

UF Scaffolding Role-Play

Teaching Beyond the Podium Podcast

Alexandra

Hello. My name is Alexandra Bitton-Bailey, and welcome to the Teaching Beyond the Podium podcast series. This podcast is hosted by the Center for Teaching Excellence at the University of Florida. Our guests share their best tips, strategies, innovations, and stories about teaching.

Our guest today is Kevin MacPherson from the Department of Physical Therapy in the College of Public Health and Health Professions. Kevin had an interesting and slightly torturous road to becoming a great physical therapist, and now he dedicates his time to recreating those valuable experiences for his students in the classroom so that they can be better prepared practitioners on day one.

Kevin MacPherson

I am Kevin MacPherson. I'm a clinical lecturer within the Department of Physical Therapy. I've been here for almost six years now. I'm one of the faculty members that's also a graduate from the program, so it's kind of interesting being on the other side of the coin.

After graduation, I started to specialize. I went into orthopedics. And one of the things that I realized as I was coming out of school was that I had basically learned enough to not kill any of my patients, which is-- the state of physical therapy is to create a general practitioner. But nobody really practices as one of those in our profession, at least at this point in time.

So that led me on this long journey, which started off with a transitional doctorate in physical therapy because it was only a master's degree when I graduated. I finished that. I felt somewhat proficient. Started to kind of go through that droll time where I'm like, oh, you know, patients aren't really getting better the way I'd like. I don't really see anything changing. A lot of stagnation in practice. That led me to fellowship training.

Fellowship training was a chance for me to really see how rich my profession could be. So during fellowship for us, there is a component of teaching that's required. And as I was going through it, I was learning kind of basic-level teaching, that type of mentorship that has no guidance whatsoever. So I was definitely not even remotely close to an expert and still am not. But it was enough for me to say, I like sharing the knowledge I have with others.

So from there, after I graduated, the fellowship that I was part of, I ended up luckily being allowed to become faculty for that program. I had also had a chance to become a contributor with a fellowship at the place I was working at. So I was in two different fellowships-- one completely online, one completely in-house, and I got to see kind of the pluses and minuses of those two worlds, and it was kind of fascinating.

And at this point, I was kind of looking for a new challenge, and that was what brought me to UF in a way that I could start to teach, help out with clinical education, and the idea was that I could help out with students who are entering our profession and hopefully make them a little bit more than just somebody who's not going to kill somebody. I would hope to make them slightly better, which is what brings me to today.

Alexandra

Kevin's early experience as a practitioner did not start out very smoothly. In fact, at the beginning of his career as a physical therapist, he almost left. But a fellowship experience transformed both his practice and his thoughts on teaching.

Kevin MacPherson

We were as a profession going through our transition into evidence-based practice and a little bit of movement away from theoretical practice or theoretical construct-based practice. So a lot of my training prior to fellowship was very much, this is the way the joint moves. You've got to push the joint this direction in order to get it to move that way. And I really just didn't see the outcome to that. It was frustrating.

So what I ended up doing was really getting frustrated in general. I almost went to business school. Almost went to med school. Almost went to any other school, because I was like, this is just-- I'm putting a lot of cognitive effort into something that is not getting me anything. And I happened to run into a gentleman who was teaching for the fellowship. He basically started giving his background during this course that I was attending, and I'm like, I'm literally listening to myself talk to myself. It's the same background, same beliefs, and all that stuff.

So I touched base with him. I'm like, why are you still in physical therapy? And he said, fellowship changes everything. You just-- you get in there, and you constantly have somebody going to you, saying, why are you doing that? Why are you doing that? Which builds a lot of meta-cognition, which was not a pleasant experience whatsoever, because you start off thinking that, I know everything. You get halfway through the program and you're like, I know nothing, Jon Snow.

And then from there, towards the end, you start to beat your mentors with, why am I doing that? The fellowship I went into was evidence-based, so we learned how to break down articles or

research. We had learned how to apply that research to watch our outcomes to see if there's a change in those outcomes. And as I went through that process, I did start to see an improvement.

I started to see patients who were getting better in substantially less time through a collaborative process, versus me going like, your joint needs to move this way, because I've been told it needs to move that way. And I don't know why it's not getting better just moving it that way. So that's what fellowship provided me.

Alexandra

Kevin keeps teaching and practicing his craft so he can contribute to the hands-on knowledge in his classroom.

Kevin MacPherson

I do have a very small practice inside one of the gyms in the Gainesville area, that I see patients, which stemmed from our pro bono clinic that our program has-- the Physical Therapy Equal Access Clinic. I had just had a student come up to me and they're like, I've got this patient. How should I address this issue? And I was like, do this. And I don't even remember the patient. I don't remember what the "this" was.

But I remember going like, that's just an answer for the national exam, and something I probably would have never done in clinical practice. And that's when I said to myself, hey, Kev, you remember at the beginning of going into teaching you said you'd never be the teacher who never sees a patient because you'll start to lose touch with what that's like? So that's when I kind of started talking with my wife, got her to agree to let me move to part-time. And from a part-time standpoint, I started picking up hours at my small private practice clinic.

Alexandra

Kevin's dedication to teaching comes from a desire to pay it back or pay it forward, to make a new generation of physical therapists into great practitioners.

Kevin MacPherson

What draws me into teaching is that "pay it forward." Also paying it back, but pay it forward. So a lot of my mentors were top of the line. Like, they were the names in our profession that you're like, whoa, you talked to that person? It's like, yes, and they're human. They are normal people. And one of the things that I've consistently picked up from them was this just desire to help our profession.

And one of the key ways to do that is through mentorship. And now that I'm broadening my horizons, reading all types of leadership books and all that stuff, it is more of a, you know, teaching the next line. Not that I'll ever be those giant shoulders, but if I can at least be somewhere down there pushing somebody up on top of those giant shoulders for that next generation to now see the field going forward and be the next set of giant shoulders, that's what draws me to teaching.

Alexandra

So how does Kevin help students prepare for their future work? Well, it begins with a foundation built on evidence-based practices. The first step is to help students understand the current research.

Kevin MacPherson

Evidence-based practice is tied into really the three-legged stool. How much is weighted -- we don't know, but it's, what does the best available evidence say? What does your clinical judgment say, your experience, what you bring to the table as a practitioner? And then the final part is that patient. What do they desire? What is very key for them to get better? So all of those very specific variables.

And a lot of what we would teach online was the students first, their ability to just read a research article. Be able to tell, this is a decent article, this is not a decent article. Try to look for bias. Then from there, we have virtual rounds. Which is where a student would provide a case that they worked on. Oftentimes it was videotaped. We got HIPAA releases and all that stuff, but it was videotaped. And then the group would look at that patient and that interaction with a therapist, and they would all identify ways to do it better, bring research into it, do it differently.

So that's kind of where you had a chance to give them a little bit of scaffolding with teaching them how to read the research. Give them a little bit of attempts to incorporate that into a treatment session that was videotaped, and then give them, right or wrong, more that summative feedback on what they did. But then you would kind of do the process again. Like, you'd like, now go record another one. And you did it through that blended mechanism.

Alexandra

Kevin's first year of teaching did not go so well. In fact, it was a little frustrating for both him and the students. He was not getting the engagement he'd hoped for, and the students were less than excited.

Kevin MacPherson

The course is Differential Diagnosis in Physical Therapy. It's basically really should be titled Screening for Medical Referral. So when the students come in, they have been given previous coursework that looks at making diagnoses within our field. Like this is PT-specific. This is something we do. They don't get as much of that ability to differentiate PT diagnoses from the zebras, from the "this is cancer," which a running joke for the course is always like, this is cancer. If it's not PT, it's cancer. Which is not-- like, I think one out of 20 different diagnoses ends up being that, but that's what the students take home oftentimes.

But so where it came from was, honestly, frustration from my first year. The first year I came in, the students and I, we did not jive well. We had a lot of problems. And halfway through, I used what I had in fellowship to say, OK, let's analyze. I've been doing a lot of independent analysis, let's do a poll. So I literally just stopped class one day and said, something's not working. I feel it. I know you guys feel it. How can we get back on the same page?

So we had a good discussion. And from there, I ended up kind of going back to what physical therapists often do to teach students biomechanics of gait, which is, get up and move as if you have that problem. So I said, well, let's now do a little bit of reenactment. The first year it was me pretending to have a disease process. And then I'll do one or two students. So that was kind of how the initial bud of this experience kind of started to come out.

Alexandra

So how could Kevin create a great classroom experience that would get the students excited and ready to solve problems?

Kevin MacPherson

From there, I started to branch out and say, what else is out there? What are other people doing? And there was an online course. It was all premised on differential diagnosis for the medicine practitioner. And she broke it up beautifully into to disease illness scripts, and patient illness scripts, in which the disease are these key factors that a patient presenting with that diagnosis will come in with.

And then what the student is required to do is, as they meet a patient, they're supposed to, in a very organized way, get this information from the patient and then compare and contrast all of the different diagnoses that are similar to what this person is. So it was a way of like, let's try to organize what information you're pulling, and then compare it to what you know about the different diseases. And that was really where we started with that process.

From there, I started using scripts in the classes-- illness scripts-- patient illness scripts and disease illness scripts. I got confused saying those words, so we ended up just changing it around

a little bit to the disease illness script and then the patient presentation statement. Which is where they basically verbalize all of the key findings for that patient that they can then compare to their charts that they've created.

Alexandra

The way this problem-based learning technique works is that it requires students to really understand the ailment-- the symptoms, the manifestations-- of a health issue well enough to reenact it.

Kevin MacPherson

What I have now is I've got initial understanding of the PT diagnoses. I now introduce them to different diagnoses with a chart that, right or wrong, we help them create. And then from there, they moved into role play. Now you have to act out what that disease is as a student, and then another student is responsible for trying to figure out what you have. And then through the way that the class shakes out, we would have additional students on the side kind of grading that out.

So the students are provided information on basic systems and commonalities in those systems in a more of a didactic manner. They're given some information on health care literacy. They're given information on some of our issues with differences in patient background, be it an ethnic difference, be it a racial difference.

Whatever it is, they're really given enough information to say, hey, there are differences. You need to be aware of that. And ideally, when you get out to your practice, recognize what those bigger populations are that you'll be working with to learn more about them, just because there's so many differences. So a lot of it is more of that complex system, exposing them to the complex system.

Alexandra

The first four weeks of the course are foundational and tend to be a little bit more traditional lecture style. The students grasp the important concepts, and once they do, they're able to use that information to solve problems. The second four weeks are where they are challenged to collaboratively solve problems. Students' teams gather evidence from patients that are actually other students playing the role of an illness sufferer.

Kevin MacPherson

The second bout of this course is upper body problems, of which we now start the student-heavy portion. So all didactics done, now it's like, all right, you guys are responsible. The students are broken down into small groups. Each small group is responsible for turning in a chart that has these different illness scripts of the disease illness scripts.

And the makeup of that is your common problem, whatever the presenting complaint is. The next thing is going to be common demographic information. Then you have common subjective statements, common objective or visible signs for that disease process. We have a body chart that is common ways to see what shows up. Then they move into key diagnostic features, which doesn't work quite so well for outpatient physical therapy, because a lot of times they're presenting with pain, and pain is not-- there is not a key feature for that. But the analogy for medicine would be your diagnostic imaging for a disease process.

And then we teach them mechanisms. This goes back to the systems, like, how is this nervous system issue very similar to another one that we saw at a different time period in the course? So they are responsible for turning in that chart that is an agreed upon, like, we are submitting this as a group. You are all getting graded for this. But the interesting part is, now I start to teach them that collaborative grading. So this is where they get their first rubric.

Alexandra

The collaborative grading rubric in this technique allows all student members of a team to give each other feedback.

Kevin MacPherson

And the rubric goes over more of your professional component. So, was this person on time with what they said they would deliver for the group submission? Was a person professional with that submission? Were they thorough with their submission? So they get a chance to start to look at each other as a physical therapy professional.

Alexandra

Kevin has managed to create a fun and engaging way for students to not only learn, but to actually remember the shared knowledge they create.

Kevin MacPherson

Once all those charts are in, they're all given a week that each group will get a chance to present their material. So they're basically giving the students, the other students, a chance to see what this case would look like. And I say, I need you to make this as funny and as interesting as possible, because I don't want your peers falling asleep while you're presenting. So don't do what I do during didactic lectures. Like, do something else.

So the students will come in dressed up, they'll come in with walkers, they'll come in with whatever it is. And the hope is that I'm creating that emotional experience to really drill down and help out that student to recall this. Like, oh, I remember when Sally in the class acted that out. This looks just like what she did, and she was so funny there. I don't care that it's funny, I just care that they remember it.

So that's on a Monday that the groups will present. And then Friday, those students that functioned as the presenter now have to function as the patient, and I get to choose what diagnosis they have to act out. Now, during this process, we add a few curveballs to those students who are going as the therapist. Not part of the presenting group-- they were the ones who were supposed to be listening and paying attention.

So the group that presented, I pull them out of classroom, say, this is the diagnosis. You need to come up with one or two off of that chart that you created and pull some little curveballs off of it. It needs to overall look like this diagnosis, but make it challenging.

Alexandra

Now that students have had a chance to act out and diagnose each illness, all students are given an opportunity to give their fellow classmates rubric-based feedback.

Kevin MacPherson

This is where they get their second set of rubrics. And in this one, the rubrics are based off of that clinical interaction. So was the PT professional? Did they use the right terminology when talking to the patient, or did they use jargon? Then it moves on to, did they ask consistent questions that sounded as if they were scanning for information across diagnoses, not going straight for the kill for the one diagnosis? Did they leave something off the table?

Same thing is repeated for objective. After the subjective to come back, they are required to give their peers that were not therapist and not patient. These are the sideline guys. They are required to give them that patient problem statement. This patient is presenting with X, Y, and Z most consistent with this diagnosis. However, they could also have this and this, which shows the group, hey, I'm differentially diagnosing this presentation.

Then they come back and do the objective, which is more the hands-on assessment looking for signs, at which point they finish that, and now they have their chance for the final part of the rubric, which is to make their definitive "this is what I believe is going on, and this is where this patient's going," of which they lock in. As soon as I say that statement, it's like, it's done you can't come back and talk.

But during that, they will have to choose refer-- we don't see them; refer emergency-- you need to get out of my clinic; treat and refer, which an example would be somebody with hip pain that also has this presentation consistent with maybe a GI problem, so indigestion, something that just pops up on the radar; or just treat-- this is PT appropriate. I don't need to send you anywhere.

Alexandra

In fact, this is a really great way to help students learn how to give good feedback and grade all the participants in their class.

Kevin MacPherson

Students are told, no talking, split in different directions. I'll send the PTs to this side of the room, I'll send the patients to this side of the room. I send what I call the silent CIs, or clinical instructors, which are the peers that were not involved into another one. And they grade off the rubrics. They grade the patient-- the CIs grade the patient, and they grade the physical therapist.

The patient grades the physical therapist, and then the physical therapist grades the patient. So there's a three-way grading going on for several reasons. The main one is, the peers get a chance to see that interaction between both. The patient-- I need to make sure that they knew their chart. So if they did a poor job in knowing their chart and acting out that diagnosis, then the PT is at a disadvantage because you have somebody didn't do their job, right?

And then the other direction, the patient, they knew what was going on, so they get to have that insight. These guys on the sideline didn't know. They don't find out until the very end.

Alexandra

So why is this so valuable? Well, because it really reflects what the students will encounter in the workplace. And it also gives students a chance to understand and correct their own mistakes.

Kevin MacPherson

So I'm open and honest with them. So with the rubrics, I tell them right up front, you're going to graduate, and when you get out of school, you're not going to be graded on your ability to do a stretch. You're not going to be graded on your ability to prescribe exercise, per se. You're going to be graded on your ability to interact within that team and to interact with your patient. And that's all peer assessment for the most part. It's somebody else grading you on all of the things we're looking at here. So while it is not considered fun to put so much power in the hands of your peers, that's where you're headed for.

And then the second part is I really try to be clear within that it's not punitive. If something is found, you didn't do something right, what it does is it signals to me-- who I'm also an assistant director for clinical education-- it signals to me that we need to work on something for you before you go out on your clinical experiences. So it's just being very transparent with, like, you don't do well on this, it doesn't mean you fail my class, it means we have to have a talk and see where you're at. Which works out very well in a class of two instructors and 70 students.

Alexandra

This problem-based scaffolded learning experience builds carefully towards a culminating assessment.

Kevin MacPherson

They are required to go as the PT through regular presentation. End of the week, all the diagnoses that are available are just from that presentation. They do that once, officially graded. And of course, if you were the presenter, you have to go once as the patient. Everybody else who was not involved with that, they don't have-- they go as the clinical instructor, so they are more responsible for creating. So that is your first time as a student that you get graded for being a PT, first time as a student being graded as the patient.

Then we have what we call the role-play roulettes at the end. It's kind of like a final. I can take from any one of those charts, and I can give you any mix or match of those. So the last two sessions before finals week, here's a chance to see what this is like. So I give them just a nice, this is a freebie. You're going to see what it's like when I give you these curveball ones that you've got to know everything for-- don't get graded.

And then they come in for the final one, of which, the way we break out the classes, it's now groups of three. One PT, one patient, one CI. And then they just rotate that position.

Alexandra

The role-playing activities make this learning experience particularly energizing for the students, and can help generate a lot of excitement.

Kevin MacPherson

So I would say that from a role-play aspect, the fields that I would see it most beneficial for are those ones where you're working with an unknown factor, and that unknown factor is another person. So I do think that that's a part of it. So I don't know how well role play would work for somebody who's a data analysis, but if you are in a field that requires you to have this give-and-take and figure out, or at least help that person figure out a problem, it'll work.

Alexandra

Kevin has a few bits of advice to give other faculty who would like to try this out in their class.

Kevin MacPherson

Be comfortable with the chaos. And I say that because it's just like the first time you do team-based learning and you're sitting there on the sidelines going like, oh my god, they're probably talking about Facebook or whatever it is at this point. Let that very quickly go into your mind, because it's going to happen, and go out of your mind. Because as you start to walk around this organized chaos, you'll listen to those conversations. And the conversations are like, man, they are diving at a depth that I would have never expected, and I definitely would not have gotten, in my mind, with didactic.

Know that there's going to be things that you're going to have to change, just based off the requirements. This next year, we're going to get a little bit more specific with some of the systems and how those systems relate, so we're going to make some changes. But ideally, that's what you're doing as a teacher. It's just like as a clinician. I need to evolve as the state of knowledge evolves, so as a teacher, I need to evolve as the state of both knowledge and practice, but also in teaching evolves.

Alexandra

Kevin's love of teaching is palpable. In fact, it brings him great joy in the class and long after the students have graduated.

Kevin MacPherson

The part that I love, and it happens pretty frequently, is that I'll get a student who's on their clinical, or I'll get a student who's been practicing one, two years out that shoots me an email that says, hey, I found this, and I referred it out because of your class. When I think about it, my ultimate goal was, can I make this person better at graduation? So when I get those catches during the time they're on their clinical experiences, so i.e., not graduated yet, or within that first couple of years, that's the success. That's what drives me.

And I actually, last year, had one of my students diagnose herself. So she's kind of like, I've got this pain. It's in this area. And as she was going through it, she goes, this sounds like-- it sounds like I have a kidney problem right now. So she ended up going in and getting it checked out, and sure enough, she had a kidney problem. Was treated. Everything's fine. But it was just kind of like, those are the ones that I love.

Alexandra

What is it that Kevin loves so much about teaching in the classroom? Well, listen to what he has to say.

Kevin MacPherson

Seeing that facial expression that the students have when they're able to just get it. Like-- and this happens oftentimes during our free pro bono clinic when they're looking at me and I'll have said just something in a slightly different way, and then I-- like, they make that facial expression. They get a little taller, like, oh crap. They don't say that, but they say, oh crap, I get it. I now understand. Like, doctor-- there is hands-down nothing better about teaching than getting that. And my hope is, as I continue to teach, I see it more often.

Alexandra

Thank you for listening to this episode of the Teaching Beyond the Podium podcast series. For more helpful resources developed by the Center for Teaching Excellence at UF, visit our website, teach.ufl.edu. We're happy you joined us, and we hope to see you next time for more tips, strategies, and ideas on teaching and learning at the University of Florida.