



IMPACT EDUCATION

Education Accountability Report

Center City High School

February 14, 2006

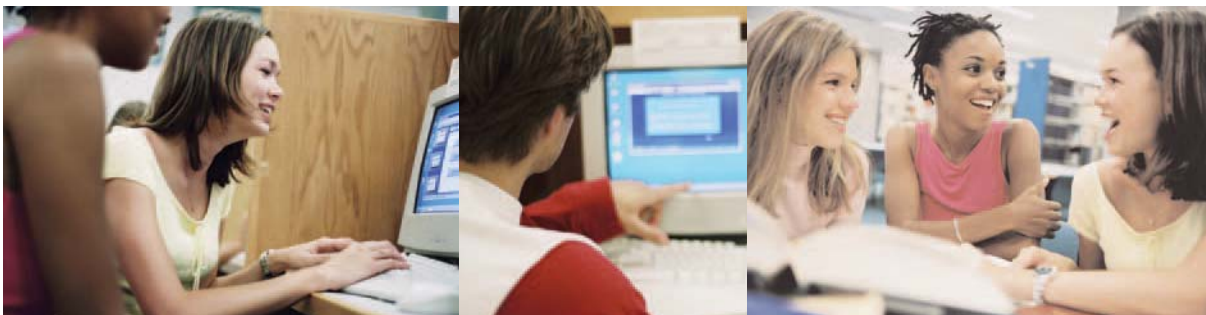
During the period August 2005 through June 2006 Center City High School has been implementing use of the web-delivered *SkillsTutor* software series in schools throughout the state. This program provides supplemental basic skills instruction in reading; mathematics; algebra; language arts; writing; science; information skills and thinking skills. Instructional management is generated by student usage. The progress of this program is being monitored, analyzed, and interpreted using the Educational Analytics Data Management System (EA). EA is a joint effort of Impact Education and the Orion Research Group.

The purpose of this report is to examine the progress the school is making in implementing the software. Attention to implementation is important. Experience shows that when programs are initiated at multiple sites, there is variance as to when usage begins as well as the extent to which the programs are used. Impact Education has found it takes anywhere from a month to a year for different units/buildings in a district to begin full implementation of software in their programs.

In assessing the progress of implementation, we look at the basic units of work completed by students in each building:

- Pretests used by students
- Tutorial lessons and quizzes completed
- Posttests on subject matter areas completed

We also monitor the time spent. An important feature of the EA Reports is that software is selected for use with EA only if it is provided through the Internet. This discipline allows students to work, not only during school hours, but during out of school hours. Students can work at home, in community libraries, at work, etc. When students have Internet connections at home, this allows the parent to get a clear sense of what the student needs to learn and provides detailed reports of progress. An extra benefit is that most parents are very appreciative that the schools have allowed them to be more a part of the student's academic work.



Students have completed 7,156 pretests and 544 posttests in academic content areas. The students have also completed 8,047 additional lessons and quizzes in the academic content areas. Our experience shows that if teachers make an effort to get their students to use these computer learning materials, the students respond with significant recorded usage.

NUMBER STUDENTS	TIME ON TASK (MINUTES)	ACADEMIC UNITS WORKED	PRETESTS	LESSONS	POSTTESTS
1,022	332,364	29,439	8,373	19,593	1,473

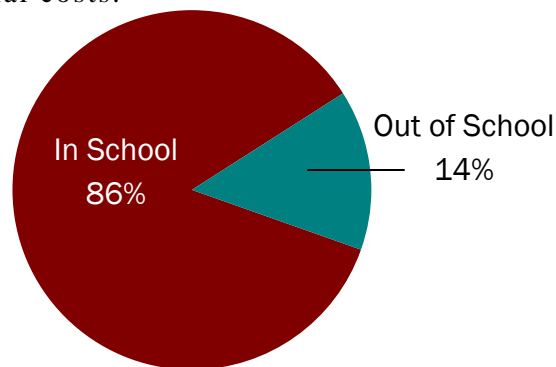
The table below provides more detail on time spent by the students.

HOURS WORKED DURING SCHOOL	HOURS WORKED OUT OF SCHOOL	TOTAL HOURS WORKED	PERCENT WORKED OUT OF SCHOOL
4,764	776	5,540	14%

The students received 5,540 hours of instruction with 4,764 hours completed during regular school hours and 776 hours completed outside of school. A total of 14% of their academic work was completed at home or at other places where computers were available.

This 14% is a useful indicator of the students’ use of Internet based learning materials at home or other Internet equipped facilities. It also provides an important indicator of school “productivity.” Work performed on the software outside of the school day increases instruction without increasing instructional costs.

Nationally, we find that the amount of work completed outside school hours with SkillsTutor runs around 20%.



Academic Performance of Students

Pretest/Posttest Comparisons

Generally, at any given time when data are pulled and analyzed, more pretest data are available than posttest data because students are still working on the tutorial content and have not completed all associated posttests.



For the purposes of analyzing academic performance, and conducting pre-post test comparisons, data are analyzed only in those instances where both pre and post tests have been completed. Students are divided into groups to make the degree of any problem easier to understand.

Meaning of Groups

Data is analyzed in those areas where both Pre and Posttests have been completed.

1. The first group has tests scores in the 90% to 100% range. The students with these scores demonstrate strong knowledge of the subject (e.g. Statistics and Probability). Teachers may or may not require that these students take instruction in content where they get such high scores on pretests.
2. The second group has scores between 70% and 89%. These scores, along with those in the 90% to 100% group, are in a space called “the passing zone.” It is highly likely that students with these scores can pass this content area on state tests. However, we recommend that these students take instruction on concepts they missed.
3. The third group has scores between 50% and 69%. These students generally missed “making the cut” above 70% because one or two questions were missed. Brief instruction brings large numbers of these content tests into the 70% to 100% category.
4. The fourth group has scores between 0% and 49%. These scores demonstrate that gaps exist in the students’ knowledge of this content. Any students whose scores remain in this category after completing computer assisted instruction need intervention by their teachers. The number that remains below 50% rarely exceeds 5% to 9% of the total student population, but there will be some students who need special assistance.

Importance of Pretests to Professional Development Priorities

Historically, Title II of ESEA has encouraged teachers to engage in professional development activities. The development activities allowed teachers to obtain the advanced degrees and credits required for salary increases. The content priorities were very open-ended.

The revisions of ESEA (NCLB) were driven by a different set of priorities. Student academic outcomes became the focus in the Law in preparing all Titles of ESEA (NCLB). For example, when a local education agency applies to the state for funds, the following information is required:

Title II, Section 2122. Local Applications and Needs Assessment

“(A) (1) A description of the activities to be carried out by the local education agency under this subpart and how these activities will be aligned with

(1) challenging State academic content standards and student academic achievement standards, and State assessments; and

“(B) A description ofwhy the activities are expected to improve student academic achievement.

Finally, any local education agency using these funds to provide:

(9) A description of how the local education agency will provide training to enable teachers to

A. Teach and address the needs of students with different learning styles, particularly students with disabilities, students with special learning needs, and students with limited English proficiency;

B. Improve student behavior in classrooms and identify early and appropriate interventions to help students described in Subparagraph (A) learn;

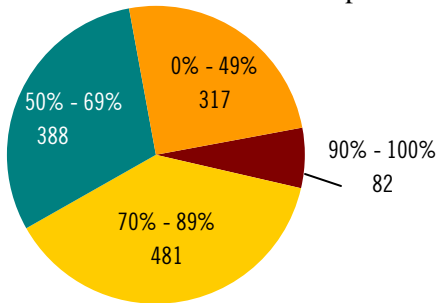
C. Involve parents in their child’s education; and

D. Understand and use data and assessments to improve classroom practice and student learning.

All professional development activities must be aligned with content priorities for students and designed to improve student academic outcomes.

Implementation Status of SkillsTutor Software

In general, if a large percentage of pretests are below 70% in a content area, teachers should consider if enough instructional time has been provided in those areas. They should also consider whether they have enough content knowledge in these areas. Before interpreting these data the teacher should be comfortable that the incidence of recorded scores is sufficient for comparisons to occur.



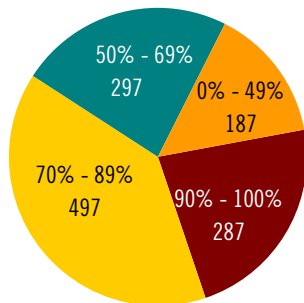
Scoring Group	Number of Pretests	Percent
90% - 100%	82	6%
70% - 89%	481	38%
50% - 69%	388	31%
0% - 49%	317	25%
TOTAL	1,268	100%

There are 563 pretest scores (44%) in the “passing zone” (70% - 100%). The tests that have just “missed the cut” number 388, (31%). 317 test scores were below 50%.

Achievement Outcomes from Students

The table below shows the progress of students working with the software. The posttests are counted and placed in the three primary groups:

- Tests in the passing zone
- Tests that missed the cut
- Tests identifying students possibly needing special assistance.



Scoring Group	Number of Posttests	Percent	Point
90% - 100%	287	23%	+17%
70% - 89%	497	39%	+1%
50% - 69%	297	23%	-8%
0% - 49%	187	15%	-10%
TOTAL	1,268	100%	

The passing zone now has 784 posttests, which represent 62% of the posttests taken. There are 297 tests that “miss the cut” by one or more answers in the 50% - 69% range, representing 23% of the tests taken. This compares to 388 pretests in that same scoring range. The scores below 50% are also found in 187 posttests.

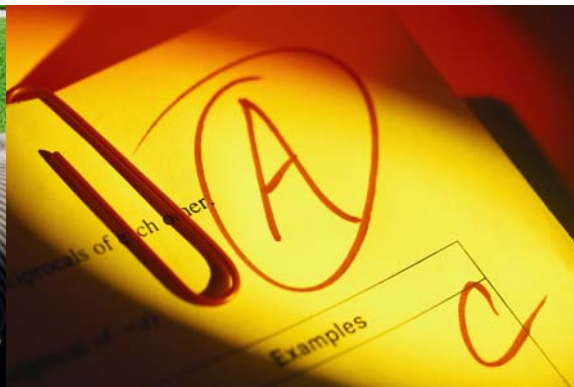
Pretest - Posttest Comparisons

By reviewing the pretests it can be determined to what extent the districts' teachers are succeeding in preparing students in a variety of content areas.

Scoring Group	Number of Pretests	Percent	Number of Posttests	Percent
Math				
70% - 100%	387	54%	504	70%
50% - 69%	218	30%	150	21%
0% - 49%	115	16%	66	9%
Total	720	100%	720	100%

Scoring Group	Number of Pretests	Percent	Number of Posttests	Percent
Reading				
70% - 100%	55	24%	127	55%
50% - 69%	72	31%	68	30%
0% - 49%	102	45%	34	15%
Total	229	100%	229	100%

Scoring Group	Number of Pretests	Percent	Number of Posttests	Percent
Language / Writing				
70% - 100%	93	48%	122	64%
50% - 69%	47	25%	41	21%
0% - 49%	52	27%	29	15%
Total	192	100%	192	100%



Harnessing Technology to Support the Teacher

Technology's primary roles in U.S. business are to:

- Improve the quality of products and service
- Improve the quantity of products and services
- Provide new services
- Reduce menial tasks performed by workers

While educators have been quick to want to have computers in their schools and classrooms, they have been slow to systematically examine opportunities to demonstrate productivity gains from having modern technologies in their schools.

The introduction of web-delivered software has resulted in significant growth in productivity. Over the past few months, teachers using the program have provided students with 9,846 pretests and posttests and 19,593 lessons and quizzes in basic academic areas.

PRETESTS	LESSONS & QUIZZES	POSTTESTS
8,373	19,593	1,473

In addition, all of these quizzes, tests and lessons were scored and placed into reports for teachers, administrators and parents. All this was accomplished without additional staff. The school simply applied technology to the most important service a school can provide students – individualized diagnostic and prescriptive instruction.

This software is not designed to be a curriculum or to replace individualized teacher involvement. However, as demonstrated by this report, access to relevant content on a 24/7 basis can prove to be an effective support to the teacher and Principal in their work. *Impact Education*, in collaboration with the *Orion Research Group*, is pleased to be working with Center City High School in this effort.

