



Excuse Me, Will This Be on the Exam? How to Get Students to Learn the Content, Not Just Memorize

SPEAKERS

Tierney King, Maryellen Weimer

Tierney King 00:01

This is the Faculty Focus Live podcast sponsored by The Teaching Professor. I'm your host, Tierney King, and I'm here to bring you inspiration, energy and creative strategies that you can utilize in your everyday teaching. Have you ever been asked this question by student: Will this be on the exam? Do I need to know this? In today's episode, Maryellen Weimer will offer evidence-based study strategies that you can implement into your course to help prepare students for exams. Rather than cramming the night before, you can encourage students to take more responsibility for their review techniques and redesign exams to promote learning. From practice testing to distributed practice, Maryellen will help you see exams from a new perspective, in this program, An Integrated Approach to Student Exams.

Maryellen Weimer 00:54

We give exams first because we have a professional responsibility to certify how well the students have mastered the material, the extent to which they have learned the content in our courses. And the second reason that we give exams is to promote learning. And I think we know both of those reasons, but I think that students are so very grade-oriented and concerned about their grades in the course, and concerned about their grades in exams that sometimes their orientation rubs off on us. And so what we're primarily focused on in our exams is grade generators, and we forget their power to promote learning. I mean, that really is probably the most important reason why we give them. They encourage students to have an encounter with the content. I remember when I was teaching, I always used to sort of enjoy the night before exams. I'd wander around the house with a bit of a smile on my face, imagining all the students in my class finally getting engaged with the content. For some of them, it was a first-time engagement, but for many of them, it was really a time to get serious about the content in the course. So I have become interested in how we focus on that second reason for giving exams, and what sort of things we might be able to do to sort of promote exams of learning experiences in the course. So I have become interested in how we focus on that second reason for giving exams and what sort of things we might be able to do to sort of promote exams as learning experiences in the course. So one of the solutions, I think, is that we integrate some evidence-based study strategies in our teaching. And let me talk about three evidence-based study strategies. These are part of a group of study strategies. The first one is practice testing, it's sometimes called test-enhanced learning or in cognitive psychology where it's been studied, it's the testing effect. And it's a documented fact that when students have to take a test, they learn the content better than when they just review that. I'm sure that is not an Earth-shaking, finding for anyone who's taught in the classroom, but it is important.

And one of the things that is sort of important about it is that the name like a practice test makes it sound like the students actually have to take a sort of test, and that's not really true. The testing effect really also just describes any use of questions in testing. And I think this is important, because I don't know about your students, but mine tended to be very answer-oriented. A lot of my students are sort of memorizing answers, and sometimes they'd have a list, but they wouldn't really know what the list answer—they weren't able to apply the knowledge on the test. So the idea of getting students to start thinking about questions I think is really important. The second one is distributed practice, and that just simply refers to regular, short—they don't have to be very long—periods of study. It's the opposite of cramming, waiting until the very end and then spending a long time studying. Especially, I think, kind of for the 18 to 23-year cohorts, one of the rights of passage to college is pulling an all-nighter, which it really makes you a college student, but that is a pretty ineffective way to study. So students need to be studying on an ongoing—on a regular basis. So the idea here is to be able to model some of these study strategies in the way that we teach so that we're kind of integrating them within the course. That's my whole song and dance here. So the first one, you know, is really very simple. Use test questions, you know, they get students attention. So if you're just simply saying something in class, like, "Here's a question I have used on exams previously," and then it flashes up in a PowerPoint, I think you're gonna get a lot of students paying attention to that. Even if you do something like end of the period, when it's the time for summary, if you were to say something to students like, all right. Take a look at the notes that you've taken today. You know this material is going to come back to you on the exam. Now what would this material look like as it came back on a possible test question? I don't think you should do that expecting to get you know, perfectly formed multiple-choice questions that you can use, but I think you might get something that with a bit of editorial massage you can incorporate on a test, and then you've got students asking if they can suggest questions during the last five minutes.

Tierney King 05:28

While focusing on these evidence-based strategies, it's important you don't forget to shed light on your passion for the content. In this program, *What are Five Methods that Help Students Become More Effective Learners?* Maryellen reminds you to wear your love of your content on your sleeve, while also encouraging students to ask each other questions during group review sessions.

Maryellen Weimer 05:51

I also think we help students become better learners by cultivating a love of learning. Most of my students were not in love with learning. And yet, I think most of us also know that students can really be captivated by our sense of commitment, the kind of affinity that we feel towards the content that we teach or even towards the whole teaching, learning enterprise. And so I just got a little simple bit of advice here—don't be afraid to wear your love of your content prominently on your sleeve. Let students know it's the greatest thing in the whole world to study and that you can't possibly imagine how they could not find it as fascinating as you do. I also think another way to move students more in the direction of becoming those good learners is direct, explicit instruction on some of the evidence-based study strategies that we know really do promote learning. One of the favorite strategies that students use when they study, which is not very effective, is that they go over things, okay. If you ask a student how you're going to study, "Well, I'm going to go over my notes. I'm going to go over the reading." I used to sort of respond in horror. "No, no, you got to get into not go over." But what the research says is really useful is self-testing. In other words, students are asking themselves questions or using

the questions at the end of the chapter to review what they're doing and to frame answers, which goes to the issue of explanation. They're actually speaking out what the answer is, which means they're practicing retrieval practice, they're finding the information, they're articulating it. Interleaving is a fairly interesting study strategy, and not one that is well known by faculty or students. Typically, when we present material to students, we present it in sort of categories. All of the problems that can be solved with a particular equation, all of the poems by a particular author, all of the paintings by a particular artist, but what often happens on exams is that we mix all that material up. And so the first time that students see the material out of order is on the exam, which is particularly stressful and oftentimes contributes to not being able to answer questions that they really know the answer to. What the research has documented, though, is that if students study by mixing things up, as well, that that does enhance retention, as well as the ability to apply material. So I think that's an interesting study strategy, as well. I have included in the resources a recent study on student assembled study groups—in other words, teachers not being involved in organizing students and getting them together, but students making up study groups themselves. And this particular study's descriptive research—that is, describing how often students do that and what students are doing when they do get together— and it's actually a fairly encouraging piece of research because it does underscore what we know very well about students working in groups. They can and do learn from each other. And part of it is just that they are applying some of these study strategies. So if they're asking each other questions, they're explaining things to each other. They go back and forth. Now this does not rule out the possibility of individual study or the preference that some students may have to study by themselves. But I think that it's a good idea to suggest to students that they try both and that probably the best approaches to studying are those that combine individual studying along with studying with others in groups. And there again, it's important that the group meets not just once the night before the exam, but meets at regular intervals to go through the material.

Tierney King 09:59

We've discussed studying strategies and ways to make your exams or richer learning experience, but let's not forget about the exam review session. These review sessions can be an integral part of how students study for your exams. In this program, *How Can I Make My Exams More About Learning and Less About Grades?* Maryellen offers three ideas to improve the quality of your review sessions.

Maryellen Weimer 10:22

So let's consider three things that we might do to improve the quality of the exam review session. The first one, of course, is to actually have a review session. The second one is to help students answer the question of what's going to be on the exam, and the third one is to make sure that the students are doing more than reviewing of the, than the teachers are. So let me propose, first of all, that we try to get students to answer the question of what's going to be on the exam. All right? What I often say to my students is that the chances are pretty slim that they're going to have a teacher who tells them exactly what it is they need to know for the exam, but that's a question they need to be able to answer for themselves. One possible way of helping them answer that question is an idea proposed by Favero in his article. What he does at the very beginning of his review period, is that he has students identify five things that they are pretty darn sure are going to be on that exam. Then he has them get together with a group of other students, a small group of students, and the group comes up with a group list. And then Favereau takes those group lists and makes a class list, so that by the end of that review session,

students actually have a collaboratively constructed list of items that are going to be on the exam. What I would propose is that you actually keep that list and use it during the exam debrief. What you could do at that point is simply put it up on a PowerPoint and check off everything that students had on that list that ended up being on the exam. It's a way of demonstrating to them that if they carefully consider, if they talk to each other, that they can come up with a pretty accurate, a pretty reasonable list of items that they need to be prepared to respond to on the exam. So they don't have to ask the teacher what's going to be on the exam, they can begin to start answering that question for themselves. The second idea that I think improves review sessions is by having students involved in preparing the review materials themselves. It's another issue here. Teachers can prepare beautiful review materials for students. I've seen wonderful examples of detailed study guides that teachers have put together for students. We don't need to know how to do that. We can always do that, already do that very successfully. But that's a very important skill for students have, and students learn how to prepare review materials by preparing review materials. Third idea that I think enhances the learning potential of exam review sessions is getting students involved in writing the questions. Now I don't harbor any illusions about how doing this is going to enable you not to have to write so many test questions. You know very well that writing a good, multiple choice test question, really, writing a good any sort of test question is a very challenging, timeconsuming, and difficult sort of task. So students are not going to be writing questions that you can just drop into the multiple choice, into the exam. I would also suggest that if you're going to have students involved in writing exams that you probably want to give them some guidelines identifying how to do that. What happens in my class is that students write two or three multiple choice questions about that chunk of content they prepared review materials for. They submit to me, those to me electronically. I go ahead, assemble them on a kind of a sample exam. I intersperse with a few of my own questions. And then when students come to the review session, they actually have an exam that they take, first individually and then in groups. I let them look up the answers to the questions. They discuss the questions. It's a great opportunity to also get students considering what kinds of questions are going to be on the exam, because, oftentimes, they consider questions that are simple tests of recall as the basic, as the kind of multiple choice questions that they would most like to have. So getting students focused on questions is really an important learning skill, as opposed to just memorizing the answers. There is a lot of learning potential that is inherently a part of every exam experience, and hope that what we've done in this program is to encourage you to revisit exams and to think about them as learning experiences.

Tierney King 14:59

Whether you're driving work or you just need a 15-minute think session, we hope the Faculty Focus Live podcast will inspire your teaching and offer ideas that you can integrate into your own course. For more information on the resources included in this episode, please check out the links provided in the episode description.