UDL 3.0 and AI as Potential Partners:

Considerations in Introductory Teacher Education Courses

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In consideration of how I might use AI as an instructor, the first question that comes to mind is how can I increase learner agency, learner access, and meaningful engagement? All of these are part of Universal Design for Learning (UDL), and I use the UDL framework to guide how I integrate AI into my courses.

UDL is a framework for planning and implementing instruction that is guided by three principles: multiple means of engagement, multiple means of representation, and multiple means of action and expression (CAST, 2024). Designing multiple means of engagement involves consideration of what motivates students, including clear goals, making learning relevant, including play and joy, and creating a sense of community. Designing multiple means of representation provides options to perceive and process information. This means including a range of perspectives, making materials accessible, providing background knowledge, pre-teaching vocabulary, and using outlines and graphic organizers. Designing multiple means of action and expression provides options for how students respond to tasks, for example creating videos, text, art, comics, and oral presentations. Students can communicate learning in a variety of ways. In addition, students may use templates, checklists, or rubrics to monitor their own progress (CAST, 2024). Within each of the principles, the guidelines provide options for increasing access, supporting the learning process, and supporting executive function skills.

The key teaching strategy for using AI in my courses is to first consider Universal Design for Learning (UDL). Changes with this practice include increased co-construction of ideas with students and finding ways for AI to be one tool of many for both the student and the instructor. Discussing what AI does, what the drawbacks and concerns are with AI, and how to use it ethically with students is the first step. Explicitly teaching how to use AI, when to use it and when not to use it is also important. Finally, providing opportunities for student reflection is essential. By giving students space to think critically about the negative and positive impacts of AI, in their future professions, in their academic lives and in my particular class, we can create ground rules in order to make sure we are all on the same page.

The AI Assessment Scale (Perkins et al., 2024) places AI on a continuum of use from no use of AI, to planning, collaboration, full use, and exploration. The School District of Philadelphia (2025) adapts

the AI assessment scale, aligning it with the assignment goals and requirements for citation. When the goal of the assignment is for students to demonstrate their own learning, AI is never used. When the goal is exploration of new interests, AI may be used for brainstorming. The goal of an assignment is also a key component of UDL. The assignment should not serve as a barrier for students if there are multiple ways to demonstrate the same goal. For example, creating a video, diagram or infographic, and writing an essay can all be used to summarize a concept. The goal should guide the assignment not the tools used. Even with clear guidelines for use of AI, concerns remain about when and how to use it.

Evmenova et al. (2024) summarize teacher concerns about AI use including decreasing use of critical thinking skills, cheating and errors or inaccurate information. Evmenova et al. (2024) also highlight a number of ways to use AI consistent with UDL. In the area of engagement, AI can be used to create materials at different levels, help with brainstorming, and reflect on comparisons between student work and AI generated work. In the area of representation, AI can facilitate creation of accessible materials, overviews for background knowledge, and materials at different reading levels. In the area of action and expression, AI has potential in creating games and interactive activities. On the AI Assessment Scale (Perkins et al., 2024), the planning level requires that the individual using AI refines ideas and at the collaboration level, ideas are modified and critically evaluated. Whether used by instructors or students the critical thinking comes from the person after the use of AI. Both instructors and students need to engage with the drafts to make them relevant and authentic.

Authenticity is a key component in multiple means of engagement. Making connections to identify solutions to real world problems is a way in which AI can be a support. Students can be encouraged to identify an issue that is of concern in their communities, use AI to help brainstorm initial ideas, work in groups to discuss those ideas and develop plans of action or ways to advocate. If learner agency is a primary goal of UDL, then it is at odds with having work completed for a student rather than AI being used as a support.

For an educator, AI can be a first step in idea generation as part of presenting ideas in a variety of ways (multiple means of representation) or providing options for students to demonstrate learning (multiple means of action and expression). So far, in my experience it has been most useful in creating drafts of case studies which engage students and rubrics which help provide clear expectations and help students to self-assess. I would like to use AI to refine some existing assignments. In one class, pre-education students create a family engagement activity, but some students may not have the experience to do this in a meaningful way. One possibility would be for students to generate ideas using AI and then work as a group to develop an activity. Group members could then split up and interview various stakeholders such as a teacher, school administrator, parent, and student to determine the feasibility of the idea. Would families attend? Does it meet a need? Is it realistic to implement such an activity? What resources need to be considered? What are some possible barriers? The AI can serve as a catalyst and the students engage with the evaluation and creation of materials.

In an effort to be transparent, I intend to share with students both the AI Assessment Scale, as part of providing clear expectations, and the UDL Guidelines as part of helping stu-

dents understand the "why" behind some of their assignments and options. Both are helpful if they are creating materials for self-monitoring. I will also share Bloom's Taxonomy of Learning which provides a framework for different levels of thinking. Lower order thinking skills involve recall and summarizing. Analysis, evaluation and creation involve higher order thinking skills. The goal would be for AI use to support students at the lower levels so they can be independent at the higher levels. In the UDL guidelines, one consideration is providing scaffolds that can be gradually released, so students can practice before independently using skills (CAST, 2024).

As I am still at the beginning stages of this exploration, it is difficult to determine what worked and what has not worked. The potential partnership is one that shifts from policing to engaging in a way that is intentional, ethical, and transparent with students. As with any tool there are limitations and there is a delicate balance between promising and problematic. Rather than battling against students, doing things for them or to them, my hope is to take this journey with students enhancing learning and teaching along the way.

References

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