

# Don't Water Down!

# ENHANCE

## Content Learning Through the Unit Organizer Routine

Daniel J. Boudah • B. Keith Lenz • Janis A. Bulgren • Jean B. Schumaker • Donald D. Deshler

*If it weren't for students impeding our progress in our race to the end of the term, we could certainly be sure of covering the material. The question, however, is not whether we as teachers can get to the end of the text or the end of the term, but whether our students are with us on that journey.*

(P. Cross, personal communication, 1994)

These remarks are an accurate and thoughtful response to some of the greatest challenges facing secondary teachers today as they attempt to meet their students' needs.

- The volume of information teachers are expected to teach is expanding dramatically, while the amount of instructional time remains constant.
- The community's expectations for improved student performance on local, state, and national competency exams are constantly increasing.

- Much of the information teachers are expected to teach is extremely complex, abstract, and often of little interest to students.
- Today's classes are becoming increasingly diverse and frequently include students who are high, average, and low achieving, as well as students who are considered gifted, students with disabilities, and those who are at risk for school failure. Thus, meeting the varying needs of students from each of these groups while fulfilling the other demands related to content

coverage poses an enormous task for the secondary classroom teacher.

To meet these challenges, we need instructional techniques that do not simply water down content learning, but are effective—and also acceptable to both teachers and students. This article translates one research-based teaching technique into practice. We describe and illustrate the instructional procedures, offer practical tips, and cite additional resources to support teachers.

### **Content Enhancement and the Unit Organizer Routine**

Content Enhancement is a strategic approach to planning for and teaching content to academically diverse groups of students. It involves making decisions about what content to emphasize in teaching, transforming that content into learner-friendly formats, and presenting this content in memorable ways. In short, through application of sound instructional principles and techniques, teachers can enrich the learning of all students without sacrificing important content. Moreover, teachers carry out

instruction in an engaging partnership with students.

We have developed and validated several Content Enhancement instructional techniques, or "routines," in cooperation with teachers (e.g., Bulgren, Schumaker, & Deshler, 1993; Lenz, Marrs, Schumaker, & Deshler, 1993). These routines are commercially available with training (see box, "Additional Resources"). One Content Enhancement routine is called the Unit Organizer Routine. This routine focuses on how a teacher introduces, builds, and gains closure on the critical ideas and information in a content area unit. A unit is any "chunk" of content that a teacher selects to organize information into lessons and that ends in some type of test or closure activity. Typically, a content area course (e.g., science, history, math, English) is divided into several such units that may or may not conform to the organization of a textbook. Teachers and students often benefit from use of a routine designed to organize and enhance understanding of these chunks of content information.

The Unit Organizer Routine can help teachers plan for, introduce, and build a unit so that *all* students can do the following:

- Understand how the unit is part of bigger course ideas or a sequence of units.
- Understand the "gist" or central idea regarding the unit through a meaningful paraphrase of the unit title.
- See a structure or organization of the critical unit information.
- Define the relationships associated with critical information.
- Generate and answer questions regarding key unit information.
- Monitor their progress and accomplishments in learning.
- Keep the "big ideas" and structure of the unit in mind as they learn the unit content.

---

***The Unit Organizer enables teachers to present the content of a unit in an interactive way to students.***

---

In general, teachers can use the Unit Organizer to help students understand where they have been, where they are, and where they are going on their journey through the content.

To introduce and teach the information in a unit, teachers use a visual device, called the *Unit Organizer*. During the interactive presentation of the Unit Organizer, teachers follow a set of instructional steps, called *Linking Steps*, that are imbedded within an instructional sequence—the *Cue-Do-Review Sequence*. Thus, successful use of the Unit Organizer Routine is based on three critical components: the Unit Organizer device, the instructional Linking Steps, and the Cue-Do-Review Sequence.

### **The Unit Organizer Device**

To help teachers present their "vision" of a unit's information, they can use a visual device, called the Unit Organizer. Serving as the "centerpiece" of the Unit Organizer Routine, the Unit Organizer graphically organizes and depicts the content of the unit and related information.

The Unit Organizer consists of two pages:

- Page 1 presents an overall organization for the unit information, relationships, questions, and tasks.
- Page 2 provides an ongoing structure for effective note-taking.

Typically, the teacher and students construct Page 1 together at the introduction of a unit, when they simultaneously construct information on blank Unit Organizer forms. Figures 1 and 2 show templates for Pages 1 and 2, respectively; Figures 3 and 4 show examples of the completed pages. As the teacher and the students progress through the unit, they co-construct Page 2 as they add and connect relevant and important details that support the key information presented on Page 1.

The completed examples in Figures 3 and 4 show what the teacher and students created for a unit on the causes of the Civil War in a high school U.S. history class. As illustrated, a Unit Organizer does not depend on a textbook. Teachers and students can use the device to tie together information in a

---

***Content Enhancement involves making decisions about what content to emphasize in teaching, transforming that content into learner-friendly formats, and presenting this content in memorable ways.***

---

unit for which there is no textbook or to pull multiple textbook sections, chapters, or sources together to create a unit.

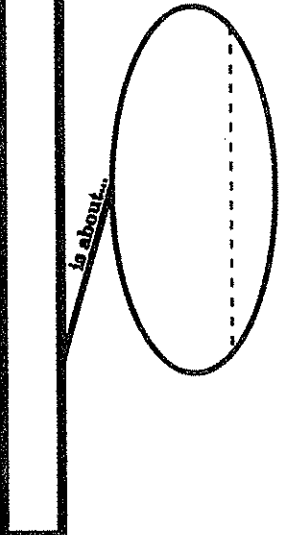
### **The Unit Organizer Sections**

Each section of the Unit Organizer contains a specific type of information related to the unit.

1. *Current Unit*. In this section, students write the title of the new unit. This may be the name of the section of a textbook on which you are basing the unit or the name you give the unit. In Figure 3, the name of the current unit is "Causes of the Civil War."
2. *Last Unit/Experience*. The information in this space includes the name of the last unit that was covered or the last experience the students had relating to the current unit. In Figure 3, the name of the last unit was "Growth of the Nation."
3. *Next Unit/Experience*. In this section, students write the name of the unit or experience that will follow the current unit. In Figure 3, the name of the next unit is "The Civil War."
4. *The Bigger Picture*. This section contains the name of the theme or larger category that holds several units together. In general, the name of this section, "The Bigger Picture," helps students understand how multiple units are related. In Figure 3, for example, the theme or larger category into which the last, current, and next units fit is "The Roots and Consequences of Civil Unrest."
5. *Unit Map*. The unit map—the heart of the Unit Organizer—includes two sources of information, as follows:



Figure 2. Second Page of a Blank Template for the Unit Organizer Device

NAME _____ DATE _____		
<b>The Unit Organizer</b>		
③ EXPANDED UNIT MAP		

**Figure 3. First Page of a Completed Unit Organizer Device**

**The Unit Organizer** NAME: Elda Cordora  
DATE: 1/22

④ BIGGER PICTURE: The roots and consequences of civil unrest.

③ LAST UNIT/Experience Growth of the Nation	① CURRENT UNIT The Causes of the Civil War	② NEXT UNIT/Experience The Civil War
--	---	---

⑤ UNIT SCHEDULE 1/22 Cooperative groups - over pp. 201-210 1/25 Quiz 1/25 Cooperative groups - over pp. 210-225 "Influential Personalities" project due 1/30 Quiz 2/2 Cooperative groups - over pp. 225-234 2/6 Review for test 2/7 Review for test 2/6 Test	⑥ UNIT MAP 
---	----------------

⑦ Unit Self-test Questions What was sectionalism as it existed in the U. S. of 1860? How did the differences in the sections of the U.S. in 1860 contribute to the start of the Civil War? What examples of sectionalism exist in the world today?	⑧ Relationships Unit descriptive compare/contrast cause/effect
---	---

**Figure 4. Second Page of a Completed Unit Organizer Device**

**The Unit Organizer** NAME: Elda Cordora  
DATE: 1/22

The Causes of the Civil War

⑨ Expanded Unit Map

⑩ New Unit Self-test Questions  
How did national events and leaders pull the different sections of the U.S. apart?

---

*Within the unit map, you should draw lines between the geometric shapes and the unit paraphrase and include "line labels" on each line to indicate the relationships between the parts and the main idea of the unit.*

---

- **Unit Paraphrase**—a "gist" statement, written in the oval at the top of the map, along with the page numbers of the text related to it. The unit paraphrase captures the central point or meaning of the current unit. Students write this paraphrase in words that they can easily understand and relate to, or as in the Figure 3 example, in words that reveal the central meaning of the unit title. Students can use a horizontal dotted line to separate the paraphrase from the text page numbers where they can find relevant information. In Figure 3, the unit paraphrase translates the name of the current unit, "Causes of the Civil War," into the central idea of "Sectionalism."
- **Graphic Organizer**—a type of flow chart or "semantic" map showing the organization of the unit content. Students write key words within geometric shapes, such as ovals, to indicate the parts of the unit to be learned. In Figure 3, the unit map illustrates the four parts of the unit on the Civil War: "Areas of the U.S.," "Differences Between the Areas," "Events in the U.S.," and "Leaders Across the U.S." As a rule, the unit map should include no more than seven parts.

Within the unit map, students should draw lines between the geometric shapes and the unit paraphrase and include "line labels" on each line to indicate the relationships between the parts and the main idea of the unit. Students write the line

labels in such a way that the words in the unit paraphrase, the line label, and the words in a connected geometric shape then form a complete sentence. The lines and line labels are critical elements in the map that help students understand how the parts of the unit are connected or related. When you include lines and line labels, you enable students to remember substantially more about unit information (Novak & Gowin, 1984).

6. **Unit Relationships.** Students use this section to write the names of relationships that might be important to look for and the kinds of thinking required to learn the unit information. In Figure 3, for example, the teacher and students noted that the various areas of the nation must be described and then compared and contrasted to understand how their differences led to the Civil War.
7. **Unit Self-Test Questions.** Students use this section to generate and write questions related to different parts of the unit that they should be able to answer when the unit is complete. Later, when preparing for the unit test, students can ask themselves these questions to review the content of the unit. Figure 3 shows one of the questions that students generated about the Civil War: "What was sectionalism as it existed in the U.S. of 1860?"
8. **Unit Schedule.** The information in this section summarizes the schedule of required tasks, activities, or assignments that students must complete during the course of the unit. In this section, students write down their list of projects, homework assignments, and tests, rather than lesson topics for the unit. Figure 3, for example, shows dates in the square boxes and associated tasks and assignments in the adjacent rectangular boxes. Students should leave spaces in the schedule for items you or the students decide to add later during the unit.
9. **Expanded Unit Map.** After you introduce the unit, and you and your students complete the first page of the Unit Organizer, you can use the sec-

ond page throughout and at the end of the unit to expand the unit map by adding critical subtopics, details, and key vocabulary in note form. Together, you and your students can identify and add these details daily to the expanded unit map as extensions of the original parts of the map. Students can use the expanded map as a note-taking device during daily lessons or during review at the end of each lesson. Figure 4 shows the expanded unit map for the unit on the "Causes of the Civil War."

10. **New Unit Self-Test Questions.** Use the space below the expanded unit map to write questions that you and your students identify as you explore the unit. For example, Figure 4 shows a question the teacher and students added to the expanded unit map: "How did national events and leaders pull the different sections of the U.S. apart?"

#### **An Abbreviated Example of How to Use the Unit Organizer Routine**

Using the Cue-Do-Review sequence (see box, next page), lead students through the content of the unit by engaging them in the Unit Organizer Routine.

#### **Cue**

Hand out blank copies of the Unit Organizer device and explain that the class will be beginning a new unit, using the Unit Organizer. Show a blank Unit Organizer on an overhead projector and explain that you will complete that one as students complete their own. This should take only a few minutes. In addition, the first time the Unit Organizer is used, spend a few minutes talking about what it means to be organized at home, organized with schoolwork in a binder, and then talk about the value of the Unit Organizer for organizing class information. Each subsequent time that a Unit Organizer is used, it would still be valuable to review the benefits of using the device and your expectations for student participation.

#### **Do**

Engage students in completing the Unit Organizer, using a set of Linking Steps.

### **Cue It! Do It! Review It!**

**A Cue-Do-Review sequence is a simple formula for making the most of the Unit Organizer Routine (or any instructional strategy). You can use it to focus students' attention on the Unit Organizer device, implement the device, and check student understanding. Mark Twain might have referred to this as "You tell 'em what you're gonna tell 'em. You tell 'em. And you tell 'em what you told 'em." Here's how it works:**

- 1. Provide a "Cue." As with any instructional device (e.g., globe, video, role play activity, graphic organizer), you will enhance students' understanding by (a) directing their attention to the device and explaining what it is (if it is not already obvious), (b) explaining your expectations, and (c) showing how using the device will help students succeed.**
- 2. In the "Do" step, use a set of Linking Steps for (a) introducing, (b) using and expanding, and (c) gaining closure on a unit with the Unit Organizer.**
- 3. In the "Review" step, use a simple review to check and clarify student understanding of information discussed, as well as the process for using the Unit Organizer.**

Linking Steps refer to the procedures a teacher uses to present the content of a unit in an interactive way to students. Linking Steps guide the way the Unit Organizer is used when introducing the unit (using Page 1 of the Unit Organizer), expanding the unit (using the Expanded Unit Organizer), and gaining closure on the unit. Although it would take less time to simply tell students what to write in each of the sections of the Unit Organizer, prompt student responses with questions that will enable them to actively use the device and will enhance their learning at each step.

First, help students to see the overall context of the unit and how the new unit is related to previous and future learning. Ask students to recall the

---

*Using the Unit Organizer, teachers ask students to discuss and identify possible relationships or kinds of thinking required to understand the information in the main parts of the unit.*

---

name of the previous unit, prompt them to look at a text for the name of the current unit, and hypothesize the name of the next unit. Then ask them how the three units fit together, what they have in common, or the name of a larger category to which they might belong. Students seldom may be asked to think and respond to questions at that level, but even upper elementary students are able to provide reasonable responses when asked. With any group of students, it may be necessary to paraphrase a student's response to clarify the bigger picture. Complete Sections 1-4 of the Unit Organizer at this step when introducing the unit, and review the information in these sections at unit closure.

Second, discuss and complete information in the Unit Map in order to help students identify and see the structure of main ideas or parts of the unit. If a major part of the unit includes a textbook chapter, ask students to survey the chapter for major headings, discuss probable main ideas, and then write them on the Unit Map in Section 5 of the Unit Organizer. For younger students and for the benefit of those with poor motor skills, help students by showing them how to map out (i.e., draw) the total number of ovals or shapes that correspond to the number of main ideas that will be present on the

completed Unit Map. Do so before discussing and writing the names of the main ideas in the ovals. Also, don't forget to include the lines and line labels! Throughout daily lessons in the unit, connect critical details and information to the main ideas on the Expanded Unit Map in Section 9. Review the information in both sections at unit closure.

Third, after students see how the critical parts of the unit are structured, ask them to discuss and identify possible relationships or kinds of thinking required to understand the information in the main parts of the unit. Prompt students to analyze the Unit Map, the main ideas contained in it, and the relationships among the main ideas, and their relation to the Unit Paraphrase. Using the completed example in Figure 3, ask questions such as "We have one main idea regarding the sections of the country. On a test, what might you be asked to do? How might you be asked to think about that information?" Write these unit relationships in Section 6 of the Unit Organizer when the unit is introduced, and be sure to review them at the end of the unit.

Fourth, prompt students to create some good questions that correspond to the different parts of the unit map and unit context. For a moment, students can pretend that they are the teacher and select test questions. Work with students to make sure that critical questions related to mastery of the content are included and recorded in Section 7 of the device. The Unit Relationships also may be clarified at this step as students recognize the kinds of thinking that are required (e.g., listing, explaining, comparing, predicting) to address the questions that they write.

As an alternative, some teachers have found it beneficial to write the Unit Self-Test Questions in Section 7 before analyzing the Unit Relationships in Section 6 because the latter step is less difficult for many students if the self-test questions can be identified first. For example, after writing the questions, some teachers prompt students to identify whether certain questions would require students to compare, explain, name, or problem-solve, or use other thinking skills, and then write students'

responses into the Unit Relationships section.

As the unit progresses, record new questions in Section 10. Review the questions from Section 7 of the Unit Organizer and, later, from Section 10 of the Expanded Unit Organizer throughout the unit and at the end of the unit, before any test.

Finally, describe and create the list of assignments and due dates to assist students in planning for, managing, and completing tasks and assignments related to the current unit. Prompt students to write these assignments in Section 8 of the Unit Organizer when the unit is introduced. Be sure to review the list throughout the unit.

When co-constructing the first page of the Unit Organizer device at the beginning of a new unit, the "Do" step may take an entire class period (i.e., 45-55 minutes) or more depending on student discussion and content difficulty.

### Review

After introducing the unit, after adding daily information in the Expanded Unit Organizer, and at the closure of a unit, it is important to check student understanding. After co-constructing the Unit Organizer at the beginning of a unit, take a few minutes to review the information contained in all eight parts of the device. Ask questions like these:

- What's the name of the new unit?
- What's another way of writing the name of the unit?
- How many main parts are there in the unit?
- What questions should we be able to answer by the time we finish the unit?
- What process did we go through to really understand this unit?
- When is your test?

Also, ask students to describe how the Unit Organizer helped them to learn.

### Tips, Suggestions, and Modifications

#### Planning Tips

First, when you are ready to use The Unit Organizer Routine, begin by selecting one class in which to try it out—perhaps your least demanding class in

terms of diversity or classroom management. Also consider beginning with a unit that is fairly uncomplicated or one that includes more concrete information rather than more abstract information. For instance, a unit on mammals might be a better place to start than a unit on photosynthesis.

Second, collect the materials you plan to use in your unit, such as slides and textbooks.

Third, always construct a draft of the Unit Organizer device before introducing it to the class. The Unit Organizer truly does work well as a planning routine as well as a teaching routine. In fact, the first time you plan while using the Unit Organizer, you may find that it takes some extra time because you might realize ways to better organize unit information that you may have presented many times before.

#### Logistical Suggestions

When you are ready to introduce a new unit with the Unit Organizer, consider these suggestions:

- Copy and distribute to students two-sided copies of the Unit Organizer device with the main Unit Organizer on one side and the Expanded Unit Organizer on the second side.
- Cue students to take notes on the Unit Organizer.
- Use fine- or extra-fine-tip overhead transparency pens to add information to the Unit Organizer during presentations.
- Construct the Expanded Unit Map using different geometric shapes (e.g., ovals for main ideas, squares for first level details, and triangles for less important details).
- Vary the colors in construction of the Expanded Unit Map to reflect different levels of information or detail.
- When co-constructing the Expanded Unit Map with students, use "Inspiration" software, from Inspiration Software, Inc., to quickly and neatly lay out the critical and connected details with the use of technology.

#### Ideas for Modifications

In addition, consider these modifications for students with disabilities and others who are low achieving:

---

*The Unit Organizer Routine can provide a powerful and effective way for teachers to plan for and teach students with and without disabilities in content area classes.*

---

- Rather than constructing a Unit Organizer on an overhead projector, enlarge the device and create a laminated copy to post on the wall and construct it there.
- Create a blank Unit Organizer on a bulletin board, cut out geometric shapes from construction paper, and tack them up on the bulletin board to display unit information.
- Draw empty geometric shapes on a Unit Organizer or partially complete the Unit Organizer before copying for students.
- Enlarge the Unit Organizer onto legal size (8"x14") paper for students to complete.
- As a review activity before a test, hand out 3"x 5" index cards or colored Post-Its or "sticky notes" to small groups of students and prompt them to reconstruct the organization of unit main ideas and details on poster paper, as well as draw in the lines and line labels.

#### Assessment Considerations

When you are ready to assess student learning at the end of a unit, be sure that your test reflects the emphasis of your Unit Organizer and its sections. In other words, if you had previously used a particular unit test with the same unit in previous school years, evaluate the test to see whether the big ideas are emphasized over the smaller ones.

---

*Students can pretend that they are the teacher for a moment and select test questions.*

---



## Research Supporting the Unit Organizer Routine

Researchers conducted a study of the Unit Organizer Routine (Lenz, Schumaker, et al., 1993) in the U.S. Midwest across three high school and three middle school general education classrooms identified as being inclusive by the school district. The researchers collected data intensively through the use of single-subject, multiple-baseline designs on two high-achieving, two average-achieving, two low-achieving, and two students classified as having a learning disability. The researchers collected student performance data over a 7-month period.

Research has shown that use of the Unit Organizer Routine enhanced teacher planning and the performance of low-achieving students, students with learning disabilities, and average-achieving students. These students substantially improved their understanding and retention of information. In fact, among these groups, the students of teachers who used the routine regularly and consistently scored an average of 15 percentage points higher on unit tests than did students of teachers who used it only irregularly.

Teachers also reported that the Unit Organizer Routine helped those students with language problems and whose first language was not English acquire secondary content. Although the overall performance of high-achieving students did not substantially increase in these studies, the researchers observed increases in performance when the content became more difficult and abstract for individual students. Since the original study was conducted, teachers in many culturally and geographically diverse communities throughout the United States have replicated the results.

Construct and weight test items that assess understanding of big ideas rather than rote recall of details. More specifically, consider including questions that relate to explaining the unit map and the relationships among critical pieces of information.

### Final Thoughts

Research on the Unit Organizer Routine (Lenz, Schumaker, et al., 1993) has shown that teacher planning was enhanced and the performance of low-achieving students, students with learning disabilities, and average-achieving students improved substantially in regard to understanding and retaining information. In fact, the students of teachers who used the routine regularly and consistently scored an average of 15 percentage points higher on unit tests than did students of teachers who used it only irregularly (see box, "Research Supporting the Unit Organizer Routine").

Teachers and students who achieve these kinds of results are truly winners. This winning attitude was expressed by

one teacher who said, "Focusing on the 'big idea' questions enables me to think more clearly about what are the tools or things I can give students to have them see the patterns" (V. Arndt Helgesen, personal communication, 1993). Thus, the Unit Organizer Routine can provide a powerful and effective way for teachers to plan for and teach students with and without disabilities in content area classes because it focuses on quality rather than simply on quantity. Together, teachers and students can more successfully navigate each unit journey from beginning to end without watering down the learning outcomes.

### References

- Bulgren, J. A., Schumaker, J. B., & Deshler, D. D. (1993). *The concept mastery routine*. Lawrence, KS: Edge Enterprises.\*
- Lenz, B. K., Marrs, R. W., Schumaker, J. B., & Deshler, D. D. (1993). *The lesson organizer routine*. Lawrence, KS: Edge Enterprises.\*
- Lenz, B. K., Schumaker, J. B., Deshler, D. D., Boudah, D. J., Vance, M., Kissam, B., Bulgren, J. A., & Roth, J. (1993). *The unit planning routine: A guide for inclusive planning* (Research Report). Lawrence,

## Additional Resources

Lenz, B. K., Bulgren, J. A., Schumaker, J. B., Deshler, D. D., & Boudah, D. J. (1994). *The unit organizer routine*. Lawrence, KS: Edge Enterprises.

This teacher manual, as well as others in the Content Enhancement Series, are available with training. For more information, contact Janet Roth at The University of Kansas, Center for Research on Learning, 3061 Dole Building, Lawrence, KS 66045. Phone: 785-864-4780; e-mail: JRoth@quest.sped.ukans.edu

KS: University of Kansas Center for Research on Learning.

Novak, J. D., & Gowin, D. B. (1984). *Learning how to learn*. New York: Cambridge University Press.\*

## BooksNow

\*To order books marked by an asterisk (\*), please call 24 hrs/365 days: 1-800-BOOKS-NOW (266-5766) or (801) 261-1187; or visit them on the Web at <http://www.BooksNow.com/TeachingExceptional.htm>. Use VISA, M/C, or AMEX or send check or money order + \$4.95 S&H (\$2.50 each add'l item) to: BooksNow, Inc., Suite 220, 348 East 6400 South, Salt Lake City, UT 84107.

Daniel J. Boudah (CEC Texas Federation), Assistant Professor, Department of Educational Psychology, Special Education Programs, Texas A&M University, College Station. B. Keith Lenz (CEC Chapter #665), Senior Research Scientist; Janis A. Bulgren (CEC Chapter #665), Senior Research Scientist; Jean B. Schumaker (CEC Chapter #665), Associate Director; and Donald D. Deshler (CEC Chapter #436), Director, Center for Research on Learning, University of Kansas, Lawrence.

Address correspondence to Daniel J. Boudah, Department of Educational Psychology, Special Education Programs, Texas A&M University, 704 Harrington Education Center, College Station, TX 77843-4225 (e-mail: [boudah@acs.tamu.edu](mailto:boudah@acs.tamu.edu)).

TEACHING Exceptional Children, Vol. 32, No. 3, pp. 48-56.

Copyright 2000 CEC.