

Cascade Elementary School

BEDFORD COUNTY DISTRICT
SHELBYVILLE, TENNESSEE.

SCHOOL PROFILE

300 K-6 Students
94% White
5% Hispanic
1% Black

STUDENTS USING LIGHTSPAN™ PRODUCTS REVEAL SIGNIFICANT GAINS IN TOTAL READING AND MATHEMATICS ON THE LIGHTSPAN PROGRESS TEST

DURING THE 2002-2003 SCHOOL-YEAR, STUDENTS AT CASCADE ELEMENTARY SCHOOL DEMONSTRATED STATISTICALLY SIGNIFICANT GAINS IN TOTAL READING AND MATHEMATICS, AS MEASURED BY THE LIGHTSPAN PROGRESS TEST, AN ASSESSMENT DIRECTLY CORRELATED TO THE LIGHTSPAN ACHIEVE NOW CURRICULUM. IN TOTAL READING, FIRST-, SECOND-, THIRD-, AND FOURTH-GRADE STUDENTS REALIZED AVERAGE TOTAL PERCENTAGE CORRECT GAINS OF 15.44% ($p < .001$), 28.27% ($p < .001$), 14.40% ($p = .026$), AND 13.25% ($p = .004$), RESPECTIVELY. IN TOTAL MATHEMATICS, SECOND-, THIRD-, AND FOURTH-GRADE STUDENTS REALIZED AVERAGE TOTAL PERCENTAGE CORRECT GAINS OF 26.00% ($p = .001$), 13.75% ($p = .013$), AND 16.90% ($p = .004$), RESPECTIVELY.

TOTAL READING AND MATHEMATICS RESULTS FROM THE TENNESSEE COMPREHENSIVE ASSESSMENT PROGRAM (TCAP) WERE MIXED. IN TOTAL READING, FIRST- AND FOURTH-GRADE STUDENTS POSTED AVERAGE NORMAL CURVE EQUIVALENT (NCE) POINT GAINS OF 10.53 ($p = .053$) AND 3.25 ($p = .208$), WHILE SECOND- AND THIRD-GRADE STUDENTS POSTED AVERAGE NCE POINT LOSSES OF 3.38 ($p = .502$) AND 6.69 ($p = .040$), RESPECTIVELY.

IN TOTAL MATHEMATICS, SECOND-GRADE STUDENTS POSTED A GAIN OF 3.67 ($p = .550$), NCE POINTS WHEN PRE- AND POST-TEST AVERAGES WERE COMPARED. THIRD- AND FOURTH-GRADE STUDENTS EXPERIENCED AVERAGE NCE POINT LOSSES OF 0.33 ($p = .955$) AND 2.40 ($p = .237$), RESPECTIVELY.

CASCADE ELEMENTARY SCHOOL RECEIVED FUNDING FROM TITLE I AND GOALS 2000 GRANT MONIES AND CHOSE TO IMPLEMENT LIGHTSPAN ACHIEVE NOW™, THE LIGHTSPAN NETWORK®, AND LIGHTSPAN READING CENTER™ TO SUPPORT ALL TARGETED STUDENTS IN THE FOCUSED AREA OF READING. THE LIGHTSPAN PRODUCTS WERE ALSO PURCHASED TO ASSIST TARGETED SECOND-, THIRD-, AND FOURTH-GRADE STUDENTS IN THE AREA OF MATHEMATICS AS WELL.

PARTICIPATING STUDENTS USED LIGHTSPAN PRODUCTS IN A LAB SETTING OVER THE COURSE OF NINE MONTHS. ALTHOUGH THE STUDENTS WERE SCHEDULED TO WORK WITH LIGHTSPAN FOR 45 TO 55 MINUTES DAILY, ONE OF TWO TITLE I TEACHERS REPORTED THAT ACTUAL USAGE WAS 2-3 TIMES A WEEK. THIS TEACHER ALSO RATED HER PRESENT CONFIDENCE LEVEL IN USING LIGHTSPAN ACHIEVE NOW AS AVERAGE.[‡]

QUANTITATIVE AND QUALITATIVE DATA WERE COLLECTED TO EVALUATE STUDENT ACHIEVEMENT GAINS AND PROGRAM EFFECTIVENESS: THE TCAP AND LIGHTSPAN PROGRESS TESTS WERE ADMINISTERED TO STUDENTS BEFORE AND AFTER THE LIGHTSPAN ACHIEVE NOW IMPLEMENTATION. ADDITIONALLY, QUESTIONNAIRES WERE DISTRIBUTED TO TEACHERS, FAMILIES, AND STUDENTS AT THE END OF THE PROGRAM FOR FEEDBACK ON THE LIGHTSPAN EXPERIENCE.

REPORTED IN THIS STUDY IS THE ACHIEVEMENT GROWTH OF PARTICIPATING LIGHTSPAN STUDENTS WHO TOOK BOTH PRE- AND POST-TESTS OF EACH ASSESSMENT. IN ADDITION, HIGHLIGHTS FROM THE QUESTIONNAIRES ARE ALSO REPORTED IN THE STUDY.[†]

LIGHTSPAN ACHIEVE NOW™ IMPLEMENTATION

- Lightspan Achieve Now Lab Model
- Lightspan Achieve Now, The Lightspan Network and Lightspan Reading Center
- Title I Grades 1-4, Began August 2002
- Reading/Mathematics focus

RESEARCH INSTRUMENTS

Tennessee Comprehensive Assessment Program
Lightspan Progress Test

RESEARCH TIME FRAME

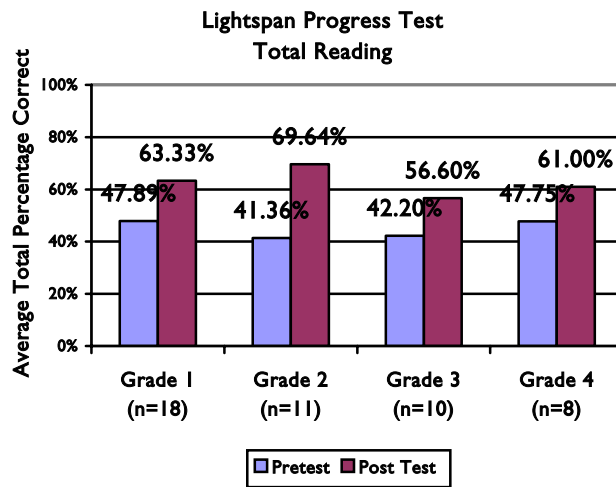
2002-2003 School Year

[‡] Actual student usage of Lightspan and teacher rating of confidence level were reported in a questionnaire distributed to the Title I teachers.

[†] Note: The size of teacher, family, and student respondents is small and hence, questionnaire responses may not be representative of the population that is using the Lightspan program.

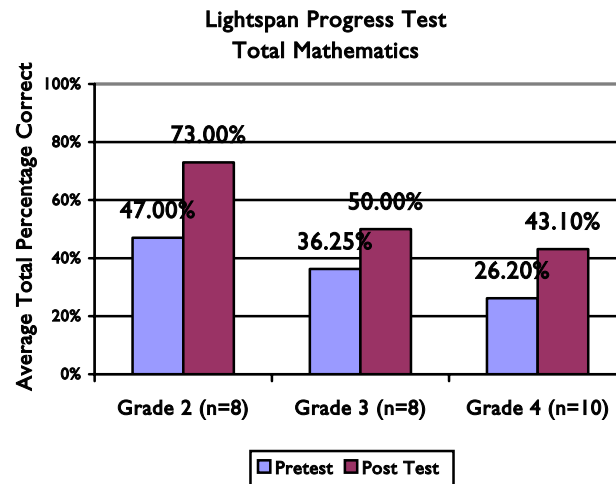
Participating Lightspan students posted significant gains in Total Reading on the Lightspan Progress Test

First-, second-, third-, and fourth-grade Lightspan students took the Reading portion of the Lightspan Progress Test. Pre- and post-test averages showed statistically significant gains of 15.44% ($p < .01$), 28.27% ($p < .01$), 14.40% ($p < .05$), and 13.25% ($p < .01$), respectively.



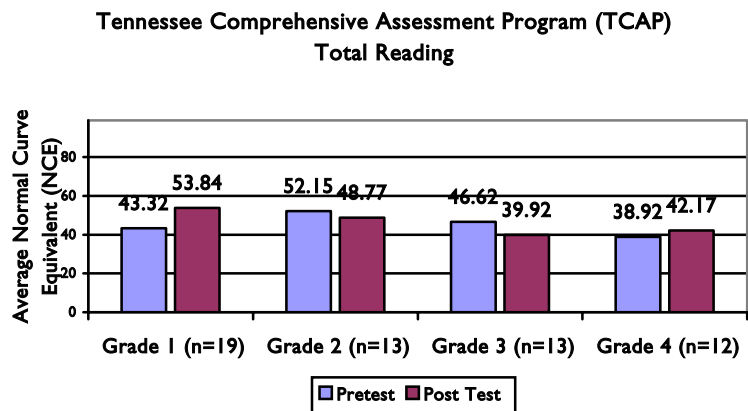
Participating Lightspan students posted significant gains in Total Mathematics on the Lightspan Progress Test

Second-, third-, and fourth-grade Lightspan students took the Mathematics portion of the Lightspan Progress Test. Pre- and post-test averages showed statistically significant gains of 26.00% ($p < .01$), 13.75% ($p < .05$), and 16.90% ($p < .01$), respectively.



First- and fourth-grade students demonstrated positive growth in Total Reading on the TCAP

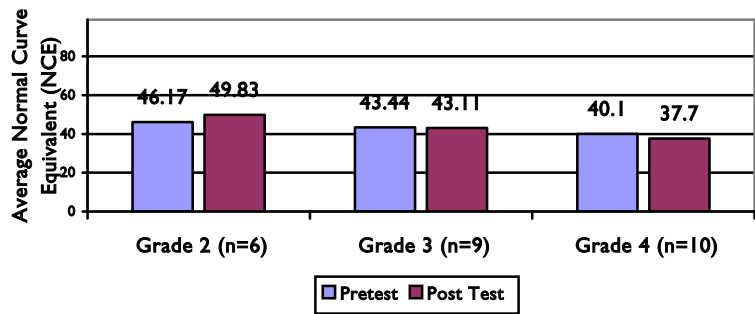
In Total Reading on the TCAP, first- and fourth-grade students using Lightspan products realized average NCE point gains of 10.53 and 3.25, respectively. Second- and third-grade students experienced average NCE point losses of 3.38 and 6.69 ($p < .05$), respectively. The achievement loss by third-graders was statistically significant.



Second-grade students realized positive gains in Total Mathematics on the TCAP

In Total Mathematics on the TCAP, second-grade students using Lightspan products realized a gain of 3.67 NCE points in Total Mathematics, when pre- and post-test averages were compared. Third- and fourth-grade students realized average NCE point losses of 0.33 and 2.40, respectively. Nevertheless, none of the results were statistically significant.

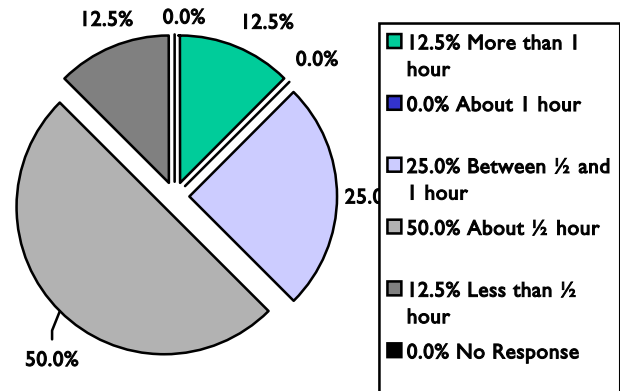
Tennessee Comprehensive Assessment Program (TCAP)
Total Mathematics



Lightspan Achieve Now extends the learning day

A majority of the families of Lightspan students reported that on average their child dedicated about 30 minutes, or more, per day toward using Lightspan Achieve Now at home (87.5% of 8 family respondents). Additionally, 50.0% of families reported an extension of their child's learning day that served to replace other activities, particularly, the viewing of television programs.

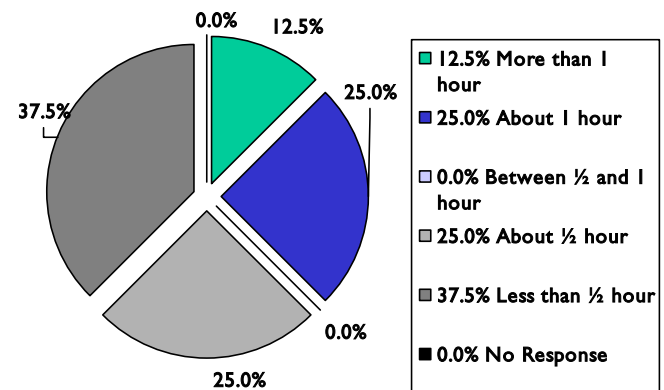
AVERAGE AMOUNT OF TIME PER DAY CHILD USES LIGHTSPAN ACHIEVE NOW AT HOME



Family involvement in schoolwork

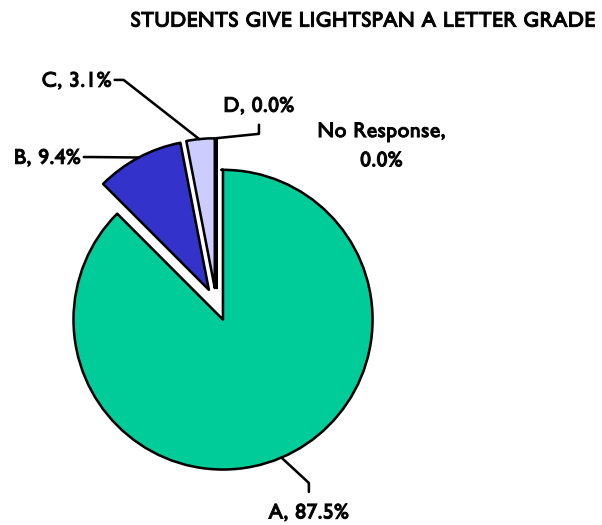
Five of the families (62.5%) reported spending approximately 30 minutes, or more, each day working with their child on Lightspan Achieve Now at home. Moreover, 50.0% of the families personally reviewed and used Lightspan at home between 30 minutes to over 1 hour per day.

AVERAGE AMOUNT OF TIME PER DAY PARENT AND CHILD WORK TOGETHER ON LIGHTSPAN ACHIEVE NOW



Students rate Lightspan Achieve Now program

Cascade Elementary students participating in the Lightspan program were asked to give Lightspan Achieve Now an overall letter grade. Of the 32 students who responded to the student questionnaire, 23 awarded Lightspan with an “A” grade. This translates to 87.5% of student respondents issuing an “A” to the Lightspan program. When asked whether Lightspan made school more interesting, 75% of respondents said “Yes.”



Cascade Elementary School Program Background

Cascade Elementary School is a Title I school that is located in Bedford County, Tennessee. It is one of six schools in the district that use Lightspan as part of the Title I curriculum. Cascade Elementary School serves approximately 300 students in grades K-6. The student population is comprised of 94% Caucasians, 1% African Americans, and 5% Hispanics.

Implementation of Lightspan Achieve Now, The Lightspan Network, and Lightspan Reading Center in Cascade Elementary School began in August of 2002, using Title I funds and a Goals 2000 grant. Students in grades 1 through 4 were identified to participate in the implementation according to guidelines in the Federal Title I Grant. The nine-month lab program was designed to increase student achievement in the areas of Reading and Mathematics.

During the implementation of the program, two full-time Title I reading specialists at Cascade Elementary School received on-going professional development sessions on the use and implementation of the Lightspan products. Teachers were provided with continuous support, materials, and modeling demonstrations throughout the school year.

Teachers used the results of the Lightspan Progress Tests and Lightspan Reading Center assessments to target student needs and to align instruction to the Lightspan activities. Moreover, the participating teachers created individual student assessment portfolios to help monitor and adjust instructional needs. These portfolios also allowed the teachers to use The Lightspan Network to align learning objectives to the Lightspan Adventures® and other extended instructional tools.

Parent Orientation was held for the families of participating third-grade students. During the orientation, families were encouraged to interact with their child during home use of Lightspan Achieve Now. Moreover, families were demonstrated strategies to support their child’s learning needs while working together with Lightspan at home.

At the lab, teachers provided individual and group instruction to participating Lightspan students. The students were scheduled to use Lightspan for 45 to 55 minutes daily. Additionally, fifteen under-performing third-grade students were identified to participate in home deployment of Lightspan Achieve Now.

To evaluate academic growth and program effectiveness, participating Lightspan students were assessed before and after the implementation using Lightspan Progress Tests. Moreover, the participating students' previous 2002 TCAP scores were collected to compare with their 2003 TCAP scores. Questionnaires were distributed to teachers, families, and students at the end of the program to collect participants' opinions and reflections on various aspects of the Lightspan implementation and experience.



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