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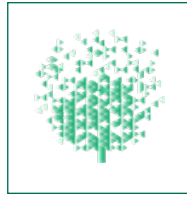
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Creating a Syllabus Students Actually Want to Read

Jennifer S. Reinke

Over the years, my course syllabi have grown so much that they've taken on a life of their own. At its longest, one of my course syllabi was 18 full pages in length. I was attempting to have my syllabi serve as the “contract” students entered into when enrolling in the course; that is, I wanted students to know every institutional and course policy and have every student support resource at their fingertips. This felt important to me as I had learned somewhere along the way that if it's not in the syllabus, it doesn't count. Though I may have succeeded in having a comprehensive syllabus, I had inadvertently created a different problem. No student wants to read an 18-page syllabus. I created a second problem for myself on the first day of class, when I spent a few minutes going over the “rules” in the syllabus and then diving right into content. I thought I was doing a good job of engaging students, but I would inevitably get frustrated every time I told a student, “It's in the syllabus!” I had led myself to believe the problem lay with the students rather than with myself. Surely students were just being lazy or unresourceful, right? Wrong. The common denominator across my course syllabi was that they were far too long, and my menial efforts to engage students around the syllabus were ineffective at best.

For syllabi to be read, they must be student centered. Student-centered syllabi have been shown to motivate students, increase compliance to class rules, and lead students to view the instructor more favorably (Moore, 2019; Richmond, 2016). Further, students tend to remember more details when presented with a student-centered syllabus (Richmond). Embracing these elements in a warm and friendly tone that directly addresses an inclusive classroom climate further supports a positive student-instructor relationship from the start (Finley, 2021; Moore; Richmond). Moreover, for students to return to the syllabus throughout the semester, it must be presented in a way that is engaging and promotes students' active learning on the very first day (Gannon, 2016). Essentially, students must *do* something with the syllabus rather than just having it read to them.

Most instructors will agree there are many choices to make when writing and presenting a course syllabus. I chose to revise my syllabi by focusing on using the space to communicate what matters most to me as an instructor. Here, I present the changes I made to my course syllabi according to my pedagogical values and share two different ways I promote students' active engagement with the course syllabus.

Changes:

- Department and institutional policies and student support resources are linked in a page in our learning management system (within the course introduction module that students must view prior to accessing the rest of the modules).
- The more student-centered pieces, like the “opportunities to excel” (course requirements) and course schedule, are now toward the front of the syllabus. The syllabus includes both a personal statement *and* the department statement on classroom climate.
- I refer to specific parts of the syllabus throughout the semester (via class announcements, student reflective evaluations, and a mid-semester feedback survey).

Implementing the above resulted in a nine-page, student-centered syllabus.

In addition to revising what my syllabi looked like, I also implemented one or both of the following opportunities for students to engage with the syllabus on the first day in all my classes, both in person and online (ideas adapted from the Institute for Learning and Teaching at Colorado State University, personal communication, March 2023).

Engagement strategy 1: Syllabus scavenger hunt

HDFS 477: Professional Preparation is an entirely online course and is a prerequisite for HDFS 488: Internship. Students engage in the internship placement process in 477 but cannot actually complete their internship if they are not earning a 70 percent by the beginning of internship placement (week 10). Moreover,

there are several different sections of 477 based on the category of student and anticipated location of internship. Every semester, there would be 10–15 students in the wrong section, which became quite problematic when it came time for internship placement. To address these challenges, I created a syllabus scavenger hunt. The questions included are predominantly focused on the two challenge areas outlined above. It worked! Students now identify early in the semester whether they enrolled in the incorrect section and can then switch sections without requiring my permission or experiencing financial penalties. There are now also far fewer students below the passing score of 70 percent at the beginning of internship placement. Creating the syllabus scavenger hunt took very little time, and I found strong evidence that this interactive activity promoted students’ resourcefulness and self-efficacy.

Engagement strategy 2: Syllabus text-coding

My favorite engagement strategy has come to be syllabus text-coding, which I have now implemented in nearly all my in-person and online classes. On the first day of an in-person class, I ask students to pull up the course syllabus (I also have a few hard copies available) and review it on their own, coding things that are important with an !, things they don’t quite understand with a ?, and something that sounds interesting with an *. I then ask that they turn to the person next to them and share their coding, noting similarities and differences, in addition to sharing what they think is most important, most interesting, and most confusing. We then come together as a

large group, and I use the rest of the period to address common questions. Often, students are less interested in course policies than in larger course projects and the opportunities they'll have to demonstrate their learning. In my online classes, students engage in this activity in their discussion groups as part of the week 1 discussion prompt. After reviewing students' discussion contributions, I can then address frequent questions or concerns via individual discussion groups, a whole-class announcement, or the creation of an FAQs page on our course website.

Syllabus text-coding sets the tone that we will engage in active learning a *lot* in our course throughout the semester, in the form of both individual work and paired or small group work. Students have shared that they enjoy this first-day activity and find this approach to reviewing the syllabus as refreshing and unexpected. As with the syllabus scavenger hunt, the syllabus text-coding activity took little time to create. It also promotes student engagement with the syllabus and their peers and fosters student resourcefulness and collaborative learning from the very beginning of the course.

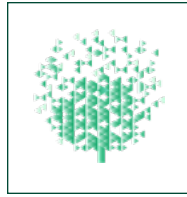
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Using Game-Based Teaching to Engage Reluctant Learners

Andrew Davies

Picture this: Days before your semester begins, your students are messaging each other about how excited they are to begin your class. Then, during the semester, they show up to every lesson curious about what they're going to learn that day, even enthusiastic about doing extra work outside of class. I understand if this sounds like a pipe dream; that's what I thought before I stumbled onto game-based teaching.

My adventure started when I was asked to teach a mandatory typography course to a room full of illustrators at Virginia Commonwealth University. It was a situation I affectionately call "teaching typography to hostages" as none of my students wanted to be there. Thankfully, engaging reluctant learners, even in an online synchronous course, is precisely the scenario that game-based teaching is perfect for. And after a lot of research and trial and error, I ended up settling on five game-inspired tactics to transform my boring Introduction to Typography class into an enjoyable, yet effective, learning experience.

Playful openers

In my class, the activities start the moment students enter the classroom, where on the screen they're greeted with an easy, no-stakes

activity prompt, like making their initials out of nearby objects, solving a silly word puzzle, or simply using the Zoom annotation tools to color in a black-and-white drawing. What this does is immediately set the tone for the class and signal to my students' brains that it's time to switch from sleep mode into class mode.

These openers work as not just great ice-breakers but also a sneaky way to introduce the topic of the day. For example, one of my favorite openers asks students to pick a font that reflects their current mood, sparking a lighthearted discussion about the implications of their choices. This segues smoothly into that day's topic of aligning a font's personality with the desired mood of a project.

Game-infused instruction

Even in traditional classrooms, lectures may not be the most effective way for students to grasp new concepts and retain information. That's why I now introduce each new topic in my course with a game. For instance, in my History of Typography lecture, instead of talking for an hour about a list of milestones, I kick things off by having students create their own version of the timeline using a quick card-sorting game. In person, I give them printed cards with each of the relevant

typefaces, while in remote settings, I use a shared Google Slides document with virtual cards. The trick is that each student is assigned a different typeface to research beforehand. So they are collaboratively constructing the timeline, turning it into an active exploration rather than a passive lecture.

Beyond introducing new concepts, I incorporate short, playful activities to break up lengthy lessons. Recognizing that theoretical material can be overwhelming, I strategically pause the lesson every 10 to 15 minutes. During these breaks, I engage students in puzzle-based activities related to the recent content. This not only resets their attention but also allows me to gauge their understanding in real time, enabling me to make on-the-spot corrections to my instruction instead of having to wait for a quiz weeks later.

Game-based retrieval practice

I'm a big fan of giving students plenty of chances to use the information we cover, not just regurgitate it. But I've found that practice questions or worksheets aren't going to be enough to convince my "hostages." So, I've taken to tricking them into recalling the information under the guise of playing a longer game that takes up an entire class session.

I've found two formats that work well for this subterfuge: a puzzle tournament that includes several rounds of different kinds of puzzles or challenges, and a digital escape room where the puzzles coalesce in a single story and lead toward a conclusion. Both involve splitting students into small groups and having them solve the puzzles together, so there's an

added collaboration component to the exercise that I think is helpful.

"Storified" assessments

This strategy might be the most enjoyable for you and your students, but it does demand a great deal of creativity and planning as it involves wrapping your entire class in a fictitious world. The setting then determines the backstory for each project that students need to complete as assessments for the course.

For example, one of my class's learning outcomes requires students to demonstrate knowledge of the major typeface classifications. Within the world of my class, this involves creating a ransom note to secure the release of a kidnapped celebrity. Similarly, a poster layout project now becomes a quest to design a sacred artifact, and a project asking students to create a new typeface is reframed as conjuring a magical incantation.

If you don't find world-building appealing, you can borrow from an existing story instead. Dr. [Rebecca Lai](#) at the University of Nebraska-Lincoln, for instance, sets one of her chemistry classes in the wizarding world of Harry Potter. And [Roberto Corrada](#) sets his administrative law class at the University of Denver in the dangerous confines of Jurassic Park. There is no single right answer; just remember to pick a setting that either suits your subject matter or would be interesting to your students—ideally both.

Gamified extra credit

Immersing my students in a fictitious world was great, but I wanted to give them an active role in shaping the story's outcome. To do this

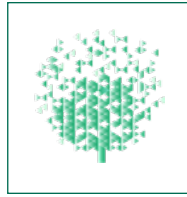
I needed a way to measure my students' endeavors, apart from their grade, and determine whether their effort was enough to "win" the game. This is where the ever-popular experience points (XP) come in handy. In my class, students earn these points by displaying positive behaviors, such as timely quest submissions and punctuality.

If that were enough, however, the game would be too easy. So I also give students a chance to earn more XP by completing optional assignments, known as side quests. These tasks allow students to practice skills from class or explore topics in more depth. For instance, after a History of Typography lesson, a related side quest involves a campus scavenger hunt to find examples of the discussed typefaces. Another challenge is to spot anachronistic typeface usage in a movie or TV show. I hide additional side quests as Easter eggs in various documents. This rewards attentive students who pay attention when I encourage them to "do the reading."

Now, with all five game-based teaching mechanics in play, my class has a dynamic structure:

- Each session begins with a quick and playful class opener to break the ice and set a positive tone.
- A game or playful activity introduces the day's topic.
- At strategic points in the semester, students engage in longer game-based retrieval practice exercises.
- Assessments are seamlessly woven into a compelling storyline.
- Students have the opportunity to earn XP for doing extra work outside class time.

The beauty of these tactics lies in their flexibility. You can choose the ones that suit your time constraints and resonate most with your students. Ultimately, it's about making learning enjoyable because, as the saying goes, it's all fun and games until something gets learned.



Building Skills with Bots: Using AI throughout the Writing Process

Cara Ruggiero and Cheryl Tice

Fears of disingenuous work, fraudulent and stolen information, and theft of intellectual property have been swirling around education circles, especially since the release of ChatGPT and other forms of generative artificial intelligence (GenAI). These fears constitute a concern that our students will use these tools “for evil”—namely, to commit academic dishonesty by using the tools to complete assignments, especially assignments requiring polished writing.

While there is some validity to the cacophony of concerns erupting around the use of GenAI, a recent study by the Stanford Graduate School of Education (2023) reported that around 60–70 percent of college students have reported cheating consistently for years, and that number has stayed the same or even decreased slightly since the advent of GenAI.

Additionally, the motivations behind committing academic dishonesty—including a lack of time, resources, confidence, and overall anxiety—remain consistent, and we suspect that will continue to be the case throughout our higher education system. If anything, GenAI has only accentuated a social divide. Students with the financial means to access the

latest generative AI tools behind paywalls have an unfair advantage over their economically disadvantaged peers, who may lack devices, apps, and internet access. The journey ahead is filled with inequities. As mentors, we serve as guides on this expedition toward AI literacy and must find ways to level the road for the journey ahead.

In our conference session, “Building Skills with Bots,” we presented writing with GenAI as a “hero’s journey” for educators. How can we, as educators, prepare students for a world in which this technology exists and help them develop the writing and literacy skills they need to succeed in it?

Join the quest!

Every quest presents challenges to overcome, but it is helpful to put things into perspective to move past concerns. GenAI offers us an opportunity to be pioneers and guide GenAI’s strategic and ethical implementation in teaching and learning. If we accept this epic call to adventure, we have the potential to motivate and inspire students in the process. Additionally, with these tools entering many industries and integrating into the workforce,

it would benefit students to develop an understanding of how they can integrate AI into their lives outside class.

Can we approach using GenAI with the same evidence-based, student-centered teaching strategies recommended before GenAI's advent while also providing students with opportunities to use these tools authentically, as they may after they graduate? Spoiler alert: we can. Read on and cross the threshold to begin this journey with us!

Embarking on the journey

Since these tools are so new, students need our help to discover the potential benefits and pitfalls of GenAI. Without mentorship, students may develop an overreliance on GenAI and miss opportunities to develop critical skills. This possibility raises the question: What should students know about how these tools function, how to leverage them in the writing process (and other contexts), and how the benefits and drawbacks can influence their writer's voice?

AI literacy is an emerging skill set that our students need to develop to meet the challenges of a world where GenAI and related technologies are becoming increasingly prevalent. Defining AI literacy and what it means in our various areas of expertise is critical to supporting students in developing these skills.

We can help students develop awareness of AI through experimentation, guided application, and metacognition. As instructors, we can use these opportunities to offer feedback to guide students toward strategic and ethical use of these tools.

Finding our way

Begin by reflecting on where GenAI could be used and where it should be avoided in the writing process. Where are natural checkpoints in the process? Where might feedback be the most useful for students to use for revision? Once those pieces are determined, we can ask ourselves the following questions:

1. **What are my students doing?** Not only in terms of objectives, but also what are they doing in the individual scaffold points for the writing project?
2. **What skills are needed?** What are the required and supplementary skills and knowledge being assessed? What disciplinary skills are needed in the field beyond the course?
3. **What tasks should require mental effort?** Which of those skills should a student attain solely through mental effort? Which skills are important for them to take away from the course experience?
4. **Which tasks can AI do?** Which tasks can GenAI support or outsource? Which ones are not necessary for successful student completion of assignments and understanding of course material?

This reflective exercise can function like sorting—really unpacking the skills and knowledge for each stage of the process to determine where you can integrate GenAI tools into your course.

Additionally, involving students in this exercise of discovering uses for GenAI in the writing process can guide them toward solutions and uses that we might miss.

Guide and support

Conversations and self-reflection throughout the writing process can help students learn how to alternate between AI-supported writing tasks and thoughtful, brain-powered writing. Encouraging transparency in GenAI use encourages students to share GenAI interactions and receive guidance to avoid overreliance.

Encourage students to reflect on their use of GenAI frequently along the way and ask themselves self-reflection questions such as the following:

1. What are the assessment requirements?
2. How can GenAI tools support me in this writing assignment?
3. How can I make sure that GenAI does not overwhelm my writer's voice?
4. Am I being transparent and sharing all my AI chats with the instructor to receive guidance and avoid overreliance?
5. Is my GenAI use furthering my learning, or am I taking shortcuts?

Where could GenAI fit before, during, and after the writing? Here are some examples.

Before the writing process

- Brainstorm ideas and questions.
- Develop a search strategy.

During the writing process

- Summarize complex texts.
- Provide an outline or structure suggestions.

After the writing process

- Provide feedback to strengthen writing.
- Guide revision process.

GenAI should not be the first stop in scholarly writing. Sharing specific acceptable uses (and your submission expectations) for GenAI will help students use it strategically in written work. Understandably, implementation should be tailored to the program, course, level, assignment, and instructor.

Conclusion

With the dizzyingly fast developments within the GenAI field (and the potential for GPT-5 right around the corner), it can be comforting that we have the tools to help our students strategically integrate the use of these new technologies into their schooling and lives without sacrificing human ingenuity and critical thinking. Now, dear heroes, we embark on this adventure together.

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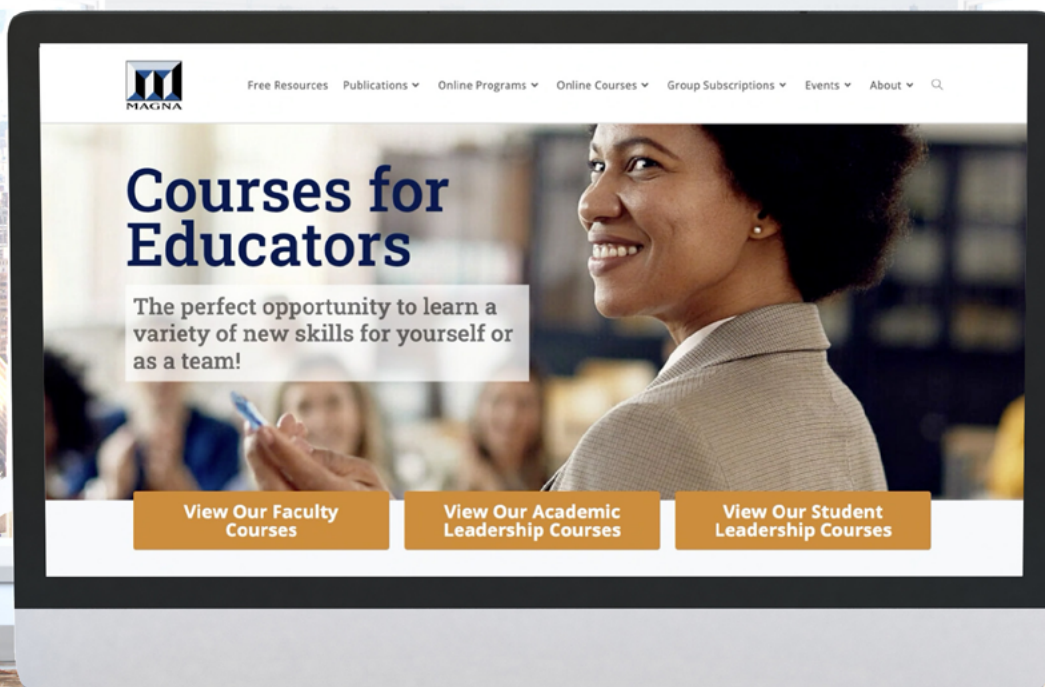
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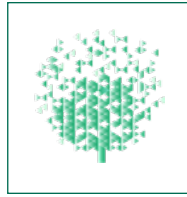
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Effective Assessment Strategies in the Asynchronous Online Classroom

Desiree' Caldwell

While effective assessment strategies are important in all classrooms, they are especially so in asynchronous online courses because they are the only ways the instructor can determine whether students grasp the content provided. Not being able to speak to students in real time presents a challenge when it comes to formative assessment, but instructors should challenge themselves to move beyond the typical online assessments, such as discussion forums and papers, and implement more engaging and thought-provoking assessments that research shows to increase motivation and engagement leading to enhanced, meaningful online student learning.

There is minimal research published about assessment strategies specific to the asynchronous online classroom; however, it is known that choices for assessments must be intentional, aim for authenticity, offer opportunities for autonomy, and have a clear purpose (Gemella, 2023; Wiley University Services, 2016; Brown University, 2023; Columbia University, 2023). This article highlights a few examples of formative and summative assessment strategies that provide students with autonomy and real-world application. While the strategies I discuss are specific to the teacher prep program

in which I teach, they can be adapted for any subject area.

Choice boards

An example of a formative assessment that provides autonomy to students is a **weekly choice board discussion**. The choice board looks like a bingo board and includes options that encompass before, during, and after reading or viewing strategies. Each week, students pick one of the nine options from the choice board to complete for their initial post. An example of a choice includes “stop and jot,” which reads, “While you are reading this week’s readings and watching this week’s videos, jot down any notes or ideas that spark your thinking. You can do this on sticky notes or in a notebook. Submit a photo of your notes.” The choices force students to engage in the course content, but in a way that is meaningful and useful to them. Each week students must complete a different option to complete; they can’t complete the same choice more than once throughout the course. As an instructor, I find the choice board discussion much more interesting to review and grade than our traditional discussion, where everyone responds to the same prompts. The choice

board also gives me a better sense of the students' understanding of the material because they must be more reflective than in the traditional discussion forum.

Peer assessment and interactive presentations

Peer assessment is another strategy my program has implemented in connection to the discussion forum. While various models of peer feedback exist, we use the **RISE model**, which equates to *reflect, inquire, suggest, and elevate* (Make Sense Media LLC, 2020). Students are required to use the RISE model when initially responding to their peers within a discussion forum.

Another way I use this model of peer assessment is in conjunction with students having to complete an interactive presentation. In this summative assessment strategy students assume a specific role and create an interactive presentation based on a prompt. I tell students I want to feel like an audience member when I watch their presentations. Here is an example of this strategy from a special education course. The directions for the assignment say,

Assume you are a special education coordinator who will give a professional development presentation to new faculty. Create a multimedia presentation, including full audio narration, as you would deliver it to the newly hired special education teachers, on how to write a legally defensible IEP based off the Pennsylvania Department of Education videos you watched this week. Include

interactive components and be sure to adhere to APA requirements.

Students initially create a draft of their presentation and submit it to the discussion forum for peer assessment. Students use the RISE model to provide each other with feedback on their presentations in preparation for revision before the final version is due.

Another example of the peer assessment strategy is when students must write a lesson plan; we have students take it one step further and create a presentation in which they teach the lesson. I tell them I want to feel like a student in their class regardless of the grade level. Through this strategy, students gain insights that can improve their ability to assess their own performance while also improving their lesson plan writing skills.

Teaching guides and brochures

Another summative assessment strategy we use to promote real-world applicability is the creation of teaching guides, brochures, and handouts for distribution. For example, after learning about the importance of using evidence-based best practices in a special education classroom, students are tasked with creating an educational brochure to be distributed to preK-12 special education teachers in their local school districts. The final product can be created for either digital or physical distribution.

Video abstracts

Instead of having students write a paper, we have them create a video abstract. This assessment strategy requires students to have done

the work or research for them to be able to talk about it. A video abstract is when students talk about the content instead of writing about it. An example of how we use this is also in another special education course. The directions state to “choose an article that discusses diversity and special education. Create a video abstract demonstrating your understanding of diversity and special education based on your chosen article. Include the following: a comprehensive abstract, three takeaways from the article, and questions you have regarding the topic.” In my opinion, these are much more interesting to watch than reading paper after paper.

Role-playing scenarios

Another assessment strategy we use is role-play. In addition to real-world applicability, this strategy also incorporates collaboration, as students work together to create a script they will act out and record. Here is an example of this strategy used in a course on effective communication for educators:

Imagine that a meeting has been called to speak with a student’s parent about the child needing special education services. You will be assigned to one of the following groups: supportive parent, confused parent, or parent in denial. Within these groups, you will create a script and role-play during the meeting. Assign each member of your group to one of the following roles: the specific type of parent according to your instructor’s assignment, counselor,

general education teacher, special education teacher, and principal (depending on group size). Write a script for your meeting. All group members should contribute to the script. The following must be evident in your script: the specific type of parent, how the meeting ends, and how each of the stakeholders feel at the end of the meeting. Record your group’s meeting; everyone must be visible in the meeting.

This is a fun, unthreatening way for students to practice for the real-life situations they may encounter as teachers.

The assessment strategies above not only improve student learning and increase engagement but also make grading and assessing students a more enjoyable task for the instructor. I leave you with this question to ponder: Of the assessment strategies I’ve discussed—choice boards, peer assessment, interactive presentations, teaching guides and brochures, video abstracts, and role-playing scenarios—which will you implement in your current or upcoming course?

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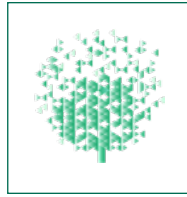
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Incorporating Reflection Questions on Final Exams

Allan MacKenzie

Most professional program curricula focus on the required specialized knowledge and skills to meet the profession's needs. Yet graduates need more than subject matter competencies to meet the requirements of their professional work. Our graduates must be capable of solving complex problems and have dynamic self-awareness of their abilities within the workforce.

Reflection, or the contemplative dimension of personal learning, has not historically received much attention within the scholarship of higher education, especially in professional programs, despite calls for more significant consideration. For example, in an article calling for curricular change in undergraduate engineering, Susan A. Ambrose (2013, p. 20) suggests that learning happens with reflection and that educators should “provide constant structured opportunities to ensure that continual reflection takes place.” I would suggest this is a prevalent curricular issue across many faculties, such as business, science, law, health, medicine, and social sciences.

As educators, we generally spend minimal time formally helping students think about and reflect on the struggles and successes that lead to their knowledge acquisition and, more importantly, assessing a particular learning experience to help our students perceive its significance. We should not only assist

our students in learning the material we are accountable for teaching them but also help them improve their metacognition and learner agency to enhance their employability and thrive independently as lifelong learners.

This is particularly important amid the changes brought about by the COVID-19 pandemic and the additional expectations employers have for new hires to work autonomously in either fully remote or hybrid workplace conditions. They are not looking for applicants solely focused on subject matter knowledge and abilities but individuals who are metacognitively aware and reflect on their process for achieving specific results within organizational parameters.

As a teaching professor within a professional engineering school at a public teaching and research university in Canada, I have worked to explicitly integrate opportunities for reflection for my learners through various assignments and project postmortem reports. But I recently began incorporating guided reflection questions in the final exam of my Entrepreneurial Thinking and Innovation course. This senior undergraduate course is designed to deepen students' understanding of the relationship between entrepreneurial thinking and innovation within enterprises. My choice to add a reflection to the final was driven by a desire to measure whether this course's project-based

learning (PBL) approach enhances metacognition and learner agency.

The final exam includes a three-part reflective-type question to assess metacognitive awareness explicitly and whether that facilitates learner agency. The question asks students to explore themes they encountered while learning the course materials and participating in a semester-long service-learning team business case project with a real-life community organization. The project deliverables focus on preparing a comprehensive case report that senior management can use as evidence to secure organizational resources for a new capability or process improvement within an enterprise.

In winter 2022, I conducted a research study involving 220 participants across seven engineering management disciplines. I employed qualitative and quantitative analyses to evaluate the impact of reflection questions on the final exam. The qualitative component measured whether students were nonreflective, reflective, or critically reflective, using a rubric to award an appropriate grade for each response. The rubric categorization was derived from Mezirow and associates' (1990) reflection-mapping framework, which focuses on the ability to interpret, discriminate, explain relationships, and validate assumptions.

For the qualitative analysis, my research assistant and I used **Delve coding software** to organize, interpret, and structure student responses. We employed the inductive coding technique, where the coding or categorization derives from the data. We didn't start with preconceived notions for the codes but allowed the narrative to emerge from the various student responses.

In part one of the study, students identified and described significant factors influencing their personal and professional ambitions. One-third of the students indicated that the biggest impact was what they learned from working on the business case project. The other two top factors included knowledge gleaned from the three LinkedIn Learning video tutorials integrated into the course and participating in an online self-assessment that identified their preferred innovation style and how that affected decision-making and their project team's effectiveness.

In part two of the reflection question, students discussed what character virtues they cultivated by completing the course. The selected student responses vividly illustrated how the course positively influenced their character development, emphasizing the importance of perseverance, confidence, creative thinking, and self-awareness.

Part three asked students how they would integrate insights from part two into their educational and professional practices. Almost two-thirds emphasized the application of their learning for future employment opportunities, demonstrating a practical connection between classroom concepts and real-world scenarios.

The study, however, has several limitations, including a small scope and sample size, potential social desirability bias in participant responses, and the subjectivity introduced by the interpretation and coding of qualitative data. Despite these limitations, the study offers a glimpse into the effect of reflective practices on student learning and development.

If you consider incorporating reflection questions on your final exam, I suggest the following:

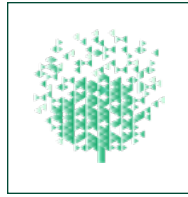
- It is crucial to incorporate reflective practice formally into the course with specific and timely feedback so your learners can improve their reflective capabilities throughout the semester.
- The reflective final exam questions should be low stakes given the overall worth of the exam. In my case, the reflective question accounted for 10 marks out of a possible 75.
- Give the reflective question in advance (like a take-home exam) so students do not feel pressured to complete it during the time-restricted testing period. Giving it in advance helps to reduce assessment anxiety and generally leads to more deliberate responses.
- Provide students in advance with the rubric you will use to assess the reflective question.
- Lastly, discuss with your students the pedagogical reasons why you are including a reflective question on the exam. For example, I discussed how competence in any discipline starts with the individual contributor's acquiring knowledge, skills, and experience in combination with the ability to reflect on what they have learned and experienced.

Despite this study's limitations, it showed how learners engaged with my course material and reflected on their learning experiences.

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What AI Can Teach Educators about Deep Learning

George Asimos and Leanne Havis

In a 2023 article published in *The Hill*, Sarah Eaton, an associate professor of education at the University of Calgary who primarily researches ethical issues and issues of academic integrity in higher education, called ChatGPT and similar generative AI models “the greatest creative disruptor to education and instruction in a generation” (De Vise & Lonas, 2023). While Eaton might be correct in identifying AI as such, a disruptor is never intrinsically good or bad. A disruptor in education can significantly alter traditional educational practices, established norms, and systems. It can reshape the landscape of education by introducing novel approaches, tools, or models that may fundamentally shift how teaching and learning occur. What a rushed revulsion to AI creates is a situation where the real, productive aspects of this new technology are ignored, thereby restricting the use of tools that afford us novel and innovative forms of access for processing, developing, and presenting our deep learning.

We already know that students learn better when they engage with material and that this impact is compounded when they receive that material through a variety of media, mirroring

their lived experience. Generative AI is collaborative from the start: students can converse with it, respond to it, ask questions. They can be put in groups, adding AI as their assistant, and generate all types of interesting questions and prompts and responses to a topic. They can identify, even document, which gave them the best answers. They can take that material, synthesize it, and put it in their own words; learning here becomes collaborative and recursive, mirroring the labor space of the information economy.

An instructor can be added here too. Just yesterday George was teaching a complex genre of academic writing to a class of students that already struggle with academic argument and its moves. Rather than just use PowerPoints and lecture or even the chalkboard (though he used all these too), he put Bing up on the board and asked it all the questions he thought students might have. The class talked and asked, discussed and watched, unpacked and digested. Now these students know two skills instead of one: they can identify the genre and how it differs from like things in the academic taxonomy of writing, and they can

identify how to get help. Bing even provided a step-by-step organizational outline of potential inclusions in this genre. It was recursive and supplementary, not at all a workaround, and it generated a better visual representation of the task ahead than George could have accomplished with a PowerPoint alone. The process is also reproducible, and it teaches valuable skills about how and when to interact with AI. It helped the students, but it also helped George; he had a personal assistant for the class. And, he later confessed, it reminded him of some key bits of information that he, as someone that has performed in this space for years, wouldn't have thought to mention intentionally.

We both can honestly say that we don't really like lecturing; we like conversation. We prefer a practical, discourse-driven approach to education, especially when teaching writing. We also like having a pile of tools at our disposal; what works well for one class might not take in another, and we need to be able to switch tracks quickly to maximize the time we have. To this end, we've both begun inserting AI into various stages of the writing process. It is a brilliant editor, even explaining why it made the adjustments to the original texts that it did. But, in our opinion, it is an even more brilliant pre-writer. Our students are used to collaborating, just not in the conventional way. They may not enjoy collaborating with each other during this idea-generating stage, but they are very familiar with collaborating with an online presence. We have them take a topic and put it into ChatGPT, Bard, or Gemini. We have them start communicating with the

model, asking questions, searching for controversies, and finding related words, concepts, or issues. We ask them to build a word bank of anything related to their ideas. We instruct them not to focus on their own arguments, just to expand their knowledge base around the issue. We tell them about the limitations in accuracy and time; in this way, they begin to understand what the tool can and cannot do. In short, they learn by doing.

In the end, it is important that academia, that troubled space, spend more time in the play stage than the prohibitive. Rather than revolt against change, pine for the past, and doom-say, we could all benefit from a bit of adaptive and intentional positivity in trying to meet our students, and the world, where they are. The truth is, some days we don't want to engage with tech: we need a detox, and so, realistically, do our students. In composition, there is a field of study known as expressivism, which focuses on student voice and ideas. An expressivist assignment is a type of written task in which students generate thoughtful prose using their own observations and experience regarding an issue, concept, or problem. Students use no sources, at least in its rapid deployment, and there are no injunctions on tone or formality. The teacher treats the products as completely valid, not deficient in any way, and they are often thoughtful and poignant; surprisingly, students find a willingness to self-disclose on a whole range of topics when they feel enfranchised to do so in their own language. George will inject courses with these types of written assignments; in some cases, they have little or nothing to do with the

overarching structure of the course. But they are breaks, pauses, where students can build confidence and redirect their writing toward the wonderful thought process that it is rather than fall into the economy of grading. All classes are ripe with expressivist opportunities for a faculty member willing to look, and as graders of massive amounts of written work, we enjoy the break to read something different: it gives us the opportunity to know students who are not so forthcoming on the open floor of the classroom. This is the anti-AI, where cheating is unwarranted (and unsupported).

So again, now is the time for play. Take an opportunity to download a few apps and see what they do. Use AI in place of a regular search engine for a week. Ask it to edit a piece of your writing and read its suggestions. Have it compile a study sheet for a complex issue or field. Use it to generate citations and references in a preferred style. Compare the various platforms and see which you prefer and why; converse with them, save the conversations, and compare them at a later date. Ask what AI can do for a field and learn what it can't. There are and will be multiple ethical issues, limitations, and problems, perhaps even valid postapocalyptic fears, and the time will come to succinctly address these. But if concern is the first response now, academia runs the risk of missing another brilliant opportunity for meaningful disruption and adaptation, and this is something we can ill afford.

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De Vise, D., & Lonas, L. (2023, March 19). ChatGPT sends shockwaves across college campuses. *The Hill*. <https://thehill.com/homenews/education/3905672-chatgpt-sends-shockwaves-across-college-campuses>

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Cheryl Tice, EdD, instructional technology strategist at Berkeley College, is an accomplished educator with an extensive background in higher education and K-12 contexts. Driven by her dedication to inclusion and student success, she skillfully leverages emerging technologies, such as generative AI, and evidence-based strategies to promote accessibility, interactivity, and academic excellence.

The logo is a stylized tree composed of many small, light green triangles. The background of the entire page is a dark green gradient. In the upper left, there is a semi-transparent image of a laptop displaying a video conference with several participants. In the upper right, there is a semi-transparent image of a person's profile wearing a headset.

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