

Pedagogy, policies, and practices

What do the experts think?

London Woodard: Editor-in-Chief

With the amount of core courses offered at Blair High School, one would imagine that the curriculums have been perfected. School curriculums are required to have clear objectives, content that aligns with state and national standards, and most importantly, effective pedagogy.

However, these curriculums don't include how educators should teach. Teaching practices can make or break the entire course. There's a fine line between active and passive learning, and the right practices can guarantee that students really are learning and not temporarily taking in information.

Many experts study and teach which practices are the most beneficial to students. Dr. Kerry Williams, Professor of Education at Midland University, has taught as an elementary teacher and professor and has a Ph.D. in Administration, Curriculum, and Instruction. One of her main priorities is focusing on who is meant to be learning in the class.

"Anytime a teacher is standing up and telling the knowl-

edge that you're supposed to mimic or remember, that's not a very effective strategy most of the time. I think anytime you have to tell kids something, it's better to ask first. If the teacher is doing the thinking, then they're doing the learning," Williams said.

Stopping to think about if students are actually learning brings to light a question. Are students being taught correctly? There isn't truly a "right" way to teach, but there are strategies that have been proven to be more effective than others. Sitting still during a 90 minute lecture certainly isn't one of them.

"[Something] we know that influences learning and is infused in what I do with pedagogy is movement. It's really important for your brain and learning. If you're sitting for a long period of time in a classroom, you'll think that there's not much learning going on," Williams said.

Participation in class plays a vital role in the retention of materials for students. Classes with active lesson plans have an average of 72% of their students receiving

a B or higher in the course, which in most schools is a grade around 80-90%. According to the University of Houston, students only retain 20% of what they hear, but retain 70% of what they discuss with others and 80% of what they experience themselves.

"What I believe about learning is that it's experience plus reflection. Everything I try to do in the classroom has to do with giving kids experiences and then having them think about it. [...] Pedagogy is surrounded by an experience and then opportunities to think along with it. You can't learn rocks without rocks," Williams said.

Simply being lectured to, viewing a slideshow, and filling in a note packet isn't enough for students to truly gain anything from the classes they're taking. Practices like pretesting and interleaved studying are some of the most effective learning methods according to studies reported by the National Library of Medicine. Different methods work for different classes, but there are so many creative ways that teachers can add interest to their lessons.

"A couple years ago, I added white boards all around my room, so rarely do students in my class sit at their tables. They are up at the boards doing things, which incorporates standing and moving but also social interaction since we can see everyone's ideas," Williams said.

It doesn't take much to make students more focused during class, but it's necessary to give them something worth paying attention for and that will help them truly comprehend the materials. Retrieval practices, spaced repetition, and overlearning are other classroom practices shown to help with retention of materials.

"One strategy that I really like is called thinking routines. Those are things like think, pair, share, see, think, wonder, plan, do

review. They seem really simple, but they make sure that kids and young adults are thinking, and that's our goal. There's all kinds of strategies you can use, like cooperative learning stations and body models, where we get up and demonstrate simulations," Williams said.

Participation in class also helps students develop critical thinking skills that they wouldn't otherwise have. Students need the ability to put pieces together themselves and to think on their own. Being handed information prevents these thoughts from developing in a majority of students.

Students also need the ability to recall the information that they learn. If the information can't be retained, then there's no reason for anyone to take the course at

all. Educators should all find ways to push for this recollection of the materials they teach in all of their courses.

"The most obvious strategy for engaging retrieval is to self-test, and many studies have shown the powerful pedagogical benefits of no-stakes or low-stakes quizzing," Pooja K. Agarwal stated in a study published by the Educational Psychology Review.

Are students being taught correctly? There's no real way to know, but most classrooms certainly haven't reached the point that experts think they need to be at. Whether it's markerboards or thinking routines, it's imperative to every student's education that the correct classroom practices are being used. Students deserve the opportunity to learn, to truly learn.

Terms to know

Pedagogy: the study of education

Interleaved Studying: rotating between similar, related concepts to strengthen understanding

Retrieval Practices: actively pulling info out of your memory and recalling fact or concept

Pretesting: testing oneself before learning.

Spaced Repetition: Reviewing information at strategically increasing intervals, right before you about to forget it.

Overlearning: Continuing to study past the point of initial mastery to improve retention and automaticity



Teacher
Spotlight:
BHS Math
Teacher Kelli
Grote

Q: How do you promote your students thinking on their own in your classes?

A: There are many ways to solve some math problems so before I show students how I might solve something I try to give examples of the topic we are studying and ask how they would solve this or using prior knowledge, what do they already know about this problem. Even after working examples in class, if I ask if a student can see another way to work a problem, sometimes a student comes up with a way to do it that makes more sense to them. I also have students work together, as you hear students explain in their own words how to do problems that we did in class---this discussion is sometimes more helpful for students than how I explain a certain method.

Q: What do you do to make sure your students retain the information you teach them?

Math requires students to use what we have learned to progress to another problem or another topic or another chapter. What you learn in Geometry and Algebra is used as you get older and get in tougher classes. Putting review problems on the board before class has started and then kids can work the problems while I am checking their homework is a good check point for me. All quizzes and tests in higher math classes usually require students to use some of their knowledge of their past math classes to help them solve the problems we are currently working on.

Q: What advice would you give to other teachers on helping their students be successful?

A: I always tell my students if they have questions, come see me or reach out through email---I try to be here early before school starts to help those students who can't see me after school due to activities. I also try to get to know my students by finding out what are they doing extra at school or do they work an outside job---and then when I see them in the hallways or my classroom I can ask them about their extra activities or jobs and not only just talk to them about my class. I enjoy talking to my students about things they are interested. I try to make a connection with my students, which usually helps them feel more comfortable about coming in for extra help---which makes them more successful.