

Essential Questions: Strategies for Effective Web Research

Doug Prouty
Contra Costa County Office of Education
dprouty@cccoe.k12.ca.us

What are Essential Questions?

- Open-ended with no right or wrong answer (Why?, How?, Which is best?)
- Important life-affecting questions
- Politically or socially significant
- Of high interest by students
- Requires research and collaboration



Examples of Topics

- Acid Rain
- War
- Gun Control
- Cloning
- Foreign Relations
- Atomic Energy
- TV/Movie Violence
- Internet Censorship
- Prayer in Schools
- Animal Testing

Attributes

- Resides at the top of Bloom's Taxonomy
- Students seek an understanding of some thing which matters to us, sparking curiosity and wonder.
- Answers cannot be found - they must be invented. Students must construct their own answers and make their own meaning
- Essential questions engage students in the kinds of real life applied problem-solving suggested by nearly every new curriculum report

A Change of Style

Traditional School Report

Write a word-processed report about the state. Use the Internet, library and CD ROMS to find information about the state such as, the flower, bird, capital, flag, etc.

This assignment leads to information gathering but little analysis or thought.

Invites Copy-and-Paste plagiarism

New School Report

A new state of California is being created. It is up to your team to find a new location for the capitol, a new state flag and song. Create a persuasive multimedia presentation convincing your classmates.

Top of Bloom's Taxonomy and Multiple Intelligences

Research based on essential questions and a sound research cycle touches Bloom's top three: Evaluation, Synthesis and Analysis. Opening the assignment up to multimedia presentations or other interpretive mediums can address the various learning styles as well.

Subsidiary Questions

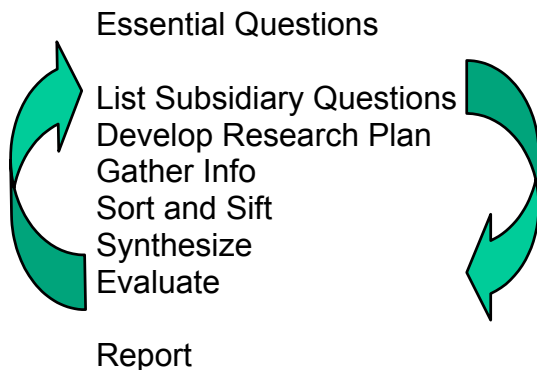
Teams must list smaller questions, which will help them answer their main question. They must realize that large questions are really the parent and grandparent of many related questions. Effective research results from formulating as many categories of related questions as possible, with each category suggesting missing questions.

Suppositions and Hypotheses

Very soon in the research process, students need to list suppositions, pose hypotheses and make predictions - most of these will be revised as information is gathered and they go through the research cycle. This thought process helps to provide a basis for construction of meaning.

The Research cycle

<http://www.questioning.org/rcycle.html>



Jamie McKenzie's Work

Research Modules (Scaffolding)

<http://www.questioning.org/module/module.html>

"New research is more like shopping and cooking. We expect students to select and gather the choicest raw ingredients with great care and then cook their own meal. No microwave research reports! No fast food! No simple cut-and-paste."



Beyond Technology:

Questioning, Research and the Information Literate School

<http://www.questioning.org/beyondtech.html>

Resources

- Asking the Essential Questions:
Curriculum Development – Coalition of Essential Schools
<http://www.essentialschools.org/pubs/horace/05/v05n05.html>
- Asking the Essential Question – Internet Innovations Inc.
<http://www.biopoint.com/ibr/askquestion.html>
- CES Collection of Essential Questions
<http://www.essentialschools.org/fieldbook/strategies/curriculum/eqcollection.html>
- Essential Questions (Bellingham Schools)
<http://wwwgen.bham.wednet.edu/essenque.htm>
- Framing Essential Questions (From Now On)
<http://www.fno.org/sept96/questions.html>
- Asking the Essential Questions (Horace)
<http://www.essentialschools.org/pubs/horace/05/v05n05.html>
- Asking Essential Questions <http://www.biopoint.com/ibr/askquestion.html>
- Questioning.org (Jamie McKenzie) <http://questioning.org/>
- Examples of Student Research Problems and Questions (Learning Space)
<http://www.learningspace.org/instruct/lplan/probex.htm>
- Exploratorium Institute for Inquiry <http://www.exploratorium.edu/IFI/index.html>

Notes: