Using Computers to Improve Reading Levels of Ninth Graders

Katie Cole
J.E.B. Stuart High School
Fairfax County (VA) Public Schools
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Introduction

As this is my second year of teaching at J.E.B. Stuart High School in Falls Church, Virginia, I knew to expect low reading levels for some students who would enter my freshmen English class. Being optimistic, I hoped the overall level of student reading abilities had improved from that of my previous students. However, instead I found that the level had declined. I wanted to help my students improve their own reading skills rather than hold them to a curriculum that was, for the majority, vastly beyond their capabilities.

When I began this project, I reflected on a variety of ways to actively aid my students in improving their respective reading levels. I was presented with the opportunity to integrate a computer reading program, Q-Review, into the standard English 9 curriculum. My principal and English department head allowed me to stray from the prescribed Program of Studies in one class for the sake of attempting to improve the Reading problem at Stuart. Hence my question evolved: Will a computer reading program, Q-Review, improve the reading levels of my ninth grade students? I decided to focus on a particularly low-level English 9 class and within that class on two students, Julio and Selena.

The Students

The nineteen students in this class represent only a portion of the nationalities in our school. Spanish is the language spoken at home by the majority, six students. Five students speak English at home. Two students speak Vietnamese, and one student speaks each of the following languages respectively: Arabic, Bangaly, Portuguese, and Filipino.

At the beginning of the year, I administered the Gates-MacGinite Reading Test to the class which currently has 19 students enrolled. Fourteen members of the current class took the test. Stuart is not only an extremely culturally diverse school, it also has a highly transient population. Some students transferred from and to other schools or classes, and some were habitually absent from school during the testing.

Of the fourteen students tested, four of them scored five or more years below the ninth grade reading level. One student was four years below, four were two years below, and only one was four years above the ninth grade reading level. Julio was at a seventh grade, sixth month reading level, and Selena was at a fourth grade, eighth month reading level when she exited the ESL program in October 1998, according to her test.
Julio came from La Paz, Bolivia to the United States and the Washington, D.C. area in 1991. He was enrolled in ESL courses in 1991 and 1992, his first and second grade years, at John Adams Elementary School in Alexandria, Virginia. Julio had to repeat the first grade at John Adams, although he had already completed it in Bolivia.

Julio speaks Spanish at home with his Hispanic friends. When he reads English, he does not translate it to Spanish. He says that he sometimes reads for pleasure, especially the sports section of the newspaper.

Julio earned a B for the first quarter and C's for the second and third quarters prior to the beginning of the program. He is now earning a B+ for the fourth quarter. When I told Julio that I would be focusing on him in my project, he immediately began working more intently.

Selena came from Pakistan to the United States in December 1997. Her native language is Urdu. She was enrolled in ESL courses from December 1997 until June 1998. She transferred to regular English 9 in October, although reluctantly. Selena had taken English classes in Pakistan for 14 years from kindergarten to ninth grade.

Selena speaks Urdu at home and with her friends. When reading English, she often translates words to Urdu. She is fluent, but sometimes she hesitates in speaking, seeming to search for a word to express herself. Selena is the type of student who accepts only "A" work from herself. This is one reason she was hesitant to leave ESL classes.

Selena has earned an A for every quarter this year in English. Her effort makes up for her limited English proficiency. This program has made me realize the high degree of diligence that students like Selena must have in order to succeed academically.

The Program: Q-Review

The Q-Review is computer software focusing on reading, vocabulary, and grammar. The program has been used in other countries; however, we are piloting the program in the United States. We began the program on March 9.

The reading program covers such skills as: main idea and topic, purpose, genre, scanning, getting the facts, close reading, references, connectors, definitions, generalization and examples, cause and effect, comparison and contrast, prediction, inference, connotation, fact and opinion, point of view, sequencing, and summary. There are four different categories of texts: stories, articles, letters, and others (recipes, instructions, and ads).

The vocabulary section focuses on teaching skills and techniques that will help students deal with new vocabulary. Students read the passages and questions that point out words they might not understand and are asked to derive the meaning from the context of the sentence.

The grammar program focuses on verb usage. Exercises focus on verb tenses and uses including the topics: present, past and past perfect voices, indirect statements, commands, conditionals, and time expressions. However, I will not include information on my students' grammar performance because we have not worked on it long enough to reach any conclusions.
The Students and the Program

My students eagerly and enthusiastically anticipated the day they could enter the computer lab and begin using the lab, as the start date was pushed back because of computer difficulties. They asked me repeatedly when they would begin working on the computers. I felt as if we had tricked them in a sense. None of the students asked when they would begin reading because they already had. Computers hold a fascination for students because of both the novelty and the opportunity for hands-on activity.

During the forty-five minutes we spent in the lab every other day, my students were diligently engaged in the task at hand. The other forty-five minutes of the ninety-minute-block we spent in the classroom on the prescribed program of studies, including *To Kill A Mockingbird* and *Romeo and Juliet*.

They began their exploration of the program with a Vocabulary pre-test. The class had an average of 67% on their Vocabulary pretest scores. On their work in vocabulary since the pre-test they scored an average of 88%, illustrating their improvement in vocabulary. On a vocabulary quiz administered on paper instead of the computer, fifteen students improved, one student stayed the same, and two students were lower as compared to their pre-test score.

Julio earned a 74% on the pre-test, and Selena earned a 65% on her test. On average Julio has been earning an 87% on his work in Vocabulary since the test, illustrating improvement in his vocabulary work on the program. Selena has been earning a 100% on her work in Vocabulary, displaying improvement in her vocabulary as well. Selena's high scores are partially a result of her careful and diligent nature. She takes longer to complete many of the assignments, however, she works for success.

In Reading Comprehension, the average pre-test was 82%. In their work since the test, the students have been earning an average of 90%. All of the students’ reading comprehension has improved except for four students.

Julio's reading comprehension has improved from 95% at the pre-test to 98% in his work after the test. Selena's pre-test score of 83% has improved to 100% in her work.

The Post-Ga1es-MacGinite Reading Test truly demonstrated their gains. On average, the class improved three years and one month in their reading levels. I teach three English 9 classes, and the difference in the information they receive is that they do not interact with the computer program. My other three classes had an average gain of one year and seven months in their reading levels.

Students' Reactions

I conducted two formal surveys and numerous informal questioning sessions of my students. In the first survey conducted at the beginning of the program, all of my students revealed that they liked going to the Computer Lab. They all felt they were learning new information and that the program was easy to operate.
When asked what they liked rest about the computer lab, some commented that they liked the kinds of stories they were reading (disasters, famous people, etc.). One student commented, "I get to know I make mistakes, so I can improve them." Others said they enjoyed working at their own pace. Some students commented on being pleased with the lexicon, a tool in the program that allows them to look up unfamiliar words. This comment made me laugh because a student would rarely praise a dictionary for its usefulness, even though it serves the same purpose.

The overwhelming response to what they liked least about the program was that they had to leave the lab in time for another class. In the second survey, conducted May 24, all of my students said they felt the program had helped them with their reading comprehension and vocabulary. When asked if they did anything differently in reading as a result of the program, many students said they now read the question before they begin reading the text.

When asked for any additional comments, one student revealed, "I don't really like to read and now I am starting to like it because of the computer program we are using. I actually happen to like a book now." Overall, the students said they like the computers and that they felt the computers helped them improve their abilities.

My Reflections

The improvements I have seen in my student's reading vocabulary levels is almost as astounding as the improvements in their attitudes toward reading and their own achievements. I can attribute the bulk of their gains to their interaction with the program, however, I am a firm believer in the saying, “Whatever you think you can do, you can.” My students were excited about using the computers following an individual course of study explicitly tailored for them, and about being part of a study.

I feel that the gains the students have made in improving their reading will benefit them in all of their studies. Hopefully, I may have inspired a few life-long readers.