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School of Learning

WHAT DOES IT MEAN TO BE A GOOD TEACHER?

Have you ever thought that you do not have enough time to teach effectively and do research? Perhaps the solution is to connect the two and generate your research from teaching. Both teaching and research involve exploring a phenomenon, making meaning of it, and trying to get beyond it to form new knowledge (Brew, 2010). If one of our goals is more effective teaching then we can conduct systematic research on what is effective and what is not in our own classroom. In order to do this we need to reconceptualize the idea of teaching, learning and research as separate entities. We need to realize that teaching and research can form a symbiotic relationship in which they benefit each other.

In order to begin this new relationship we need to ask new questions. In addition to asking what do the students need to know, we should also ask what can I learn about teaching and what and how the students learn. The questions such as how can students most effectively learn, how can students engage with the material that they need to know, and how can students become involved in developing and communicating new knowledge (Schapper & Mayson, 2010) are now as important as what the students need to know. Exploring the student experience allows us to not only conduct research but become more student centered as well. This new understanding can allow us to more deeply understand the impact we have as teachers on the student learning experience (Akerlind, 2008). While Brew (2010) states there is little evidence that conducting research outside of the classroom improves teaching, we can make them synergistic, and the combination can be beneficial for both educators and students.

Akerlind, G. (2008). A phenomenographic approach to developing academics' understanding of the nature of teaching and learning. *Teaching in Higher Education*, 13(6), 633-644.

Brew, A. (2010). Teaching and Research: New relationships and their implications for inquiry-based teaching and learning in higher education. *Higher Education Research and Development*, 22(1), 3-18.

Schapper, J. & Mayson, S.E. (2010). Research-led teaching: moving from a fractured engagement to a marriage of convenience. *Higher Education Research and Development*, 29(6), 641-651.

Upcoming Events

TEEC Development Workshops – All sessions in BC 251 from 2pm – 4pm
more information can be found at http://facultysenate.nku.edu/committees/Teaching_Effectivene.php

Module 1: Providing Effective and Efficient Student Feedback	January 31 st and February 1 st
Module 2: Engaging Students through Course Design	March 21 st and March 22 nd
Module 3: Balance: Simple Idea, Difficult to Grasp	April 18 th and April 19 th

Faculty Speaks about Teaching Teaching Outside Your Comfort Zone



Dr. Diana McGill (Campbell County HS 1980) graduated from Northern Kentucky University in 1984 with a double major in biology and chemistry and received her Ph.D. from Harvard University in 1991, completing postdoctoral work at the University of Cincinnati College of Medicine. She returned to NKU in 1993 and joined her former professors as a colleague. She was department chair from 2003-2012 and is currently on a one-year sabbatical at the University of Cincinnati College of Medicine.

Many years ago in graduate school, I learned how to be a biochemist and believed I had learned, by osmosis I guess, how to teach biochemistry. I suspect I am like my colleagues from many disciplines – when I teach in my own field, I teach completely within my comfort zone. I did not question my pedagogy; I felt so comfortable in the content, I just taught from instinct. And probably, to a certain extent, I was subconsciously mimicking the biochemistry teaching techniques of professors I had really liked in the past. To be fair, each year I taught, I really did try to improve my courses, but the changes I made were made based on not much more than my gut feelings.

Now let's flash forward to just a few years ago when our department worked together to develop a chemistry writing course. We believed that we needed to help our students learn more about the specific nuances of chemistry writing. For a variety of reasons, it fell to me to teach this course the first several times it was offered; it is not an understatement to say that I was petrified at first to teach it. In this course, I was clearly going to be teaching miles outside of my personal comfort zone.

The list of questions I asked myself when developing the details of this course is almost endless and in fact, still grows each time I teach it. What specific kinds of writing should chemistry majors know when they graduate? How does someone teach a student to recognize and avoid plagiarism? Is it important to teach students about ideas such as audience and voice in chemistry writing? For every assignment I developed, I put hours of thought and research into the question: does this assignment teach the students what I am trying to teach them? I would analyze the outcomes each semester and ask, for every assignment, did it work and what can I do to make it work better? And so my teaching of this course evolved in a very directed fashion – I clearly could not teach it from the gut like I had taught in courses within my comfort zone.

The unexpected result of me teaching this writing course, this scary course outside of my area of expertise, was that I began to approach the teaching of all my other courses very differently. Even in my courses where I felt most confident and comfortable, I began questioning assignment outcomes... did it teach what I was trying to teach? And exactly what was I trying to teach with each assignment anyway? I began thinking more deeply not only about what content and skills I wanted the students to take from my courses, but also about what specific pedagogies would work best for each desired learning outcome.

So, have the changes in the way I approach teaching *inside* my comfort zone improved my teaching there? That question is difficult for me to answer definitively because the ability to quantitate absolute teaching effectiveness escapes me. But I can say that students have responded very favorably to the changes and I am energized with my new approach.

I believe when we are (too) comfortable in our teaching, it is possible, and perhaps even desirable, for us to grow professionally by pushing ourselves to teach *outside* our comfort zones. Though it may come with a bit of panic in the beginning, I highly recommend the experience.

TECHNOLOGY TIPS

Revitalize your old PowerPoint presentations with Prezi – an online presentation tool with great functionality to convey what matters with style and ease. You don't even have to start from scratch! You can import your PowerPoint presentation and work with each slide individually, add photos, documents, and videos. You can share the prezi with others for input or edits, download a portable prezi (works without internet access), and everything is housed online, a great way to relieve your hard drive and not rely on a flash drive. Learn more at: <http://prezi.com/learn/>

TEACHING TIPS

There is a lot of talk on our campus (and others) about how we can increase active learning in the classroom. One thing you might not have considered is how “reading” can actually be an active learning activity. But how do we get our students to do the reading? A classic method is having a quiz over the material before or at the beginning of class. If you want to move beyond testing basic factual knowledge though, try having your students write a “1-minute” paper on a broad question over the reading at the beginning of class or have students make notes on a certain question to bring into class the next day. You can use these short papers to start small group or class discussions. In addition, as teachers, we should talk about the texts we are using, why we chose them, how the students should read them, and why they are important resources. Teaching them how to read the material up front, can help them learn throughout the semester!

McKeachie, W.J., & Svinicki, M. (2006). *McKeachie's teaching tips: Strategies, research, and theory for college and university teachers*, 12th ed. Boston, MA:Houghton Mifflin.

STUDENT SPOTLIGHT

Tony Bankemper, Senior mathematics and chemistry student reflects on his NKU experience

“NKU has been an amazing experience and phenomenal education due to the dedicated, personable, and highly qualified faculty of both the Mathematics and Chemistry Departments. I have grown considerably from the student who entered NKU with little direction and ambition. I merely wanted to get through my classes and start working as soon as possible; college was simply a means to an end. As I entered upper level classes, however, I was able to develop a love of learning and a desire to think critically about any problem presented to me.

I look fondly on the times I spent researching with Dr. Stefan Paula and Dr. Lili Ma on breast cancer and also times spent researching with Dr. Lisa Holden on binary disruptions. I remember dearly the moments spent laughing with friends in the lab, enjoying games with friends in Math and Stats Club, and overall just being so deeply connected to the faculty in a variety of ways that even they became close friends. Thinking back now, it seems surreal to say I will be graduating this coming spring semester. I feel more than ready to graduate and start working in R&D at P&G, but I can say that NKU was no means to an end. The journey was worth just as much, if not more, than the destination.”



Tony is a senior earning dual degrees in mathematics and chemistry. He has served as a Calculus Lab Tutor, STEM Ambassador, and Teaching Assistant for chemistry and statistics labs. Tony has conducted research with several NKU faculty and is a member or officer of several student organizations and honor societies, such as Student Affiliates of the American Chemical Society, Pi Mu Epsilon, Golden Key International Honour Society, and Gamma Sigma Epsilon.