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Inclusive Learning through Constructive Feedback in the Age of GenAI

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Abstract: Inclusive learning involves the thoughtful consideration and careful implementation of Truth and Reconciliation (TRC) and Equity, Diversity and Inclusion (EDI) principles within classroom practice including the creation of assessments. To create assessments that reflect TRC and EDI ideas, educators may draw upon guidelines such as constructive feedback. According to Vygotsky (1978), feedback is perceived as a “pedagogical” genre constructed by a teacher to inform the student in an explanatory manner about how their submission can improve in terms of form and content. This suggests feedback sheds light on how and why a specific grade was assigned, but it also offers “targeted instruction” (Hyland & Hyland, 2006). Targeted instruction can further embed reminders corresponding to academic misconduct including Artificial Intelligence (AI)-facilitated texts. Since academic misconduct comes with consequences, this raises concerns among several post-secondary educators. For example, students for whom English is an additional language, and where AI-facilitated methods are perceived as accepted study tools, might unintentionally choose these methods to succeed. Some educators believe constructive feedback on AI-facilitated texts can raise awareness on the value of maintaining academic integrity among students (Birks & Clare, 2023). The puzzle remaining is how educators revise assignments to be more inclusive and empower learners while also considering possible AI-facilitated usage. The researchers explore the role of constructive feedback as contributory to building inclusive authentic assessments in this time of GenAI-facilitated submissions.

Keywords: Academic Integrity, Academic Writing, Inclusive learning, Curriculum development, Feedback, Generative Artificial Intelligence.

Introduction

Generative Artificial Intelligence (GenAI) (See Note 1) and academic integrity have become the focus of much research among scholars. In November 2022, the introduction and immersion of ChatGPT by Open AI sparked more discussions among academics. Some scholars and academics assert the idea that GenAI poses threats to academic integrity and the [higher] education sphere (Sawahel, 2023; Weissman, 2023). On the other hand, while it is not unanimously declared, some others invite to embrace GenAI as a teaching and learning tool (Cotton, Cotton & Shipway, 2024; Bin-Nashwan, Sadallah & Bouteraa, 2023; Sullivan, Kelly & McLaughlan, 2023). Despite the controversy towards the role of GenAI in higher education, it is reported that this tool is utilized by students in constructing their assignments (Strzelecki, 2023) and can be perceived as a “personalised learning” tool (Firat, 2023). To adopt (cautiously) or not to adopt GenAI in higher education is one side of the story, the other side that raises concerns is how to provide learners with constructive feedback. This paper explores the role of constructive feedback in the age of AI-facilitated submissions. The next section will discuss the motivation for this research, including our personal observations as well as the background literature.

Research Motivation and Question

The following has largely inspired this research: a) workplace observations as instructors and b) observations as Academic Program Managers. Another factor that has motivated this research is academic literature. The above-mentioned factors led to the exploration of the role of constructive feedback in the age of AI-facilitated submissions.

Coming to this Inquiry

From the Lead Researcher

I come to this research with around twenty years of post-secondary teaching experience with a particular focus on academic writing in post-secondary settings. I investigated the role of constructive feedback in the age of technology when I started my doctoral journey. My doctoral dissertation focused on how assistive tools could facilitate academic writing in a bilingual (French-English) environment. With the emergence of GenAI, as a faculty member and later as a manager in the academic programs, I have always investigated the ways GenAI can be used as an assistive tool for teaching and learning purposes.

From the co-researcher

I come to this project with thirty years of educational experience in K-12 and post-secondary. I recently managed contract professors in the School of English and Liberal studies at Seneca Polytechnic, Newnham Campus. In graduate school, I studied cultural self-identity and its impact

on educators exploring the policies of diversity and inclusion for their students. As I reflect on my educative journey, I think about previous tech advances to the classroom experience as in use of computers, rise of the internet and increased cell phone usage. Navigating inevitable changes means to negotiate best practices.

Likewise, adapting to increased GenAI usage presents many pros and cons from a teaching perspective. Also, in terms of EDI, the reality of GenAI impacts an already challenging pathway towards Truth and Reconciliation and inclusion for many postsecondary institutions. From an EDI lens, misrepresentation of equity deserving groups, the digital divide and authentic student voice are just a few examples that I feel are challenging professors at this time. Learning how to create or revise assessments via constructive feedback may be a way through these developments of GenAI and its usage in the classroom.

From Both Researchers

In the fall of 2023, we met at the School of English and Liberal Studies (SELS) welcome back event for professors and were introduced to each other as Academic Program Managers from Seneca York-King campus and Seneca Newnham respectively. As we became more acquainted, we learned more about our graduate studies and research backgrounds deciding to merge our experiences to create this inquiry. We chose to present at the annual CALL conference 2024 to test the general interest of our collaborative efforts. We share what we believe to be a key EDI and teaching issue in the years to come.

Discussion

Considerations for inclusive learning in the age of GenAI

In the age of AI-facilitated tools, there are many paths to choose from when educators create assessments; there are those who choose familiar traditional methods (i.e. essays and short answers) and those that want to embrace new ways of teaching and learning. Many educators though sit at the crossroads because of GenAI usage as students create products for submission (Hirabayashi, Jain, Jurković, & Wu, 2024). Here are some puzzles that have come to the researchers' attention in conversation with professors: What is an authentic assessment? How much is too much GenAI usage? How do I evaluate GenAI student submissions? While discussing this project, the researchers decided that one dominant question guiding the work stems from our administrative responsibilities. As schools continue to grow initiatives for Reconciliation and Inclusion then what is the impact of GenAI on Inclusive Learning?

To begin unpacking this question, and to shape our understandings of inclusive learning, we share how Seneca Polytechnic's Reconciliation and Inclusion plan has developed since 2020 and how these have affected curriculum development.

During the height of the pandemic in 2020-2021, Seneca launched Seneca Au Large (“to the horizon”) with three specific pillars for a more equitable, sustainable and virtual Seneca (Seneca’s motto: Au Large, 2022). The same pillars evolved into Seneca’s Strategic Plan (2023-2026) building on the pillars of Au Large (Strategic Plan, 2023).

Around the same time as the Strategic Plan, Seneca shared the Reconciliation and Inclusion (RI) plan (2023-2026) also known as “A Shared Commitment with Responsibilities” (DCatalog, 2023). Within the RI plan, there are 5 areas of focus (Education, People, Services, Information and Spaces) with 13 Goals dispersed throughout. To achieve these goals, a Reconciliation and Inclusion (RI) team was formed and members collaborated with Seneca departments and faculty.

With these developments in mind, Seneca continues to advance RI initiatives including more conversations about inclusive learning relative to GenAI.

GenAI in the Seneca classroom

Studies have shown that students use GenAI tools for various reasons with some students worried about GenAI as an unfair advantage and others concerned about it negatively affecting career choices (Hirabayashi, Jain, Jurković, & Wu, 2024).

Thought Leaders at Seneca Polytechnic continue their own research for the entire school, but the focus of our paper is within the School of English and Liberal Studies (SELS) and specifically how inclusive learning may be impacted by its usage in SELS classrooms.

Based on continuing conversations with SELS professors, we informally identified some repeating themes as to why some equity-deserving students choose to use GenAI in their work.

- **International students understand AI as acceptable in their home country.** Many international students have utilized GenAI for assessments and perhaps, were encouraged to do so by their educators; however, they do not understand the implications of its use if not disclosed to or requested by the Seneca professor.
- **ESL students choose it to support English language skills but set no boundaries.** Some ESL students use many tools to support their writing skills (i.e. grammar checking via GenAI) but professors have noticed that full submissions are now being written by GenAI and that students are not just using it for basic proofreading.
- **Students from lower socioeconomic backgrounds working multiple jobs choose it to pass courses.** Students who work or have commitments outside of the classroom use GenAI to create assignments. They seek just to pass a course and may not be engaged deeply in course content (Hirabayashi, Jain, Jurković, & Wu, 2024).

In light of these details, another question arises. Why do students view GenAI as a viable option?

As we researched and discussed ideas collaboratively and with the RI team at Seneca, we identified the following concerns in terms of GenAI usage in the SELS classroom. This is not a comprehensive list but one that represents our initial findings as we created our CALL 2024 presentation.

- **Pan-Indigeneity** In discussion with First Peoples@Seneca and Mark Solomon, Associate Vice President, Reconciliation and Inclusion at Seneca Polytechnic, we learned that pan-indigeneity is the grouping of Indigenous Peoples without specific confirmation of community (McGuinne, 2014). For example, students may be asked to research information about an Indigenous Canadian community, but the information generated by GenAI is an overview rather than an accurate description of a specific First Nation, Metis or Inuit community.
- **AI Ethics and Privacy** Often when GenAI tools are used in classrooms, there are concerns with privacy. Many ask, “Who is in control and who “knows” what?” and “how do we protect students from these concerns?” (Cachat-Rosset & Klarsfeld, 2023). At Seneca, any programs with AI connections as in Co-pilot and OtterAI for accommodated students requiring transcribed lectures have been vetted by the privacy team. Acceptable teaching tools at Seneca do not collect information from students and conditions and amendments were agreed to before establishing any relationship with AI companies.
- **Algorithmic Biases** Based on research, it seems that those who create AI content may be oppressing or misrepresenting certain equity-deserving groups. (Cachat-Rosset & Klarsfeld, 2023). Developers (70% whites and 80% males) engage in conscious/subconscious bias while creating AI in Canada and this puts marginalized students at risk of experiencing bias, inequity and feeling targeted (Thind, 2023). As an extension then this misrepresentation of equity deserving groups could fuel discrimination magnifying ideas of techno-racism or the experiences of systemic racism experienced by BIPOC individuals within technical systems (*Understanding and Combatting Techno-Racism* | Capitol Technology University, n.d.).
- **Digital Divide** With every digital or technological advancement, there is always the concern with equitable access to tools and equipment. Likewise, student access to GenAI tools may contribute to inequitable technology distribution (Hirabayashi, Jain, Jurković, & Wu, 2024).

These ideas may seem overwhelming to consider as professors decide how to use GenAI in classrooms including how to create authentic assessments for students (Lawrie, 2023) and to be mindful of inclusive

practices. To assuage educator worries, we offer the idea of constructive feedback to help professors leverage the role of feedback to help with writing and learning.

The role of feedback in writing and learning

According to Vygotsky (1978), feedback is an essential pedagogical component of writing constructs. It is referred to as a “pedagogical” genre that is created by a teacher for teaching and learning purposes. Vygotsky highlights that the teacher informs the students in an explanatory manner about how their submission can improve in terms of form and content. Feedback then is a type of “interaction” between learners and between the teacher and the learner. It is an interaction between the learners when they negotiate meaning and ask one another for clarifications on the given directions/comments. It is considered an interaction between a teacher and a learner when the teacher shares tips for improving the content which could subsequently lead to follow up questions by the learner. Considering the nature of this interaction, feedback embeds “targeted instruction” (Hyland & Hyland, 2006), to engage the learner in a constructive learning environment.

Targeted instruction can further embed academic misconduct including Artificial Intelligence (AI)-facilitated texts, such as take-home-unsupervised assignments (Birks & Clare, 2023). Since academic misconduct has serious consequences, the use of GenAI in generating texts raises concerns among several post-secondary educators.

While the researchers are highly concerned with academic misconduct, our attempt is to focus on how we can provide constructive feedback to students in the age of GenAI and establish constructive feedback and interactions with students. Guided by this perspective, the following section expands upon examples of feedback.

Example of feedback

To explore the role of feedback in the age of AI/GenAI, we share some examples informed by the teaching practices of the lead researcher that shine some light on the role of feedback. For the sake of clarity, assignment guidelines are provided to explore whether we can consider the provided feedback as “targeted”.

Assignment guideline: Add an opinion paragraph in which you reflect on what you think about the prompt (e.g., do you dis/agree with the statement and if yes/no, explain why):

- A. Link your response (the opinion paragraph) to a reading/lecture that we have covered so far and cite that source of information both inside the text and in the Reference list following APA style.
- B. Ensure that your argument is stated clearly, and it is supported throughout cohesively and coherently.
- C. Note* the use of GenAI in constructing the text is prohibited.

Based on these guidelines, the feedback that was shared with the students included the following:

- A. With respect to criteria A and B, as mentioned in the assignment guidelines, please always make sure your opinion is linked to the relevant literature as requested in the assignment description. This means we can follow two methods:
 - a. talk about the literature first and then add our opinion which reflects the same point highlighted by the literature, or
 - b. 2) In addressing the prompt, start with your point of argument and then say how this is echoed by relevant literature. This way, we display out informed opinion coherently and cohesively. It also clarifies how the analysis is deep and fleshed out the specific ideas that you targeted.
- c. The above also means that APA citations (when/where/how we refer to the relevant literature) should follow correctly. The logic behind citations is to acknowledge what scholars say, but also how your reasoning is reflective of what the existing literature highlights.
- B. Regarding the use of GenAI in constructing the text, the following concerns are observable:
 - a. The produced content should have been constructed based on the 5 readings that you were supposed to draw on. These readings were peer-reviewed journal articles and included credible arguments that were relevant to the prompt for this assignment. I am afraid, the produced text does not clarify/demonstrate what sources have informed your argument, since the submitted, text does not indicate to any of the arguments discussed in the readings.
 - b. More importantly, the text includes falsified information (e.g., the whole paragraph stating that “violence against women has risen exponentially by 56% in country X”.) This information does not exist in the five readings you were provided with; while, I can see you have cited one of the readings as the source of information. This could be an example of academic misconduct. Please share your availability to discuss it further.”

The concern that remains is whether, despite the guidelines and constructive feedback and interactions, some learners might still rely on the use of GenAI in generating their texts. From a different angle, in the age of GenAI and its wide-spread use in different domains for several purposes, some educators believe that new digital tools and paradigms should be integrated into their work followed by evaluation of effectiveness in facilitating student learning (Lawrie, 2023, p.393). However, on the other hand, as far as learning and technology are involved, we remain puzzled to determine what constitutes cheating and whether technology impacts authenticity of assessments.

This inspires us to consider some assessment procedures that could mitigate the learners' full reliance on the use of GenAI in generating the texts.

For instance, prior to a writing task, we can pose relevant questions that contribute to enhancing students' understanding of the task and assist with critical thinking skills. To engage the students in the task, we can proceed with a "thinking process" presentation. This will allow the students to have a deeper understanding of the task and the task in place. In addition, it allows students to receive oral feedback from their instructors and peers. Based on the former steps, the next step could embed an in-class writing activity that enhances the "thought process" in the form of a draft assignment followed by the instructor's feedback. Finally, from the feedback, the students can revise their texts and submit them accordingly.

Conclusion and implications

As stated, the researchers reflect on the role of constructive feedback as contributory to building inclusive authentic assessments in this time of GenAI-facilitated submissions. Based on the brief review provided above, some scholars and educators show willingness for integrating technology into their work while also acknowledging the fact that the effectiveness of such tools in facilitating student learning should be examined (Lawrie, 2023, p.393). However, as this is a new journey for all educators and scholars, to further advance the assessment procedure, an instructor could provide conditional coaching to students if GenAI is to be integrated as a medium for teaching and learning purposes. This subsequently entails another implication; do educators need coaching with respect to the use of GenAI to understand and explore how and why it could be used as an assistive tool? For instance, as far as take-home-unsupervised assignments are concerned, how can we ensure that educators are supported in terms of knowing how and why GenAI can be used by students? In doing so, could we come to an agreement that clarifies the fine line between maintaining academic integrity and encouraging an inclusive learning environment in the age of GenAI?

To ensure our feedback is both reflective of the academic integrity values and is also shaped by technological advancements such as GenAI for teaching and learning purposes, the authors of this paper will examine the above-mentioned questions in future research.

Note 1: “The term generative AI refers to computational techniques that are capable of generating seemingly new, meaningful content such as text, images, or audio from training data.” (Brynjolfsson & Raymond, 2023, p. 111).

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Conflict of Interest

None.

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