

What is a Good Guiding Question?

Choosing the right questions can lead learners to higher, more meaningful achievement.

Many cherished school curriculum units are intellectually weak and fragmented because teachers and students really do not know what students are supposed to learn. Consider, for example, the typical elementary unit on ancient Egypt. In this curriculum, kids learn about the pharaohs, the pyramids, Egyptian myths, and geography. They examine hieroglyphs, view the video *Treasures of Tutankhamen*, and make papyrus-like paper. This hopping from activity to activity goes on until the teacher decides it is time to study something else. Unfortunately, the intellectual outcome is a group of youngsters who recall pieces of information: a pharaoh's name, a strange custom, or a mental picture of the Sphinx. When these students and teachers are asked what they've been doing for the past few weeks, the answer is usually, "We studied the ancient Egyptians." But one can study forever and not get anywhere when the goal of learning is not clear. Hundreds of teachers working with me in school-based curriculum development teams in recent years have affirmed this concern. Regardless of how carefully the individual activities and lessons are crafted, on close inspection, the curriculums reveal a lack of intellectual focus and coherence because the goals of study are not explicit.

A key component that we have found absent from the curriculum design is the guiding question.¹ A guiding question is the fundamental query that directs the search for understanding. Everything in the curriculum is studied for the purpose of answering it. As a result of this function, guiding questions can direct the curriculum author's choice of ideas and activities and can transform the often disparate topics from a scattered survey of the subject, problem, or theme, into a logical, coordinated instrument for attaining knowledge. In addition, when a team, rather than an individual, develops a curriculum, guiding questions can help orchestrate the goals and expertise of the team members.

With this in mind, imagine the improvement in the ancient Egyptian unit if the teacher and students had posed a well-designed question, such as "What is a good life for ancient Egyptians?" or "Where did the ancient Egyptians come from?" and "Where did they go?" With these kinds of queries, myths, pharaohs, the Nile, pyramid building, Ra, craftspeople, and everything else in the unit serve a purpose because they are needed to answer the question that everyone is asking.



Guiding a Curriculum Team

Consider the power of a guiding question in the following example from a 9th grade cluster team in southeastern Massachusetts. The teachers, whose subject areas are biology, English, mathematics, social studies, and Spanish, agree that "endangered species" is a rich, relevant topic for their students. In the usual scenario for a team-written curriculum, the teachers, having agreed on the topic, would go their separate ways, teaching about endangered species according to their particular disciplines. As a result, their students would probably realize that



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their teachers are doing something vaguely in common, but that there certainly isn't any explicit connection or intellectual coherence from teacher to teacher, subject to subject, or test to test. To promote a different outcome, however, the team develops a guiding question based on endangered species. The question "Who will survive?" is employed in the following way. When the English teacher selects narrative accounts, she chooses them to explore how American culture values some organisms more than others. The social studies teacher examines the *Endangered Species Act* as a political document. The mathematics teacher emphasizes exponential rates of expansion and decay to describe changes in the populations of plants and animals. The biology teacher focuses on the ecology and genetics of plant and

the issue through contemporary Spanish publications.

When these multiple approaches focus on the same question, "Who will survive?" and when teachers and students routinely articulate this question, the effect is to create an underlying purpose and structure for their work. Further, the question encourages teachers to more closely coordinate activities and assessments. This degree of focus and coherence is virtually unheard of in high school programs and is not all that common in middle and elementary grades.

Characteristics of Guiding Questions

Not all questions are guiding questions. Knowing their characteristics is an important step toward including them in disciplinary and interdisciplinary curriculums. Figure 1 provides examples from units developed by teachers in Iowa, Massachusetts, and Ohio.

First good guiding questions are *open ended*, yet *focus inquiry* on a specific topic. For example, "Whose America is it?" is a good guiding question to

wide-ranging and inclusive discussion by allowing that America may be different things to different people.

Second, guiding questions are *nonjudgmental*, but answering them requires high-level cognitive work, such as the development of a rich description, model, evaluation, or judgment. Note that none of the questions in Figure 1 dictates or even suggests one or more right (or wrong), or better (or worse) answers. Any one of them may be addressed in multiple ways. Moreover, these questions encourage thinking, because to answer them, the learner must ask other questions.

Third, good guiding questions contain *emotive force and intellectual bite*. Questions like "Whose America is it?" "Who will survive?" "Where does money go?" "What is waste?" and "When are laws fair?" have import. As students, educators, and world citizens, we must try to answer them. Indeed, questions like these could be used to guide K - 12 teaching and learning in national curriculums.

Guiding questions can also invigorate the study of localized issues and traditional disciplines. Kids will work hard to answer, "What is a good sneaker?" and "Who is a friend?" and "What is fun?" Math classes might puzzle over "What's a good proof?" Physics can profit from "Where do waves come from?" and "Where do they go?" Biology will be improved with "How are organisms related?" And English classes can try to answer, "What is a good book?"

Fourth guiding questions are *succinct*. They contain only a handful of words-yet they demand a lot. Often, long questions appear to be good candidates for guiding questions, but refining the question to be open ended,

species extinction, "sneakers," and sexism. "Begin to write questions that you believe will cause the students to think about the topic, but not dictate the direction or outcome of their thinking. In other words, write a succinct, open ended, nonjudgmental question that asks the students to evaluate the theme. Remember that in the case of an interdisciplinary curriculum, the guiding question must be accessible to all disciplines and learners.

Another way to generate possible guiding questions is to consider the six queries that newspaper articles answer: *who, what, when, where, how, and why*. An additional device is to put the word "good" in front of the theme or object. For example, "Who is a leader?" becomes "Who is a good leader?" and "What is music?" becomes "What is good music?" This is an easy way to create the call for judgment that is the hallmark of an effective guiding question. At other times, the topic itself is so provocative that judgment is implied in its discussion. A topic like sexism, survival, ownership, and fairness do not need to have "good" attached - to discuss them is to evaluate.

When generating guiding questions, write several questions without paying too much attention to how perfectly they fulfill the criteria of being: *nonjudgmental, open ended, intrinsically interesting, and succinct*. Rather, generate a list with several candidate questions. Then begin to refine the list. It is difficult to write more than two or three guiding questions for a curriculum because good guiding questions subsume other questions.

Here is an example from a recent workshop with middle school teachers southeast of Boston who were developing a curriculum to help kids critically examine advertising. In their effort to be concrete, the teachers were working with a commercial for M&M candies. As they played with their questions, however, they arrived at

slightly different, and ultimately more productive questions:

- What is an M&M?
- What is a good M&M commercial?
- How do commercials affect society?
- How do commercials convince consumers to buy?
- Why use animation?
- Why does the M&M company use commercials?
- What is entertaining in a commercial?
- Who watches commercials?
- Why blue M&Ms?
- What is the purpose of a commercial?

As the teachers worked through this list, they decided that the topic of commercials had enough intrinsic appeal that they did not need the specific commercial for M&Ms to drive the unit, although it would undoubtedly serve as one of their best examples. The teachers also noticed that some of the questions had too much information in them, such as "What is entertaining in a commercial?" or "How do commercials convince consumers to buy?" Other questions were too narrow, such as "What is the purpose of a commercial?"

Further refinements led the teachers to realize that they were ultimately interested in two interrelated aspects of commercials: the characteristics and functions of good commercials. This led the group to select two guiding questions: "What is a good commercial?" and "How does a commercial work?"

The teachers eventually centered on the perennially useful pair of questions that ask about the *what* and *how* of something. As with all good guiding questions, these two queries are not easily answered and should give educators and students room to explore.

In presenting this example, I do not say that these questions are the best of all questions. Readers may say that the first question, "What is

a good commercial?" subsumes the second question, "How does a commercial work?" because describing a good commercial entails discussing how it works. Or readers may prefer the question "Who watches commercials?" and think that it has more motivational power than the ones the teachers chose.

There are no perfect guiding questions; and the curriculum design team and school context influence the choice of guiding questions. Yet criteria to generate artful guiding questions can help. And when educators determine good guiding questions, much better curriculum units are bound to follow.

I first encountered the idea of guiding questions in Heidi Hayes Jacobs' *Interdisciplinary Curriculum: Design and Implementation* (Alexandria, Va.: ASCD) 1989, p. 59).

FIGURE 2

Guiding Questions

- Who will survive?
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- What is a good sneaker?
- Where does money come from?
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- What is waste?
- How can good health be obtained?
- What is a good school?

Leading Questions

- Should species be allowed to go extinct?
- Why is Brand X better than Brand Y?
- Is there equitable distribution of wealth?
- Why should America recycle?
- Should there be national health care?
- How can schools be improved?

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Subject	Examples of unit questions	Examples of content questions
History	How does technology affect society?	How did technology affect how WWI was fought?
Science	How do scientific models affect scientific knowledge?	What is the model of the atom and how has it changed over time?
Mathematics	How can the world around me be measured/evaluated by statistics?	How can (x-subject) be shown statistically?
Physical Education	Why do human beings play games?	What are the rules for game 'x' ?
English/ Literature	How do society's values reflect and fail to reflect my own value system?	How does Charles Dickens critique his society?

- Guiding Question on blogs. IBO.org / addressing access (Samples 4 Subject Areas)

Guiding Questions or Not?

Questions	Check off some good questions	Aol?
<ol style="list-style-type: none"> 1. What does it mean to be exact? On what does preciseness depend? 2. If we can see things in more than one way, how will our understanding change? 3. How do we find the facts that we use to support our justifications? 4. If you knew the probability at the gaming tables of a casino, would you gamble? 5. How can mathematics describe events? 6. How is the Math B Regents Test mastered? 7. Is math an invention or a discovery? 8. What is the role of the mathematical community in determining the validity of a mathematical proof? 9. Is equal fair? 10. What good is a good definition? 11. "A picture is worth a thousand words." How do you think this applies to Pre-Algebra? 12. How do justifications support conclusions? 13. To what extent do the classification systems (labels and categories) adopted in the pursuit of knowledge affect the knowledge we obtain? 14. Is there a single scientific method? Should there be? 15. What distinguishes acids from bases and why is acid rain a concern? 16. What is the difference between observation and inference? 17. Was the wheel always round? 18. How does a scientific theory become widely accepted? 19. What is the difference between a job and a career? 20. What impact does our health have on our everyday life? 21. What is «cool» ? 22. What does being «on time» mean? 23. Is fighting always bad? 24. In order to be certain of something, what constitutes sufficient evidence? Can be certain, with sufficient evidence, of something that is false? 25. What's so good (or bad) about following rules? 26. Should Health Education be part of a high school curriculum? 27. Is competition a necessary component for a good game? 28. To what extent does nutrition affect my performance? 29. How does our environment affect our athletic performance? 30. Why is there inequality in the world? 31. What does it mean to be a good student? 32. Should violence in films be restricted? 33. What is the relation between story and history? 34. To what extent are humans responsible for their own happiness (or unhappiness)? 35. What did Frank Zappa mean when he said, "talking about music is like dancing about architecture"? 36. How do we know if technology is beneficial? 37. Are huge buildings good for the environment? 38. Which, if either, is the more definitive: facts from books, or facts from databases? 39. To what extent does art impact the development of a society? 40. How does imagination (the possibility of rethinking and recreating another world) enter into the creation of art? 41. Does art have to have meaning? Conversely, if something is meaningless, can it be art? 42. Can anything be art (for example, Duchamp's <i>Fountain</i>, Cage's <i>4'33'</i>)? Are there limits to what is acceptable in art (for example, Kirkup's <i>The love that dares to speak its name</i>, Hirst's <i>Mother and Child Divided</i>)? Who decides? Is originality essential in the arts? Is the relationship between the individual artist and tradition similar in all the arts, in all cultures and across all times? 44. Does the artist carry any moral or ethical responsibility? 45. How can a two dimensional work have feeling? 		

46. Can a work of art contain or convey meaning of which the artist is oblivious?
47. How do the availability and properties of materials affect the products we make?
48. How does the design of our workspace affect our performance?
49. What is technology?
50. When is it okay to enter into someone else's fight?
51. What far should you go for friendship?
52. Why do we write? What can we do in writing that we cannot do in speech or thought?
53. To what extent can an individual transform his or her society?
54. Is history a study of the past or a study of the record of the past?
55. How do we explain the world we live in, where there is great wealth yet large numbers live in poverty?
56. How do people respond to injustice?
57. Is it reasonable to claim that mathematics is effective in accounting for the workings of the physical world?
58. To what extent is human nature fixed/ to what extent is human nature transformable?
59. How does the present inform us about the past? How does the past inform us about the present?
60. Who writes history?
- ✓ 61. How do individuals shape/ influence/ create the course of history? ✓ H & S Education /
- ✓ 62. How does society create the individual? H & S
- X 63. Was the Civil War inevitable? HI
- X 64. Was the US a democracy during the Civil Rights movement?
- ✓ 65. How do maps help us understand our environment? Envisonment
- ✓ 66. How do we know what happened in the past? (Should we celebrate Columbus Day?)
- X 67. What were the causes of the American Revolution?
- X 68. What is history? Is it the study of the past, or the study of records of the past? H & S
- ✓ 69. If truth is difficult to prove in history, does it follow that all versions are equally acceptable?
- ✓ 70. To what extent is history dependent on who kept or preserved a written record? HI
- ✓ 71. To what extent is history about those who held power, and to what extent is it about ordinary people?
- ? 72. Who is an American/ A Canadian?
What is the driving force of history?
- ✓ 73. Would you rather be good or be right? H & S
- ✓ 75. How well can fiction reveal truth? HI
- ✓ 76. Why did that particular species/culture/person thrive and that other one barely survive or die? Envir.
- ✓ 77. How does what we measure influence how we measure? How does how we measure influence what we measure?
- X 78. What's the pattern?
- ✓ 79. What couldn't we do if we didn't have numbers? HI
- ✓ 80. Who is healthy? What is 'good health'? Says who? H & S
- ✓ 81. When is it OK, even wise, to be different and when is it foolish? C & S
- ? 82. Who is an American?
83. How true is it that history is the story of the winners? H & S

Several of these are from the Diploma Program *Theory of Knowledge Guide* (2006), our school's secret source for good questions. A few are from Grant Wiggins, UBD

Please note that this is not intended to be a list of "good"/ recommended guiding questions! A few are intentionally bad.