

## What's Inside

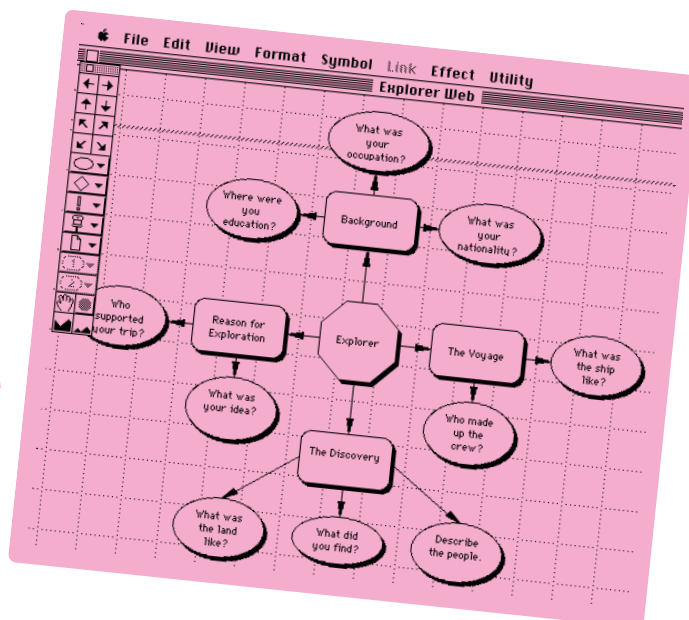
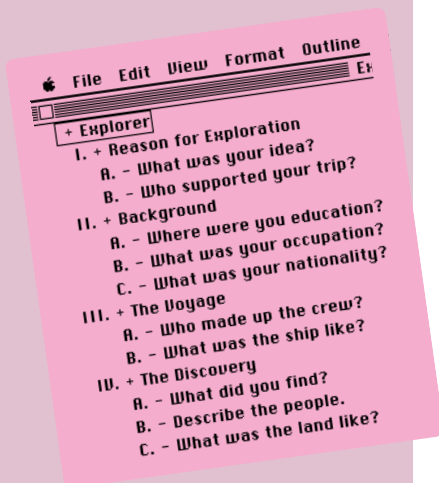
- How computer software tools help students with disabilities organize information
- A look at Inspiration™ – computer software that allows students to create concept maps and outlines
- How fifth graders use Inspiration to organize and write reports
- How Inspiration is used to enhance classroom discussions about books
- Information about Project SUCCESS, a University of Oregon program for middle- and high-school students with learning disabilities
- Strategies for using Inspiration in the classroom

# Organizing Information with Software Tools

From middle school on, students are asked to gather, prioritize, and synthesize information for research papers, oral reports, and group projects. This multistep process is frequently overwhelming for students with learning disabilities and attentional difficulties who often have trouble organizing information.

“Webs” or “concept maps” can help these students organize information and ideas. These visual outlines often appeal to students who feel constrained by the linear nature of text. When creating concept maps with pencil and paper, however, students can get frustrated with the “messiness” of this dynamic process – particularly as the shape and structure of their webs change.

Now a set of computer-software tools are available that provide these students with the flexibility they need to effectively use concept mapping and outlining strategies. One tool that has generated great interest on NCIPnet is Inspiration, a software program that enables students to easily create and revise concept maps and convert these maps to standard outlines, or vice versa. For more information about how some teachers are incorporating Inspiration into the curriculum, read on.



Inspiration is a software tool that helps students organize information into both “webs” or “concept maps” (right) and standard outlines (left).

NCIP is the National Center to Improve Practice in special education through technology, media, and materials.

# Integrating Information with Inspiration™

As part of Heidi Hebert's fifth-grade social studies curriculum at the Cutler School in Hamilton, Massachusetts, each student takes on the role of an explorer and then writes his or her autobiography.

When she first initiated this project, Heidi found that gathering, prioritizing, and organizing information for these autobiographies was an overwhelming process for many of her students – particularly those in her class with learning disabilities. While these students had little difficulty finding information, many had problems linking different kinds of information in logical and clear ways.

To assist students with the process, two years ago Heidi began providing her class with an outline they could fill out as they researched their topic. While this approach was adequate for some, it was frequently a disaster for the students with organizational problems – those students that it was meant to help most. By the time these students had filled out their outlines, because of poor handwriting, lack of space, and constant revising, many couldn't read what they had written and had no way of neatly reorganizing the information.

To find a more flexible strategy or tool that would help all of her students create usable outlines, Heidi teamed up with Hamilton computer coordinator Grace Meo, who introduced her students to the computer program Inspiration.

The project is launched in the computer lab where Grace teaches students how to create a multi-tiered concept map using Inspiration. Once they are comfortable with the fundamentals of the program, students work in pairs to brainstorm questions about their explorers like *Where was he born? Where did he travel? and What did he find?* Together, students create a simple web incorporating their questions.

Next, Grace shows students how to convert their webs into a standard hierarchical outline using one simple command. She then demonstrates how students can reorganize their outline and group similar questions together around central themes like *childhood* and *travels*. When students



**Fifth-grade students at the Cutler School use Inspiration™ software to organize research reports on explorers. Before beginning to compile information, students learn how to use the program in the computer lab.**

## Inspiration: A Hook to Books

The collaboration between Grace Meo and Heidi Hebert is not unusual in the Hamilton-Wenham School District. Through a program called "Peer Partners" many members of the district's faculty work together to plan and implement ways to improve classroom practice.

For example, when Tena Crowley, a fifth-grade teacher at the Winthrop School in Hamilton sought ways to make class discussions about books and stories richer and more inclusive, she collaborated with her peer

partners, computer specialist Grace Meo and reading specialist Cheryl Sweeney.

During a planning meeting, the team devised a strategy that employed Inspiration. Using an LCD panel, Grace projected Inspiration onto a screen at the front of the classroom. As Cheryl Sweeney led the discussion of the book *The Cay* by Theodore Taylor, Grace used Inspiration to create a web incorporating the students reflections and insights. During the discussion,

prejudice and survival emerged as central themes. Working together, the students clustered their points around these topics and then were able to use this Inspiration web to write book reports.

Inspiration enriched the learning experience for children of all abilities. The teaching team noted that this strategy was particularly powerful for students in the class with learning and attention difficulties, all of whom had been more vocal than usual during the discussion.



**"Webs" created using Inspiration software offer students an alternative to standard hierarchical outlines. "Some kids just need that visual hook," said Hamilton fifth-grade teacher Heidi Hebert.**

convert their standard outlines back to a web, the revised organization is reflected in the concept map. "Some kids just need that visual hook," Heidi said.

At the end of the session, students save their outlines on their own floppy disks. Back in the classroom they continue using Inspiration to make a "mega-outline" which incorporates everyone's questions. Students then begin their research with an outline that includes a comprehensive set of questions that can be answered on paper or computer, depending on their preference. This outline anchors students as they dive into books, encyclopedias, and CD-ROM resources in the classroom, at the library, and at home.

This is the second year that Heidi is using Inspiration with her fifth graders. Last year, the approach was enormously successful. "The students loved it. They contributed to the process every step of the way. By the time they had completed their research, their report was essentially written," Heidi said.

## **Software Spells SUCCESS for Students**

Over the past three years, Dr. Lynne Anderson-Inman and her University of Oregon colleagues have been exploring ways that computer-based study strategies can improve academic outcomes for middle- and high-school students with learning disabilities.

The adolescents participating in Project SUCCESS (Students Using Cognitively-Based Computer Enhanced Study Strategies) came to the project with a long history of school failure fueled by reading, writing, and organizational difficulties as well as a poor self-image and a reluctance to assume responsibility for their schoolwork.

Project SUCCESS participants were given a Macintosh PowerBook 145™ and taught a variety of computer-based study strategies. Students use these strategies – many of which employ Inspiration – when completing class assignments, doing homework, and studying for tests.

For example, at one Project SUCCESS site, participating high school students meet with English and global studies teacher Esther Reed for one study period each day. During this time, Esther guides students as they work together to devise new ways to use the computer tools to solve their academic problems. They use the computer to collaborate on writing projects, study together for tests, and answer questions about reading assignments. "The feeling of electricity in the room is amazing," reports Esther who also said that

she has watched Project SUCCESS students' grades, self-image, and interest in the learning process soar.

When high school junior Marcie first joined Project SUCCESS, she had trouble with handwriting, spelling, and organizing information in written work. When she wrote a first draft, she was often unable to read her own writing. She also frequently misplaced her papers and had to start assignments over again. These problems were reflected in her poor grades.

But Marcie has turned her school career around with the help of Project SUCCESS. For a research paper she wrote last year on the criminal life of Jeffrey Dahmer, Marcie created an electronic outline using Inspiration that organized the information she researched around four key concepts: why people commit crimes, the influences of background and childhood on criminal behavior, Dahmer's adult life, and the crimes he committed.

The electronic outline allowed her to insert information whenever and wherever she found it, making it easy to organize and synthesize for writing. Marcie then wrote several drafts of the paper with word-processing software and used a spell check program throughout the process.

The result was a well-deserved "A" and a product that Marcie was proud of and wanted to share with her classmates. Marcie maintains that the computer tools made all the difference and that now she wouldn't ever consider writing a paper without them.



**High school students participating in the University of Oregon-sponsored Project SUCCESS use a variety of computer-based study strategies to overcome academic problems.**

## Ideas From NCIPnet

On NCIPnet, fourth-grade teacher Audrey Ostrowski shared the following ways she uses Inspiration to teach language arts, math, and social studies.



Tuesday, October 18, 1994  
NCIP Software Item

From: Audrey Ostrowski

Subject: Re(4) "Inspiration" software

To: NCIP Software

**1** In the center of an Inspiration "web" Audrey writes the name of a character from a book the students have read. The students then add qualities that describe the character and examples of those qualities.

**2** To reinforce math skills, Audrey writes a number in the center of a web. Students are then asked to create as many nodes as they can with problems that generate that answer.

**3** When working on state reports with her class, Audrey writes the name of a state in the center of a web. Students add topics they would like to research. As they learn facts, students cluster this information around the topics. The web is eventually turned into an outline which students use for their reports.

"My fourth graders do enjoy Inspiration. Those who do not feel comfortable with it are allowed a partner. It has worked out well," Audrey said.

## Study Strategies Using Inspiration™

Students participating in Project SUCCESS use Inspiration for educational purposes such as those described below.

### Studying a Textbook Chapter

**1** The students create an outline or concept map for each chapter by typing in headings and subheadings.

**2** As students read each paragraph, they record and organize key words and phrases under the appropriate headings and subheadings.

**3** Students self-test their knowledge by using a feature that allows them to hide and reveal information in the outline.

### Real-Time Note Taking

Students use Inspiration to take notes "on the fly." The electronic outline helps students record and format their notes quickly. For example, students in one participating middle school use Inspiration to take notes on the information presented each day on Channel One. The graphic nature of concept mapping can reduce the amount of text students need to communicate and link ideas.

### Synthesizing Information from Multiple Sources

**1** After choosing a subject to research, students work with their teacher to create a topical outline that will guide their research.

**2** When students read material about their subject, they insert the information under appropriate topics in the outline.

**3** Students then cluster the accumulated information under each heading into conceptual units that will guide their writing.

**4** Steps 2 and 3 may be repeated several times before students use a word processor to write their reports.

### More on NCIPnet



- Descriptions of a variety of software tools for organizing information
- Summaries of research about graphic organizers and software tools
- Background information on webbing and concept mapping techniques
- Descriptions of successful classroom practices employing software tools



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