Advancing a New Mindset About Curriculum Design

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One of the most basic principles in education is backward curriculum design. This approach involves beginning with the end in mind. Moore (2015) stated that the backward design model "centers on the idea that the design process should begin with identifying the desired outcomes and then work backwards to develop instruction rather than the traditional approach, which is to define what topics need to be covered" (p.34). It can be tempting to utilize the traditional approach of creating learning activities based on the topics selected for a course. However, this does not challenge the educator to think about the concepts in new and creative ways. Backward curriculum design has numerous benefits that educators should consider, but we must think about this process in new and insightful ways.

Innovation and Backward Curriculum Design

While there are many benefits of backward design, let's focus on two key benefits. The first benefit of this approach involves innovation. It forces the teacher to bring a fresh perspective to the course. As the world changes, so must our approach to curriculum design. In backward design, if we begin with the end in mind, each time we teach a class we should ask ourselves has our "end" changed? To approach curriculum design with a new mindset, I utilize the design thinking brainstorming process. The steps below detail the ways in which I address the curriculum development process.

1. **Brainstorm!** Using a whiteboard and colorful sticky notes, I brainstorm all ideas and suggestions for desired learning outcomes within an agreed upon timeframe— quantity counts! At this point, you want as many ideas as possible. Use one idea per sticky note so that you really see all your ideas. Brainstorming will help you develop new and creative ideas. It is important not to qualify any ideas at this point. Each idea is taken and written down and later you will assess the usefulness of the idea.
2. **Next, review each sticky note and then categorize and condense the ideas.** Begin placing like ideas together and removing ideas that are duplicative. Once you've clustered ideas, you will then begin to see which themes are beginning to emerge.
3. **Assess the ideas.** Now that you've clustered the ideas together, begin to examine and judge the ideas. If you are doing this with a group of team members, be sure to be respectful of one another's ideas, while still deciding if that idea will ultimately help you achieve the desired learning outcome.
4. **Next, prioritize the ideas that were agreed upon and rank them.** As you rank the ideas, consider which ideas can be implemented quickly and which ones may require more time. Quick wins are always desirable. But you want to think through some long-term ideas as well.
5. **Act on the agreed upon ideas/learning outcomes.**
6. **Evaluate the efficacy of the ideas.** Ensure that you are continually assessing your learning outcomes and the learning events being conducted to achieve those outcomes.

The brainstorming process helps educators to think through as many ideas as possible. This enables them to think beyond their existing framework to generate novel ideas. Ultimately, this will help to spark innovation in the curriculum design process and in the classroom.

Higher Order Thinking and Backward Design

The second benefit of backward design is that it promotes higher order thinking for educators. Teachers often aspire to promote higher order thinking for students. The same should be necessary for educators. Alexander et. al. (2011) stated that higher-order thinking is defined as:

The mental engagement with ideas, objects, and situations in an analogical, elaborative, inductive, deductive, and otherwise transformational manner that is indicative of orientation toward knowing as a complex, effortful, generative, evidence seeking, and reflective enterprise (p.53).

As educators, we often try to promote higher order thinking in our classrooms yet, we usually don't think through how we might achieve this level of thinking ourselves during the curriculum design process. Higher order thinking happens when we engage with information in a transformative way, and I think it is important that we model the behaviors

and practices we wish to see in our students. If we ourselves are not pushing the envelope and engaging in more challenging thinking, why should we expect our students to? We must be willing to move beyond the lower levels of thinking like basic understanding and make a shift to transformative thinking. The chart below depicts more clearly the meaning of content knowledge, content skills, and thinking skills.

Blooms Level	Meaning
Remember (Content Knowledge)	When designing a learning activity, an educator might want students to recall specific methods or universally known information. *Example: Recall the definition of Backward Curriculum Design*
Apply (Content Skills)	Applying learning refers to how we use the knowledge we know. *Example: Carry out Backward Curriculum Design methodology*
Create (Thinking Skills)	Transform the content in new and innovative ways. *Example: Reconstruct the Backward Curriculum Design methodology to incorporate elements of design thinking*

During the curriculum design process, it is typical to rely solely on content knowledge as opposed to taking the knowledge of the content and examining it in new and innovative ways. For example, in the online classroom there are typically discussion board forums. Discussion board forums allow students to demonstrate their knowledge of the learning events from the week, where they can also build community among learners. The use of discussion boards is an easy tool that can be reimagined. To revitalize this learning activity, create the traditional weekly discussions and randomly assign students to weekly break out groups. Within the breakout groups, the members of the small group can select a team leader and they can facilitate the discussion on a topic that they find profound and insightful. This is just one way that educators can use their own higher order thinking skills in curriculum design.

Ultimately, backward design is a tried and true method. It works because we first determine our end goal and then think through the steps we will take to get there. However, there are ways in which we can better utilize this approach to our advantage. By sparking innovation and thinking on a higher level, we can design curriculum that is thought provoking and in alignment with the challenges that today's students face.

Bio: Dr. Adrianna Davis is an instructor at AdventHealth University. She has been working for over ten years in healthcare administration, and has worked with a variety of leaders ranging from emerging leaders to executive level leaders. She is passionate about helping all leaders discover their unique leadership abilities in order to apply those skills in the workplace.

References:

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