

TRANSFORMATIVE LEARNING

[NOTE: Below are descriptions from both faculty and student about an instructional strategy that an inventive teacher and an impressed learner have found to be helpful in creating Transformative Learning at UCO.]

Convincing Students That Old Dogs Can Learn New Tricks

by Dr. Brad Paynter, Mathematics & Statistics

This semester I was assigned to teach “Calculus and Statistics for Business,” a service course for Business majors. I have taught similar populations in the past, and one of the hardest things to do is convince students who have struggled with math throughout their academic careers that they can in fact learn calculus, understand the material, and get a good grade in the class. Furthermore, they might actually apply something they learn in this class to their lives.

During new faculty orientation I was introduced to the ideas of C. S. Dweck. In her book, *Mindset: The New Psychology of Success* (2008), she says that merely introducing the concept that the human brain physically grows during learning can change students' attitude towards their studies. I came up with an idea: I am really bad at basketball, worse than any of my students are at math. If I could identify with them on how hard work can help us learn things we feel we have no aptitude for, perhaps they would be willing to give my math class a try. [[Brad attempts basketball.](#)]

I put together a short video detailing my lack of basketball talent and showed the video to my class on the first day of the semester. Hilarity ensued. I initiated conversation by asking whether they thought I would be better at basketball if I practiced 6 hours a week for the next 16 weeks and they all agreed that I would. Then I sprung the trap: what would change about me over that 16 weeks? Basketball is not a sport of sheer strength, but one of finesse and skill. What would change about me is that my brain would physically grow new connections that would enable it to control my muscles better and get the basketball in the net more consistently. In the same way, 16 weeks of practicing calculus would cause their brains to grow new connections that would enable them to be better at math.

I feel that this technique was very successful as it really gave me a way to connect with my students. Several of them commented afterwards that it made the class learning environment less intimidating. They also said that it gave them hope that they could actually learn math, despite their past experiences.

Transformative Learning at UCO Is Not a gimmick; It Is Actually "For Real"!

by Alvin Teh, UCO Undergrad and President of the International Student Council

I am in a class called Introduction to Operations Research 1 taught by Dr. Bradley Paynter. It was only the second week when students started pestering Dr. Paynter, seeking for whenever he is in his office (including me). The Ph.D. holder doesn't seem

to mind at all when students crowd into his approximately 140sq-ft office!

One day, Dr. Paynter came to the class with a surprise presentation for the students. To encourage his troubled students, he made a short movie clip of him playing basketball and showed it to the students. It was obvious from the clip that he lacks talent in playing basketball. At the end of the clip, he turned around and told us that if he practices at least 3 hours a week, he can only get better than he is now at playing basketball.

It may be a tad embarrassing for him, but his video hit the nail right on the head. That was when I, as a student, realized that he cares for my learning progress more than being prompt at covering topics according to the course outline. That was when I realized that he is willing to help me learn the subject better, even if it is time-consuming. That was when I realized that Transformative Learning is not an indistinct clause that is incorporated in course syllabi, but a practical, operational concept that would refine everyone's outlook on learning. .

Dweck, C. S. (2007). *Mindset: The new psychology of Success*. New York: Ballantine.
(Note: This title is in the CETTL Library and available for check-out. Here's the [amazon info.](#))