

Approved: 2/23/93  
Date

## MINUTES OF THE SENATE COMMITTEE ON EDUCATION

The meeting was called to order by Chairperson Dave Kerr at 1:30 p.m. on February 22, 1993 in Room 123-S of the Capitol.

All members were present except: Senator Doug Walker (Excused)

Committee staff present: Ben Barrett, Legislative Research Department  
Avis Swartzman, Revisor of Statutes  
LaVonne Mumert, Committee Secretary

Conferees appearing before the committee:

Robin Nichols, Wichita Public Schools  
Jim Harshbarger, USD No. 308, Hutchinson Public Schools  
Charles Robinson, USD 440, Halstead/Bentley  
Gerald Henderson, United Schools Administrators of Kansas  
Chuck Tilman, Kansas National Education Association  
Mark Tallman, Kansas Association of School Boards

Others attending: See attached list

Senator Hensley made a motion to approve the minutes of the February 19, 1993 meeting. Senator Emert seconded the motion, and the motion carried.

### SB 333 - School technology incentive grant program

Staff explained SB 333, which provides for a system of competitive grants that districts may attempt to secure in order to assist in the development of new and innovative technology or to integrate technology into the curriculum of schools. The grants would be provided on a 50-50 matching basis.

Robin Nichols, Wichita Public Schools, testified in favor of SB 333 (Attachment 1). She described a cooperative effort between Cessna Aircraft Company and the Wichita Public Schools as an illustration of the necessity to have curriculum which matches and complements the work place. She was asked whether the district sought funding under any existing programs and replied that she would obtain that information.

Jim Harshbarger, USD No. 308, Hutchinson Public Schools, described the computer-assisted instruction program for "at-risk" students at Hutchinson High School (Attachment 2). He detailed improvement in the performance of participating "at-risk" students during the program's first year: a 21% decrease in absenteeism, a 29% improvement in behavioral referrals, a pass rate of 86% for computer-assisted instruction courses and a 53% improvement in total courses passed. The drop-out rate went from 6.9% in 1988 to 4.4% in two years. Mr. Harshbarger said this is the single most productive program he has seen in the 27 years he has worked with marginal students. He mentioned several reasons why the program works: motivation, the use of mastery level learning and because all subjects are offered and are at a self-paced rate. Mr. Harshbarger spoke favorably about the competitive grant provisions of SB 333 and the requirement for documentation of student performance and accountability for funds. He said that the best programs will show that they can continue on local funds. Mr. Harshbarger advised that at least 22 districts have visited the Hutchinson program. In responding to questions from Committee members, Mr. Harshbarger mentioned that the Hutchinson program has been presented in Colorado, Oregon, North Dakota and Montana. He stressed that it is not a remedial or tutorial type of program but is the full course content. About 150 out of 1,300 students are served, and the program is totally voluntary. The Committee was provided with an article about the program from the *KASB Journal*. (Attachment 3).

Charles Robinson, USD 440, Halstead/Bentley, spoke about his district's instructional learning system (Attachment 4). The district has applied four times for an educational system enhancement grant and was

## CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON EDUCATION, Room 123-S Statehouse, at 1:30 p.m. on February 22, 1993.

successful in 1990. Ninety percent of the district's students passed the minimum competency test for the first time in ten years, and the drop-out rate of 37-40% decreased to 7%. Mr. Robinson said the documentation required in connection with the grant was extremely valuable to the district and students. They have been able to provide students with more advanced courses. Every student in K-8 goes to a computer lab daily. Mr. Robinson discussed the district's long-range plans. He pointed out that technology is more than just computers. In answering questions from Committee members, Mr. Robinson advised that students have 10 minutes a day in computer assisted instruction in math and 10 minutes a day in computer assisted instruction in language arts. This has resulted in an average growth of 1.5 to 1.85% per year. He explained that the instruction can be directed either by the computer or by the instructor.

Gerald Henderson, United School Administrators of Kansas, testified in support of SB 333 (Attachment 5). He said the competitive grant concept is beneficial in that it requires applicants to decide what they want, sell the idea to somebody and then design a program with measurable results. He urged that adequate funding be provided for the program. In response to a question from Senator Oleen, Dale Dennis (State Department of Education) advised that, as a general rule, about one out of every three applications received funds. Chairman Kerr advised that this year's funding for innovation grants is about \$1.5 million.

Chuck Tilman, Kansas National Education Association, expressed support for SB 333 (Attachment 6).

Mark Tallman, Kansas Association of School Boards, testified in favor of SB 333 (Attachment 7). He expressed support for provisions which would allow and encourage multi-year grants.

The meeting was adjourned at 2:25 p.m. The next meeting of the Committee will be Tuesday, February 23, 1993.

SENATE EDUCATION COMMITTEE

TIME: 1:30 PLACE: 123-S DATE: 2/22/93

GUEST LIST

<u>NAME</u>	<u>ADDRESS</u>	<u>ORGANIZATION</u>
Chuck Tilman	Topeka	KNEA
Connie Hunsell	Topeka	SEBS of SO
Mark Tallman	Topeka	KASB
Robert Nichols	Wichita	Wichita Public Schools
Louise Aydt	Topeka	USA/KAC
<del>Ann L. Burnett</del>	<del>Topeka</del>	<del>USD 581#</del>
Dan Hermes	"	DOB
Jacquie Oakes	"	SQE
Craig Grant	"	KNEA
Bruce Greden	Topeka	Kansas NBA
Dr. Sue Adams	Topeka	IBM EduQuest
Gerald Henderson	Topeka	USDOJ/RS
Brian Hampton	Topeka	WSSWA
Dave DeRue	Topeka	KSOVE
Kevin Robertson	Topeka	Am. of LITSS
Charles Robinson	Habitat	U.S.D. 440 HAWKHEAD KENTCOX
Jim Harshbarger	Hutchinson	U.S.D. 308





Public Affairs

**Testimony On Senate Bill 333:  
Establishing The School Technology Incentive Grant Program  
By Robin Nichols, Wichita Public Schools  
February 22, 1992**

Mr. Chairman, Members of The Committee:

I am Robin Nichols of the Wichita Public Schools, and I am testifying in support of Senate Bill No. 333 which would establish the School Incentive Grant Program.

We laud the Committee for this legislation as a reflection of what is going on in the real world of business and education partnerships. Allow me to briefly share an example with you.

Over a year ago, Cessna Aircraft Company joined with the Wichita Public Schools to develop and design the Investigations in Technology Program for ninth grade students at North High School. The cooperative effort included North High School, and the Technology Education Program, the grants and the business-partnerships offices of the Wichita Public Schools. The intent was to design a program for a recognized need in order to qualify for a Federal Partnerships Program grant. The Investigations program would have been a direct partnership in which freshmen students would be directly partnered with Cessna personnel from a variety of areas including engineers. Most significantly, students would spend one day a week on site learning specifically and first hand about the world of work at Cessna.

The federal grant did not come through: only four were granted nationwide. But that did not deter the efforts of Cessna with the Wichita Public Schools. To date Cessna has provided thousands of dollars worth of time and expertise to research and design the program, including specific curriculum and evaluation assessments. The program has begun on a limited basis with North High but funding has not been available to fulfill the designed partnership.

Senate Bill 333 formally recognizes what Cessna Aircraft already knows: that investing in the workers of tomorrow early and directly will pay off in the future. The partnership between Cessna and the Wichita schools is a result of the growing recognition that the quality of students' experience has a direct bearing on the quality of our future workforce. Senate Bill 333 addresses this clear and pressing need.

*Sen. Education  
Attachment 1  
2/22/93*

## **Computer-Assisted Instruction for "At-Risk" Students**

In 1988 the dropout rate at Hutchinson High School in Hutchinson, Kansas escalated to 6.9 percent. Although this may be an acceptable statistic nationally, it represented a 43 percent increase over just four years earlier. "At-risk" concerns had reached rural America. Prompted by similar problems throughout Kansas, the state legislature established a competitive grant program to fund innovative programs for "at-risk" students. Three, consecutive one-year grant awards provided the funding necessary to develop a high-tech classroom lab exclusively designed to meet the needs of "at-risk" students.

Education must be motivating, exciting, challenging, caring and responsive to the concerns of our youth. "At-risk" students of today are part of the MTV generation. They are visual learners. What better way to capitalize on their learning style than through computer-assisted instruction (CAI).

Because of late funding the beginning date of the CAI project was delayed to the second semester of the 1989-90 school year. Although initially frustrating, this postponement provided a wealth of comparative statistics. Analysis of attendance, behavior, grades and effectiveness of teaching methods were compared on the forty-nine "at-risk" students from first semester in traditional instruction versus second semester when their schedules included one or two CAI classes. Every category showed marked improvement when students were involved in CAI. **Absences decreased 21%** from a total of 356 during first semester to 281.5 during second semester. **Behavioral referrals decreased** from 218 first semester to 155 second, a **29% improvement**. Virtually all (98%) of the "at-risk" students entered CAI classes with failing grades, of those **86% passed their courses through computer-assisted instruction**. One of the most encouraging results was the carryover from success in CAI classes to improved performance in all courses. A total of 123 courses were failed by the 49 students during first semester, this decreased to 58 during the second semester. This was a **53% improvement in total courses passed**. The final goal was to prevent the continual exodus from school by this group of "at-risk" students. From this group, only two students dropped out of school, representing a **4% dropout rate from the highest risk students in the high school**.

*Sen. Education  
Attachment 2  
2/22/93*

These initial positive indicators were followed by similar statistics for 1990-91 and 1991-92 school years. CAI courses passed, all courses passed and dropout rates were as follows:

<u>Year</u>	<u># At-Risk Students Enrolled</u>	<u>CAI Courses Passed</u>	<u>All Courses Passed</u>	<u>Dropout Rate</u>
1990-91	100	87%	77%	4%
1991-92	137	91%	*	8%

\*Not Available

In a span of two years the overall dropout rate for the district had dropped back to 4.4% which represented a **36%** improvement.

The CAI program does not function as a remedial, tutorial or study skills model. The CAI courses were developed by teachers representing the core areas of English, social studies, math and science. These teachers developed courses equivalent in objectives to the traditional ones, but utilizing technology in every aspect of the instruction. Every required subject, except physical education and speech are available through computer-assisted instruction. The CAI courses are viewed as another section of the required core courses. The classes are designed for students who need an alternate method of instruction. They are not remedial, nor are they designed to serve the needs of special education students.

Students are referred to the program by teachers, counselors, assistant principals, parents and by the students themselves. If it is determined by the project staff that a student could benefit from the CAI program, then the student is contacted for them to decide if they would like to enter the program. Only "at-risk" students who choose to enter CAI classes are enrolled. Students may only enroll in two CAI classes per semester. A "waiting list" procedure has been utilized to handle the overflow of students requesting this program. In a survey of "at-risk" students enrolled in CAI classes at the completion of the 1991-92 school year, **97%** stated that they preferred the CAI method of instruction compared to traditional approaches.

Students view the program as an opportunity for them. The fact that they are enrolled in the classes voluntarily has had a profound effect on their attitude. Many see these courses as a second chance.

When interviewed, CAI students most often mentioned three factors as making a difference for them in CAI:

1. The opportunity to work at their own pace.
2. The positive attention they receive from the teachers.
3. The opportunity to work with computers.

A pattern of not completing homework assignments surfaced as a primary reason students were failing classes. Six Macintosh PowerBook computers were purchased to assist in this problem. Students may now checkout a PowerBook to take home to help them complete their homework assignments. A self-reporting questionnaire is planned to determine if this procedure was viewed as useful by students.

The lab is equipped with 36 Macintosh and 10 Apple computers. A Macintosh II is utilized as the network server. Video disk players, CD-ROM's, a scanner, LCD panel and VCR's enhance the multi-media aspect of the classroom. Students work from individual folders and work at their own pace. This allows the CAI class to offer all subjects every hour and to enroll students throughout the semester. Group projects such as the publishing of a CAI student newspaper, HyperCard stack presentations, and video integration programs are examples of collaborative learning utilizing the latest in technology.

The success of this model has led to its adoption in our county-wide summer program and by Hutchinson's Alternative High School which operates during the evening hours. With these additions the CAI lab is now serving "at-risk" students from seven in the morning until ten at night, eleven months of the year.

The initial equipment and software costs are soon balanced by the decrease in the dropout rate. Operating with almost thirty students per hour the program is as cost efficient as any traditional program.

# Hutchinson's At Risk Program: *Computers Answer The Call*

BY JIM HARSHBARGER AND SUSAN COMBS

In 1989, with the assistance of the state educational excellence grant, Hutchinson High School began a computer-assisted instructional (CAI) program for forty-nine ninth grade "at-risk" students. This program now serves twenty-five "at-risk" students per hour (grades 9-12), six periods per day at Hutchinson High School, six more hours during the evening at the alternative high school and for a majority of classes during the summer school session. The computer-assisted instruction courses are not remedial, but equivalent core required classes taught through a different medium. The CAI program offers all basic required courses for graduation, except a physical education class and speech. The CAI lab is equipped with Apple and Macintosh computers, CD-ROM's, a scanner and interactive video disk players.

For the first time since 1983, Hutchinson High School experienced a decrease in the dropout rate in the 1989-90 school year. An even more significant decline of two and two-tenths percent was recorded in 1990-91. What impact did the CAI program have on these positive statistics? Because of delayed funding the CAI program was not started until the second semester of the 1989-90 school year. This provided an opportunity to compare the performance of "at-risk" students with and without the CAI program. To be considered for CAI classes, students must have failed or be failing a course to be eligible for enrollment. Statistics from the second semester showed that eighty-eight percent of these "failing" students passed their CAI classes.

One of the most encouraging findings was the positive carry-over of their performance into other classes. From the first semester without the CAI program to the second with the program "at-risk" student noted a forty-seven percent decrease in the total number of courses failed. Further comparison between semesters displayed a decrease in absenteeism of twenty-one percent, a decrease in behavioral referrals of twenty-nine percent and a dropout rate of less than five percent.

These positive trends have continued through the last three years. The most recent data from the first semester of the 1991-92 school year showed that ninety-four percent of the "at-risk" students passed their CAI classes. Thirty-nine percent of these "at-risk" students passed all of their classes. The CAI students, even though being the

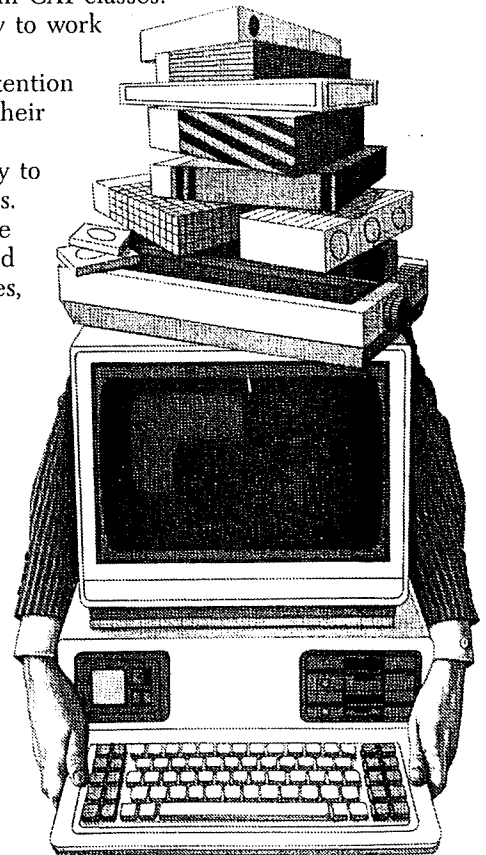
highest risk group at Hutchinson High School, displayed less than a five percent dropout rate.

This program has documented its effectiveness. Why does it work? Many research studies have shown that "at-risk" students tend to be visual learners. The CAI model is primarily a visually-oriented instructional model. The computers provide immediate feedback which learning theory has always deemed an essential ingredient for success. Mastery instruction is utilized in the CAI classes. Students may not proceed to the next lesson until a minimum of seventy percent accuracy is achieved. This concept mandates success. When interviewed, "at risk" students most often mentioned three things that made a difference for them in CAI classes:

1. The opportunity to work at their own pace.
2. The positive attention they received from their teachers.
3. The opportunity to work with computers.

Although there are initial equipment and software expenditures, the operating costs of the program are equivalent to most remedial programs which have shown to have little effectiveness in meeting the needs of the "at risk" student. The CAI model does make a difference in motivating these previously unreachable students. ■

For further  
information contact:  
Jim Harshbarger  
or Susan Combs,  
Hutchinson High  
School





## Unified School District 440, Halstead/Bentley

Time line:

1987 Established Technology Committee based upon the goals established by the Board of Education.

1989 Sought "An Educational System Enhancement Grant" from the Kansas State Board of Ed.

**Purpose:** To establish a twenty-four station ILS (Instructional Learning System) at both Halstead Elementary and Bentley Elementary.

**Rationale:** To provide individualized computer assisted instruction to all students in grades one through five.

**Result:** Grant denied.

District Action: One twenty-four station lab installed at Halstead Intermediate. Approximate cost, 120,000 dollars.

1990 Sought "An Educational Enhancement Grant" from the Kansas State Board of Ed.

**Purpose:** To increase the rate and equity of student achievement and school completion through use of computer aided instructional laboratories to complement regular instruction.

**Rationale:** Based on the pilot conducted within the district the previous year and the overwhelming documented results of standardized test gains across the nation, the staff chose to implement computer assisted instructional labs in each of the districts' buildings.

**Result:** Grant awarded. For those grades administering the Kansas Minimum Competency Test, 90% of the students passed. This was the first time in a decade that this had happened.

District drop-out rate reduced. Approximate cost, 245,000 dollars.

District Action: Seek additional stations to complete installations at Halstead High School and at Bentley Elementary School.

1991 Sought "Educational Excellence Grant" addendum from the Kansas State B.O.E.

**Purpose:** The courseware provided instruction in content areas that could not otherwise be offered by existing faculty. New courseware offered mastery-based instruction in job related skill areas.

**Rationale:** Limited station numbers at Halstead High School and Bentley Elementary precluded the use of the labs for whole class instruction. The district was initiating mastery learning and Outcomes Based Education in mathematics. As a part of this process, correctives and enrichments are essential.

**Result:** Grant denied.

District Action: Secured via trade-ins, etc., the necessary stations to complement a twenty-four station lab at Halstead High School and four additional stations at Bentley Elem. Approximate cost, 114,000.

1992 Sought "Educational Excellence Grant" from Kansas State Board of Ed.

**Purpose:** To facilitate information processing capabilities for students, teachers, community patrons, and community businesses. Expected outcomes were designed to not only increase technology information access, but to expand the integration of research/writing into the curriculum, increase (automate) library utilization, enhance business-school cooperation by offering courses for area businesses, and to provide access to community college courses.

**Rationale:** Business education was and is typewriter based. All library systems are paper. Computer-assisted drafting did not exist. There is a demand for CAD by area businesses. Community college courses are conducted in our buildings on equipment that must be transported by the community college. Research and writing was and is conducted by pencil and paper without the use of integrated word processing.

**Result:** Grant denied. Ranked 23rd. Twenty-two were funded.

District Action: Stand-alone word processing software was secured. One CAD station was secured. Securing bids for business lab and automated library access.

Long Range Plans:

- To network each faculty member with the district's Outcome Based Education Curriculum;
- To have networked access to District Exit Outcomes;
- To provide teachers, principals and students with the technological resources necessary to both monitor and self-monitor achievement.
- To have the resources necessary to automate data-collection for state exams and other Quality Performance Accreditation expectations.
- To train all students to use electronic media to acquire, organize, analyze, and communicate information.
- To provide the tools necessary for children to expand their imaginations and express their creativity.
- To prepare students for the Twenty-First Century.



## **SB 333**

Testimony presented before the Senate Committee on Education  
by Gerald W. Henderson, Executive Director  
United School Administrators of Kansas  
February 22, 1993

Mister Chairman and members of the committee:

United School Administrators of Kansas appreciates this opportunity to speak in support of **SB 333**. Kansas schools have responded positively over the past few years to incentive programs funded through shared participation grant programs. School technology is an area which should fit well in this arena of state participation with local schools.

We are especially appreciative of the language in the bill which requires a clear statement of what is wanted from the improved technology. Such a plan will ensure that schools incorporate technology into their over-all school improvement effort rather than viewing technology as an end in itself.

While we realize that funding is not within the purview of this committee, we encourage members to consider fiscal aspects of this program as **SB 333** moves through the legislative process. Without adequate funding, this bill will not make the difference for kids that it might otherwise make.

LEG/SB333

*Sen. Education  
Attachment 5  
2/22/93*





KANSAS NATIONAL EDUCATION ASSOCIATION / 715 W. 10TH STREET / TOPEKA, KANSAS 66612-1686

Chuck Tilman Testimony before  
Senate Education Committee  
Monday, February 22, 1993

I am Chuck Tilman, President of the Kansas National Education Association. I appreciate the opportunity to speak before the committee this afternoon in support of Senate Bill 333.

Educators need to be able to take advantage of the best teaching resources available. Both teachers and students benefit from having access to and familiarity with the variety of new technologies on the market which support the educational programs in our schools.

The school technology incentive grant program, as outlined in this legislation, is a means of providing support and encouragement to school districts as they make the transition to implementing technology as a component of teaching and learning. Not only would the program provide a mechanism for financial support to implement those transitions, but it would also serve as a catalyst to districts to give thoughtful and planned consideration of technology inclusion when determining their instructional needs.

We ask your support of SB 333. I will be happy to respond to any questions which the committee may have.



**Testimony on S.B. 333  
before the  
Senate Committee on Education**

**by**

**Mark Tallman, Director of Governmental Relations  
Kansas Association of School Boards**

**February 22, 1993**

Mr. Chairman, Members of the Committee:

We wish to express our strong support for S.B. 333, establishing the school technology incentive grant program. We have supported the establishment of similar grant programs in the past, including the Educational Excellence Grant Program and the Parent Education Program, and believe the record shows these to be effective strategies for school improvement. We are also strongly supportive of increased use of technology in education.

In addition to directing state resources to important areas, matching grant programs encourage a commitment of local funds for school improvement programs. This, in effect, doubles the impact of state appropriations.

We offer only two areas of concern. The first is that most grants provided under the excellence grant program last only one year. This makes effective long-term evaluation of the programs supported by such grants almost impossible. We believe multi-year grants will be appropriate in at least some cases.

*Sen. Education  
Attachment 7  
2/22/93*

Our second concern is to offer some caution about spreading state funding among too many relatively small grant programs. Perhaps the area of technology should be made a priority within the current excellence grant program, rather than creating a separate, free-standing program. However, we agree that technology education should be emphasized, even if this requires a new program.

Thank you for your consideration.