Fostering a virtual community of practice through scaffolded peer review

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Introduction

This article illustrates how peer review-focused learning tasks and activities helped multilingual students in an online English for Academic Purposes (EAP) course develop a sense of community and take ownership of their learning while also enhancing their writing, critical thinking, and research skills. Informed by the pedagogical frameworks of community of practice/inquiry (Peacock & Cowan, 2019; Wenger et al., 2002), constructivism (Olsen, 1999; Tam, 2000), and content and language integrated learning (CLIL), the course engaged students in a research project that aimed at exploring their local or digital communities. While working on the project assignments, students collaborated by providing regular feedback for one another's work. Each subsequent stage of the project built upon incorporating and reflecting on this feedback as revisions were introduced in consultations with peers. Such an approach enhanced students' understanding of writing and research as a socially mediated and audience-oriented interactive process. In this article, I will discuss the stages of the student-centered inquiry research project, showcase how students were able to experiment with diverse peer feedback formats (e.g., free-form and rubric-based, pair- and groupbased, anonymous and non-anonymous) and digital modes (e.g., Google Docs, Moodle Workshop, forum comments, and screencast videos), and suggest an effective pedagogical approach to increase learners' active engagement in their online community.

Online EAP classroom as a virtual community of practice (VCoP)

The concept of community of practice stems from the theories of constructivism (McLeod, 2019; Olsen, 1999; Tam, 2000) and situated learning (Lave & Wenger, 1991; Wenger et al., 2002). In such communities, students are active participants who bring their unique experiences and ideas into the classroom and co-construct their learning through a continuous cycle of reflective, socially contextualized, experiential, and

collaborative practices. Educators facilitate this process by ensuring that lessons, learning activities, and assignments align with the principles of CoP: (1) provide a shared purpose and context; (2) enable diverse modes of participation; (3) establish the learning rhythm (i.e. regular schedule and sequence of activities); (4) promote community values that are created and reinforced through consistent feedback and discussion; and (5) initiate a meaningful reflective exchange of ideas and practices (Cambridge et al., 2005; Kim et al., 2018; Wenger et al., 2002).

In the context of online learning environment, VCoP is further enhanced by incorporating socially mediated multimodal tools (e.g., forums, audio-visuals, social media platforms, document collaboration platforms, learning management systems, etc.). Research indicates that providing students with opportunities for collectively exploring, co-creating knowledge, and socializing in an online communal space instills a sense of belonging and thus increases learning motivation (Gao & Shen, 2024; Wenger et al., 2002; Zhao et al., 2012).

Peer review as a tool to build a VCoP

Online learning environments benefit students by providing them with spatiotemporal flexibility and allowing for multiple modes of participation, which might result in more autonomous learning (Ludwig & Tassinari, 2021) and less anxiety (Jongsma et al., 2022). However, in the online courses students might also have fewer opportunities for immediate engagement and dynamic spontaneous interaction. This might result in decreased socialization (Huang, 2021; Tavares, 2021) and lead to weaker interpersonal connections with classmates (Hsu et al., 2007), which impacts the development of the CoP. Therefore, Gao and Shen (2024) suggest that learning activities and assignments in online courses need to prioritize collaboration.

Consistent and contextualized scaffolded peer review practices that implement multimodal tools can contribute to a supportive and constructive atmosphere (Saeed et al., 2018). As students exchange comments, make decisions on how to interpret and utilize feedback, and observe how their peers' and their own research evolves based on the response and suggestions received from classmates, they become more invested into the assignments and learning and develop a sense of community. Studies have reported on the enhanced engagement and stronger relationships because of peer review activities (Cao et al., 2022; Kerman et al., 2024).

Peer-review focused pedagogical approach

While peer feedback is generally viewed positively by educators as a tool that promotes active participatory culture in the classroom (Chen, 2014), students might have more mixed reactions as they are uncertain about their ability to provide constructive critique (Morgan et al., 2014). Their attitudes and consequently

willingness to engage depends on the instructional approach, as well as frequency and formats of peer review (Kerman et al., 2024; Sassi, 2021).

The peer review-focused pedagogical approach implemented in the current study draws upon the principles of genre-based pedagogy (GBP) (Hayes, 2012; Tardy et al., 2023) and follows the steps below:

- 1. Initiate discussion on the purpose and features of effective feedback. As outlined in Table 1, constructive peer review does not imply corrective feedback and embeds various functions.
- 2. Provide peer critique models and by using guiding questions (See Appendix 1), help students to observe, deconstruct, and emulate stylistically and contextually appropriate textual features.
- 3. Expand students' linguistic repertoire by asking them to continuously contribute to a shared online database of useful academic phrases that might be helpful when providing feedback (e.g., how to express polite disagreement, how to ask for clarification, etc.).
- 4. Experiment with different formats of peer review to ensure multiple modes of engagement and thus help students become more comfortable with peer feedback and subsequent revisions as a socially situated dialogue/polylogue-focused process.

Table 1

Features of Peer Review

Cognitive Features (Content)	Emotional-affective Features (Form)
Identifying the problem	Positive politeness strategies (e.g.,
Providing a solution/ giving a suggestion	compliments, expressing agreement/
Asking clarifying questions	interest, etc.)
Providing additional explanation	Negative politeness strategies (e.g.,
Providing evaluation	hedging, indirect questions, impersonal
	language, etc.)
(Attan & Khalidi, 2015; Nelson & Schunn, 2008)	(Brown & Levinson, 1987)

Contextualizing peer review: Inquiry research project design

Peacock and Cowan (2019) propose the Community of Inquiry framework (CoIF) as a natural extension of VCoP, in which students collaborate on the meaning-making activities and share feedback for each other in the context of a discovery-based project. In such project students generate questions, identify answers in the evidence collected through observations, and connect what they already know with the insights gained during this process. The instructor acts as a mediator and advisor who facilitates open, meaningful, and reflective communication in a comfortable and intellectually stimulating environment.

The CoIF has informed the design of the collaborative inquiry project in an EAP course at a Canadian university. Students from diverse linguistic and cultural backgrounds and undergraduate programs enrolled in the course to enhance their academic reading, writing, and research skills. Based on their academic interests, they were divided into research groups and worked both collaboratively and individually on an ethnographic inquiry into their selected local or digital community. The focus of their research was on diverse aspects of life, culture, and society in Canada and worldwide, and some of the topics included:

- · Mask-wearing behaviours on TTC: Age and gender differences
- Gender inequality in ice hockey [based on the analysis of the Twitter reactions to the Sportsnet's tweet of International Ice Hockey Federation's announcement to cancel the Women's U-18 World Championships]
- Socialization of newcomers to Canada [based on observations of the community programs and workshops offered at a local YMCA]

The project incorporated several steps: (1) brainstorming the topic and collecting preliminary information about the community of interest; (2) identifying and annotating resources that provide information on the subject; (3) writing a research proposal that provides a research question and explains for what purpose(s), how often, and how frequently students will be observing the community; (4) conducting observations of the community and keeping fieldnotes; and (5) writing a research report and presenting selected findings in a class conference. Concurrently students wrote weekly forum posts reflecting on the content of the relevant course resources and their research progress.

At each of these stages, students reviewed each other's drafts and/or commented on forum posts while also receiving guidance from the instructor. The next section discusses digital modes and formats of peer review that were implemented to address multiple modes of participation and enhance students' comfort and self-efficacy when providing critique for their peers.

Peer review through diverse digital mediums

Free-form comments for brainstorming activities and weekly forum posts (See Appendix 2): Although students could choose what to focus on in their feedback, they were recommended to follow the sandwich method. Students would begin with what they found interesting/done particularly well, continue with suggestions or clarifying questions that might induce the author to reflect and revise, and finish with a positive re-affirmation. Such review method has been found less face-threatening for both givers and receivers of feedback and resulted in the increased engagement as compared to corrective feedback (Parkes et al., 2013; Prochazka et al., 2020).

Collaborative (group-based) review for the fieldnotes on a shared Google Document: After observing their selected community, students completed fieldnotes that described what they saw and provided interpretation/explanation focusing on the audio-visual/spatial characteristics, norms, practices, and interactions within the community. They uploaded their preliminary notes on a shared Google Document and worked in groups to comment on each other's observations based on guiding questions. The Google Document enabled anonymous mode of commenting as there is some evidence that anonymous peer feedback from multiple reviewers not only indicates a wider range of potential areas for improvement and is more likely to result in revisions but also enables objectivity of reviews (Schunn & Wu, 2019).

Rubric-based Moodle Workshop feedback on the source annotations and research proposal: This feature of the learning management system is useful at later stages of the course when students are already familiar with peer feedback and have been regularly participating in the discussions of their research. In the Moodle Workshop, students uploaded their drafts and were allocated their peers' drafts to review. The rubric provided by the instructor included ratings and open-ended questions. Consequently, students could both assign a score to the draft based on the guiding questions targeting the content, organization, and assignment requirements and explain this score by offering suggestions for improvement or questions (See Appendix 3). Engaging in this mode of peer review helps students gain a better understanding of the assignment requirements, develop critical thinking and a sense of community (Richter & Smith-Dluha, 2019).

Screencast feedback videos for the research report: Informed by the sample screencast reviews that they had watched and analyzed in the course, students recorded their screen and voiceover while reviewing their peers' drafts. They could also utilize extra textual features, such as highlighting, margin comments, and emojis (See Figure 1). Numerous studies on screencast peer feedback highlight its affordances, i.e. more personalized, expressive, and in-depth comments (Cunningham, 2019; Walker, 2017; Wood, 2023).

Figure 1

Sample Screencast Feedback (Still image from the video file)

Overall, it is not how long the introduction is, but the information that could absorbed from the introduction that matter. If a reader could clearly understand what skillset this student has and his plan after graduation from the introduction, this profile is more likely to be viewed.
Number of Connections
Four profiles had more than 500 connections, and one profile had 138 connections.
80% of the profiles had 500+ connections, so the number of the connections on the LinkedIn is a significant factor. However, one profile only had 138 connections, but the user still gets career benefits. This indicates that although the number of connections is important, this is not the controlling factor that projects the benefits attainment, as mentioned in the study by Davis et al. (2020).



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Evolvement of the VCoP

Students' cognitive and emotive investment into their peers' work and collective research, their growing recognition of the value of peer feedback, active engagement with the review comments, and increased confidence in their ability to provide constructive critique could be observed through (a) qualitative analysis of peer feedback and samples of student work before and after receiving feedback and (b) post-instruction questionnaire and interviews.

Features of peer feedback

As evidenced in Table 2, at the beginning of the course, students' comments for their peers were overwhelmingly positive, albeit brief, while critique was mostly expressed in the form of indirect questions. Throughout the term their feedback became more elaborate and focused on explaining what students felt was important and relevant and/or providing suggestions. Concurrently students tried to emulate salient linguistic and structural features of the peer critique models.

Table 2

Representative Student Comments

Peer feedback comments at the beginning of the course	Peer feedback comments in the end of the course
"I believe that it's such a good topic to research."	"The main points of each of the three sources is
"Your topic is really interesting and you described it perfectly."	not specifically clear, it would have been good if you had mentioned the strategies which the Canadian government is trying to offer support
"But maybe how to study students' enthusiasm	for international students."
for these courses is not so easily quantified so I think it might be a little difficult [to observe and complete the field notes]?"	"Your conclusion is clear and to the point, the position you take as far as the topic is concerned is apparent but, what relevant evidence would you offer to support your opinion?"

Students' perspectives on peer review as the community building factor

In the needs analysis questionnaire administered at the beginning of the course students frequently

expressed their wish to maintain friendly and open relations with peers while engaging in peer feedback:

"How to communicate effectively through peer feedback and how to make others more receptive to suggestions." (Student comment)

"I would like to learn how to express my opinion in a polite way and actually help others improvement." (Student comment)

In the post-instruction questionnaire and interviews students discussed how peer review activities not

only enhanced their academic English skills but also helped exchange knowledge, learn from their peers,

and feel supported. According to Peacock and Cowan (2019) and Wenger et al. (2002), such collaborative

meaning-building activities with a shared learning purpose instill a sense of belonging.

"I knew a lot of new things providing and getting peer feedback from students in my class which helped me expand on my ideas and learn from their mistakes." (Student comment)

"When doing feedback as a group, I can learn from other students how they provide their feedback and maybe learn something I don't know." (Student comment)

"I was always happy when I saw feedback from X, because she spends time and effort. X offered that if anything is unclear, I can ask her. She actually provided some followup, which really kind of makes me feel that I'm being cared for right, it's not just an assignment." (Student comment)

Conclusion

Based on the data from samples of student work, questionnaires, and interviews, one can observe the emerging learning community with shared understanding of what effective peer feedback is, and how engaging in peer review practices could contribute to the development of academic writing and critical thinking skills. Working in the community of inquiry to explore their local or digital communities while being supported by the peer review-focused pedagogical approach and learning tasks enabled students in the online EAP course connect, learn from each other, express their voices, and become more autonomous learners.

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Appendix 1

Sample guiding questions for the GBP-informed analysis of the peer critique models

- 1. What is the purpose of this peer review? What does the reviewer focus on?
- 2. How is this review structured? How does the reviewer introduce their opinion? How do they develop and transition between the ideas while discussing the source? How does the reviewer conclude their observations?
- 3. What expressions and phrases does the reviewer use to express their agreement and/or disagreement with the author's ideas, provide suggestions, ask questions, etc.?
- 4. According to the reviewer, what are the strengths and weaknesses of this source? What expressions and phrases do they use to highlight these strengths and weaknesses?

Appendix 2

Sample forum entry with peer feedback comments

(Original spelling and punctuation have been preserved)

Forum entry: Duolingo and customer feedback

1. Local community or digital community that you would like to conduct your research on:

I would like to conduct my research on Duolingo and analyze the customer feedback on language learning.

2. Key words that might help you identify your research topic

Duolingo, customer feedback, language learning

3. One or two possible question(s) that you might have about this community

Does Duolingo's services to customers effectively improve their language learning?

What is the customer feedback and satisfaction with Duolingo?

4. References for one or two sources that you might use to find more information about your topic

Ahmad, M. (2021).Does duolingo deliver its' intended 'learning content' through

the gameplay? A thematic analysis. Researchgate

Garcia, I. (2013). Learning a language for free while translating the web. does duolingo work? International journal of english linguistic, 3(1). 10.5539/ijel.v3n1p19

Peer feedback comments

Student A: You have identified relevant sources and provided a specific research focus. In terms of your proposed research questions, I am not sure whether you will be able to find an answer to Question 1 by observation only. My suggestion would be to focus on Question 2 and explore the customers' reviews of Duolingo.

Student B: Your topic looks good to research! For customer feedback, you may want to use the Android/IOS app. Customers will leave reviews about the app there!

Student C: Your topic is really popular since Duolingo has become a useful tool to learn English nowadays. For the research question, except for the customer feedback and satisfaction, you may do some research on the expert's thoughts on Duolingo.

Student D: This is a very interesting topic. I think you can classify "customers" in your research, such as teenagers, middle-aged people and the elderly. Because different types of customers have different feelings when using Duolingo, and Duolingo has different effects on their language improvement.

Student E: This is a good topic since Duolingo is very useful for people to test English level. From my opinion, you can explore more about the reasons that why Duolingo recognized by the people.

Appendix 3

Sample Guiding Questions and Student Feedback Comments

Guiding questions provided by the instructor: Please read and provide feedback for your colleague's introduction to their research proposal. Comment on what you think your colleague has done well, and what they might still need to work on to improve in terms of:

- How they explained their topic;
- If they clearly defined their local or digital community; and
- If they presented a clear and specific research question and thesis.

Student feedback comments posted on the Moodle workshop (Original spelling and punctuation have been preserved):

I think your topic is very interesting and tangible, as it is a new phenomenon that affects strongly our generation and has indeed problematic features that have not been solved.

- This research paper will be focusing on the negative effect of instagram on people's mental health and body image ← this is a really good idea and well stated right at the beginning of your paper!! However, are you going to discuss about instagram's users or people in general? Also, when you know the age group you will be studying, perhaps you could add it here.
- Your idea to conduct user data is great. However, could you be more specific of the
 population under your study? Are we going to hear about athletes', bikini models, or
 Donald Trump's comment sections. Females/males/other, age group...? Idk just throwing
 out some ideas that might be important to mention.



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