

What if a Student Asks a Question I Can't Answer?

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Dr. Therese Huston: Hello, my name is Therese Huston. I direct the Center for Excellence in Teaching and Learning at Seattle University. It's a pleasure to be working with you today. We're going to be talking about an issue that a lot of faculty encounter, but most of us don't discuss very openly. And that's the question of, What If a Student Asks a Question that I Can't Answer.

Now I've written about this in a recent book called *Teaching What You Don't Know*, published by Harvard University Press. And as part of my research for that book, I interviewed 28 faculty from across the country, and I learned that many of us encounter this problem in classes where we know what we're doing and in classes that are outside of our expertise.

Let's get right to the heart of the matter. There are a number of things we're going to accomplish by the end of our time today. First of all, we're going to briefly review research that shows why it's so important to encourage students to ask questions. Secondly, we're going to offer some concrete language so that you have a variety of different ways to respond when the students ask those impossible questions.

Third, we're going to look at some very common strategies of how faculty respond to difficult questions and look at some of the hidden problems that you might not at first realize you might encounter when you try those strategies, and we'll offer some better alternatives. Sound good? Let's go.

We're going to do a number of activities where I'd like you to write things down. So if you don't have a pen and paper handy, please grab one. Now let's start with context. When might a student ask a question that you can't answer? The obvious answer is it could happen anytime.

It can certainly happen in a topic that you know well, a course that might be something that you study as part of your PhD, or a topic that you love, but it also happens in courses that are outside of your expertise, freshman seminar, perhaps a course in your discipline that you have to teach to fulfill something in the curriculum. It can happen basically any place.

Now I want you to take a moment and write this down. When a student asks a question that's outside of your expertise, how do you typically respond? We'll come back to that answer in just a moment, but if you want to pause the DVD, go right ahead and write down how you typically respond to a question.

Now let's think about why this is stressful. As I've already said, it can happen in so many different situations. So if it's common, and if most of us have experienced it, why is it so stressful? What you can see on your

screen are a number of reasons why we experience these impossible questions as stressful, but I want to draw your attention to two of them.

If you look at the second, it says vulnerable or under prepared. What happens, when particularly if you're teaching outside of your expertise, or if you're teaching a new course, one even if it's in your expertise, but you're teaching it for the first time, when you get a question that you can't answer, it can make you feel very vulnerable and as though I know what I'm doing, why can't I answer this question?

For instance, I've worked with biology faculty who are teaching a freshman seminar about philosophy, and a student asks a question. Because you're talking about Marx, they ask, where was Karl Marx born? And that makes the person think, should I know that? Well, I wouldn't have to know if for biology, but should I know these things for a philosophy course?

The third one on that list is, it's also stressful in terms of being over prepared. Now that might seem a bit counterintuitive, but one of the things that happens when you get a question that you don't know, is if you've over prepared for that class, let's say you were working all weekend learning about Karl Marx, and then you get the question about his birthplace, it can further drive the over preparation because you're constantly trying to prepare for things just in case they come up. So those are two different ways that it can be very stressful to get a question outside of your expertise.

Now one of the issues that we're all facing when we get a question that's outside of our expertise is it feels like a threat to your credibility or to your authority in the classroom. So I want to look at this issue in a little bit more detail. When we're working with our peers, or our colleagues, our credibility largely comes from how much we know about a topic, but credibility with students is a bit different. So I'd like to look at that.

We're going to do a credibility check-in now. Again, if you'll pick up your pencil, and I want you, going to give you eight different behaviors that research shows are related to students' perception of instructor credibility. And for each of these items, I want you to rate it on a scale of one to five. One would be I never do this behavior. Five would be I do this behavior in every single class. And you can use any point in between. So ready?

So let's look at that first behavior. The question is, I regularly ask students if they have questions or if they understand my explanations. Again, rate that on a scale of one to five, where one would be I never do this, five

would be I do this every single class. And just go with your intuition, be honest, and this will be a more effective exercise.

Okay. Number two, I attempt to answer all students' questions, never every class. Number three, I give clear expectations and unchanging answers to students' questions regarding policies and their graded work. Let's go to the next five. Number four, I show up on time for class. I know that sounds obvious, but be honest, one to five. Number five, I follow all the policies outlined in the course syllabus. Number six, I explain difficult concepts in terms I know students will understand.

Seven, I'm highly familiar with the text and the readings. And the last question to rank on a scale of one to five, I remind students of upcoming due dates. Again, never to every class. All right. How'd you do?

Now the possible scores, if you want to add all these up, a low score would be eight, if you never on all of them, and a high score would be forty, if you answered five on all of them. What I want to do is I'd like to go back for just a second to the first three.

Now remember, what we're talking about here is answering questions where you're not sure of the answer. And the reason I wanted to do this credibility check-in is, what you can see is that the first three behaviors that the researcher, in this case Cook in 2002, found had a big impact on students' perception of credibility, was how the instructor handled questions.

And what you can see from these first three is, do you encourage students to answer questions, do you try to answer their questions? I raise this because when you're teaching outside of your expertise, there's a tendency, and I've done it myself, to want to rush through and discourage students' questions. When actually, that reduces your credibility. It can increase your sense of control, sure, but it reduces your credibility with students.

So my hope would be, if you scored low on any of those first three questions, that this can build your interest in getting higher scores on those in the future. All right.

Now let's get to the really hard part, the part that most of us are concerned about, and that is, how do we actually answer those questions when they come up in class? Great. Now there's a three-part strategy that I want to offer you on how to handle students' questions, and some of these may be steps that you already do that you mentioned earlier, in terms of how you respond to questions where you don't know the answer.

The first step is to clarify. Now I got a nice little gizmo there, a diagram, to illustrate this. The idea behind clarifying is that students, let's be honest, don't always ask great questions. They often ask confusing questions with multiple parts, because they're talking through something they don't understand.

So the idea behind clarifying is if part of the reason you can't answer the question is that the question is complex and it has multiple parts, one of the things that you can do is to simplify, is first of all clarify the different parts of the question, so that if there are multiple confusing ideas, you can restate that question so that there are distinct parts. And perhaps you make it a more answerable question by just focusing on one of those ideas.

So the idea is, take a complex question, break it down either into separate questions, or focus on the one question that you are pretty confident you can answer, and then go back to the student and ask, is this what you were asking. Now, of course, the student may still want to know about the part that you don't know, but this at least now makes it a more manageable question that both you and the students in the class can understand.

Keep in mind, if you didn't understand the question, chances are the students in the class didn't understand it either. This is also a nice tactic because it models what good questions should sound like, if you restate the question back to the student.

Now we talked about step one, which is clarify. Step two is to acknowledge. This is often a step that we skip when a student asks a really difficult question, simply because our mind is racing, and we're trying to think of the answer, and we forget to acknowledge the person who asked the question. So step two is to acknowledge.

And that might be as simple, as you can see there on the screen, just saying, great question, or I'm so glad you asked that. Or if it's something that's not actually relevant at the moment, and you want to stall on it, you can say, oh, that's interesting, but that actually takes us off topic, can I come back to that later. Or you may know that it fits well later in class already. So step one, clarify. Step two, acknowledge. And step three is answering the question, right. So let's get into what would be different ways that you could answer the question.

You've clarified it, you've simplified it, you're still not sure of the answer. So here are several different approaches. I'll go through each of these. First of all, you could ask the class the answer to the question. You may have a student in the class who happens to be an expert on that topic or likes to read about blogs online, and so has some thoughts.

It's also a nice approach to bring in students who want to get engaged on interpretation or analysis. You have some students in class who are eager to get a hard question. So you could ask the class the answer. Of course you don't want to do that only with questions where you don't know the answer. You want to be able to do that with variety of different questions.

A second approach is to go meta. So what do I mean by going meta? By going meta, you're illustrating to students, how does someone think about this question. So you're illustrating to them, well, here's how an accountant would think about that question, or here's how a medievalist would think about that question. And that helps model for students what it's like to think about hard problems in your discipline.

A third approach is to offer an educated guess. And you want to say, this is an educated guess, or this is my best hypothesis, or one person I interviewed said this is a tentative guess, and that clarifies for students that you're not absolutely sure, but that gives some reassurance in your answer.

You can also offer to research an answer, which students find much more inspiring than most faculty think. It's such a compliment to a student if you say, that's a great question, I'm going to come back with a good answer, and I'll get back to you next week. Because it suggests that the student asked a good enough question that it's worth your time to research it. Of course, you need to follow through, you need to come back with an answer, even if the answer is, it's complex, here's part of the answer.

Now the last one is to admit you don't know, which might have been the thing that you said at the very beginning when I asked, what do you do when a student asks a question you can't answer. Now if you're teaching a course where there are a lot of things that you don't know, you want to have a variety of ways to say this.

So as I was interviewing faculty, I looked for language that I liked around how to say, great question, and I don't quite know. So here are a few different phrases that you can have in your back pocket to use. So first of all, there's the obvious, that's a great question, no one's ever asked me that. What's nice about that is it's an embedded compliment, right? What you've said is, you've thought of something no one's thought of before. Of course, it might be no one's ever asked you that because you haven't taught the course before, but the students don't need to know that.

Another one that I've seen faculty use very effectively is, I believe the literature is mixed on that. Now that's a bit of an evasion, but it's true, literature is mixed on just about everything. So that's one that you can get away with.

Another one is to say, to be honest, I haven't read that literature. What's nice about that response is that it implies of course you're reading the literature, but that's one segment that you haven't read. And that's an honest approach, because in any course you've at least read some of the literature.

A few other phrases, and this I've seen particularly in disciplines, for instance, in the health professions, where there's a very precise answer, and you want to be sure that you give them a precise answer. So one would be, I'm not sure of the answer, and I don't want to lead you astray, let me think about it, or let me do some research.

And the last one, that's a very precise question, and it deserves a precise answer. And so that clarifies for students, it sets the bar for the kinds of answers you're expecting in class, and it demonstrates that you want to be sure you give those kinds of answers to them.

Now you could combine different approaches. You could ask students to answer the question, and then you could do one of these answers. There's a number of different ways to do this, but what I'm hoping you have, as you listen to this, a number of different ways to be comfortable saying, I don't know, without simply having to say I don't know every time.

Now in this stage, as I said earlier, I promised that we would look at some common strategies that faculty use, and some of the hidden and negative implications or some of the hidden problems that people run into. So what you have on your screen are three columns. You have do, don't, and maybe. So let's first consider do.

So as we've already said, you want to acknowledge the question you've been asked. So the first do is confirm, after you've acknowledged the question, and clarified it, you also want to confirm, have I answered your question. So many of us assume, well, I've given you an answer, it must be the answer to your question. But the last step in that would be to confirm, did I answer your question, does that make sense?

Other steps, do let students know if you're wrong. It happens to all of us, and students are more understanding than you think. Plus, they appreciate the clarification. I was confused about that because, but or, the recent research shows this. So do let students know if you answered something incorrectly.

And it's also important, and this is a slight change in language from the way most of us do this, is to ask, what are your questions, instead of, does anyone have any questions. Most of us, myself included, often say, does

anyone have any questions, and that assumes that no one will have any questions. Instead, if you ask, what are your questions, it assumes that there will be some. So those are the do's.

The don'ts. Don't get angry with students. I know, that might seem obvious, but the reason some of us can get angry or frustrated with students, goes back to being over prepared. If you spent all weekend preparing for class, and students start asking questions that you can't answer, it's very easy to get frustrated or exasperated. Do a mental count to three if you need to, but don't show frustration when students ask really hard questions.

Another don't, don't fake it. It's fine to offer an educated guess, or here's my best hypothesis, but don't fake certainty. There's a number of reasons. First of all, students can, in many cases, if it's a factual question, look up the answer and prove you wrong. Secondly, it reduces your credibility on things that you really do know if you fake it on things that you don't know. So you want to make sure that you're honest with students when you're offering an educated guess or when you don't know the answer. So don't fake certainty, it doesn't turn out well.

Now on the maybe, in terms of strategies that some people can use successfully, but if you do it too often, it runs into problems, and that's the strategy of whoever asked the question, you ask that student to research the answer. When I've done a number of talks about answering students' questions, this is a strategy that usually someone in the room will say that they do, that they'll turn the question back to the student.

Now the advantage of that is that students learn how to research answers to good questions, and that's a fantastic skill to learn. But what's the hidden problem with this strategy? The hidden problem is that students can then be deterred from asking questions because they know it's going to turn into a mini homework assignment, and you don't want that. It's okay to do it occasionally, but it becomes a problem because it can deter students from asking questions, and as we saw earlier, students want an environment where they're supported in asking their questions.

So an alternative to this, that I've heard some people use that I like, is instead of just making it a homework assignment for the student who asked, raise it for the whole class and say, this is an opportunity for extra credit, or this is an opportunity if anyone would like to research the answer to this, we'll compare answers to see if the answers are consistent or who gets the best answer. So that that way, it becomes a group opportunity, or a group opportunity to earn credit rather than a penalty. So that's one of those strategies that has some hidden implications I'd like you to think about.

So when you get back into the classroom, I hope you'll remember three things. First of all, I forgot to move the slides. First of all, you want to create an environment where students ask questions. I'll go back to the one slide in just a moment. You want to create an environment where students are comfortable asking questions.

Secondly, remember it's okay if you don't know. We are all going to be in those moments at some point in our careers. Please feel free to find different ways, creative ways, to let students you're not sure of the answer. And lastly, an important concept is don't pretend you're certain when you're not. It really comes back to hurt people.

And I have a quote that I'd like to offer you here. What if students discover that I'm not perfect? And that's often a fear, maybe it's not articulated for you, but the people often have when they get a question that they can't answer. And I love this response from Codrina Popescu, who's a chemistry professor at a small liberal arts college outside of Philadelphia. And what she has to say is, I don't try to be perfect, at least not any more. Students won't learn better if I'm perfect. They'll learn better if they feel comfortable asking questions.

So remember, create an environment where students ask questions. It's okay if you don't know, and be sure not to fake certainty. Thank you for your time. We'd love your feedback if you have any. And I hope that you become the kind of professor where students are inspired to ask great questions.