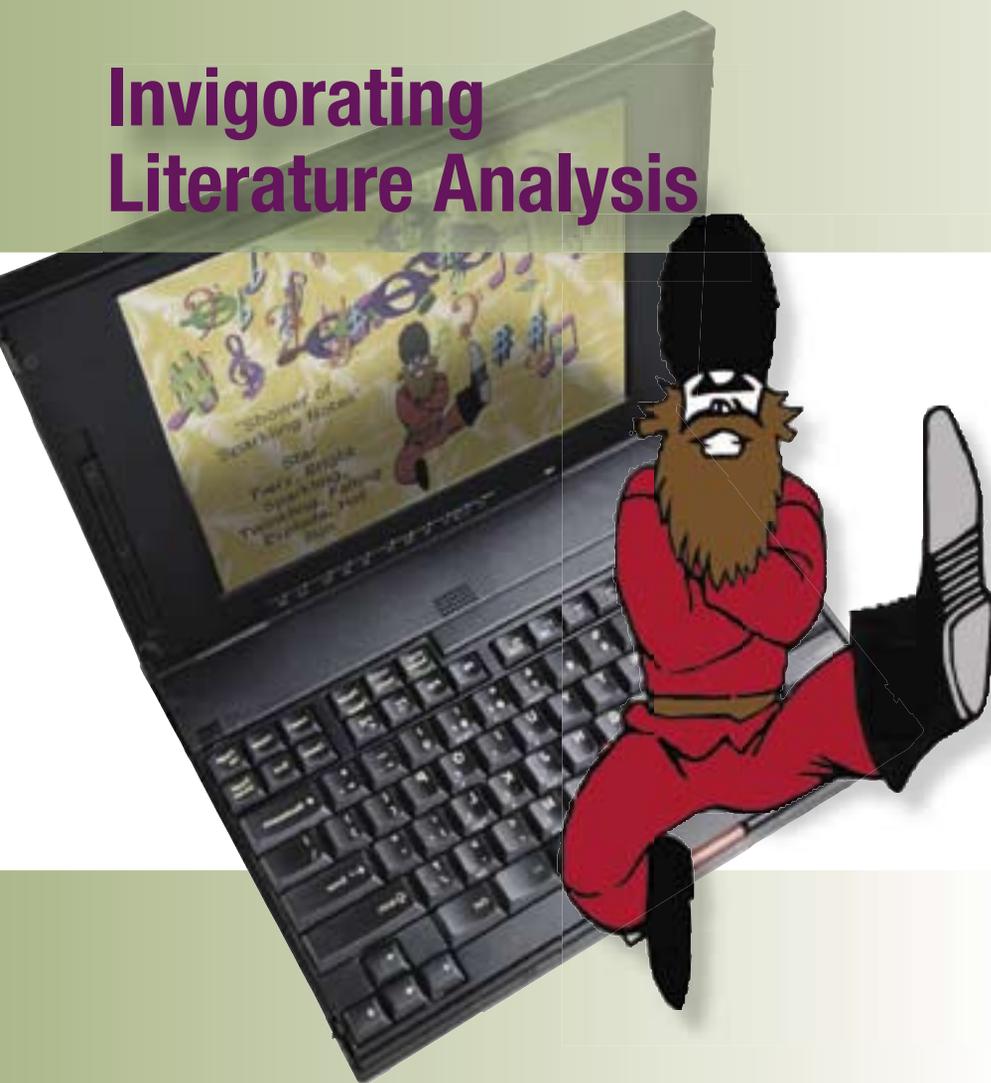


Invigorating Literature Analysis



Technology helps students deepen their understanding of characterization, imagery used by writers, and reflective writing.

In her 2004 State of the State address, Michigan's Governor Jennifer Granholm asserted, "Along with Massachusetts and Maryland, Michigan's new educational standards have been judged the most rigorous in the nation." To prepare children for their futures, teachers must organize and develop curriculum so students have opportunities to make connections, think deeply, and communicate ideas. Educators must rise to the challenge and develop self-directed learners who can participate fully in a modern world.

As part of the state's testing regimen, fourth graders must write a personal narrative to a given theme; then read, compare, and comprehend two different genres of writing; and finally, respond to the reading by writing with the purpose of explaining how these two selections relate to the theme. Preparing students to perform successfully on the mandated tests using the district's selected curriculum was the challenge for Jane, a fourth grade teacher at Hamilton Elementary in Troy, Michigan.

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The Big Picture

In the fall of 2003, Pam was a senior at the University of Michigan–Dearborn and joined Jane's class to complete her student teaching. There, we collaborated on a federal research project known as Michigan Teachers' Technology Education Network (MITTEN), a component of the Preparing Tomorrow's Teachers to Use Technology (PT³) initiative. The MITTEN project calls for the engagement, interaction, and collaboration of student teachers, cooperating teachers, and education faculty to design and implement new learning strategies by integrating technology into a specific subject area. During our participation in MITTEN, we incorporated several technology applications into our reading and writing curriculum. Our purpose was to promote higher-level thinking about the story *Yang the Youngest and His Terrible Ear* by Linsey Namioka. We identified the learning goals of the unit and the traditional teaching strategies used. Next, we developed strategies

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Subject: Reading, literature analysis

Grades: 3–5 (Ages 8–10)

Technology: Web; digital cameras; concept mapping, drawing, presentation, and word processing software

Standards: NETS•S 3; NETS•T 11 (<http://www.iste.org/nets/>). ELA 5 (<http://www.ncte.org/standards/standards.shtml>).

for integrating technology into that curriculum. Throughout the project, we discovered that this new approach was a viable tool that made classroom learning more dynamic, interactive, and engaging. We also observed that integrating technology enhanced the learning outcomes of our traditional curriculum.

Traditional versus Technological

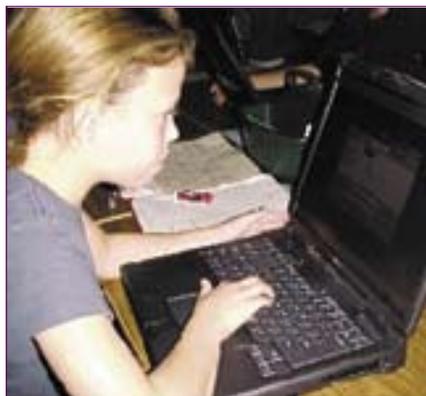
Here is how we looked at the components of our lesson and integrated technology into them. We started the unit with an activity to focus students on how a writer develops characters, then we moved on to a study of the imagery writers use. Finally, we used an assignment to close the unit.

Using graphic or visual organizers is a common practice for teaching about personality traits. Typically, teacher-led whole-group instruction is the norm, and students use their text to find and support various character traits. But the addition of technology allowed for remarkably active and collaborative work as students used higher-level thinking skills to evaluate and synthesize the character's actions.

Each student selected one of the two main characters in the story to evaluate as they read. They used these characters' actions and the author's use of words to form opinions about either main character's personality. After brainstorming ideas and selecting three or four character traits, students used concept mapping software to create a character web for their analysis. Students were not familiar with this software, so we carefully planned the construction of their character web. We guided and supported students, using whole group instruction, with an overhead monitor and computer to model as they worked with laptop computers.

Once students were able to evaluate and identify personality traits

for their characters, we asked them to consider each trait and to express those traits through photography. After careful consideration, students planned and choreographed poses that would reflect each trait and used a digital camera to capture their creative and individual interpretations. They learned to download their photographs to the computer, crop and resize them, and save them to a file. Later, students inserted the photos into their character web. The photos offered a visual connection to the concepts they had chosen. Finally, students supported their opinions by verifying them with evidence from the book.



hardworking

Students took photos of their classmates to visually show character traits they had chosen to study.

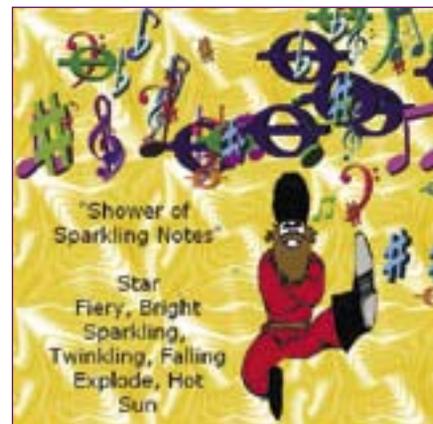
These tasks demanded collaborative work and active conversations. They also allowed students to make decisions about character traits and poses and kept the class engaged and excited about their learning. Using a variety of media in a real-world context and asking students to connect their thinking to the text fostered critical thinking skills and a deeper understanding of their reading and writing. Anecdotal records, observation, and the students' final projects showed us that they made important connections during this lesson. These

children were on task and engaged in lively conversations that spoke of their understanding.

Within the same unit, it was important to include another aspect of the writer's craft, imagery, which Namioka uses to bring her writing to life. This gave us an opportunity to highlight the author's craft as a model for developing writing strategies. Our purpose was to broaden our students' abilities to zoom in on details that make writing interesting.

In a traditional setting, we would have students collect and share examples of imagery from the book. We usually extend the discussion by developing an assignment to have students incorporate examples of imagery into their writing. However, this approach does not necessarily lead students to authoring original lines using imagery, so we decided to see whether a multisensory approach would give us better results.

Students used their favorite examples of imagery from the book to create a mental picture of what the words meant to them. They selected one word that best captured their interpretation and used that word as an anchor to compose a cinquain. To expand this concept further, we had students use drawing software to create a visual interpretation of their poem.



Students used drawing software to visualize imagery used in the text.

We were astounded at the effort that went into each project as students found unique ways to represent their ideas visually and verbally. One benefit of this new strategy was that students used higher-order thinking skills when we asked them to translate the author's written words into visual symbols. We knew our students were on task because they taught each other through an active information exchange. Students helped each other find interesting words by using a thesaurus; they discussed ideas for background imagery and symbolism and shared software knowledge to enhance their work. As students worked on this project, we detected a shift in the teacher's role from mediator to facilitator.

The conventional end-of-unit assessment usually includes a class discussion about the text and a unit test or writing assignment. These paper-and-pencil tasks allow us to gain knowledge about student comprehension and assimilation of information. The drawback is that the audience for these evaluative projects is the teacher. We wanted to provide our students with an opportunity to share their learning beyond the classroom.

To assess progress throughout the unit, we had each student produce an electronic portfolio using presentation software to house and highlight their work. This tool was an excellent vehicle for knowledge sharing between students and an effective way to construct meaning through reflection on their work. Students included their unit work in the portfolio as well as a writing response that included stating the theme, finding proof in the story, and relating the theme to their own experience. Students drafted this assignment using a word processing program and then e-mailed it from home with help from parents. We used the

e-portfolios in parent-teacher conferences to share demonstrations of student work and thinking. It gave the children a sense of producing work in a real-world context and provided a chance to exchange information with parents. As teachers, we also used the presentations as an assessment tool to formulate additional lesson plans for students needing further development in areas of language arts. E-portfolios were useful for summative evaluations of student learning in both language arts and technology.

Conclusion

In retrospect, we realize that trying to incorporate technology without letting go of some traditional activities was too time consuming. However, we found the extra time worthwhile, as engagement of students curtailed off-task behaviors. Personal connections to the characters and students' ability to verbalize many themes within the story were two indicators of strengthened comprehension. The unique approaches afforded by technology gave students more opportunities to develop and demonstrate their ability to incorporate the writer's craft into their own writing. As teachers, we felt that assessment of their original work was more telling and enjoyable than paper-and-pencil essays. We had a better understanding of our students' personalities through voice development in their writing.

Incorporating technology into the reading and writing curriculum gave our students learning opportunities that were student centered, multisensory, collaborative, and active. The approach fostered a level of understanding that went beyond the traditional classroom practices of teacher-centered instruction that promotes passive learning. As we reflect on the entire project, we found that with careful planning, technology in-

tegration helps motivate students and is a stimulating way to teach reading and writing. Moving from isolated bookwork and composition to a collaborative, technology-infused atmosphere promoted active exploration and involved all students in the learning process. Lots of talk and laughter emerged during our technology sessions. Students stayed on task because a community of learners, enthusiastically helping each other, replaced the pressures of working in isolation. The interaction of the children, in their exchange of information, and in demonstrating their willingness to help one another, supports our school themes of respect, responsibility, and relationship building. The children's eagerness and involvement in each activity was our reward, and made the task of handling an overloaded curriculum easier to bear.

Resources

Pamela W. Fisher's electronic portfolio: <http://www.umd.umich.edu/mitten/pfisher/>
 Jane B. Drotos's electronic portfolio: <http://www.umd.umich.edu/mitten/jdrotos/>
 The MITTEN Project: <http://umd.umich.edu/mitten/>



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