The Use of Graphic Organizers To Improve Comprehension of Learning Disabled Students in Social Studies.

This study examined the effectiveness of two approaches to enhancing the reading comprehension of learning disabled students in the social studies content area. An approach using the graphic organizer in the form of visual displays was compared to the traditional method in which students were presented content through lecture, text, and linear notetaking. Four chapters from the history text were chosen and taught to eight senior high school learning disabled students over a period of four months, approximately 41 minutes daily. Two chapters were taught using graphic organizers as a teaching method and study tool, and two chapters were taught via lecture/linear notetaking. Posttests on each chapter were given. Results indicated significant positive effects favoring graphic organizer instruction. (Contains 33 references and a table of data; appendixes contain 5 graphic organizers.) (Author/RS)
THE USE OF GRAPHIC ORGANIZERS TO IMPROVE COMPREHENSION OF LEARNING DISABLED STUDENTS IN SOCIAL STUDIES

By Carole S. Doyle

Presented in Partial Fulfillment of the Requirements for the Degree of Masters of Art

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Abstract

This study examined the effectiveness of two approaches to enhancing the comprehension of learning disabled students in the social studies content area. An approach using the graphic organizer in the form of visual displays was compared to the traditional method in which students were presented content through lecture, text, and linear notetaking. Four chapters from the history text were chosen and taught to eight senior high school learning disabled students over a period of four months, approximately 41 minutes daily. Two chapters were taught utilizing graphic organizers as a teaching method and study tool, and two chapters were taught via lecture/linear notetaking. Posttests on each chapter were given. Results indicated significant positive effects favoring graphic organizer instruction.
Acknowledgments

I would like to thank my professors at Kean University for all of their help. I would like to acknowledge my two sons, Jamie and Matthew, for their continued love, understanding, and support over the past four years. There were many nights they felt motherless. Also, to my friend Don, who helped things run smoothly in my frequent absences. And most importantly, to my father, who set the example of continuing our education.
Dedication

This thesis is dedicated in memory of my mother, who always had a book in her hand. It was she who instilled in me the love of reading.
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Table 1  Mean, Standard Deviation, and t of the Samples' Posttests  8
Many researchers have been seeking effective strategies for delivering content to students with learning disabilities. Learning disabled students are often assumed to differ from normal achieving students in their ability to acquire information in the classroom. This difference becomes more pronounced at the secondary level where students must make the transition of reading narrative text to reading expository text. Teachers assume the students have been taught the necessary strategies to succeed in their subjects, and therefore concentrate on the content. Holley and Dansereau (1994) found that one of the most difficult reading situations encountered in schools was the task of successfully extracting, remembering and retrieving information from an expository textbook.

The other area of concern is the predominant teaching style in core courses at the secondary level: the lecture. Shumaker, Sheldon, and Sherman (1980) noted that secondary students spend seventy percent of class time in which information being imparted is in the lecture mode. By the time learning disabled students reach high school, they have mastered basic academic skills only to the fourth-to-sixth grade level (Warner, Alley, Deshler & Shumaker, 1980). LD students may also have attention deficits and receptive language problems. These learning deficiencies contribute to difficulties in meeting classroom demands. Poor listening skills, writing and spelling deficits will affect notetaking
while reading deficits may affect comprehension.

As a result, students aren't actively engaged in the learning process. Learning disabled students need to be taught strategies which they can use to respond to instruction to overcome their deficits (Crank, 1995). Since many LD students appear to be strategy deficient (Gruber, 1983), teachers need to change the mode of content presentation and focus on integrated instructional methods.

A learning strategy that has received much attention by both researchers and teachers is the use of graphic organizers and its effectiveness in facilitating comprehension of learning disabled students in social studies. Reading with an appropriate graphic structure in mind can help students select important ideas and details as well as detect missing information and unexplained relationships. Students become actively involved in the processing of a text. Using graphic organizers involves both visual and verbal input, summarizing becomes relatively easy and provides information and opportunities for analysis that reading alone and linear outlining cannot provide (Palvio, 1971).

According to Darch and Carnine (1986), the rationale for using graphic organizers is found in part in schema theory which indicates that acquiring information does not necessarily occur in a linear manner. Concepts may be more easily learned if presented in a nonlinear fashion during learning sessions (Holloy & Dansereau, 1984).
The graphic organizer was developed as an attempt to translate Ausebel's (1963) cognitive theory of meaningful reception learning into practice. What the learner already knows is the most important factor in future learning (Ausebel, 1968).

Barron and Stone (1974) developed a technique referred to as a graphic postorganizer, using the organizer as a postreading strategy. Their findings suggested that student participation in the process of developing the postorganizer facilitated integration of new information with their existing knowledge.

Barron and Schwartz (1984) further examined the use of graphic organizers as a prereading strategy. Their findings suggested that a visual depiction was something a teacher did for the students, presenting isolated pieces of information. Therefore, students did not integrate new information with prior knowledge.

According to Simmons and Kameenui (1989), not all studies have supported the use of graphic organizers as enhancing comprehension. Scruggs, Mastropieri, Levin, McLoone, Gaffney, & Prater (1985) suggested that if the content presented in the graphic organizer is not familiar or meaningful to the students then the use of graphic organizers will not be effective.
HYPOTHESIS

To add to this body of information, the following study was undertaken. It was hypothesized that instruction through the use of graphic organizers in social studies would not increase learning disabled students' comprehension on the secondary level. Current research has suggested that students with learning problems can more readily learn when the concepts are visually arranged in a nonlinear fashion rather than through the traditional mode of lecture and linear notetaking.

PROCEDURES

The subjects for this study were eight senior high school students with learning disabilities. These students attended an urban school, with a diverse socioeconomic status, located approximately 50 miles south of New York City. All subjects were formally evaluated by the district's Child Study Team, classified as having learning disabilities and placed in the school's special education resource center programs. Learning disabilities classification criteria followed the state of New Jersey standards.

One Resource United States History II class was randomly selected to participate in this study. Of these eight students, five were
male, two white, four African American, and three were female, all African American. There were two eleventh graders and seven twelfth graders. The participants’ reading abilities ranged from 2.4 to 10.2 according to the Weshler Individual Achievement Test. This test was administered by the Child Study Team’s learning disability teacher consultant.

The experimental setting was a high school portable classroom which contained student desks set in a semi-circle, a teacher desk and chair, and a chalkboard across the front of the room. This class met daily, in Period 1, for 41 minutes.

Concepts from four chapters of the history text were chosen and taught to the class. Topics covered were those that make up many of the Social Studies units in traditional textbooks. The procedures differed in the way information was organized for each of the chapters; Content was presented from Chapters 16 and 19 through the text and graphic organizers; Chapters 17 and 19 were taught with the text, lecture and linear notetaking.

Instruction through the use of three different graphic organizers for Chapter 16 lasted ten school days. The major goal in this condition was to present to the students a visual display of content that allowed each student to comprehend information by seeing a spatial display of the relationships of various concepts in this chapter. The first graphic organizer, problem-solution type, was presented to each student and
also displayed on the chalkboard. Students followed along while the teacher described the various cells in the display and their interrelationships. After reading the assigned pages in the text, the teacher guided the students through the first row of cells, promoting discussion. In two groups, students discussed amongst themselves, then completed filling in the graphic organizer.

The second graphic organizer presented allowed students to diagram the main idea and supporting details of three important concepts. After reading the assigned textbook pages, students were encouraged to fill in concise but complete answers on their diagrams. Students worked in pairs to complete this assignment.

After reading the last topic in the chapter, students were given a blank graphic organizer which took the form of a flow chart. The students were then divided into two groups. Each group then decided how to organize the information and complete the graphic organizer.

- Upon completion of the chapter, students used their graphic organizers to study. The teacher administered a chapter test to the students. This procedure was repeated with Chapter 19.

The goal of the second condition was to present students with content instruction similar to the procedures used in many high school social studies classes: the lecture and linear notetaking. The teacher introduced the topic by generating class discussion. The topic was
written on the board. Next, the students were called upon to read from the text. After one or two paragraphs, the teacher would ask students questions based upon the material that had just been read. In outline form, the teacher would write the notes on the board and the students copied them into their notebooks. At times, the teacher would present supplemental content not included in the textbook. This information was added to the notes.

Students also answered the questions in their textbook. After having completed the chapter, students used their notes to study from and then took a chapter test. This procedure was followed for Chapters 17 and 18. All four chapter test results were analyzed to determine the significance of mean differences between the treatments.

RESULTS

The scores for the two treatment groups are displayed in Table 1, shown below. A t-Test was used to evaluate the significance of the score differences for the two instructional treatments. The results of t-test indicated the test score differences for students when instructed with the graphic organizers when compared with the test scores from the
lecture/linear notetaking were significantly different (t=3.78, significant < .05).

The 22 point difference between the means indicates that performance favors the graphic organizer as an instructional mode over lecture/linear notetaking.

Table 1
Sample Results of Graphic Organizer Vs. Lecture/Linear Notetaking

<table>
<thead>
<tr>
<th>Samples</th>
<th>M</th>
<th>SD</th>
<th>t</th>
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</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>173.75</td>
<td>4.33</td>
<td>3.78</td>
</tr>
<tr>
<td>Control</td>
<td>151.25</td>
<td>16.65</td>
<td></td>
</tr>
</tbody>
</table>

significant < .05

It was interesting to note that the lowest score with the graphic organizer was only two points lower than the best score with the lecture/linear notetaking.

CONCLUSIONS

The results of this study indicate that students with learning disabilities instructed with graphic organizers obtained significantly higher scores on post-instruction tests than when they were instructed
with the traditional lecture/linear notetaking. Thus the hypothesis of this study was rejected. These results are similar to other findings in that they show student achievement can be enhanced by using non-traditional instructional methods.

The students in this study obtained higher scores when the information was presented with the graphic organizers. This suggests that positive benefits may be achieved by using graphic organizers and the positive benefits are greater than achievement associated with traditional instructional methods using linear notetaking. The students in this study gained at least ten percentage points higher scores on tests with the graphic organizer.

IMPLICATIONS

This study has been successful in finding positive effects for graphic organizers improving comprehension in learning disabled students at the secondary level. It can be assumed that students were engaged in active learning. The use of graphic organizers encouraged student discussions and cooperative learning.

Students reported that the visual diagrams used during instruction were more helpful in organizing the information and for studying than were the regular notes. They also indicated that the graphic organizers
made the presentation of concepts more interesting and preferred this type of instruction.

The use of graphic organizers as an instructional mode enabled students to increase their chapter test scores by ten percentage points. At the secondary level, this may represent the difference needed to pass the course.

Although the results of this study tend to support the emerging body of literature supporting the effectiveness of graphic organizers as an instructional mode, there are limitations. The study was small, there are no long term posttest of students' comprehension, and the choice of appropriate graphics for the content was very subjective. It would be interesting to see if the positive effects the graphic organizer had upon student learning in social studies could be carried through to the other content areas.
Graphic Organizers: Related Research
Secondary students are confronted on a daily basis with a great deal of unfamiliar material in the content areas. Readers must integrate all of this information to make sense of the text. According to Holley and Dansereau (1994), one of the most difficult reading situations encountered in schools was the task of successfully extracting, remembering and retrieving information from an expository textbook.

While bright, sophisticated readers may be able to comprehend a wide variety of expository information independently, many learning disabled students are not able to successfully accomplish this task. Learning deficiencies, such as basic reading and attention deficits, auditory and receptive language problems (Crank and Bulgren, 1993), contribute to difficulties these students experience in meeting classroom demands. Learning disabled students need to be taught strategies to overcome their deficits (Crank, 1995) since many LD students appear to be strategy deficient (Gruber, 1983).

A technique to facilitate reading comprehension that has generated considerable interest among regular and special education researchers over the past twenty-five years is the use of the graphic organizer (Horton, Lovitt, Thomas, Bergerud, 1990). The graphic organizer, originally called an advanced organizer, then a structured overview, is a strategy which actively engages the student in the learning process. A graphic organizer is any type of visual representation of concepts which helps organize information in a manner that makes the information easier to learn. When a graphic representation is presented, the students better understand which ideas in the text are important, how
they relate, and what points are unclear (Jones, Pierce, and Hunter, 1989). Visual organizers, whether they take the form of time lines, Venn diagrams, inductive towers, concept maps, flow charts, semantic maps, causal chains, graphic sequencing or any other visual depiction, have been found by several researchers (Barron & Stone, 1974; Mayer, 1979; Slater, Graves & Piche, 1985; Darche & Craig, 1986; Horton & Lovitt, 1989; Bean, Sorter & Frazee, 1986; Weisberg & Balajthy, 1989; Griffin, Malone & Kameenui, 1995) to be an effective strategy in facilitating comprehension. Graphic organizers may be used as a prereading strategy (advance organizer), during instruction strategy, or postreading strategy (graphic postorganizer).

Graphic organizers may be utilized before instructional activities, such as reading or viewing a film, to activate prior knowledge in order to provide a framework for integrating new information with the old information. During instruction, graphic organizers can help students actively process and reorganize information. Students enjoy being in the driver's seat (Bean, Sorter, Singer & Frazee, 1986). As a postreading strategy, graphic organizers may be used to summarize learning, help organize ideas for writing, provide a structure for review, and assess the degree of student understanding.

Prior knowledge is thought to perform an important function in the reading process. The purpose of the advance organizer (AO) is to activate students' memory of previously learned material that may be related to the current topic of study (Baker, 1977). The advance organizer has often been described as bridges from the students'
previous knowledge to whatever is to be learned. According to Stone (1983), they are supposed to be more abstract and inclusive than the more specific material to be learned, and to provide a means of organizing the new material.

Schema theory (Anderson, 1985) is frequently used to explain the effectiveness of organizers (Barron, 1969). Schema refers to how knowledge of concepts is organized and stored in memory. A schema is a skeletal framework containing categories for specific information which are determined by personal experiences. Existing schemata and the information contained within are known as prior knowledge. The major stumbling block accounting for students' inability to understand the author's message in social studies textbooks is the lack of prior knowledge as it relates to the text (Antonacci, 1991). This relationship can be further explained through the interactive models (Rummelhart, 1985; Stanovich, 1980). Comprehension is an interactive process with the reader playing an active role. Using graphic organizers involves both visual and verbal output (Pavlio, 1971) and allows the student to become actively involved in the learning process.

The history behind the graphic organizer can be traced back to David Ausubel's (1960) cognitive theory of meaningful reception. Ausubel supported his theory by arguing that the most important aspect of future learning is what the learner already knows. He hypothesized that the learning of a new term is meaningful when the term can be correctly classified, arranged in the learner's memory and can then be retained for a long time. This hypothesis was based on Ausubel's (1957)
assumption that learning and retention could be enhanced by strengthening the components of a learner's existing cognitive structure. The most dependable way of facilitating retention is to introduce the appropriate subsumers and make them part of cognitive structure prior to the actual learning task. The introduced subsumers become the advance organizers for the reception of new material.

The advance organizer was developed in Ausubel's 1960 study involving college undergraduate students as a way to strengthen students' existing cognitive structure with classroom learning tasks. His original advance organizer took the form of a 500 word introductory prose passage designed to include background material for the learning passage. This was presented to the experimental group subjects. This introductory passage was designed to serve as an organizing framework, allowing the students to relate it to their existing knowledge. The control introductory passage contained historical information, but no conceptual material that could serve as a framework for organizing the new information being presented.

Ausubel's (1960) early study with the advance organizers found that the learning and retention of unfamiliar but meaningful material could be facilitated by the advance introduction of relevant subsuming concepts. Multiple choice tests administered to both the control and experimental groups supported this hypothesis.

In most instances, students are required to learn the details of new and unfamiliar material before they have acquired an adequate body of prior knowledge. As a result, teachers and students are often
forced into treating materials as if they were isolated pieces of information. Consequently, students resort to rote memorization for examination purposes only. Ausubel states this happens because students are required to learn the details of a discipline before having available a sufficient number of subsuming concepts. The advance organizer may eliminate this practice.

Later, structured overviews were developed in an effort to eliminate the lengthy and difficult prose found in Ausubel's (1960) advance organizers. Structured overviews use only the key vocabulary terms from a text to activate students' prior knowledge. Key terms are arranged in a visual-spatial representation that provides structure for the presentation of material to be learned. Eventually, the term "structured overview" was replaced by "graphic organizer" (Rice, 1994). According to Barron (1969), advance organizers, structured overviews, and graphic organizers are intended as teacher-directed prereading, instructional activities. The primary difference between the graphic organizer and the structured overview is the presentation of the organizer in relation to reading and the individual responsible for the construction of the graphic organizer. The graphic organizer is used in prereading, during reading and/or after reading positions where the structured overview or advanced organizer is presented as a prereading activity (Simmons, Griffin, & Kameenui, 1988).

Barron and Stone (1974) developed a technique known as the graphic postorganizer as an attempt to encourage students to integrate new information with their prior knowledge. They believed that
if the students developed the organizer themselves, they would be better able to integrate new information with their existing knowledge. Students participating in the graphic postorganizer process were taught to construct their own organizers after they had read an expository selection, rather than being given one as a prereading activity.

Barron and Stone (1974) randomly assigned high school students to one of three conditions: graphic advance organizer, graphic postorganizer, or control. The dependent variable was a vocabulary relationship test based on the content structure of the passage. The students’ task was to indicate which one of the terms was unrelated. Comparisons of the performance results on the vocabulary relationship test of the graphic advanced organizer and graphic postorganizer groups appeared to favor the graphic postorganizer group. The graphic advance organizer group and the control group were compared, and the difference was not significantly different. They noted that although the findings appeared to support the graphic postorganizer group, the variable which contributed to the difference could not be determined since the position of the graphic organizer (before or after reading) and by whom the graphic organizer was constructed (teacher or student) were manipulated simultaneously in this study.

Not all researchers (Barnes & Clawson, 1975; Barron & Schwartz, 1984) found positive results from their studies on the use of graphic organizers. Mayor (1979) disputes the findings of Barnes and Clawson’s (1975) study which stated that advance organizers, as presently constructed, generally did not facilitate learning. A “voting
technique" was used to classify 32 advance organizer studies into those which yielded a statistically significant difference and those of nonsignificant difference. 20 out of 32 studies failed to produce significant results, therefore forcing them to their conclusion. Mayor (1979) attributed this to limitations in the review.

Mayor's (1979) research did not question whether or not graphic organizers facilitate comprehension but investigated the reasons why advance organizers succeed or fail. His theory proposed that advance organizers should have an effect only under the following conditions: material is unfamiliar, technical or too difficult for the learner to relate to his/her existing knowledge. The studies conducted involved college students and used material that was unfamiliar to subjects, learning outcomes were analyzed in sufficient detail, and the amount of information presented was controlled. Based on his findings, along with its limitations, it is reasonable to conclude that advance organizers, when used in appropriate situations and when evaluated adequately, do appear to influence the outcome of learning. Organizers are always relative to the particular learner and subject matter. A passage which serves as an advance organizer for one learner may not be needed for another learner.

A study by Slater, Graves, & Piche (1985) that examined the effects of providing subjects with prior knowledge information about the organization of expository passages found that when given information about text organization before they read, students' comprehension and recall of expository text improved. The results were
similar for high-, middle-, and low-ability students.

The study of ninth grade students, randomly assigned to four prereading treatments compared the efficacy of four learning strategies: structural organizer with an outline grid, structural organizer without an outline grid, control condition with notetaking and control condition without notetaking. Those who received a structural organizer and were required to fill in an outline grid which highlighted passage organization as they were reading outperformed students in the other three conditions.

It is important to mention the powerful effect of notetaking. Notetaking produced a stronger outcome than the structural organizer alone. It also appears that students whose notes follow a text's structure encode information meaningfully and retrieve it more easily than do students who do not take notes while reading or students whose notes do not reflect a structural organizer (Slater, 1985).

Smith & Tompkins support Slater et al.. Notetaking activates several cognitive processes: when paraphrasing, students relate their prior knowledge to new information, and actively attend to the written passage, selecting important ideas to retain in notes. Good students often discover notetaking techniques while less capable students may not be able to select critical ideas from nonessential details, paraphrase and reorganize (Crank, 1995). Students generating structured notes of information from content area textbooks may create graphic organizers that contain combinations of these graphic patterns (Smith & Tompkins, 1988).
Bean, Sorter, & Frazee (1986) compared the effectiveness of graphic postorganizers with that of outlining for secondary students in world history classes. Classes of students were randomly assigned to one of three groups (graphic postorganizer with previous training in summarization, graphic postorganizer alone, or outlining). Students receiving instruction in graphic organizer construction outperformed students using outlining and graphic postorganizer alone on comprehension tests. Students also related significantly more positive attitudes toward graphic organizers than toward outlining as a learning strategy. Bean et al. concluded that instruction in graphic postorganizer construction was beneficial for students who had already received training in metacognitive strategies, teaching average to above average students metacognitive processes to use graphic postorganizer takes at least fourteen weeks and students had more positive attitudes toward graphic postorganizers than toward outlining and reported using them in other classes.

While there is clear evidence that displaying information graphically, as either a distinct treatment or as part of an intervention package, facilitates comprehension among academically handicapped students, a limitation exists in previous research (Horton & Lovitt, 1989). Research concerning graphic organizers with learning disabled students is sparse. Darche & Carnine (1986) evaluated the effectiveness of using visual spatial displays when teaching learning disabled sixth graders in the content areas of science and social studies.

LD students were randomly assigned to one of two
treatment groups. One treatment presented students information through visual spatial displays while the other group was presented content through the text. Students were given explicit study strategies and worked in groups in each treatment. The Visual Display group outperformed the Text group on the posttest, and the results on the transfer test were not significant. Darche & Camine (1986) concluded that visual displays, when combined with a group task structure that includes an explicit study strategy, form a powerful method to increase students’ comprehension during content area instruction. The finding of no significant difference on the transfer measure test was not unexpected. LD students would probably need extensive practice using graphic organizers and instruction on how to study independently before they can be expected to work successfully in unstructured work situations.

Horton, Lovitt, and Bergerud (1990) reported a study involving three experiments, the first evaluating the effectiveness of teacher-directed graphic postorganizers (GPOs); the second, the effectiveness of student-directed GPOs with text references; and the third, the effectiveness of student-directed GPOs with a list of clues. Students in middle and high school health, science, and social studies classes participated. The classes included remedial, regular education and learning disabled students. Immediately after reading the textbook material, students completed multiple-choice tests of passage comprehension. In all three studies, students in the GPO conditions performed significantly better than did self-study students in all content
areas for remedial, regular education, and LD students. In addition, GPOs produced consistent effects across a variety of content areas.

Weisberg and Balajthy (1989) investigated the effectiveness of graphic organizers with learning disabled students in three studies with secondary students reading on a fifth-to-sixth grade reading level. Students were taught to identify main ideas, construct GOs, and write summaries of information from an expository passage. The performances of students who received training in the GO and summarization technique, students who received both training and practice in the GO and summarization technique, and students in a control group were compared.

The results demonstrated that constructing GOs and writing summaries helped students with reading disabilities improve their comprehension of expository texts. However, Balajthy and Weisberg note that an in-depth sequence of training and practice using modeling, guided practice and immediate feedback was essential for student success.

Griffin, Malone and Kameenui (1995) examined the graphic organizer as a postreading rather than prereading activity. Their intent was to determine the degree of explicit instruction necessary for independent generation and use of graphic organizers, and if graphic organizer instructions facilitates comprehension, recall, and transfer contained in an expository textbook. Fifth-grade students from social studies classes were randomly assigned to four experimental conditions: (a) explicit graphic organizer instruction, (b) explicit instruction no
graphic organizer instruction, (c) implicit graphic organizer instruction, (d) implicit instruction no graphic organizer. Three types of measures were administered to assess students' comprehension, retention, and transfer of the social studies content.

Subjects in all groups performed comparably on the acquisition and retentive measures. However, when students were required to read and recall novel social studies content, participants receiving explicit instruction and the graphic organizer performed better on the measure of transfer than students who received traditional basal instruction. The results suggest that the explicitness of instruction and/or the graphic organizer played important roles in students' ability to generalize the instruction to novel textual material.

Secondary students with learning disabilities in a study by Crank (1995) were randomly assigned to two treatment groups designed to compare students who were instructed with graphic organizers with specific verbal instructional statements to students who were presented information in a traditional lecture format with linear notes created on the chalkboard. A post-test (multiple choice) only design was used to assess the treatment effects.

The results indicate the students with learning disabilities instructed with the Visual Depiction Instructional Routine obtained significantly higher scores on post-tests than when they were instructed with a Regular Instructional Routine. These results tend to support other findings in that they show student achievement can be enhanced by using graphic organizers and other non-traditional instructional
strategies (Darche & Carnine, 1986; Bergerud, Lovitt, & Horton, 1989).

Researchers have investigated the effectiveness of the graphic organizer from many different aspects. Studies have included the use of graphic organizers as prereading, during reading, and postreading strategies, teacher constructed or student constructed, and graphic organizers with direct instruction or without. Since the graphic organizer has already been shown to have positive effects upon student learning, further research is needed to explore the ways in which to maximize gains from this instructional strategy with the learning disabled population.
References


Appendices
<table>
<thead>
<tr>
<th>PERSON</th>
<th>Problem</th>
<th>Investigation</th>
<th>Solution</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jacob Riis</td>
<td>condition of city slums</td>
<td>tenements poor people + slums</td>
<td>wrote a book to make public aware</td>
<td>improved conditions for kids living in slums</td>
</tr>
<tr>
<td>1890</td>
<td></td>
<td></td>
<td>led to movements to build parks + playground</td>
<td></td>
</tr>
<tr>
<td>2. Jane Addams</td>
<td>illiterate, deprived immigrants</td>
<td>moved to the slums to see</td>
<td>to provide the immigrants with</td>
<td>established the settlement houses</td>
</tr>
<tr>
<td>1900</td>
<td></td>
<td>what was needed</td>
<td>needed things</td>
<td></td>
</tr>
<tr>
<td>3. Ida Tarbell</td>
<td>unfair business practices</td>
<td>Standard Oil Co-bribes, secret</td>
<td>published reports to let public know</td>
<td>Sherman Anti-trust Laws passed</td>
</tr>
<tr>
<td>1902</td>
<td></td>
<td>deals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Upton Sinclair</td>
<td>unsanitary conditions at meat-packing plants</td>
<td>stockyards slaughterhouses meat-packing plants</td>
<td>wrote <em>The Jungle</em> made public aware of poor conditions</td>
<td>Pure Food &amp; Drug Act Federal Meat Inspection Act passed</td>
</tr>
</tbody>
</table>
Women's Suffrage Movement

Susan B. Anthony
- Quaker, slavery + temperance
- joined WTU + abolitionists
- met Stanton at Seneca Falls
- 1872 - arrested for illegal voting
- died 1906 before 19th Amend.

Elizabeth Cady Stanton
- Mother of suffrage
- met L. Mott both went to Seneca Falls
- victories in West-Wyoming
- died before 19th Amend.

Lucretia Mott
- Ernestine Rose
- began as abolitionists
- 1860 - N.Y. Speech for women's rights
- gained rights but not voting
- died 1892 before 19th Amend.
The Six Questions:

Subject: Civil Service Act

Who?
Progressives encouraged Fed. gov't

Where?
WASHINGTON, D.C.

Why?
Spoils system was unfair

How?
lobbying gov't officials

What?
to pass a law

How?
Two Decades

Chapter 19 in your text describes the 1920s. Chapter 20 discusses the 1930s. Make a chart that compares the two decades in the three areas listed. Write a brief description in each box on the chart.

<table>
<thead>
<tr>
<th>Era</th>
<th>Labor Unions</th>
<th>Business &amp; the Economy</th>
<th>Prohibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920s</td>
<td>weakened no need for them</td>
<td>Booming little govt interference people spending $</td>
<td>18th Amendment passed - led to moonshine + speakeasies</td>
</tr>
<tr>
<td>1930s</td>
<td>grew stronger Wagner Act</td>
<td>depression stock market crash no jobs no $, no spending</td>
<td>18th Amendment repealed - 21st Amen. created jobs</td>
</tr>
</tbody>
</table>
New Deal Work Sheet

Directions: Fill in the following graphic organizer.

<table>
<thead>
<tr>
<th>Program</th>
<th>Who Did it affect?</th>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Security Act</strong> 1935</td>
<td>elderly, disabled populations paid unemployment benefits</td>
<td>took $ out of all working people's pay</td>
</tr>
<tr>
<td></td>
<td>*Social Security</td>
<td></td>
</tr>
<tr>
<td><strong>Civilian Conservation Corp</strong></td>
<td>young people ages 18-25</td>
<td>gave jobs chance to earn $</td>
</tr>
<tr>
<td></td>
<td>*Employment</td>
<td>built parks, dams, planted trees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pd $30 + room + monthly board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sent $25 home to family</td>
</tr>
<tr>
<td><strong>Securities and Exchange Commission 1934</strong></td>
<td>stockholders + companies</td>
<td>regulated stock market</td>
</tr>
<tr>
<td></td>
<td>*Business Assist.</td>
<td></td>
</tr>
<tr>
<td><strong>Tennessee Valley Authority</strong></td>
<td>people in Tenn. valley area</td>
<td>created jobs building dams to control flooding</td>
</tr>
<tr>
<td></td>
<td>*Rural Dev.</td>
<td></td>
</tr>
</tbody>
</table>
I. DOCUMENT IDENTIFICATION

Title: The Use of Graphic Organizers to Improve Comprehension of Learning Disabled Students in Social Studies

Author(s): Carole S. Doyle

Corporate Source (if appropriate): Keen University

Publication Date: May 1999

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