StrateNotes

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Smarter Planning

Considering curriculum in light of standards-based reform

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Building on what we know about curriculum, teaching, and diversity, teachers must approach planning in smarter ways. We believe that "smarter" planning involves three components: content, process, and integration. This article will focus on the first component, content, and the related requirement to think differently about how we select content to reflect learning expectations specified in state and local standards. We will use the image of a curriculum "pie" and slices of that pie to consider curriculum in light of standards-based reform.

We can begin to examine what content should be emphasized by thinking about the continuum represented in Figure 1 on page 2. The many dots in this figure represent all known information about social studies, a field that incorporates a vast amount of information covering the entire development of all the civilizations. Curriculum developers group this information into disciplines such as history, civics, geography, etc., to focus learning. Within the discipline of history, courses focusing on the history of the world or on specific countries (e.g., History of the United States or History of Canada) are created. The first outer circle in the field of dots marks off and groups what is related to the field of history. Moving inward, the next circle represents the set of information that we could group as related primarily to United States history. However, because we cannot teach everything about the history of the United States, as we move inward still, the next circle represents information about the United States that might be included in a high school history class. A United States history course taught in a middle school would require another inward and smaller circle, and a course taught in an elementary classroom would require yet another inward and even smaller circle. The point here is that because of the sheer quantity of information that exists, we are constantly required to determine what to include in a course.

The question for historians and curriculum makers, however, is what makes United States history worth knowing. We create courses to help us teach important sets of information linked by big ideas that organize and help us understand a body of knowledge thought to be important. Courses that are considered to be most important are "required" courses and all students must take these courses. Elective courses are judged as important for only some students and enrollment is optional or "elective."

Now let's take a look at how we can think about course design. We use a circle

Calendar

May 29-June 2, 2001
Pedagogies for Academic Diversity in Secondary Schools Workshop for Preservice Educators
Lawrence, Kansas

June 13-15, 2001
Strategic Instruction Model: Writing Strategies Workshop
Lawrence, Kansas

June 18-22, 2001
Strategic Instruction Model (SIM) Workshop: Content Enhancement

June 20-23, 2001
Strategic Instruction Model (SIM) Workshop Level I
Lawrence, Kansas

June 20-23, 2001
Strategic Instruction Model (SIM) Workshop Level II
Lawrence, Kansas

June 21-23, 2001
California Update Meeting
Buena Park, California
All SIM Trainers welcome

June 25-27, 2001
Strategic Instruction Model: Reading Strategies Workshop
Lawrence, Kansas

July 17, 2001
Preconference Workshop
Lawrence, Kansas

July 18-20, 2001
International SIM Trainers' Conference
Lawrence, Kansas

More calendar on page 2

More calendar

July 30-August 1, 2001
Advanced Trainers' Workshop: Creating SIM Schools
Lawrence, Kansas

July 30-August 3, 2001
Workshop for Potential SIM Content Enhancement Trainers
Lawrence, Kansas

July 30-August 3, 2001
Workshop for Potential SIM Learning Strategy Trainers
Lawrence Kansas

August 6-10, 2001
SIM Learning Strategies Potential Trainers Workshop
Middletown, Connecticut

Workshop information

For a complete list of SIM workshops, including descriptions, fees, and registration information, visit our web site, www.ku-crl.org. The workshop information page, **www.ku-crl.org/htmlfiles/workshops.html**, contains links to supplemental materials, including registration forms, that may be downloaded.

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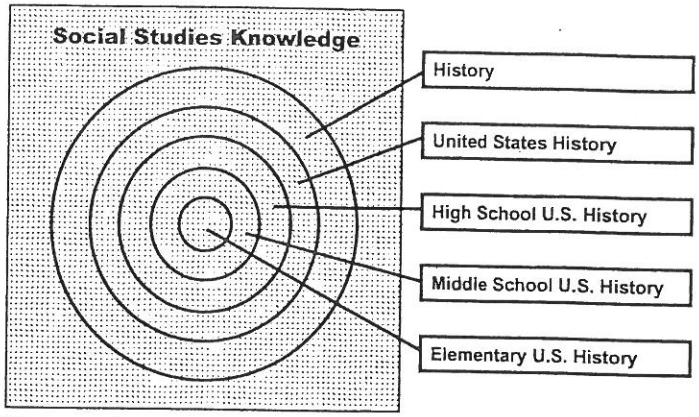

Figure 1

(Figure 2) to cluster the information that would be included in a course. As we consider the information within this circle, we need to remember that a course is based on or revolves around a set of critical ideas, represented by stars, that define how the larger set of information should be organized and understood. The figure shows these ideas as a set of stars clustered at the center or core of the circle. These ideas should be drawn from content area standards set at the national, state, district, school, department, or classroom level. They represent what is essential for all students to learn. However, more importantly, they must represent what is critical for ***all*** students to know in our society, and they must provide an anchor for all the other information that is presented in the various units in a course. In addition, decisions related to instruction, activities, and evaluation must revolve around ensuring mastery of this critical information for all students.

The unit: A slice of the course pie

Selecting critical information. Using the image of a pie to represent the curriculum of a course, we can then extend our thinking about curriculum design to the unit level. Figure 2 shows the pie sliced into pieces that may be thought of as units in a course. At this level, we can begin to think in more detail about how we will organize curriculum experiences for students. The point or narrowest part of the slice represents the critical content that all students should be expected to know and demonstrate. At the very center of this narrow area, a star is used to indicate that the content in this unit that is targeted for all students should be selected based on the degree to which it supports understanding of a critical idea, concept, or, as Wiggins and McTighe (1998) propose, an "enduring understanding" that rests at the heart of the discipline.

If all students should be able to master this content, what percentage of the content do you think this can be? It is important to remember that as classes become more diverse, it is going to take us longer to teach the same content each year. Therefore, it is important to select the set of concepts that helps organize the rest of the information in the unit and then to identify the supporting content that is absolutely critical to unlocking the discipline and the rest of the content included in the unit. The critical ideas and content in the narrowest portion of the slice should be thought of as the content that unlocks understanding of the >

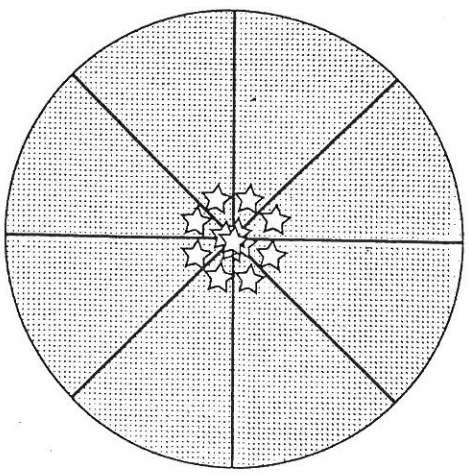

Figure 2

larger body of knowledge at the broader end of the slice. As indicated in Figure 3, the information included at the top, narrow part of the slice has the potential for having the highest negative effect on society if students do not acquire and use this knowledge. However, each teacher must determine how much of the content this represents. As an example, in the figure, 10 percent of the content is designated as critical. The part of content designated as critical may be relatively small because a unit may be constructed around only one or two critical ideas. We could expect student work that demonstrates mastery of the critical ideas and content at this level to be evaluated as "C" work, the average or expected level of performance in a secondary school curriculum.

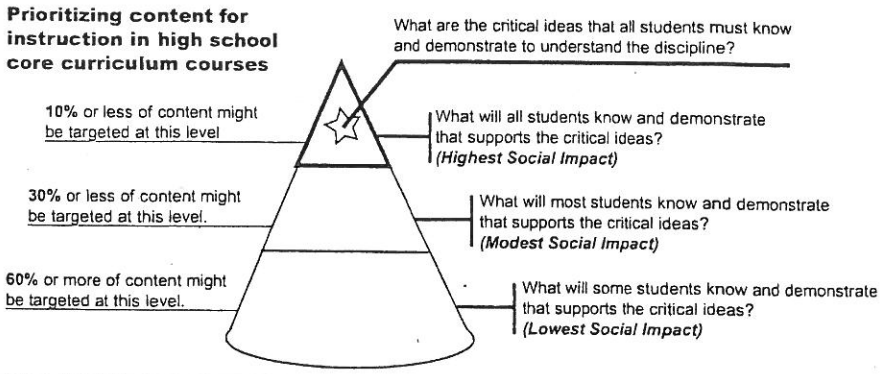

Figure 3

In a unit on the Causes of the U.S. Civil War, a critical idea that unlocks understanding might be the concept of "sectionalism"—conflicts that arose because of differences between geographical sections of the country. If a teacher believes that the concept of "sectionalism" is an important idea that is at the very heart of understanding discord between different parts of the country, then this is a critical idea to guide instruction of other content in this unit. Therefore, what must all students know about sectionalism as a cause of the U.S. Civil War?

Figure 4 illustrates how content related to a unit on the Causes of the U.S. Civil War might be sorted out. The middle area of the unit slice represents what most students should know and demonstrate about the critical idea represented by the star located at the top of the slice. The percentage of information at this level of the pie increases but is still limited because we want most students to acquire this information. We judge it to be important, but not critical. We could expect the work of students that meets the stated mastery criteria for the critical ideas and content at both the top part and the middle part of the curriculum pie to be evaluated as "B" work, above average or greater than expected level of performance in a high school curriculum.

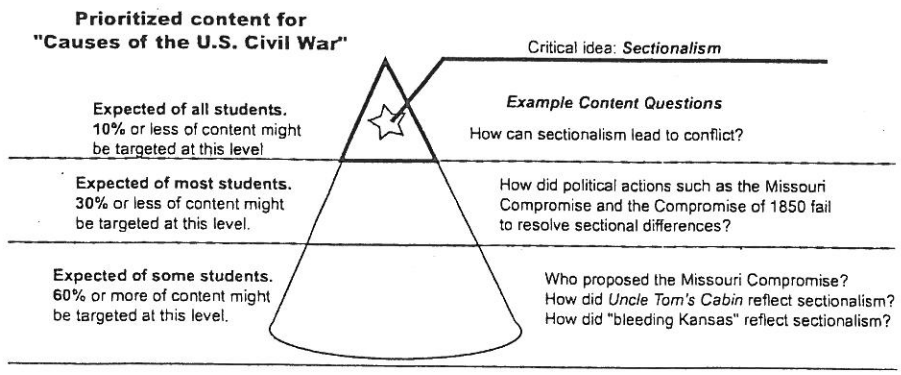

Figure 4

The broadest, lowest area of the pie represents the content in a unit that some students should know and demonstrate. The quantity of information at this level is the most extensive and, to a large degree, is highly personalized. This area of the pie does not represent information that is unimportant or trivial; it may be interesting information, and it might ignite the imagination of some students. As such, the information here may be helpful to students doing research projects or reports or for students who want to extend their learning to a more detailed level. However, our expectations as teachers should be that, since this content is not essential to understanding the big ideas and supporting information of a unit, smaller amounts of instructional time should be devoted to it than to the critical ideas and information of the course. Similarly, it should not occupy a significant share of the assessment of student mastery of the unit content. We would expect the work of students meeting the stated mastery criteria for the critical ideas and content at all three levels of the pie to be evaluated as "A" work, well above average or the highest level of expected performance in a high school curriculum.

It is important to recognize that although we cannot expect all or even most students to become proficient at this level, all students ▷

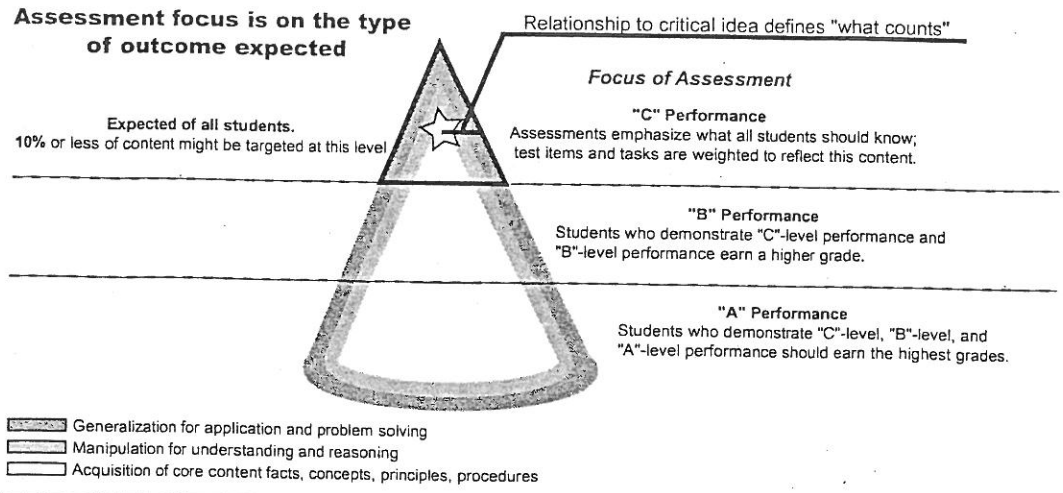

Figure 5

should have access and opportunities to connect with information at this level. The information here may prompt some students to want to launch an investigation or explore a critical idea in the unit. An author may become known; a local issue may take on personal importance; a career or lifelong interest may take shape. In other words, the information in this area of the pie is worth knowing and all students should have an opportunity to know it. However, in terms of planning for instruction and assessment in the real world of limited time and resources, information at this level of the curriculum slice is not critical for understanding the important ideas of a unit. All students should have the opportunity to learn it; not all students should be held accountable for it in terms of passing or failing.

However you choose to think about selecting critical content, it remains as an essential step in planning and an essential process for including all students in learning. If choices about critical content are not made at this early stage, you run the risk that instructional time, focus, and energy will evaporate as you try to cover everything. And in trying to cover everything, you run the risk that instruction and learning will be superficial for all students. This is not an effective way to include all students in learning.

Ways of thinking. In addition to prioritizing content for purposes of instruction and assessment, it is important to think about the different ways students will be expected to think about and use the knowledge they will be learning. These ways of thinking are often discussed in preservice texts in the context of Bloom's taxonomy of cognitive objectives (see for example Sadker & Sadker, 1999). We have found in talking to teachers over the years that, in practice, they find the six levels of Bloom's taxonomy cumbersome and that the levels overlap a great deal. Consequently, we have consolidated the taxonomy of cognitive objectives to three levels: acquisition, manipulation, and generalization. Acquisition corresponds to Bloom's levels of knowledge and comprehension; manipulation corresponds to application, analysis, and synthesis; and generalization corresponds to evaluation.

Figure 5 applies these ways of knowing to the unit slice we have been discussing. The white interior area of the slice represents student performances demonstrating student acquisition of facts and concepts. Moving outward from the center area is the next layer, shaded light gray, which represents student manipulation of information (e.g., compare/contrast, cause/effect). The outermost layer, shaded darker gray, represents student performances where there is generalization of content knowledge so that it may be applied and used. Note that all three ways of thinking—acquisition, manipulation, and generalization—are addressed in all three content sections of the slice. At the top of the unit slice, the important ideas and information of the unit may comprise a small portion of the total amount of content information to be learned, but all students will be expected to successfully use cognitive processes of acquisition, manipulation, and generalization to process that knowledge. Acquisition of the content knowledge in this top slice as well as manipulation and generalization in using this content will result in students attaining a passing grade (commonly associated with a "C" performance).

Assessing competence

Standards-based reform requires that we think about what we teach (the content standards) and how we want students to demonstrate competence (performance standards). The discussion up to this point has focused on what to teach and

how to make decisions about where to focus instructional time and resources. However, we also must think about how we want students to demonstrate what they have learned and how to develop assessment tasks.

Figure 5 shows how the slice of course pie can be divided top to bottom indicating how content is prioritized and how it can be divided into layers from the inside out to indicate how we can develop expectations about student performance in manipulating content.

The white, innermost area within the top triangle section of the unit slice represents the information that we need students to know so other learning can occur (e.g., What is democracy? What is a simple sentence? How do you measure a room? What is a mammal?). At this level, teachers assess whether students have ***acquired*** knowledge of facts, concepts, principles, and procedures. In assessments of this type, students may be asked to identify, state, define, or summarize the information they have acquired. This allows teachers to determine whether students know facts and understand concepts, principles, and procedures and whether they comprehend the information at a level that allows them to explain or summarize the information in their own words.

Moving outward through the layers of performance expectations, the next layer (light gray) indicates expectations related to how we want students to manipulate the content core. This layer represents expectations regarding how we want students to think about and explore information (e.g., Why do people value democracy? How are simple and compound sentences alike and different? How can measuring wrong affect construction costs? How are mammals different from birds?). At this level, teachers assess whether students have acquired an ability to use or ***manipulate*** the information that they have acquired. In assessments of this type, students may be asked to analyze the characteristics of concepts, compare or contrast information, or cluster information based on similarities of characteristics. They also may be asked to apply information they have learned in the content area. In short, the students will be asked to manipulate or use the information they have acquired.

Moving outward again to the outermost layer (dark gray), this layer indicates teacher expectations related to application of information to the real world in the form of novel problem solving and generalization (e.g., How has creating a democracy affected the people of Russia? Write a letter to persuade the mayor about something that is important to you. What kind of apartment can you afford in this neighborhood on the salary of the job that you plan to get when you graduate? How will recycling affect your taxes and environment over the next 10 years?). At this level, teachers may ask students to use the information they have acquired in new situations, that is, to ***generalize*** their knowledge to new challenges. This may involve creating new solutions or plans, solving ill-defined problems, evaluating materials or methods, making decisions, persuading others of their opinions, or inferring patterns.

To summarize, using Figure 5 can help you visualize how to select and prioritize content students will learn. It also can help you visualize what your expectations are about how students will process content. For each level of content, from the essential ideas and information all students must master to the information and ideas that are less essential, all students will be expected to process information at all three layers of acquisition, manipulation, and generalization. Because the information selected for assessment will not be limited to any one type of content information (i.e. from any one level of prioritized content), instruction should result in all students being able to meet performance standards for all three types of knowledge.

References

Sadker, M. & Sadker, J. (1999). Questioning skills. In J.M. Cooper (Ed.), *Classroom teaching skills* (pp. 101-146). Boston: Houghton Mifflin.

Wiggins, G. & McTighe, J. (1998). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

Web links

Read more about links between strategic instruction and schoolwide reform efforts in this article by CRL's Keith Lenz, senior research scientist, and Barbara Ehren, research associate.

- Strategic Content Literacy Initiative: Focusing on Reading in Secondary Schools
  www.ku-crl.org/archives/1999/1199spot.html

SIMville

- **Conference information: registration form, preconference registration form, call for presentations**
  www.ku-crl.org/htmlfiles/announcements/conference.html
- **Advanced Trainers' Workshop registration form**
  www.ku-crl.org/htmlfiles announcements/advanced.html

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SIMville

SIMville is the first place to look for training and classroom activities. From the Center's web site,

www.ku-crl.org

click on "SIM Trainer Resources." When you select the log on option, you will be asked for a password. Type "**strategic**" in the box (do not type the quotation marks). The password is case-sensitive, so you must use all lowercase letters. Click on the "OK" button. To bypass the password screen in the future, bookmark the first SIMville page.

California update opportunity

It's time to make plans if you want to attend the SIM Trainers' Update Conference in California in June. The registration form is below. The conference will be June 21-23 at the Radisson Resort in Buena Park, California. Don Deshler will meet with the group at 5:30 p.m. Thursday, June 21, to engage in a strategic planning session for those interested in building a statewide SIM program. Also on the agenda are Michele Alianell and Judy Schroeder, LINCS; Jacob Bertucci and Ginger Williams, spicy training ideas; and the new manuals from CRL, *Talking Together* and *Strategic Tutoring.*

For complete conference information, including hotel and transportation information, see our web site:
www.ku-crl.org/htmlfiles/workshops.html

California SIM Trainers' Update Conference

June 21-23, 2001
Radisson Resort
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Call **(800) 333-3333** for room reservations

Name: _____

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For registration postmarked after May 8, 2001, add a $10 late fee.
If your institution is paying your bill and is not able to meet this deadline, please send us the completed registration form by May 8 and indicate that payment will follow. A late fee will not be charged in this case.

Amount Enclosed:

Registration	$100.00 (U.S.)	_____
Late Fee	$10.00 (U.S.)	_____
Total		_____

For anyone who registers after **June 7, 2001,** meals may not be available unless we have other cancellations. Conference payments to the hotel must be made in advance of the conference. Refunds to individuals who have paid and are not able to attend may not be made unless other people assume the reservation.

Manuals on which I would like to receive training: