"Does your dog bite?"
Creating Good Questions for Online Discussions

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One of the challenges of asynchronous online discussions is soliciting student responses that involve critical thinking. Too often students answer one another with "I agree" or "That's what I think" and the discussion dead ends. By providing students with models of good questioning techniques instructors will see the class discussion take on new depth. This article provides online course facilitators with an approach to questioning that can deepen student interactions in asynchronous discussions.

One of my favorite movie scenes occurs in the *Pink Panther Strikes Again*. Peter Sellers, as Inspector Clouseau, is standing at the front desk of a hotel and sees a dog lying by the front door. In an exaggerated French accent, he asks the clerk, "Does your dog bite?" The man answers, "No." Walking toward the door, Clouseau bends down to pet the dog; it growls and then bites him. Aghast, he exclaims, "I thought that you said your dog does not bite!" The man responds, "Oui, monsieur, but that is not my dog."

Obviously, Inspector Clouseau did not ask the right question. Too many times this happens in our online courses. When ineffective questions are asked, the discussion goes nowhere. In order to utilize the full potential of asynchronous discussions to develop and exercise critical thinking skills, we must set up our students for success by providing sound guidelines for questions, and we ourselves must model good questioning. This article will provide suggestions for enhancing this questioning process.

I begin my online courses with an icebreaker discussion. Students must ask their classmates about their birthdates, their Internet connections, how far they live from campus, and their birth orders. In one particular class, students jumped in and kept the conversation going all week. This class of 15 had over 200 posts: the students were engaged in the discussion, had a great time, and bonded with their classmates. It was a rousing success.

The next week these same students were asked to interpret and apply information from the readings. The discussion opened on Monday, but by mid-week only a couple of posts showed up in the discussion area. Students are required to post their initial response to the question by Wednesday, but of the same 15 students, only 6 met this deadline. I could see that the discussion was going nowhere, so I decided to stop it and have them process what happened instead. The rich interaction and questioning seen in the first discussion once again emerged.

The pattern shown in these discussions caused me to look at the failed discussion question – it was a dead-end question that did not create an engaging environment. Paul and Elder (2000), in an excerpt from the *Critical Thinking Handbook: Basic Theory and Instructional Structures,* stated that instructors have the tendency to emphasize content coverage over engaged thinking. This approach assumes that answers and questions can be taught separately and disengages the student from the critical thinking process. By creating an environment where questions produce other questions, instead of dead-end answers, students and instructors are actively involved in the critical thinking process. The authors put it this way, "Thinking is driven by questions" (¶ 3). When we focus our students on finding the answers, we stop them from thinking. However, if we can teach them to ask questions and give permission for their questioning, we set the stage for critical thinking to occur. The big challenge is letting go of the need to know all the answers; only in this process will our students embrace the questioning. Table 1, compiled from the Paul and Elder (2000) article, provides types of questions and where those questions lead us. This chart can be given to students to guide them through the questioning process.

Paul and Elder (2000) conclude by reminding us that a lack of questions results in a lack of understanding, and shallow questions produce shallow understanding. In fact, Stansberry, Haulmark, and Sheeran (2003) found that instructors were poorly prepared to write questions that would elicit higher order thinking responses from their students. Therefore, if we want our students engaged in the critical thinking process we must motivate them with well-written questions that guide them into asking more questions.

In the online environment, the instructor is the guide who provides feedback and direction rather than all the answers – the *guide on the side*, rather than the *sage on the stage*. Muilenburg and Berge (2000) state, "… when facilitating online discussion, *asking the*

TABLE 1
Question Types and Outcomes

Questions of:	Force us to:
Depth	drive our thought beneath the surface and to deal with complexity
Purpose	define our task
Information	look at our sources of information as well as at the quality of our information
Interpretation	examine how we organize or give meaning to information
Assumption	examine what we are taking for granted
Implication	pursue where our thinking is going
Point of view	examine our perspective and to consider other relevant positions
Relevance	discriminate between what does and does not relat``e to the question
Accuracy	evaluate and test for truth and correctness
Precision	give details and be specific
Consistency	examine our thinking for contradictions
Logic	consider how we are putting our thoughts together

Source. Muilenburg & Berge, 2000, "Feeding students endless content to remember" section.

right questions is almost always more important than giving the right answers" (Conclusions, ¶ 1). This learner-centered environment is ideal for the application of the Socratic approach in which questions are used to guide students through the desired learning route.

The question types and the direction in which they lead as illustrated by the discussion above produce the need for specific questions. Muilenburg and Berge (2000) compiled a list 50 questions from 24 responding instructors. The researchers found that the questions could be sorted into the following six categories: interest-getting and attention-getting, diagnosing and checking, recalling of specific facts or information**,** managing**,** structuring and redirecting learning**,** allowing expression of affect, and encouraging higher level thought processes. In discussing problem-based learning, Stepien (n.d.) adapted some of Richard Paul's critical thinking approaches to develop a set of five question types: clarification, assumptions, reasons and evidence, viewpoints or perspectives, and implications and consequences. He also provides specific questions for each of the categories – an extremely user-friendly compilation. Table 2 provides a selection of questions from each of the Stepien's five categories.

As you can see, this approach provides infinite opportunities for critical thinking and extends learning beyond content mastery. By carefully defining the desired outcomes for online discussions, instructors set the stage for effective discussions that utilize good questioning to build critical thinking skills. In fact, Meyer (2004) found that the questions

posed by the instructors influenced the level of critical thinking in the students' responses.

In my online courses, I provide my students with these lists of questions. They are required to respond to the initial question and then read and respond to at least two of their peers' postings. In one discussion, I asked the students, "What is your greatest concern regarding the use of computer technology in the classroom?" The follow examples illustrate good questioning techniques modeled by the instructor. Tim was concerned with the irresponsibility of some teachers in their use educational technology. To help him determine a sense of purpose as an educational technology user, I asked him, "How can you be an advocate for getting the 'be responsible' word out?" Hillary's response to the question was very specific and poorly developed. In order to guide her into thinking more deeply I asked, "How could you broaden your example to a more general problem?" Toni answered the same question by asking several probing questions of herself and how she could provide good technology integration for her students. Her classmates stepped in and provided many suggestions for her dilemma, and like many educators, they gave answers instead of asked questions. In order to assist Toni in processing just one issue, I asked, "It [feeling so much responsibility] can be very overwhelming. What is one goal that you have when you return to teach with computer technology in your country?" Sylvia expressed a concern that she would know less about technology than her students. To help her further

TABLE 2
Probing Questions

Questions that probe for:	Example Questions
Clarification	Let me see if I understand you; do you mean __ or __?
	What do you think Mike means by his remark, Dee?
	How does this relate to our problem/discussion/issue?
	Jane, can you summarize in your own words what Richard said?
	Richard, is this what you meant?
	Would this be an example?
	Would you say more about that?
	How does __ relate to __?
Assumptions	What are you assuming?
	What is Jenny assuming?
	What could we assume instead?
	You seem to be assuming __. Do I understand you correctly?
	All of your reasoning depends on the idea that __. Could you have based your reasoning on __ instead of __?
	Is that always the case? Why do you think the assumption holds here?
	Why would someone make that assumption?
Reasons and evidence	What would be an example?
	Do you have any evidence for that?
	What other information do you need?
	What led you to that belief?
	How does that apply to this case?
	What would change your mind?
	Is there a reason to doubt that evidence?
	Who is in a position to know that is true?
	What would you say to someone who said that __?
	What other evidence can support that view?
Viewpoints or perspectives	When you say __, are you implying __?
	But, if that happened, what else would happen as a result? Why?
	What effect would that have?
	Would that necessarily happen or only possibly/probably happen?
	What is an alternative?
	If __ and __ are the case, then what might also be true?
Implications and consequences	How can we find out?
	Can we break this question down at all?
	Is this question clear? Do we understand it?
	To answer this question, what other questions must we answer first?
	Why is this issue important?
	Is this the most important question, or is there an underlying question that is really the issue?

Source. Stepien, n.d., ¶ 3.

identify her underlying assumptions I asked, "Why is it important to be on equal tech footing with your students?"

As student sees good questioning in action, they are more likely to attempt the same questioning responses. The following illustrates this. In reply to a classmates' initial post, Bill began with, "To take your thoughts a step further …" and then asked a question that moved the discussion in an important direction. Laura needed clarification from Ann, so she asked "Would you mind telling me more about the value in learning face-to-face?" She then asked an implication question of Ann, "Do you think video conferencing has the same value as face-to-face discussion?"

While early semester discussions are filled with "I agree" responses, as students get into the habit of

asking questions in their responses, the depth of the discussion increases, as does the learning. By having a resource, such as this list of questions, the online conversations take on new depth and assist in avoiding the dead-end conversation.

In addition to the depth of interaction being created, questioning can lead to a shifting of the focus from the content to the processes of the discussions. Students and instructors can engage in discussions regarding the types of questions being asked in the discussion. Through this identification, it is possible to see the trend of the class and move students to a deeper level of critical thinking. Knowlton (2000) added an element to the need for deepening the quality of questions and responses in his statement, "… summarizing, paraphrasing, and regurgitating will not move students to the upper level of Bloom's taxonomy" (Questions that Promote Durable Knowledge Construction section, ¶ 1). For instance, in the example given at the beginning of this article, the original question was:

> Choose one of the distance learning theories and list 2 specific characteristics that set it apart from the other theories.

As stated earlier, there were very few postings in response to this question. In order to move student thinking in this course on Distance Learning to the processing level, I posted the following and gave the students three days to interact:

> Ok, everyone. Ignore the rest of this discussion and interact on the following questions:
> 1. What do you see as the differences in the responses to Discussion 1 and Discussion 2?
> 2. To what do you attribute those differences?
> 3. What would you do if one of your discussions   was a dud like this one seems to be?

The responses were excellent: not only were the students engaged in the new topic, but they learned a valuable lesson about conducting asynchronous discussion. Beaudin (1999) found the same to be true in his study: "Good questions promote active participation of the learner by stimulating various levels of thinking" (Discussion and Implications for Practice section, ¶ 3). In addition, he found that students ranked the designing of good questions as the most important element of online discussions. This concept is echoed by Paul and Elder (2000) who stated, "Thinking is driven by questions" (¶ 3).

The question categories developed by Paul and Elder (2000) and the probing questions presented by Stepien (n.d.) provide rich resources for assisting students in developing critical thinking skills through asynchronous discussions. As instructors model the questioning methodology, encourage students to practice good questioning techniques, and identify the processes occurring in the discussion, the stage is set for enriched online discussions that provide opportunities to develop and practice critical thinking skills.

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