How Can I Help Students Develop Critical Thinking Skills?

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Rob Jenkins: I’m Rob Jenkins. I’ve got about 25 years of experience in higher education as a faculty member, department chair, academic dean, and a program director. And we’re here today to talk about how you can help your students further develop their critical thinking skills.

Debi Moon: That’s right, Rob. And I’m Debi Moon. Welcome to this Magna Mentor Session. We’re excited about what we’re going to talk about today, and we do it based on some of our experience. I’ve had a couple of decades working as everything from a faculty developer, to faculty member, to assistant vice president for online learning. And through it all, we think we’ve picked up some ideas on what you can do in the classroom with critical thinking.

Rob Jenkins: You know, we, as teachers, devote so much of our time to telling students what they ought to think.

Debi Moon: I know.

Rob Jenkins: And what we should be doing instead is teaching them how to think.

Debi Moon: Absolutely.

Rob Jenkins: Because when they leave our classrooms, and they go out into the world and go out into their professions, they’re just going to encounter a great deal more subject matter. We’ve loaded them up for four years with content, and now they’re going to encounter all of this brand new content that’s different from what they’ve seen, and in some cases contradicts it. How do they deal with that?

Well, if we teach them how to learn, if we teach them how to think, then they’ll be able to deal with those situations. You know, numerous surveys of Fortune 500 hiring managers show that they all have basically the same two complaints about their new hires. Number one is they can’t write, and number two is they can’t think for themselves. So you get this young person, fresh out of business school, and as long as the situations that he or she encounters mirror the ones that were in the textbooks, then it’s all smooth sailing.

Debi Moon: I don’t think that’s going to happen.

Rob Jenkins: But, inevitably, it doesn’t happen that way, does it? Inevitably, something’s going to come along that wasn’t in the textbook. And if that person isn’t able to think for himself or herself, then there are going to be problems. So the best thing that we can do for our students, before they leave us, is to give them those critical thinking skills that will serve them well throughout their lives.
Debi Moon: You’re right, Rob. And let’s talk about where this problem originated before we get into these practical techniques we think you can use. You know, 500 years ago, man on earth processed as much information in a lifetime as you and I do in one day.

With the Internet, TV, computers, magazines, we’re being bombarded. And as information grew, guess what happened? Textbook writers kept making the textbooks bigger and bigger with all this information we have. Do you notice the textbooks getting bigger?

Rob Jenkins: I have, and more expensive.

Debi Moon: Oh, that’s true too. Well, faculty members see these large textbooks, and they go, oh, my goodness. I’ve got to deliver all of this content.

Rob Jenkins: Every, single page.

Debi Moon: Every page, and they’re just so overwhelmed by delivering content that somewhere along the way, critical thinking has fallen by the wayside. We’re not focusing anymore on how to critically evaluate what we’re hearing. We’re so busy putting in all that content. And that’s really where the problem started, Rob.

Rob Jenkins: That’s right, because the thing about critical thinking is that you can’t learn to think critically by listening to somebody talk. And, actually, you can’t even learn it by reading a book, although lecture and reading are all important. But in order for students, really, to learn to think on their own, to think critically about the things that they’re hearing, about the things that they’re reading, there has to be an active component.

There has to be active learning. Students have to be put in positions where they have to think about what they’re reading, think about what they’re hearing, synthesize information, form their own opinions, and then organize those thoughts and put them into writing or present them in some other form.

Debi Moon: Absolutely. We want our students to be able to critically evaluate. Remember, they’re going to be electing the presidents who will be in charge when we’re in our old age.

Rob Jenkins: Well, that’s potentially a scary thought.

Debi Moon: It is.

Rob Jenkins: So we’d better teach them to think.
Debi Moon: So we do. We want them to do that. So we’re going to talk about how you, as a faculty member, can proactively infuse every element of your class with critical thinking. We’re going to look at lectures, labs, homework, active learning assignments, rubrics, writing assignments, and exams, look at practical ways that critical thinking can be in your class every day from start to finish. And let’s go ahead and start with the lecture, the classic lecture.

Rob Jenkins: All right.

Debi Moon: Now I’m going to start out by saying this is going to sound so simple. But you have to stop when you’re speaking and ask searching and thoughtful questions. Well, that may seem fairly easy.

Rob Jenkins: So you have to stop?

Debi Moon: Stop talking.

Rob Jenkins: Stop talking.

Debi Moon: That’s right. And Socrates had quite a few things right. In our handout, we’ve given some references. You can go look at how to look, get information on Socratic teaching. But you’ve got to make this a part of your lecture. And one of the most important parts of that is that you need to plan out your questions just as you planned out your lecture when you first started teaching.

You know, one of my favorite speakers is Winston Churchill. And one of the things that he said once was that the flowers of rhetoric were hothouse plants, meaning they didn’t grow naturally. You had to actually plan them out and put some work into it.

The same goes with critical thinking. If you expect your students to be great critical thinkers, you need to actually plan out critical thinking questions. He and Benjamin Disraeli, another famous British orator, used to actually plan out their arguments in Parliament. All right, if this person says this, I’ll say this. A lot of their wit was actually planned out in advance in their homes at night before they went to Parliament.

So remember that. Planning your questions out in advance will make a big difference in the quality of critical thought in your classroom. Never answer a question yourself. How many of you have stood in a classroom and asked a question can you tell me, if you don’t mind, who was the President who made the Louisiana Purchase? Who was
involved with the Louisiana Purchase? Not a thought. Not a movement in the classroom.

Rob Jenkins: Anybody?

Debi Moon: Not anyone?

Rob Jenkins: Anyone, Bueller? Bueller?

Debi Moon: Nothing flickers. Don’t answer the question. An awkward silence is all right. Let students know I’m going to wait. And you’re going to wait, not just by yourself, but because you know students names in your classroom, you’re going to use those names and say, Rob? Rob? And wait. Wait for Rob to answer the question.

When students know that they can't come to your classroom and sit like a rock and look at their notes when you start to look at them so they don’t have to answer the question, when they know you’re not going to answer it, and you’re going to call on them, they will come to class better prepared.

Let them know, too, that their ideas matter. If a student comes up with a great answer, spin another question off that answer. Say that is a great, great answer, Rob, great thought. All right. Let’s look at that from a different perspective. Can you give me an example of another way you could do that? So let them know what they said is relevant to the class and important.

Always ask follow-up questions, like how did you come to that conclusion? Give me another example of that. Tell me an idea why that thinking might be wrong in today’s world. Always do spin-offs, but, remember, planning out your questions in advance, that’s the key to success when it comes to critical thinking.

Rob Jenkins: And you have, I like what you said about planning for eventualities, planning responses. Because you’re not always going to get the answers that you want to those questions.

Debi Moon: That’s right.

Rob Jenkins: But sometimes those answers, even if it’s not the, quote, right answer, you have to let go of that idea of the right answer, and see where the answers lead you. Because that’s a part of critical thinking.

Debi Moon: It is.
Rob Jenkins: And as a professor, you can be a guide, but you don’t want to totally dominate the discussion. You want to let them take it and run with it.

Debi Moon: That’s right. And build a hypothesis, and then back up and look at the data later.

Rob Jenkins: That’s right. Which leads us to our next point, which is about using your classroom as a laboratory. And laboratories are not just for science class. What we call the scientific method isn’t just for science. The scientific method is actually a style of critical inquiry. It involves forming a hypothesis about something, testing that hypothesis against the known evidence and forming conclusions.

And there are lots of different rubrics for the scientific method and different steps that you’ll find on these rubrics. But those are basically the activities that you’re involved in. This is something I try to do even in an introductory literature course.

Now you might think the scientific method doesn’t apply to literature. But remember that what I’m trying to teach those students isn’t so much literature as it is critical thinking. The literature, for me, is secondary because they’ll come out of there, and they might not remember a story or poem that we talked about, but the critical thinking skills that they learn in that class, they can take with them.

So if we’re talking about poetry, for example, I may bring in a popular song and play it for them and put the lyrics up on the screen and ask them is this poetry? Why or why not? What’s it about? What’s the lyricist trying to say here?

And we’ll get various answers, and from those answers we’ll try to form a working hypothesis. Okay. We think this song is about his girlfriend left him, and he’s upset about it. Okay. So let’s look at the language in here. Let’s see if it fits with that hypothesis.

And if we reach a point where we say, no, that doesn’t sound like he’s talking about his girlfriend leaving him, okay, our hypothesis was wrong. We have to go back and form another one and work forward again until we have come to some sort of consensus about what this person is talking about.

Now that’s exactly how you go about reading and analyzing a poem, and it’s a skill that’s completely transference to reading an assignment in a political science class or a business course or reading a business plan or a quarterly report. Those are the skills that we want our students to take out of these classes.
Debi Moon: Absolutely.

Rob Jenkins: Another area where we can infuse critical thinking into our courses is through our homework assignments. You know, we, we’re very fond on giving reading assignments. We give pages and pages of reading assignments, but we might not be quite as good about asking our students to think about the things that they’re reading.

The only way you can really ensure that that’s going on is to ask them to write about what they’re reading, to have questions that they have to answer or an outline that they have to produce or perhaps a brief summary of what they’re reading. A lot of people like to mix reading assignment with journaling and that sort of thing.

You can mix reading and writing assignments. Have them write about the things that they read. Have them think critically about what they’re reading and then write about it. And you can even have them bring research, things that they’re finding from other sources.

You know, I know when I teach the our second English course, which has a, which is basically a course in writing research papers, one thing I’ve learned is that if you leave that big assignment until the end of the semester, you’re asking for trouble.

What I try to do instead is to have them do a series of smaller assignments that lead to, and build up to, that bigger assignment. And so they’re able to bring in research from a variety of different perspectives and different sources, and we introduce that into the class, and we talk about how it relates to the things that we’re looking at and how it relates to what we talked about yesterday and gives us a good opportunity to act out some critical thinking right there in the classroom.

Debi Moon: Absolutely. That makes sense to me. Let’s talk, too, about in-class active learning exercises. Bringing critical thinking in won’t just come through questioning, or labs, or homework. You’ve got to give them some opportunities to apply what they’ve learned. I teach business law, so I use a lot of case studies.

For example, we study negligence, where people are injured through an accident. And one of the things that a business owner needs to know is that you’ve got to minimize negligence cases in whatever business you have.

So I might have the students study negligence, and then I have them get together and say you own a chain of grocery stores. What could
you do to minimize slips and falls? It’s a lot more complicated than just wiping up wet spots. It involves everything from cameras to regular analysis. But let the students decide this. Let them be the business owners.

So when you put the students in a practical application of what they just learned, you’re going to have critical thinking. You can have students brainstorm up an idea. Let’s say you’re studying global warming right now.

You could have the students get together and say you are a group of senators from the state of Wisconsin, and you need to get together and decide what is your stand on global warming. After you’ve looked at all the data, what’s the evidence that you see? How can you handle this situation?

Students can also do role-playing. If you were studying about government policy, you could say why did FDR handle the Great Depression the way he did, through government programs, and why can that or can that not be used today? So have them get up and pretend they’re a famous character, and put them in their place.

We use journals a lot in our classes. You do, I know, in yours as well. And if you were, for example, studying the poet Walt Whitman, maybe you could have Whitman analyze a current event today. What would Whitman say about that, knowing his voice from when he was writing?

And we do interviews as well. You can do interviews in class, but you can also do them out of class. For example, we recently had students interview returning soldiers from Afghanistan. Why are soldiers today treated differently than those soldiers who returned from Vietnam? What happened in America to change the way that we perceive the wars and the military involved? So have students get out and touch and feel people, talking to them about their ideas, and use case studies, brainstorming, and role-plays to get into it.

Let’s look at another thing you can do. You can use rubrics. Now I know what you’re thinking. A rubric? Most people think of rubrics as a way that you grade papers or you analyze a paper. How is it organized? Were things cited correctly? Or, sometimes, how you’re doing a presentation. Did they use the correct presentation skills? Did they use correct material? What did their PowerPoint look like?

But I’d like to propose to you that you think of rubrics in a totally different way when you’re talking about critical thinking. One of the
things that we like to do is create a rubric for every unit of material that we’re covering.

By making learning visible, we put in that rubric every concept you need to deeply understand before you finish the unit. It allows students to go through and assess their progress. Do they understand each one of these units? You know, it also allows them to see what they don’t understand. Because knowing what you don’t know is an important step on the way to learning.

Rob Jenkins: Absolutely.

Debi Moon: Students also need to identify and assess the quality of supporting data. For example, if you’re studying the bombing of Pearl Harbor, if there was a hypothesis that FDR knew that the Japanese were going to bomb Pearl Harbor, but he didn’t let anyone know because he thought we needed to be attacked to get Americans involved in the war, what is the quality of data that indicates that, if that’s an area that you’re studying?

You also have to identify the context of what’s going on in the world on the issue you’re studying. For example, if we’re developing foreign policy in the Middle East, how does our relentless need for oil in the United States influence all our policies?

So put into that rubric these types of questions and thoughts so students can answer them. These questions and rubrics like this not only provide a way for students to pace themselves and assess themselves, but it also provides a great study guide when they’re done.

And, finally, we bring in some ways in the rubric where they can analyze authors’ bias. We want them to be able to evaluate information. The Internet, which most of our students use for most of their studies now and on research, has so many opposing views. How do they know what’s right?

So we always ask students in every one of these rubrics to interpret the author’s potential bias. If, for example, in our class we’re looking at editorial or op-ed pieces, we ask them what is the bias of the person involved? If they’re getting something off the Internet we ask them those same questions as well.

Rob Jenkins: What has value, and what doesn’t, and why? Right. I like to use op-ed pieces also, as well as YouTube clips and, you know, clips from television news shows and so forth. Because I’m trying to make this critical thinking activity something that they can relate to. That they,
so that they see that it’s not just something we go to school, and we sit in a class, and we think critically, and then we leave, and we don’t have to think critically anymore.

I’m trying to get them to understand the connection that it has to their lives. And I incorporate this into my writing assignments. One of the writing activities that I use very frequently is I will have them select an op-ed piece that they disagree with and bring it to class.

And we’ll go through it, and I’ll ask them, you know, what is it you disagree with? What is the person saying here? What’s the author’s main point? What are, what’s the supporting evidence that the author offers? Why do you disagree? What evidence do you have to offer that contradicts what the writer is saying? And then I’ll have them turn around and write a response. And I’ve even had some students who were able to publish their responses in the newspaper.

_Debi Moon:_ That’s wonderful.

_Rob Jenkins:_ And then I like to challenge them toward the end of the semester, maybe, with something a little bit higher level, maybe an article from a scholarly journal or something like that, where we do the same sort of thing but with a little bit higher-level argument than something they might find in their newspaper.

_Debi Moon:_ Right. It’s important with the sound bite generation. People have grown up with sound bite opinions to be able to justify all of their thoughts.

_Rob Jenkins:_ Right, because everyone is entitled to his or her opinion, but not all opinions are equal. And they need to understand that that’s the case and why that’s the case, and understand that if they want to take their place as adults in the world of ideas that they’re going to have to be able not just to have ideas but to understand other people’s ideas and be able to defend their own.

The final area that we want to talk about where we can use critical thinking skills is in our exams. Now a lot of people don’t think about exams as a way to reinforce critical thinking. We think of exams as a way to gauge how well they’ve thought or to evaluate how much information that they’ve been able to capture over the course of the last three weeks, or the entire term, or whatever

But I’ve always believed that the best tests are those that you come away from feeling like you learned more from taking the test than you did from studying for the test. And that’s how I’ve always tried to
construct my tests. The key to that is to throw away the multiple choice and true-false questions. Now you know . . .

Debi Moon: Test banks.

Rob Jenkins: Test banks, absolutely. You don’t have to get rid of all of those, but what we’re saying is don’t make those the entire test. You’ve got to include some writing assignments. The thing about writing is that it forces students to organize their ideas and then present those in a way that somebody else can understand.

And you can do that on a test, and it doesn’t necessarily have to be a 500-word essay. They can be short answers that require them to write a brief paragraph or even two or three sentences. They have to string thoughts together into sentences and paragraphs. That’s the key. So these are all ways that instructors can incorporate into their courses to help reinforce the critical thinking skills that are so vital to students as they leave our colleges and universities.

Debi Moon: Absolutely. Basically, we believe it’s our responsibility to infuse these critical thinking classes across everything you do in the classroom. We thank you for coming. We hope you can use these changes and boost learning in your classroom tomorrow. And we thank you for your time, and, but we’d like to hear from you. Please tell us what you think by clicking on the survey below. Take care.

Rob Jenkins: Thank you very much.