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## **SCHOOL OF LEARNING**

### **“Flipping Out”: Does Taking Lecture Out of the Classroom Really Work?**

As a way to maximize the opportunity to engage students and increase attention to learning, many educators are opting to use active learning techniques rather than simply relying on traditional lecture. These techniques have benefits such as greater interest in learning, greater assimilation of knowledge, increased critical thinking skills, and increased problem-solving skills (Billings & Halstead, 2012).

One method for reducing lecture and introducing active learning is the flipped classroom. This involves delivering the "taught" component of the course outside of the traditional classroom environment (Steed, 2012). Using the flipped classroom approach allows for the actual face-to-face class time to be used to advance the concepts presented online and to facilitate collaborative learning (Tucker, 2012). With the students watching lectures on their own time, faculty are able to focus more on active learning in the classroom. Students are to come to class prepared to apply the material they learned from the online lecture. Furthermore, taking lecture out of the classroom allows for use a variety of methods in the classroom. However, faculty needs to be comfortable with students being in control of their own learning.

Using the flipped classroom approach has had positive results in a pediatric course as part of the curriculum of the baccalaureate nursing program at NKU. Midway through the semester, students were asked to fill out an eight-question Likert scale survey regarding teaching methods used in the course. A total of 44 out of 49 students completed the survey. Of the 44 who completed the survey, 98 percent marked either agree or strongly agree for the statement, "I feel that I am learning in this class". Ninety-three percent marked either agree or strongly agree for the statement "I like the Tegrity lectures on Blackboard" and 97 percent marked either agree or strongly agree for the statement "I feel that the variety of ways the material is presented increases my ability to understand the material."

*For help and resources regarding the use of Tegrity, please visit the CITE website: <http://oit.nku.edu/cite.html>*

Billings, D.B., & Halstead, J.A. (2012). *Teaching in nursing: A guide for faculty* (4<sup>th</sup> ed). St. Louis, MO: Elsevier.

Steed, A. (2012). The flipped classroom, *Teaching Business and Economics*, 16(3), Retrieved from <http://search.proquest.com.proxy1.nku.edu/docview/1315741486>.

Tucker, B. (2012). The flipped classroom. *Education Next*, 12(1), 82-83.

# Faculty Speaks about Teaching

## PEOPLE: THE FORGOTTEN PART OF SCIENCE EDUCATION



Professor of Biology, Jim Luken was the 1995 recipient of NKU's Frank Sinton Milburn Outstanding Professor Award. Jim was also one of the three authors of the 1999 report on teaching effectiveness at NKU that recommended the creation of an online student evaluation system at NKU. In 2001, Jim accepted a position as chair of the Biology Department at Coastal Carolina University and is now the Associate Provost and Director of Graduate Studies at that institution. Jim has graciously agreed to share a few of his thoughts about teaching.

I've had a few epiphanies in my college teaching career. The most recent one occurred in a small class of graduate students where the subject was invasive species. Kudzu, Africanized bees, snakehead fish and other invaders of the world make for good press and are commonly the stuff of exaggerated treatments in the news. However, the science surrounding invasive species is not by any means conclusive and in some situations invasive species actually improve nature. After assigning, reading, and discussing some refereed papers describing various (bad-to-good) impacts of invasive species, I posed the following scenario:

*You are employed by a state agency as an environmental manager. Your boss calls a meeting and directs you to organize a team of people tasked with spraying herbicide on an invasive plant growing in a local lake. Your boss lets you know that the reason for this management action is a phone call from a well-connected person living in a house on the lake. This person just doesn't like the looks of the plant growing in the water near his boat dock and he is convinced the plant will destroy the lake if allowed to grow unchecked. What do you do?*

A quick consensus emerged among the students: do as the boss says. We all know that invasive species are bad and what might be the harm? I was disappointed that no one thought that a little science might be useful in this environmental management problem. But perhaps the issue needed a more explicit complication. So, I added the following caveat.

A recent study showed that the plant was actually providing habitat for fish and other desirable critters living in the lake.

When faced with the irony of being hired to protect the environment and then being told to do something that would harm the environment, the students shifted to unrealistic or defensive positions. Some claimed they would just refuse to do it while others questioned the fairness of the system. Still others stuck with the initial response: just do it. There were also some vague discussions about education and how the boss and the complainant could be "educated" about the issue. But no one had a good idea about how this education might occur. As I prodded the students to develop alternative strategies it became clear that they were lost with no paths through this difficult maze that mostly involved people: the boss, the complainant, themselves, the team. While the case study was fictional it was not by any means unrealistic and elements of the problem are common in any workplace. I took this story to a friend in the College of Business and he quickly suggested that my science students might benefit from the approach now used in the training of MBA students. In addition to business fundamentals, this approach stresses:

Social and environmental responsibility  
Teamwork and consensus building  
Communication

Leadership  
Problem-solving

The more I look at this list of skills, the more I like it. And now my next task is to convince my colleagues that this people-oriented content should be part of graduate science education. Guess which skill(s) I will need for this task.

## TECHNOLOGY TIPS

If you're tired of sitting in class using your wristwatch (or cellphone) to time group presentations...if the idea of having to cut students off in the middle of yet another PowerPoint makes you go "ugh"...then consider exploring the fine art of PechaKucha. Devised by architects Astrid Klein and Mark Dytham, PechaKucha is a "simple" presentation format in which presenters show 20 images, each for 20 seconds. With the images set to advance automatically, the PechaKucha format guarantees presentations will be *no longer than 6 minutes, 40 seconds*. For more information on this short-and-sweet approach to creative communication, visit [www.pechakucha.org](http://www.pechakucha.org).

## TEACHING TIPS

At this year's Meet, Greet, and Grab a Seat conference, attendees heard from keynote speaker Dr. Susan Ambrose. Our first teaching tip of the school year comes from her book, and focuses on the use of practice and feedback. Sometimes faculty are frustrated that students' work does not meet their expectations, despite ample instructions and guidance. The authors suggest that perhaps students aren't getting the right kind of practice needed to meet final goals. "Faculty can help by giving students goal-directed, incrementally developing practice assignments, making sure to provide clear feedback at each step in the process." Good practice assignments have concrete goals rather than generic ones and are appropriately challenging. Also, students need "enough" practice as performance builds over time. The feedback element of the equation is equally important. Students need formative rather than summative feedback along the way. We should tell students where they are in terms of meeting those goals and explain how they can improve to meet those goals. Interested in incorporating more practice and feedback into your courses? Check out Chapter 5 in:

<sup>1</sup>Ambrose, S.A., Bridges, M.W., Dipietro, M., Lovett, M.C., and Norman, M.K. (2010). *How learning works; 7 research-based principles for smart teaching*. San Francisco, CA; Jossey Bass.

## STUDENT SPOTLIGHT

### **Kyle Haverbusch, Senior from the College of Health Professions, Reflects on His NKU Experience**

My time at NKU has catalyzed the definition of who I have become. The young man who will walk across the graduation stage in December has been equipped with many principles that will help guide him through whatever lies ahead. Smooth seas never made for a skilled sailor, and much the same, my coursework at NKU taught me much about self-reliance and fortitude. Just as much as these past four years have been defined by dedication to my classes, there have been countless meaningful experiences and memories along the journey. My NKU story could not be told without mentioning my incredible experiences in Student Life. From serving in Student Government, leading student organizations like Student Nurses Association, or acting as a student advocate on the Student Advisory Committee, my student life at Northern has meant a great deal to my college experience.



It was through Student Life that I was introduced to Shane Talbot, an advisor in the Department of Nursing, who would help set me on a path that introduced me to one of the great passions of my life: Nursing. The experience I've had in the Nursing is unparalleled; I am confident that faculty like Caron Martin, Sandra Turkelson, and Lisa Knapp have prepared me to make a positive impact on whatever healthcare team I join following graduation. I am so grateful for the great relationships NKU has established with all the healthcare networks in the tri-state area; and the unforgettable clinical experiences they have facilitated for my peers and myself. From orientation to capstone, and the road to graduation, my NKU journey has meant the world to me; I'm so proud to be a Norse.

*Kyle Haverbusch will graduate this December with a Bachelor of Science in Nursing. He has been active in NKU Student Life as a member or leader of numerous organizations, such as the Student Nurses Association, Student Government Association, Tri-Beta Biological Science Club, and Health Professions Club.*