



TECHNOLOGY
RESEARCH
COMMITTEE

2008 – 2009 Grant Project Report

Project Title: Technology & Human Capabilities: "Making Connections"

Project Creator(s): Bonnie Havens, Jacqueline Scanlon

School District: Oneonta CSD

Grant Award: \$2500.00

Contact: bhavens@oneontacsd.org

Final Report
Technology and Human Capabilities
Making Connections
2008-2009

This project was designed to meet the needs of special education students and their unique learning styles. The technology allowed educators to provide visual and interactive equipment. This provided modifications and adaptations to the curriculum so that students were able to be more successful. This success was observed when students were more attentive to the material. The success was also observed with student's increased grades on homework and tests.

This educator was amazed at how diverse this technology was and how it met the needs at so many grade levels. At the first grade level the document camera allowed me to demonstrate and complete a crossword puzzle with a small group of five students. One of those students exhibits autistic behaviors that keep him from staying focused and completing tasks successfully. Another student has language needs and following directions can be extremely difficult. Another student has physical difficulties and staying focused is a real challenge for him. The entire group was able to complete a crossword puzzle using vocabulary words from the reading program, because I used the ELMO to complete the puzzle with them. The puzzle was projected on the screen in the front of my room. The students were sitting in front of me and I was able to watch and see that they stay focused while completing the puzzle at their seats. For the visual learner this technology is ideal. When asked if they liked using the ELMO to complete this activity, they responded:

“You don't have to keep turning your head”

“I like to write with it”

“We can write on the ELMO too”

At the third grade level we were able to use the document camera to instruct special education students included in a regular math class. All of the students were able to benefit from the technology with the following lesson. Out of 15 total students, all of them were able to complete the homework assignment with a grade of 80% or better.

Lesson Plan for 3rd Grade Math Class

Objective: Write money amounts in dollars and cents

Vocabulary: dollar

Materials: Overhead bills and coins, play coins and bills (3 \$10 bills, 10 \$1 bills), 10 of each coin group, AverMedia Document camera and white board

Subject connections: Social studies-business

Strand connections: mental math, money, logic, using data

1. Show 1 dollar bill, 1 quarter, 1 dime, 1 nickel and 2 pennies using the document camera on the whiteboard.
2. Model the process of counting on. Explain that this amount is written \$1.42 and is said as one dollar and forty two cents.
3. Have students re-count the total for \$1.42 aloud as you point to each bill and coin in sequence.
4. Show the following money combinations using the camera and white board
 - a. 1 five-dollar bill, 1 quarter, 3 dimes, 2 nickels
 - b. 3 one-dollar bills, 1 half dollar, 1 nickel, 3 pennies
 - c. 1 five-dollar bill, 2 one dollar bills, 1 quarter, 1 nickel, 2 pennies

Have groups use play money to count on to the total, then write the dollar amount and amount in words.

Assign a practice page from the workbook.

Assess the homework to see who is able to write money amounts in dollars and cents and who requires more practice.

We were also able to integrate the ELMO into our fourth grade curriculum. This offered consistency for our students and they were able to comprehend the material with deeper understanding. The students were able to appreciate the capabilities of our classroom technology.

Lesson Plan for 4th grade Science Class

Objective: To observe “mystery” substances using the ELMO

Materials: “Mystery” matter from ESP Science kit (baking soda), ELMO, Science manuals, pencils

Subject Connections: Science

Strand Connections: noting specific observations and forming conclusions

1. Introduce the fact that we have a “mystery” to solve. Develop a scenario that a mystery substance was found at a crime scene. Discuss the connection with forensic science.
2. Reiterate that fact that assumptions cannot be made without first observing and testing in scientific procedure.
3. Model the correct scientific procedure (hypotheses, observation, testing, conclusion) using the ELMO.
4. During the observation process, use the microscope feature to give the students an enhanced observation of the substance. For example, we noted the color, texture and grain size of the substance.

Closure: Based on this observation, we discussed the importance of patience and specific observations. To develop independent skills, the students will be given a mystery substance to observe on their own with a partner.

Lesson Plan for 5th/6th grade Language Arts

Objective of the lesson: This is a group of students with Individual Educational Programs. They all have a goal on their I.E.P.'s that state, "The student will show improvement in reading decoding and comprehension"

N.Y.S. standard: Students will read, write, listen and speak for critical analysis and evaluation

Lesson Plan: Using the ELMO students will read two chapters from "My Side of the Mountain" decode multi-syllabic words and answer comprehension questions. Students will learn to read for understanding, participate in a group discussion and answer comprehension questions from the chapter.

1. Students will be given a Xeroxed copy of chapters 16 and 17 from "My Side of the Mountain"
2. Students will be given copies of the comprehension questions.
3. Using the ELMO and copies of the questions, students will read the questions out loud and discuss with teacher what each question means.
4. Using the ELMO and copies of the chapter, students will take turns reading a paragraph. As a multi-syllabic word appears in the reading, the teacher will point out how to divide or "chunk" the word so that it is easier to decode. Also, the teacher will point out how to underline the information in the text that is necessary to answer the comprehension questions. Using the ELMO allows the teacher to keep students focused. Modeling this strategy of finding information, decoding words and taking additional notes is so much easier with an ELMO. Students can watch and practice these important reading strategies.
5. Group discussions are also a part of this lesson, giving students a chance to make connections and ask questions about the reading.

Materials:

1. ELMO, projector and screen
2. copies of "My Side of the Mountain" chapters 16 and 17
3. copies of comprehension questions

Assessment of Student Learning:

The goal is for students to be able to use these strategies independently. Once I observe that students can read, find information and answer comprehension questions independently then I know they have reached their goal.

Benefit of technology: As stated in the lesson plan, the ELMO allowed students to stay focused, to follow along and have the strategy modeled in a way that made sense. By being able to see the text on the screen, they were able to practice along with me as I demonstrated reading comprehension skills.

Teachers Reflections: We were both surprised on the versatility and effectiveness of this technology. “Making Connections” was an appropriate title for this project because we were able to help ALL students make a connection from what they already knew to new material. Also, we were able to enhance our entire curriculum and “connect” between grade levels and departments. We wish to say thank you to Roger Zilliox and the Technology Research Committee for this opportunity.

Respectfully,
Bonnie Havens and
Jacqueline Scanlon