

## “FlyerEd Episode 01: Enthusiasm as a Pedagogical Method with Dr. David Wright” Transcript

- From the Office of E-Learning, this is the Flyer Ed Podcast. ♪ Let's go and rise up, rise up ♪ ♪ Let's go and rise up ♪ ♪ Let's go ♪ Alright, so Kent Dart here for the Flyer Ed podcast, and I'm sitting down with David Wright today. David, thanks for taking some time to sit down with me.

- Kent, thank you so much, I really appreciate this.

- Absolutely, I appreciate you being here. So really quick, can you tell me what courses you teach here at UD?

- Well, currently, because I have an administrative role in UDIT and the Learning Teaching Center, I actually teach only the one class each year. It's an introductory biology class for majors, it's BIO151, which is the first half of a one year course for those majors, which is great, because they're first-year students. They're just coming into college, and in the past I've taught graduate classes, I've taught high level undergraduate classes, but right now I learn a lot from teaching this course, and I experiment a lot. And so far my students have survived, so I keep on trying new things, which is cool.

- Very cool. Well, what experiences did you have prior to coming to UD?

- So, in the world of science, folks often get started doing post-doctoral research, so that they'd come from a research background, which is kind of my history. So even though I don't do as much research today, I always come into the classroom with that energy and enthusiasm of saying, how does this work? What's happening to make this appear this way? If I wanna explain how a cell works, I often come at it from the perspective of, well, this is what I remembered seeing down the microscope, and I think it's so cool. I want them to imagine being there and doing those kinds of experiments that help you understand how the cell works. So I think tapping into your experience helps sort of ground you in a sort of philosophy, and for me it was one of curiosity, discovery, and sort of an enthusiasm for how life works.

- Very cool. Yeah, so tapping into the history of how things work really kind of drove you to enjoy the idea of teaching.

- Yeah, I think so. And it just, and not all of the students will go from these classes that I teach to do that sort of work themselves, but I think any teacher going into a room, if you can just share some aspect of

the enthusiasm for the discipline, it means that the students realize that you're really keyed up about this. So I wanna get excited about it, and it doesn't mean that they'll all go and follow our footsteps. You know, I think sometimes we think that if we're teaching students, we're trying to get them to be just like us, but that doesn't have to be the case at all. But to be enthusiastic means that they can at least realize that this subject is interesting enough that I wanna know about it, I want to find out about it.

- Right, so it sounds like one approach that you think is effective towards teaching is just to be enthusiastic about things.

- And actually sometimes, to get that message over, I just take props into the classroom.

- Okay, can you explain that then?

- Yeah, so, like, if I came from a research background, I would take in plastic culture dishes, little plastic trays in which cells would grow, and I mean, it's sort of tacky, it's just a plastic dish, but the fact is that I can let them toss it around the room, and they can have me explain, where did this come from, what was it for, how would I use it? And that sort of just gets people a little bit more animated, and in fact, in many ways, if I'm animated, it means they can be more animated. If it seems like we're just gonna go through notes, just to me, it seems like it's too preordained that that's what's gonna happen in the classroom, and then you kind of make a sterile environment, and to me, it's just like I wanted vibrant and exciting. So I'll even start class with music playing. I'll get anything happening so that it's going to be an interesting day in the classroom.

- Right, that's great, yeah, enthusiasm kind of hits that affective piece of learning that the content itself can't hit.

- You would like the content to do it, but sometimes you're kind of leading them to that point, so I think it's a matter of getting them immersed in that environment.

- So, we kind of covered some things that are effective in teaching, what are some hacks that you would recommend to your fellow teachers?

- Well that's a great word, hack. In the world of technology, which I represent, in my job in UDIT, hack means to often, y'know, break into a computer somewhere or hack into a computer somewhere. As a biologist, I like to think that I'm hacking into their brains. So I'm hacking into a student's brain. So one of

the things, and of course in a podcast, you can't see what props I've brought into this room, but I've actually brought my brain into this podcast. And I don't mean my living brain, I mean a plastic brain that I often bring into class, because I wanna come at learning and teaching from the perspective of, what is it I can do to make the learning deeper, more significant, and impactful for my students? And I always step back and realize that the students actually come with 100 billion neurons already wired up, so my job is actually to modify the network of those cells. I can never add neurons, I can never take away old neurons, unless I really teach a really bad class, but I'd hope that what I can do is effectively modify the ones that are there. And so what we know about learning and teaching and how the brain works makes me think that using exciting ways to engage people so that emotions are sort of like a tag that's added to every piece of content, so that the content has meaning to the student. That's one way to make sure that it sticks in the brain. So maybe sometimes I'm doing something that seems rather lighthearted, or like the music could be said to be very trivial, but in a way, that adds to the emotional tags that I'm trying to build up around the content, and it just makes it that much more sticky, and that information will stay in the brain. Better yet, if I have the students actually use the information, before they ever get out of the classroom. So whether it's with a quiz, or I ask students to write something on the whiteboards at the front of the room, it means that they're using the information, and that's another way of making sure that they're not gonna leave the room without really deepening their familiarity and understanding of the material, and it just makes for that much more of a more impactful learning experience.

- Right, so it sounds like what you're doing is you're making sure that the classroom that they go into is not a sterile environment, and then that way, it can help to build some of these emotional hooks to get them used to the idea that, hey, you know what, this subject can be fun. It can be fun to learn.

- And so here's the struggle that I have, though, is that sometimes people will say, for me to make that environment as engaging as they see in my room, they would say, well, that means you've taken content out of the room in order to make that happen. And I would say that that's my biggest challenge. I have to have ways for the students to keep up with the content even if I'm not delivering it. Faculty, most of us are said to be professors. So the word profess means that we are professing what we know, but if what we're now doing is creating an environment where it's all about engagement, and thinking about the content, and using the content, but not necessarily delivering the content, it means that the delivery happens through other mechanisms. And so I struggled with that. It used to be that I would hand out study guides that had everything that I need them to know. Now I have study guides, but the study guide literally is a guide to studying. They have to turn to the textbook. Guess what, you've got a textbook! Go to the textbook. It has all the information in it, but I'll help you figure out what the right questions are to ask of the textbook, and then the only way you can fill that answer is by going into the textbook, and sort of with that mindset of saying, okay, now what's the right response? And I think I'm going down that road correctly, but it's always still a challenge. Can I still get all of the students to engage in the reading before they come to the classroom? And mostly it seems to work, but I'm still gauging that that's the one piece that I have to work on the most, is making sure that, yeah, they still are reading, they're still catching up with the textbook and everything, and of course, that's a perennial problem.

- Right, well, in my opinion, I think you're right to remove the study guides that are just comprehensive, because you are not asking them to learn at that point, I think.

- And if anything, when I handed out, and this is going back a couple years, but if I handed out study guides that had my summary notes, it essentially meant, ignore the textbook, because this is actually what I think is important. So now, my guides are really important questions that you can only answer with the textbook. But I think that's made a difference, because, you know, for the last few years, the students have much more academic success, there are fewer students struggling, and what's nice is there are fewer and fewer students coming with the blank stare, like, I have no idea what that subject was about, now they have a really good understanding of what that subject is. They may just need to finesse some tiny little piece of it. But that's a whole lot better than coming in not knowing anything about a subject area. So I think active learning, which is really what I'm trying to do, is the way, at least in the sciences, to really engage students. And to be perfectly honest, this is actually what I'm loving myself. I get more out of it, because classes are just much more engaging.

- Yeah, and it sounds like, in this case, active learning doesn't just have to be music and tactile, it can also just be a study guide, as simple as that.

- And lots of quizzes, yeah. So making sure that the students come back into the room the next day. I think maybe they get like, God, another quiz? And they're shaking their heads, but at the end of the semester, I ask them, do you think it was worth it, having all these little quizzes? They're like, yeah, this makes sense, it has very big positive impact. So I keep doing that.

- Very cool, now when you use those quizzes, do you use them as formative only, or do you put them in, and what I mean by that is, formative as in no grade is given to them for that quiz? Or do you actually put that into the grade book, with a small, like?

- Yeah, so that's a great question, I think a teacher could easily use it either way. In my case, I wanted them to realize that I was serious about doing it, and if I was doing it as frequently as I was, I wanted them to make sure that they never lose sight of the fact that they have some weight to these things. So actually, I am giving it as both formative, and summative.

- Okay.

- About two-thirds of their final grade are associated with these little micro-quizzes, and these little assessments throughout the semester. Some of them is inside Isidore. In aggregate, you add all those things up, and they actually weigh more than typical exams. That way, I think it keeps students on task, gets them going to the end of the semester, and then when they actually take the exams, hopefully at that point it's more about how do I integrate across subject areas, how do I integrate across chapters in a textbook? So again, I'm still figuring out what the best recipe is in building this sort of mix, but at this point, I'm sort of excited that these more frequent quizzes, the more hands-on type of activities in the classroom, they've all combined to make sure that students can never escape the fact that I want them engaged in the subject, and I think they really appreciate it.

- Do you have any approaches that you're looking to adopt in the future at the moment?

- Yeah, so actually, the one thing I'm really curious about is that we've just transitioned to an electronic version of the textbook, and I believe that I see students using the textbook, actually, I see them perhaps more, using the textbook now than ever before, because since it's online, they can actually open it up in the classroom. And so they've often, I've noticed, that they have that textbook open while they're even listening to the lecture, a piece of the class. Or they could be looking at a picture when I say pull up an image, and they'll do that, perhaps. But I am curious, do students learn as much from an online version of the textbook, do students read as much from an online version, or are they simply Googling when they have a question? Do they just simply Google and they don't read the whole page? So I'm at that point where, now that we're changing how we deliver that content, I'm now curious about, well, going back to the brain model here, how is the brain receiving that information? How is it processing it? Is there a better way to do it that I haven't come across yet? It's just one new challenge for me as we go forth.

- Right, that's a good question, I think, and I've observed in myself over the last few years, going back to a normal book for me has almost helped me to learn more. But I've also used electronic textbooks, so it's a very confusing area that we're still getting the research on, so I totally understand where you're coming from, and that is the future, so it's something to be looking out for.

- And I'm looking forward to trying something new, as it was.

- Absolutely. David, thanks so much for appearing on the podcast, I really appreciate your time today, and it was lot of fun to learn about what you're doing to really get some hooks into the student's brains, and modify them, right?

- Sounds good. Thank you so much, Kent, really appreciate it.

- Thanks, David. ♪ Let's go and rise up, rise up ♪ ♪ Let's go and rise up ♪ ♪ Let's go ♪ This has been a production of the Office of E-Learning. If you'd like to learn more, or schedule an appointment, you can reach out by emailing us at [elearning@udayton.edu](mailto:elearning@udayton.edu). ♪ Let's go and rise up, rise up ♪ ♪ Let's go and rise up, let's go ♪