Does Your School Support Deep, Long-Lasting Learning? Part 2: Flexible, Student-Centered Learning

By Contributing Blogger on November 19, 2018 9:03 AM | **No comments**

This post is by: Cynthia Leck, a partner at **Transcend**

Traditional school models typically have a curriculum, scope and sequence, pacing guide, and schedule that together seek to move all students through the same content and learning experiences at the same rate. Of late, however, many schools have moved toward models in which students can access whatever learning experiences best meet their unique goals, needs, and learning preferences, regardless of location or time. **What if this particular transition was not just fashionable but crucial for student success**?

In **Part 1 of this blog series**, I introduced the idea of using an *audit* process to analyze your school's alignment to key insights from research on learning and development. Specifically, I dug into the topic of how emotions and social connections foster deeper, longer-lasting learning. I put forward some criteria that could be used to audit a school design, along with examples of design choices aligned to these criteria and some common pitfalls that may occur. In this second installment, I'll discuss additional research that suggests a need for more flexible, student-centered approaches to teaching and learning and will offer some additional criteria for an audit.

What does the research say about flexible, student-centered learning?

Learning is shaped in meaningful ways by students' unique individual variability. This is because a complex mixture of life experiences and individual characteristics lead students to develop at different rates and exhibit differences in how they learn related to their attention, cognitive processing abilities, what they find value in, what triggers anxiety, and more. As a result, expecting all students to be motivated by the same learning experiences, or achieve mastery of the same content on exactly the same schedule may be unrealistic. The alternative is to shift toward a more flexible, student-centered model that is responsive to students' various differences and asks them to take a more hands-on role in shaping their own learning.

To further understand this, let's first focus on motivation. In Part 1 of this blog series, I described how some emotions can be powerful motivators. Research also reveals a number of other drivers of motivation. First, research suggests that individuals feel motivated to learn when they see value in what they are learning, how they are learning it, or with whom they are learning it. However,**what different individuals value is also highly dependent on their unique identities and individual variability.** So, when every young person is asked to learn through the same content and experiences, it is less likely that motivation will be optimized for all students. In addition, research suggests students are motivated when they feel a sense of self-efficacy, or believe in their ability to grow and achieve mastery. In order to honor this research, **it's important for the tasks students engage with to be aligned to their developmental level. If the tasks are not, a student's sense of self-efficacy may be at risk**. Students may work hard but still not experience any success because they lack the prerequisite knowledge and skills, or they may succeed at the task very easily, making hard work seem less necessary. Finally, research suggests **having a sense of control over learning ignites greater motivation.** This can be developed by ensuring students have some level of choice over what, how, where, and with whom they learn.

While the above touches on how flexible, student-centered learning can ignite motivation, research also provides evidence that it can support cognitive processing. Take, for example, what's known from cognitive load theory. This stream of research tells us that an individual's working memory—the part responsible for grappling with new information and applying prior knowledge to inform decisions—can only handle a small amount of information at a time. If we saddle students with tasks beyond their developmental level, don't provide sufficient time for them to grapple with concepts, or have insufficient scaffolds in place for their needs, we risk cognitive overload and may prevent learning. The tricky thing is, **what is manageable for one student may overwhelm another, even if they are similar ages and in the same**

learning environment. This is not typically because working memory itself is weaker or stronger across individuals—although neurodevelopmental differences like ADHD can diminish working memory—but because *the relevant knowledge and expertise each student holds and can use to support new learning differs*.

Ensuring students are active in the learning process can also support a specific cognitive process: encoding. Encoding occurs when an individual takes in new ideas or experiences and then relates them to prior knowledge. Encoding supports students in developing organizing schemas that can make learning deeper and more long lasting. As I mentioned in the first installment of this blog, encoding is supported by learning experiences being distinctive and emotionally compelling. However, research suggests *encoding is also more effective when students generate their own understanding of ideas and have opportunities to reflect on the relevance of what they are learning to their knowledge, interests, and goals*. Of course, there is still a need for teachers to offer explicit, direct explanations of concepts and engage in expert modeling. However, this should be coupled with firsthand exploration of ideas and students explaining their thinking, deliberately practicing, and taking in feedback.

How might a school work to honor the research?

Now comes the hard part—applying this research to our schools. In order to help you, the table below includes a set of six criteria that can be used when auditing the design and implementation of a school. It also lists some specific examples of design choices that would honor the criteria along with some common design pitfalls.

Auditing Criteria	Aligned Design Choices	Common Design Pitfalls
Students can make meaningful but appropriate choices related to their learning	- Assessment approach incorporates different options for how students can demonstrate mastery - Curriculum incorporates points where students can choose specific topics to focus on	- Not being aware enough of students' choices to make corrections when choices are not appropriate - Providing students with too many choices
Content and learning experiences are tailored to students' individual developmental levels	- Curriculum includes multiple pathways through content based on reading level - Additional work examples are available with explanations for students who need them - Students are grouped into mixed-age cohorts	- Teachers lacking the expertise needed to teach students at multiple developmental levels - Placing students at one developmental level across all content areas even when individuals' levels differ
Students have opportunities to explore and make their own meaning	- Pedagogical approach engages students in hands-on experimentation to discover key concepts - Students routinely have opportunities to make explicit connections between what they	- Including insufficient checks for understanding and, as a result, not knowing if students are developing accurate understanding *Telling* students how various content and experiences connect versus

	are learning and what they already know	helping students make these connections themselves
Students practice at frequent, focused internals cross diverse contexts	• Pedagogical approach routinely engages students in reciprocal teaching • Interdisciplinary projects ask students to apply concepts across content areas	• Engaging in practice sessions that are too long and cause students to lose focus • Practice asking for rote memorization and recall versus deeper thinking through application, analysis, and synthesis
Students receive timely and targeted feedback to guide their individual improvement	• Students engage in targeted practice of specific skills online and receive immediate feedback through assistive software • Students meet 1:1 with teachers for 10 minutes a week to reflect on their learning and plan for ways to improve	• Providing feedback only at the end of a task, when it's too late for a student to make improvements • Focusing feedback exclusively on whether students have mastered targeted knowledge and skills versus why and how they can improve
Students actively plan, observe, evaluate, and adjust their own processes for learning	• Students reflect on what they already know about a topic before jumping into something new • Students evaluate their own progress at the end of each day and commit to one way they'll improve	• Not providing scaffolds to help novice students—who often struggle to reflect on their own progress—engage in metacognitive thinking • Not explicitly building interdisciplinary thinking and learning skills

*Read more about the specific research underpinning this post, as well as how to complete an audit, in Transcend's Designing for Learning resources, accessible **here**.*