

Summary of Evaluation Results South Dakota – Middle School

Introduction:

Special Learners included through Computers in Education (SLICE) is an assistive technology program that uses electronic text that is spoken aloud by a computer allowing students with reading and learning problems to gain content. It has been used by public and residential schools in several states since 1997. Field data has consistently indicated that students who use SLICE to do their school work become more confident, motivated learners and better readers (Morris, 97, 99b, 99d). SLICE is currently used by middle and high school students who qualify for special education, 504 or Title I services.

In 2003, The Center for Research in Educational Policy (CREP) at the University of Memphis published an empirical evaluation of the effects of SLICE on reading achievement. The study (Sterbinsky, 2003) analyzed Stanford 9 test scores of special education students using SLICE and found the following:

- Students using SLICE had significantly higher gain scores than did students in the control group.
- Lower achieving students gained more than higher achieving students in both groups.
- Younger students had greater gains in both groups.
- The more time students spent working with SLICE the higher the gains.

A qualitative study was conducted with middle school students in South Dakota during the school year of 2003-2004.

Research:

Eight students attending a middle school in South Dakota were provided SLICE from September, 2003 through May, 2004 to electronically read their Social Studies and History textbooks. All of the students received special education services. The primary academic concern for each of the students was poor reading skills. Students were able to pick up an electronic version of their regular textbooks from the internet and use text reading software to listen to the material being read aloud by the computer through personal headphones. At times they used laptop computers with wireless internet in their classrooms, other times they used desktop computers in the resource room.

During May, surveys were given to parents, teachers, and students with questions regarding changes in self-concept, social skills, academic achievement, attitudes towards school and learning, parent expectations, and participation in school activities. The results are as follows:

Teachers

In general, teachers completing the survey found that this program was at an average to moderately easy level to incorporate into their classrooms and schools. Teachers found that the most problematic aspect of the program was the availability of computers and materials when students needed them. When asked for suggestions for others in comparable positions, all of the teachers said that they would recommend that others give this program a try. Teachers commented, "Get as many Title I and IEP students as you can...then arrange time so that all can use it." Another teacher commented, "Use it. This program really helped some lower level reading students."

Students

Students were asked to compare this school year to the prior school year in areas of achievement, self-concept as learners, social interaction, behavior, and adult expectations. The results of the student surveys are as follows:

In the area of self-concept as learners, 71% of the students surveyed reported that they thought they were better students this year (after using SLICE), and 86% of the students reported learning more this year than the previous year.

In the area of achievement, 57% of the students reported better grades. 86% of the students surveyed reported finishing more work than the prior year.

In the area of social interaction, 71% of the students reported getting along better with other people than they had the year before and that they had more friends.

In the area of adult expectations, all of the students surveyed reported that their teachers expected more of them this year. While 57% of the students reported that their parents expected more of them this school year.

In the area of behavior, 43% of the students reported that they got into less trouble than the year before in school. 29% of the students reported that they got into less trouble with their parents this year. 57% of students surveyed reported that participated in more school activities than the previous year.

Parents

This survey asked parents to rate how their child did this school year compared to last year in areas of achievement, self-concept as learners, behavior, social interaction, adult expectations, and their own school involvement. The results of the parent surveys are as follows.

In the area of achievement, 50% of the parents reported that their child's grades had gotten better this year as compared to last school year. 75% of the parents surveyed

reported that their child needed more help with homework. All parents reported that their child had learned more this year than during the previous year.

In the area of self-concept as learners, 75% of parents reported that their child enjoyed school more this year than the previous year.

In the area of social interaction, 75% of parents reported that their child got along better with classmates than the prior year and that they had more friends.

In the area of behavior, all parents reported that their child was getting along better at home. 75% of parents reported no change in their child's level of involvement with school activities.

In the area of parental school involvement, 50% of the parents reported that they had been in touch with their child's teacher more often this year.

Summary:

Based on survey results, teachers find the program comparable to most programs in integrating it into their classrooms. They also find it helpful for students with learning problems, particularly reading and recommend it to other teachers. Students report that they are learning more and being more successful in school. Their success crosses areas of academics, social interactions, and behavior. Parents report that their children are doing more homework, behaving better at home, making more friends, and enjoying school. SLICE has had a very positive impact on the students, parents, and teachers surveyed.

Dr. Bornfield has served as an educator for over 25 years. She has been an administrator, psychologist, and research and evaluation officer. She has served to assist federal projects with evaluation components across the country. She has also evaluated many federal projects within the scope of her position. She now serves as a private consultant to school districts and other agencies. Evaluation is an area of great interest and experience for her. She can be reached at 520-797-8825 or at gbornfie@msn.com by e-mail.