What's Inside

Multimedia and More

Help for Students with Learning Disabilities

What to write? How to word it? While these questions are familiar to everyone, students with disabilities often confront unique challenges when they write.

Many students with learning disabilities are often referred to as "reluctant writers." These students may have trouble generating ideas because of gaps in their background knowledge, or, they may have vivid ideas and solid information, but have trouble finding the language to express them. In either situation, it becomes a challenge for these students to stay focused on the topic and task.

Increasingly, teachers throughout the country are experimenting with instructional practices that incorporate a variety of media to stimulate and support writing. The media may be as simple as photographs, objects, videos and tape recordings – or as sophisticated as computer software which can link text, visual imagery, sound effects, and music in a hyper-media presentation. These practices, which capitalize on students' unique abilities and interests, can be particularly powerful for students with disabilities, many of whom experience repeated failure with "mono-media" – pencil and paper.

Multimedia can support writing in a number of ways. It can help students deepen conceptual understandings. It can engage their prior knowledge and help them form mental images. It can also provide tools for composing and publishing. Perhaps most importantly, it can ease the transition from concepts and images to words.

Students with learning disabilities can benefit from using different kinds of tools that stimulate and support the writing process. Pictured is a group of students writing a multimedia story using Hypercard™ software.

Good Teaching + Multimedia = Writing Success

Martha Gowetski's tenth-grade English class in Wayland, Massachusetts – which includes students with learning disabilities – is buzzing with activity.

One group of students is crowded around a large flow chart mapping out their adventure story. They are busy editing text cards, taping pictures, and placing compact disks on the chart. Several students are drawing pictures, and others are scanning photographs into the computer. Two girls are working together to create interactive "buttons" which link rock songs to their story. Someone calls out "Twenty seconds of silence please so I can tape!" and the room is quiet.

What is going on here? Students are composing interactive adventure stories, using HyperCard™ software, for others to read on the computer.

Martha has been doing this project with her English classes for the past three years. She starts the three-week unit by showing her students stories composed by previous classes. After her students read these stories, they are eager to get started.

Students begin their projects by forming groups and brainstorming story topics and plots. These often reflect their interests and concerns – music, dating, parties, and bizarre (and sometimes gory) events. Once they have formulated a basic "plot plan," groups begin writing. Each story includes points at which the reader is asked to make a choice between two actions like "go to Valencia's" or "go to drug store." Each choice leads the reader down a separate story path.

Every group determines how their work will get done. Some decide to write the entire story together, while others opt to break into smaller groups that will each work on a different branch of the narrative.

After they have done considerable work on their stories, Martha gives each group a hypermedia template that will help them create their interactive tales on the computer. (Martha says she does not introduce the technology at the start of the exercise because she does not want it to become its driving force.)
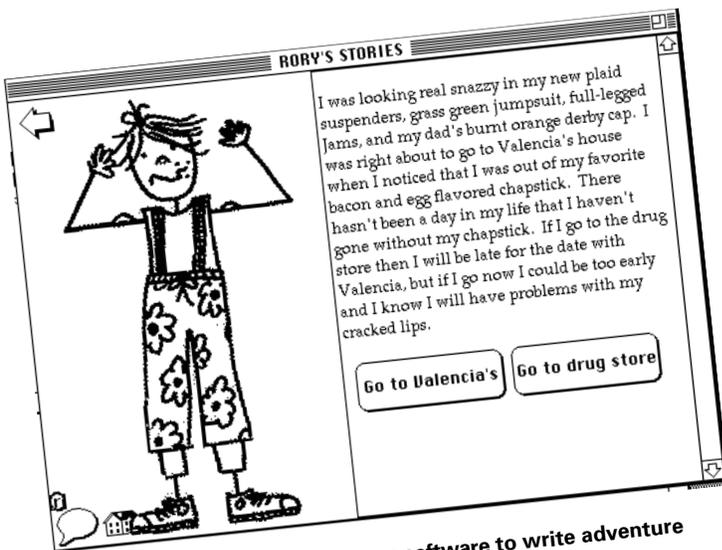
Using the software, students begin to compose their stories on the computer. They link their text to sound and graphics by creating on-screen "buttons" that readers will activate as they move through the narrative. Again, each group decides how they will divide the tasks, allowing members to choose activities that both engage their interests and build on their strengths.

For example, one group relied on an artistic member to draw all of their pictures. Two students sat at her side, offering suggestions about what to draw, while another student scanned in the completed drawings.

Evaluation is an integral and on-going component of the project. Three times during the three-week unit, students complete evaluation forms that give them the opportunity to reflect on their own work, the work of other members in the group, and the entire project. These on-going evaluations enable Martha to detect emerging problems and help groups make adjustments where necessary.

"The kids are remarkably on target in evaluating themselves, their peers, and the project," Martha said.

To see the Wayland program in action, watch *Multimedia and More* on the enclosed NCIP videotape.

RORY'S STORIES

I was looking real snazzy in my new plaid suspenders, grass green jumpsuit, full-legged Jams, and my dad's burnt orange derby cap. I was right about to go to Valencia's house when I noticed that I was out of my favorite bacon and egg flavored chapstick. There hasn't been a day in my life that I haven't gone without my chapstick. If I go to the drug store then I will be late for the date with Valencia, but if I go now I could be too early and I know I will have problems with my cracked lips.

| Go to Valencia's | Go to drug store |

When using HyperCard™ computer software to write adventure stories, students create various "cards" like the one above.

How Students with Learning Disabilities Benefit

While this type of project can benefit any student, it supports students with learning disabilities in several important ways. First, by writing stories for their peers to read, students have a highly motivating purpose for writing.

Secondly, students draw from their own interests and background knowledge to develop the themes and plots. Third, by using multimedia, they can engage in non-print activities that capitalize on their strengths.

Finally, students are supported by the teacher and the peer group. Martha explained that one of her students who tends to be disorganized, experienced unprecedented success while working on the project. Because the group helped her to stay focused, her creativity and story-telling abilities surfaced.

"So this project played into her strengths. Someone else could remind her of the next steps, deadlines, and help her organize herself and her work. All the group members gave her very high marks, including herself, and she was really a core member of that group," Martha said.

Teens Explore Inner-City Life through Video Production

When the lights went on after the screening of her group's documentary "360° of Violence," 18-year-old Ebony Williams breathed a sigh of relief.

"All of our hard work paid off. Our audience was very responsive to our tape. Their responses gave me the feeling that I had accomplished something that was very good," she said.

Ebony Williams is one of the urban teens participating in an innovative video production program at the Educational Video Center (EVC) in New York City.

The program, a collaborative project with the Center for Children and Technology, was designed to document how video production can promote rigorous, collaborative student inquiry and expression.

EVC's video production process is built on a "youth empowerment approach" that teaches students to draw on knowledge and issues that are relevant to their lives. In the program, groups of students work together to explore, research, analyze, and reflect on issues that confront them everyday – issues like poverty, racism, and drug abuse.

Using videocameras, students at the Educational Video Center document life in their communities. Because it incorporates a variety of tasks, video production can present a range of learning opportunities.

When students produce videos at EVC, they perform many of the same tasks involved with writing. They immerse themselves in research, choose a topic, write multiple drafts, share their writing with peers, and revise. Other steps involved with video production include using a camera, shooting and logging footage, and screening and editing videotape.

Video production is a powerful medium for students at EVC, many of whom are at risk for learning disabilities. It allows them to explore many different areas of study, work with their peers to divide responsibility for a wide range of tasks, bring real images and content to their ideas, and create a meaningful work for a real audience.

"Besides learning the technical parts, I also learned how to work with people. I learned how to clearly express my ideas and how to compromise. Through working on our documentary on the problem of abandoned buildings in New York, I've learned how documentaries can make people aware," said Peggy Buckler, a 17-year-old participant in the EVC project.

Students participating in the EVC program "have turned their cameras on themselves and created a collection of self portraits that uncover truths about loyalty, drugs, fashion, cops, and dating," said Steven S. Goodman, the executive director of EVC.

Strategies for a Successful Multimedia Project

- Base writing on tasks that have a purpose

- Incorporate a process approach with explicit steps

- Allow students to build on their interests and background knowledge

- Promote connections between home and school cultures

- Encourage students to use all of their senses and reflect on ways they learn best

- Integrate a variety of tools that tap different strengths, skills, and abilities

- Have students work collaboratively with peers toward a common goal

- Provide ongoing support and evaluate progress throughout

- Have students evaluate themselves at different stages

Additional Resources

More about Multimedia on NCIPnet

- Instructional tips and ideas from classrooms around the country

- Supporting materials and work samples from the Wayland and EVC projects

- Synopses of research on using various media approaches to teaching

- Descriptions of multimedia hardware and software tools

- On-line discussion events featuring experts in multimedia

- On-line support and assistance from other teachers, parents, and administrators implementing multimedia approaches
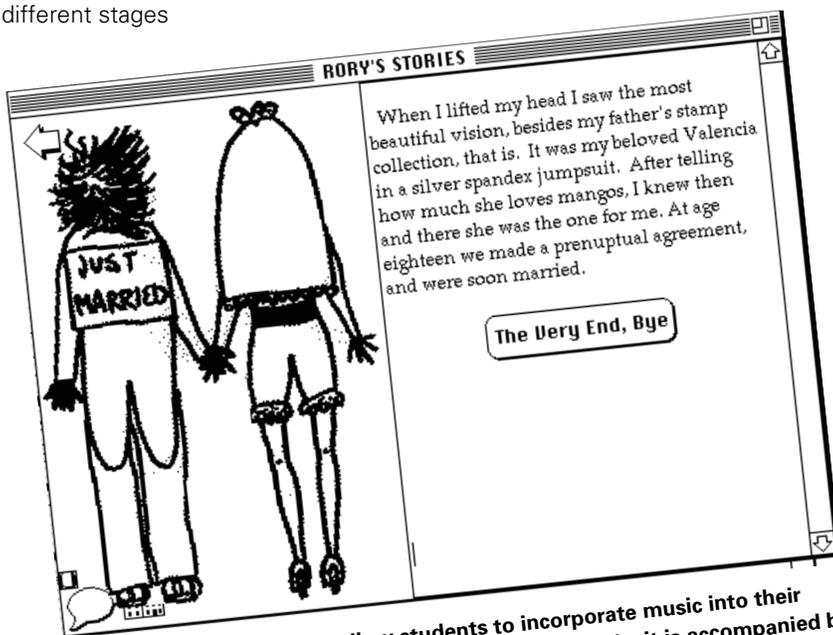
Readings

Daiute, C. (1992). Multimedia composing: Extending the resources of kindergarten to writers across the grades. Language Arts, 69, 250–260.

Boone, R. & Higgins, K. (1992). Multimedia: TAM topical guide #1, Reston, VA: Council for Exceptional Children, Technology and Media Division.

Skolnik, R., Larson, A., & Smith, C. (1993). The power of multimedia. Electronic School, A6–A9.

Tally, B. (1993). Inquiry Learning Though Video Production. News from the Center for Children and Technology and the Center for Technology in Education, 2(5), 1–6.

Be an active member of the NCIPnet Community!

Log on to NCIPnet and:

- **Share your experiences – successes and problems – using multimedia in the classroom**

- **Post samples of your students' work on the network**

- **Discuss with colleagues the pros and cons of various multimedia tools**

Some computer programs allow students to incorporate music into their work. When this picutre appears on screen, for example, it is accompanied by a song with the lyrics, "Just one look – that's all it took."

NCiP

For more information, contact:

**National Center to Improve Practice
Education Development Center, Inc.
55 Chapel Street
Newton, MA 02158-1060
(617) 969-7100, ext. 2412
TTY: (617) 969-4529
Fax: (617) 969-3440**