

Basing Learning Experiences in Essential Questions

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"It is not possible to be a good thinker and a poor questioner."

"Questions define tasks, express problems, and delineate issues, They drive thinking forward. Answers, on the other hand, often signal a full stop in thought. Only when an answer generates further questions does thought continue as inquiry. A mind with no questions is a mind that is not intellectually alive. No questions (asked) equals no understanding (achieved). Superficial questions equal superficial understanding, unclear questions equal unclear understanding. If your mind is not actively generating questions, you are not engaged in substantive learning."

Elder, Linda and Richard Paul. "The Miniature Guide on the Art of Asking Essential Questions" Critical Thinking Consortium. 05 Feb. 2003
<<http://www.criticalthinking.org/AskingQuestions.htm>>

The effectiveness of your lesson plan design, and therefore any learning experience, including those that include technology tools, rely on the quality of the **essential question** posed to students. As all educators know, effective questioning strategy by teachers is absolutely essential if a teacher expects to promote critical and creative thinking by students. The ability to ask great questions often separates great teachers from good ones.

Getting Started:

In this brief, I define essential questions as any question that requires one of the following thought processes:

- a question which requires the student to develop a plan or course of action.
- a question that requires the student to make a decision.

The essential question directs the course of student learning. As such, essential questions are powerful, directive and commit students to the process of critical thought through inquiry. Ultimately, the answer to the essential question will require that students craft a response that involves knowledge construction. This new knowledge building occurs through the integration of discrete pieces of information obtained during the lesson. As a result, answers to essential questions are a direct measure of student understanding.

From Point A to B: Avoiding the Simple Question.

Writing questions such as "What is cancer?" simply asks students to move information from one point (the resource) to another (their paper). By asking this type of question, you license the student to plagiarize.

Instead of the above question, we may ask students the essential question: "What plan could you develop that would reduce your likelihood of developing cancer?" This is a more powerful question than "What is cancer" but the question is still not finished. At this point it is helpful to visualize the answer. In this case, a student could answer this question by developing a *list* of strategies. They are still moving information.

The Essential Nature of the Question.

A much better question is "What plan could you develop that would reduce your likelihood of developing cancer in your lifetime? Your plan can have only two strategies. Defend why you

selected those two strategies." In this case, the question requires students to discriminate among the potential list of strategies, and then defend their choice. A much better question.

More examples:

At this point, it is appropriate to list additional examples of essential questions. My work with teachers during staff development events indicates that when building lessons, such as during the construction of online curriculum, the most difficult part of the design process is framing the essential question. Here are more examples of essential questions:

- Is it acceptable to clone human beings? Support your decision. (Decision-making)
- What invention of the 20th Century has had the greatest impact? Justify your response (decision-making).
- Who was the greatest home run hitter in baseball history? (Decision-making)
- Which credit card should is best for me? (Decision-making)
- What plan could be developed to reduce the impact of zebra mussels on the Great Lakes ecosystem? Your plan can include three strategies. (Action plan)
- What is the best plan for losing 20 pounds? Your plan can include three strategies that are most appropriate for you. (Action plan)
- What plan could I use to prepare for a 5K run? The plan can include two strategies. (Action plan)
- What human activity has the most significant impact on groundwater in your community? Support your position and propose a solution. (Decision-making and Action Plan)
- What is the best plan to solve the problems caused by urban deer? Your plan may include no more that two strategies. (Action plan)
- How would you design and build a parachute in order to slow its descent? (Action plan)
- How do you use statistics to compare unlike events? Who is the greatest running back of our/all time? (Decision-making)
- How can an athlete in your sport improve their performance using one of Newton's three laws of motion? (Decision-making)
- Would you be willing to help a slave escape? (Decision-making)
- What does a cell have to do to go from one cell to two cells? (Action plan)
- Should new powers be delegated to the Federal Government after 9/11? (Decision-making)
- Develop a plan to maintain a healthy lifestyle. (Action plan)
- Develop a plan to increase muscle strength. (Action plan)

- Should high-energy physics research continue to be funded by the United States government? Justify your answer. (Decision-making)
- What are the two most significant benefits for reopening the trial you have selected? (Decision-making)
- Should the novel you selected be banned for high school students in our School District? (Decision-making)
- What is the most significant aspect of contemporary Chicago that can be directly traced to the Great Chicago Fire of 1871? (Decision-making)

Additional Resources on Essential Questions on the Web. Access these Web sites by using the District 99 Technology Website

http://www.csd99.k12.il.us/technology/teachers/essential_questions.htm

[Examples of Essential Questions at Biopoint.com](http://www.biopoint.com/eq/page1.html)

<http://www.biopoint.com/eq/page1.html>

[Asking the Essential Questions: Curriculum Development](http://www.essentialschools.org/cs/resources/view/ces_res/137)

http://www.essentialschools.org/cs/resources/view/ces_res/137

[A Questioning Toolkit: From Now On](http://www.fno.org/nov97/toolkit.html)

<http://www.fno.org/nov97/toolkit.html>

[Framing Essential Questions](http://www.fno.org/sept96/questions.html)

<http://www.fno.org/sept96/questions.html>

[Generating Essential Questions](http://www.md12.org/practices/good_instruction/projectbetter/information_literacy/il-26-27.html)

http://www.md12.org/practices/good_instruction/projectbetter/information_literacy/il-26-27.html

[Creating Essential Questions from the Galileo Educational Network](http://www.galileo.org/tips/essential_questions.html)

http://www.galileo.org/tips/essential_questions.html

[Essential Questions](http://mathstar.nmsu.edu/exploration1/unit/content_questions.html)

http://mathstar.nmsu.edu/exploration1/unit/content_questions.html

[The Research Cycle and Essential Questions with examples of essential Questions](http://wwwgen.bham.wednet.edu/probsolv.htm)

<http://wwwgen.bham.wednet.edu/probsolv.htm>

[List of Links for Essential Questions](http://mciunix.mci.k12.pa.us/%7Espjvweb/questions.html)

<http://mciunix.mci.k12.pa.us/%7Espjvweb/questions.html>