teaching of the intervention, and they emphasise actions for practice, thus guiding other SLs and LLEs engaging in collaborations.

This study is an extension of Busteed's PhD research, which is investigating the development of engineering students' critical reading skills via the academic literacies model. Experts describe this field of inquiry, which examines influences on students' writing and reading practices and the process of meaning making, as ethnographic in nature (Lea & Street, 1998, 2006; Lillis & Scott, 2007). In addition, an autoethnographic study by Busteed (2022), about engineering students' learning experience during the first months of the Covid-19 pandemic, was previously published. Familiarity with such qualitative research methods directed our reflexive practices for this study.

Results and Discussion

Overall, our cross-disciplinary collaborative project successfully integrated the intervention into the course. We applied significant effort and planning and were rewarded with an almost seamless integration with only minor adjustments required during the implementation phase. As this was our first collaboration of this nature, not all issues could be identified and mitigated in advance; however, all major risks to student learning and the research were circumvented. Ultimately, we feel that this intervention helped the engineering students develop a more critical mindset, extending beyond their literacy capabilities, and highlighted that they need to place greater emphasis on their written communication skills in the future. The nature of this project made it incredibly rewarding yet challenging to execute perfectly in the first undertaking. In this section, we reflect on our experiences and encourage other practitioners to consider engaging in similar collaborations by sharing both what we did well and what could be improved.

Our critical reflections generated four key ideas linked to a successful cross-disciplinary collaborative project. They are the need for (a) communication between collaborators and all affected parties; (b) realistic goal setting and time management; (c) flexibility, negotiation, and adaptability; and (d) forward-thinking and disaster-proofing. Since collaboration between engineering SLs and LLEs is rarely discussed in existing literature, very little overlap with these key ideas could be established. Some comments were shared about communication between collaborators, time commitment, and the sustainability of a collaboration (Hakim, 2023; Harran, 2011; Mort & Drury, 2012). However, recommendations tended to lack depth or practical guidance — an issue addressed in the subsections that follow. Our four themes inform the advice we offer to other practitioners who may engage in a collaborative teaching project in the future.

Communication Between Collaborators and all Affected Parties

The first element needed for a successful cross-disciplinary teaching collaboration is effective communication. This must occur regularly between the collaborators, and they ought to bring all affected parties into the loop to maximise the project's potential.

As the project gets underway, it is advised that the LLE gain information from the SL about the students' needs within the course and those related to moving forward in their programme. Our collaboration taught us the importance of asking the following questions: (a) What learning outcomes can the LLE help address? (b) What is the current assessment plan, and how does it link to those learning outcomes? (c) How can an assessment be adapted so students receive more feedback related to their discipline-specific language and literacy skills? When the LLE gets answers to these questions directly from the SL, deeper insights may be gained than through just examining the course outline and existing assessment documents. For example, when our collaboration began, Busteed had already sought answers by reviewing such files for the course. This was followed by initial discussions with Gavin, which revealed that her experience in teaching the course meant such answers were more nuanced. Gavin's insights gave Busteed a clearer picture of how a teaching intervention could work within the existing course while causing minimal disruption to the way the rest of it is taught.

From this point, discussions between collaborators ought to become more detailed. As the LLE designs the intervention, more information needs to be gained from the SL. In the case of our partnership, it was important for Busteed to learn about the usual expectations for the writing assignment to which the intervention was linked. Gavin pointed out the rules explicitly identified in

the task instructions versus other guidance given in the lesson introducing Assignment 2 and its assessment criteria. This information influenced Busteed's design of teaching and formative assessment resources for the intervention. It is also vital for the LLE to talk to the SL about the usual feedback strategy and learn about any dos and don'ts based on norms in that programme or field. Such information is essential when planning the intervention around an existing assessment since the LLE may be less familiar with expectations in engineering. For instance, we found that our expectations for students' research differed slightly. Busteed followed a more rigid definition of what constitutes a scholarly and appropriate source, while Gavin had focused on the reliability of the source and been more flexible with students in the past because Assignment 2 is the first writing task they attempt in university. Therefore, differing interpretations and expectations related to an assignment need to be uncovered early in meetings.

There are two other affected groups with whom the collaborators must practice effective communication: students and marking assistants. The LLE and SL should anticipate and discuss how to manage any questions from students about the intervention and the connected assignment. During our project, we received queries from students about Assignment 2. It was positive to see them asking follow-up questions to ensure their chosen topics and sources were appropriate. While this process exposed our slightly different definitions of acceptable sources, the minor discrepancy was addressed proactively with the students and created an additional opportunity for discussion. Similarly, when dealing with assessment-related matters, clear expectations should be shared with marking assistants involved in summative assessment tied to an intervention. Gavin communicated her expectations with her marking team and made them aware of our ongoing intervention. Overall, we experienced effective alignment between the formative feedback and summative grading systems, which worked well independently. On reflection, though, it may have been beneficial for marking assistants to have been involved in one of our collaborators' meetings before the intervention began.

Having established that effective communication is fundamental to making a cross-disciplinary teaching collaboration work, the authors can share four key pieces of wisdom. Firstly, scheduling regular meetings is a key strategy to follow. Perhaps they can be monthly in the early stages of project planning but should shift to weekly as implementation approaches and begins. These meetings can be used to plan how to fully embed the LLE's intervention in the engineering course, a specific assignment, and its related lessons. Secondly, the LLE can prepare a list of questions to ask the SL about how to embed the intervention with minimal disruption to the course. This discussion gives the SL an opportunity to provide feedback. For example, collaborators can go over formative assessment resources together — just as we did — to ensure the LLE's plans do not contradict existing expectations or grading strategies. Our third recommendation is to provide marking assistants with guidance if a formative assessment system is introduced alongside one for summative grading. These assistants would benefit from greater awareness of the intervention, a team assessment exercise, and/or moderation to avoid complications arising from two assessment systems. Lastly, the LLE and SL need to set aside time to answer students' questions about any assignment tied to the intervention and how it will be assessed. From our experience, we recommend providing a combination of question time at the end of lessons, a frequently asked questions section on the course's Moodle page, and oneon-one communication options with the LLE and SL (e.g., office hours, email correspondence).

Realistic Goal Setting and Time Management

Next, our critical reflections identified the value of realistic goal setting and time management when engaging in cross-disciplinary teaching collaboration. Such projects are time-consuming due to the amount of discussion required to make them work, so planning an intervention ought to begin well in advance of its implementation in the classroom. In our case, the first meeting — when Busteed introduced Gavin to ideas for the teaching intervention — took place in April 2022 even though Busteed's intervention was not taught to Gavin's students until March 2023. It is important for the LLE to dedicate sufficient time to the planning phase because the SL may need to bring an academics supervisor or the school's dean into the loop for feedback and approvals.

Before the SL and other department leaders are brought in to discuss the intervention, it is recommended that the LLE review the existing course and determine the scope of the intervention. In our case, Busteed's conversations with colleagues in engineering helped her identify areas related to language and literacy skills that had proved problematic for undergraduate engineering students in recent years. However, attempting to address too much in one go would have been impractical and potentially unmanageable considering our more grassroots project was run by just one LLE alongside one SL. Instead, Busteed decided to focus on critical reading and how to apply this skill within the writing process. This narrower focus could be neatly packaged in a single teaching intervention, thus maximising its potential impact on student learning yet causing the least disruption to Gavin's course design. This decision was important to our budding partnership because Gavin is not part of Busteed's supervisory team; Gavin agreed to be a part of the project for the students' benefit, while her focus remained on her course and its pupils. For those engaging in cross-disciplinary teaching collaboration, we have learned it is better to start small and build the collaborative relationship over time. Once engineering students and staff have had a chance to note the benefits of the intervention, the LLE can propose additional changes and projects.

Since a cross-disciplinary collaborative project requires the setting of realistic goals and clever time management in order to succeed, we suggest other educators follow three important strategies. Firstly, the LLE ought to isolate one main academic literacies skill — and its related subskills — on which to focus. This choice should be made in consultation with the SL involved to maximise benefits for students. Then the LLE can design the intervention around the chosen skill. creating opportunities for students to practice it in workshops before having to apply it in a graded assignment. The second recommendation is to consider how the intervention may affect students' time management and approach to the assignment. For many students in our case, Assignment 2 was the first opportunity to learn academic writing, and we observed that a lot of them dedicated a disproportionate amount of time and effort to its completion. However, this suggests they were fully engaged with the writing process and taking the assignment seriously. Therefore, the value of a teaching collaboration and its intervention can also be measured by how well they motivate students to meet expectations as well as deadlines. Thirdly, collaborators should prepare for the possibility that the project continues to be time-consuming even after the LLE's role in the intervention is done. For example, when we split Assignment 2 into three parts with different deadlines, this led to marking assistants providing more feedback with the grade than for previous cohorts because generalised comments across all three tasks could not be made. This resulted in a slower release of results to students.

Flexibility, Negotiation, and Adaptability

Our critical reflections identified flexibility, negotiation, and adaptability collectively as the third element needed to make a cross-disciplinary teaching collaboration work. The LLE and SL ought to exercise these abilities to build a true collaborative partnership that results in a strong intervention customised to engineering students' needs. Reflecting on our project, we found that it is vital for the LLE and SL to work together to revise the course, negotiating changes to the timetable that minimise disruptions caused by the intervention. The LLE and SL should remember that dropping the intervention into an existing course may come with compromise for both parties. For example, it was best to schedule Busteed's intervention within the first few weeks of the trimester so students could apply what they learned to other writing assignments going forward, but this required Gavin to shift some lessons around to make room for it. In turn, Busteed's initial vision for the intervention had to be adjusted and condensed because Gavin could not cut other essential lessons to give more time to the intervention. Ultimately, timetable negotiations ended with both parties having exercised our flexibility, leaving us satisfied with changes made.

What's more, initial ideas for the intervention may need to bend or be abandoned if they do not suit the course, programme, or discipline. The LLE will likely need flexibility in order to work effectively with the engineering department. For instance, Busteed originally wanted to attach a grade to the intervention's critical reading online activities but learned this would have had a

significant impact on the course's overall assessment plan. Therefore, the idea was replaced with another strategy to ensure student engagement (i.e., completion of the online activities during the intervention workshop). In situations like this one, it is more important for the LLE to adapt and negotiate a different plan that works for all collaborators, thus keeping the project alive.

It was found that considerable negotiation and adaptability are also needed when linking an existing assessment to the intervention. For our collaboration, we had to establish how to run the formative assessment of Assignment 2, as needed for Busteed's PhD research, concurrently with the existing grading plan. This issue was identified well in advance, and we consulted with one of the university's e-learning experts to find a solution using our Moodle platform. In the end, Assignment 2's three writing tasks were separated to create Moodle Assignment submission areas for each of them. This allowed Busteed to provide formative feedback via Turnitin Feedback Studio, while Gavin and her marking assistants used Moodle comments to share grades and final feedback. This dual assessment system was a tested yet unproven strategy, and Gavin had concerns about records being lost or overridden in Moodle due to this arrangement. In addition, the use of multiple submission areas required Gavin to make a small adjustment to the grading plan behind the scenes to ensure points were divided fairly across the three tasks. This situation demonstrates that a willingness to adapt established assessment strategies is critical for collaborations, as is the need to negotiate a solid plan that works for all involved; an inability or reluctance to do so could slow a project's progress from the outset or even derail it.

Having shown that a cross-disciplinary collaborative project requires flexibility, negotiation, and adaptability, the authors offer three recommendations to other LLEs and SLs. The first piece of wisdom is that, even if minimal reordering of lessons is achieved, collaborators ought to prepare for changes having a bigger impact than anticipated. For example, when we made room for formative assessment by splitting Assignment 2 into three submissions with multiple deadlines, we recognised that, while not creating additional work, this pushed assessment later into the academic calendar. The complication of overlapping assignments later in the trimester with those for other courses had to be balanced with the benefit of the intervention. While this balance was accounted for, the increased grading workload was not anticipated and delayed the release of grades. Therefore, we recommend brainstorming the possible cascading effects of timetable adjustments for future collaborations. Secondly, it is a given that the LLE must prioritise students' needs when designing the intervention. This principle should guide the LLE during negotiations with the SL and any interactions with other engineering staff where matters of institutional hierarchy may influence the project. For an intervention to be successful and bring benefit to students, participation in its activities should not be optional. After all, student engagement during the intervention can determine the level of success achieved by the collaborators. Lastly, we recommend the calibration of assessment strategies so any plans for providing formative feedback align with how the grade is earned, thus avoiding any contradictions. We did not find any direct evidence in students' written output that we could have done this better. However, we recognise that this could be a potential issue for this type of collaboration and suggest dedicating some time to calibrating expectations with all parties involved. Such efforts could limit the amount of revision needed to the intervention's design for its repeated use. Of course, collaborators should not expect perfect execution the first time running through an intervention. Some revision will be par for the course in any new teaching partnership.

Forward-Thinking and Disaster-Proofing

The final idea linked to a successful cross-disciplinary collaborative teaching project is the need for forward-thinking and disaster-proofing. From the first day of the project, collaborators should acknowledge that things may not proceed as planned as they alter the status quo. In our case, we learned that imagining such scenarios will not necessarily stop us from facing them in the classroom. For example, Busteed prepared an emergency video in which she guided students through the workshop in case she contracted Covid-19 or another illness, leaving her unable to lead students through that lesson in person. In the end, though, the video was not needed. However, the workshop was hit by a different, unforeseen complication. During the first session,

which was run in Tauranga, two of the online activities did not work as intended despite being trialled in advance. Busteed managed to redesign the affected activities, allowing her to proceed with the workshop sessions scheduled for the Hamilton campus the following week. Even when the LLE and SL are thinking ahead, dependence on technology as a teaching tool can cause unexpected issues, reiterating the need for a back-up plan and, if possible, some extra time.

During the initial days of the project, collaborators ought to consider how the intervention can continue to help student learning even after their partnership ends. It is important to acknowledge that the LLE may not always be available to lead future cohorts through intervention lessons. A scheduling conflict or change in professional circumstances should not result in students going without vital language and literacy skills training. To prevent this, the LLE and SL would plan how to address the eventual end of their collaboration, incorporating such plans into the project's design from the beginning. In our case, Busteed's intervention was part of her PhD research, which will not be repeated exactly. However, the teaching materials for the intervention were designed in such a way that Gavin or another practitioner could teach them to future cohorts.

Since forward-thinking and disaster-proofing are needed to make a cross-disciplinary collaborative project work, we offer other LLEs and SLs the following two pieces of wisdom as a quide. Firstly, collaborators should be prepared to adapt their plans spontaneously in the middle of their intervention. This is only possible if one leaves a bit of wiggle room in the lesson's timing for correcting a problem promptly, thus minimising its impact on the students. For instance, when those two online activities did not function as expected during the Tauranga workshop, Busteed did some quick thinking to course-correct them and carry on. In turn, students' progression through the lesson did not freeze, and it even motivated one of them to sign up as an interview participant for Busteed's broader PhD research project. Such moments are learning opportunities for educators because they can test their resilience and introduce them to new resources. The last recommendation involves designing all intervention teaching materials in such a way that they can be taught by someone else if the LLE becomes unavailable. Perhaps, after a couple of iterations, the SL will gain enough familiarity with the intervention to teach it. This would allow the LLE to adapt the materials and collaborate with other SLs. This is possible if the LLE designs the intervention so it can be modified easily: customised examples and discipline-specific content can be stripped away, leaving a template version that could be applied to other assignments, courses, programmes, and/or disciplines. Moreover, an adaptable intervention would allow students to gain repeated practice in applying language and literacy skills under a variety of circumstances.

Conclusion

This paper has focused on insights gained through a fruitful collaboration between a SL and LLE and how our experience could guide other practitioners through such a partnership. However, this study is limited in its scope in such a way that only a few details are offered about the project's curriculum design and its overall impact on our students. These matters will be explored in greater detail in Busteed's future publications on her broader PhD research project.

Still, this autoethnography has highlighted how two educators from disciplines that rarely interact can bridge that gap in the name of improving students' learning experience, acquiring wisdom about their teaching practice in the process. The reflections and guidance shared in this study are relevant to anyone concerned with the practicalities of a successful cross-disciplinary teaching collaboration. LLEs can study this case, using its insights to help them plan other interventions alongside SLs. Our recommendations are applicable beyond engineering to any discipline taught at higher education institutions.

References

Borrego, M., & Newswander, L. K. (2008). Characteristics of successful cross-disciplinary engineering education collaborations. *Journal of Engineering Education*, *97*(2), 123-134. https://doi.org/10.1002/j.2168-9830.2008.tb00962.x

- Busteed, S. (2022). Communication and the student experience in the time of Covid-19: An autoethnography. *Language Teaching Research*. https://doi.org/10.1177/13621688211067001
- Chang, H. (2016). Autoethnography as method. Routledge. https://doi.org/10.4324/9781315433370
- Chang, H., Ngunjiri, F. W., & Hernandez, K. C. (2016). *Collaborative autoethnography*. Routledge. https://doi.org/10.4324/9781315432137
- Clarence, S. (2012). Making inter-disciplinary spaces for talk about and change in student writing and literacy development. *Teaching in Higher Education*, *17*(2), 127-137. https://doi.org/10.1080/13562517.2011.611876
- Dunham, N., Brake, D., Kernohan, E., & Savery, N. (2011). *Gaining leverage: Multiple approaches to embedding academic literacies within a tertiary context.* Paper presented at the National Tertiary Learning and Teaching Conference, Nelson, New Zealand. https://hdl.handle.net/10652/1858
- Ellis, C., & Bochner, A. P. (2003). Autoethnography, personal narrative, reflexivity: Researcher as subject. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (2nd ed., pp. 199-258). Sage.
- Hakim, A. (2023). Subject lecturers', EAP tutors', and students' perspectives on the initial implementation of university-wide academic literacy support in an emerging EMI context. *Journal of Academic Language and Learning*, 17(1), 19-39. https://journal.aall.org.au/index.php/jall/article/view/879
- Harran, M. (2011). Engineering and language discourse collaboration: Practice realities. *Across the Disciplines*, *8*(3). https://doi.org/10.37514/ATD-J.2011.8.3.14
- Holman Jones, S., Adams, T. E., & Ellis, C. (2013). Coming to know autoethnography as more than a method. In S. Holman Jones, T. E. Adams, & C. Ellis (Eds.), *Handbook of autoethnography* (pp. 17-47). Left Coast Press. https://doi.org/10.4324/9781315427812
- Khumalo, N. P., & Reddy, S. (2021). Cross-disciplinary synergy: First-year students' experiences of learning academic writing through integrated writing support at a University of Technology. *The Journal for Transdisciplinary Research in Southern Africa*, 17(1), a1038. https://doi.org/10.4102/td.v17i1.1038
- Lea, M. R., & Street, B. V. (1998). Student writing in higher education: An academic literacies approach. *Studies in Higher Education*, 23(2), 157-172. https://doi.org/10.1080/03075079812331380364
- 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
- Lillis, T., & Scott, M. (2007). Defining academic literacies research: Issues of epistemology, ideology and strategy. *Journal of Applied Linguistics*, *4*(1), 5-32. https://doi.org/10.1558/japl.v4i1.5
- Mort, P., & Drury, H. (2012). Supporting student academic literacy in the disciplines using genre-based online pedagogy. *Journal of Academic Language and Learning*, *6*(3), A1-A15. https://journal.aall.org.au/index.php/jall/article/view/173
- Muncey, T. (2010). Creating autoethnographies. Sage. https://doi.org/10.4135/9781446268339
- Pennington, D. D. (2008). Cross-disciplinary collaboration and learning. *Ecology and Society*, *13*(2), Article 8. http://www.ecologyandsociety.org/vol13/iss2/art8/
- Purvis, B., Keding, H., Lewis, A., & Northall, P. (2023). Critical reflections of postgraduate researchers on a collaborative interdisciplinary research project. *Humanities & Social Sciences Communications*, *10*, Article 10. https://doi.org/10.1057/s41599-022-01494-w
- Richardson, L. (2000). Evaluating ethnography. *Qualitative Inquiry*, *6*, 253-255. https://doi.org/10.1177/10778004000600207

Copyright statement

Copyright © 2023 Sheila Busteed and Chanelle Gavin: The authors assign to the Australasian Association for Engineering Education (AAEE) and educational non-profit institutions a non-exclusive licence to use this document for personal use and in courses of instruction provided that the article is used in full and this copyright statement is reproduced. The authors also grant a non-exclusive licence to AAEE to publish this document in full on the World Wide Web (prime sites and mirrors), on Memory Sticks, and in printed form within the AAEE 2023 proceedings. Any other usage is prohibited without the express permission of the authors.