

Annual Progress Report – 2004-2005 Academic Year:

Instructional Technology

- **New and Renovated Facilities** – The Local Option Tax on Sales and Services has provided funding for construction projects in three additional schools to be completed by October 2005, bringing the total number to 24 in the last 5 years. All include new library media centers with new computer labs as have 19 of the previous 21 projects.
- **Iowa Communications Network** – Currently the district is not involved in courses over the ICN – neither originating nor subscribing to others. The primary use of the classrooms is for special events and meetings. We have a few teachers who participate in collaborative lessons, including units on forensic medicine and story telling. North High has been using the ICN to attend monthly High School That Works meetings bringing together all the HSTW schools in the state so that they can share experiences and share staff development opportunities to improve student achievement. The Davenport CSD has incorporated the ICN into its data network infrastructure by utilizing the ICN fiber terminating in five district sites. Bandwidth was increased to four of the five sites. Along with the ICN, the DCSD is involved in a local cooperative to investigate measures to improve the network infrastructure and services for government and education in our community.
- **Staff Development** – District provided workshops are being focused on specific integration strategies and applications in support of district and building CSIP goals. On-demand workshops and an on-line help desk are available to meet specific needs.
- **Assessment** – The district implement Quality Education Data, or QED, a Davenport Schools developed program to provide consistent and easy assessment data collection and reporting for teachers and administrators. QED is a subordinate system to the eSIS program and works to provide custom features and data tracking capabilities not found in that program. QED receives a daily update of student demographic data including courses and teacher associations. This enables us to provide secure access by teachers to their students with respect to eSIS and FERPA (Federal Education Rights to Privacy Act) and HIPAA (Health Insurance Portability and Accountability Act) rules. It also ensures that data entry will not be duplicated across multiple systems and that the most up to date information drives our systems.
- **Technology Integration** – Computer and other technological advances are only tools in the learning process. In order to help fulfill the student learning goals of the district, it is important that their use in the classroom be planned and guided by teachers. Recent district-wide applications include:
 - ◆ Textbooks for Algebraic Principles, Intermediate Math, Advance Placement Statistics, Advanced Placement Chemistry were adopted for 2005-06 and came with computer CDs that provide additional resources to enhance the curriculum. Online activities and videos enhance student learning. The online texts provide reading support with audio for struggling readers.
 - ◆ In 2004-05 math and science teachers in 6-12 had Spreadsheet Integration training to facilitate their implementation of the district Spreadsheet Integration Project. The district has results in 6-12 math and science students

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for the second year of the spreadsheet implementation. On-going voluntary spreadsheet training workshops for middle school math and science teachers are scheduled in August 2005 to review the spreadsheet process and train new math and science staff.

- ◆ ALEKS, an online Internet based K-12 math program, was used at most middle schools during 2004-05 to support and enhance the district's 6-8 "Algebra for All" program after ALEKS was introduced to the middle schools during the 2003-04 school year. Teachers requested additional ALEKS training on the program which was provided in October 2004 so they could implement the program more effectively. ALEKS interacts with the student much as a skilled human tutor would, moving between explanation and practice as needed, correcting and analyzing errors, defining terms and changing topics on request. Students receive a password that will enable them to work at school as well as home allowing parents the opportunity to observe their student's progress. Davenport's Gifted and Talented Program is also using this program.
- ◆ Davenport Community School's high schools completed their third year of the "Cognitive Tutor" Algebra I Program. This program is a results-based curriculum that integrates software and print materials into a comprehensive course that engages students, enhances the role of the teacher, accelerates learning and delivers results. This program was recognized as Exemplary by the U.S. Department of Education's expert panel. This program is supported by 15 years of research and over 10 years of field-testing. Empirical studies conducted by Carnegie Mellon University's primary investigators show that the unique combinations of the Cognitive Tutor Algebra I Program curriculum and the classroom teacher have increased student achievement, pass rates, and subsequent success in mathematics. In July of 2004, the district developed an assessment to be administered during the 2004-05 school year to all students in the Cognitive Tutor and traditional Algebra I programs. Enrollment in Cognitive Tutor Algebra has increased each year of the program's implementation. Students fail Cognitive Tutor Algebra at a lower percentage rate than traditional Algebra I.
- ◆ North High School is field testing a new precursor course, "Bridge to Algebra", to Cognitive Tutor Algebra during the 2005-06 school year to determine if this course will increase the success rate in both Cognitive Tutor Algebra and Algebra I.
- ◆ North High School and West High School received a Scott County River Boat grant for two math labs to support the Cognitive Tutor Algebra program at each school. With the completion of the two labs, these two schools will be better equipped to expand the program in the future to include Geometry.
- ◆ Scholastic Read 180 and Scholastic Red are the technology components of our Enhancing Education Through Technology grant. READ 180 is a comprehensive reading intervention program designed to meet the needs of students in elementary to high school whose reading achievement is below the proficient level. Successfully piloted at Young Intermediate for 2 years, the program was expanded to our remaining 5 intermediate schools with a focus

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on a select group of low achieving grade 6 students. The first year results were mixed but should improve as the fidelity of implementation improves in this coming year. Second year results showed that the reading comprehension of students involved in READ 180 was half that of the rest of their non-READ 180 classmates. This is encouraging data, and the district continues to monitor for implementation with fidelity.

Scholastic Red Professional Development provides intensive teacher support for raising student achievement in reading. Red provides a full range of customized online courses and integrated onsite support. Training in Red was provided for 5 teachers in each intermediate school and will be expanded in 2004-05. In 2005-06, interdisciplinary teams from each of the four high schools participated in this on-line staff development. The target area was again reading comprehension across subject areas.

- ◆ *Pathways to Knowledge: Follett's Information Skills Model* was adopted several years ago to provide us with a means to achieve the district essential learning standard for information and technological literacy – to use media and technology to access, organize, prepare, and analyze information for a variety of purposes. Two activities designed to assess student use of the model were developed in the summer of 2003 and implemented this past year – one in relation to a grade 5 social studies unit on conflict and the other to the grade 8 language arts I-search project. Teacher survey results follow. An additional activity was developed in 2004-05 for 6th grade LA to be implemented during 2005-06.

Grade 5 Pathways Teacher Response Summary (N=41)

1. Did your knowledge of the Pathways Model increase during the research activities?
Yes – 38 No - 3
2. Did your awareness and use of the Pathways language increase as you worked through the process with your students?
Yes – 34 No - 7
3. Did you become more comfortable using the Pathways language as you worked through the process?
Yes – 35 No - 6
4. I collaborated with the following on this project:
Library Media Specialist – 33 TAG Facilitator – 14
SpEd Personnel – 21 Reading Teacher – 6
Another Teacher - 30
5. Did the collaboration result in better research papers?
Yes – 40 No - 1
6. Did use of the Pathways model increase the number of research papers turned in?
Yes – 28 No - 13
7. Did having the students stop and reflect at each stage help my teaching?

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Yes – 29 No – 12

Grade 8 Pathways Teacher Response Summary (N=11)

1. Did your knowledge of the Pathways Model increase during the I-Search activities?
Yes - 10 No - 1
 2. Did your awareness and use of the Pathways language increase as you worked through the process with your students?
Yes - 10 No - 1
 3. Did you become more comfortable using the Pathways language as you worked through the process?
Yes - 10 No - 1
 4. I collaborated with the following on this project:
Library Media Specialist – 8 TAG Facilitator – 7
SpEd Personnel – 1 Another Teacher – 5
 5. Did the collaboration result in better I-Search papers?
Yes - 9 No - 2
 6. Did use of the Pathways model increase the number of I-Search papers turned in?
Yes - 7 No - 4
 7. Did having the students stop and reflect at each stage help my teaching?
Yes - 9 No - 2
- ◆ The Spreadsheet Integration Project is designed to ensure that all students have the opportunity to learn technology and information skills while working to achieve content benchmarks. Over the course of the last 4 years, district teachers have been developing spreadsheet activities addressing math, science, and social studies benchmarks in grades 3-12. The results of the intermediate assessment in social studies follow. Of all intermediate students, 86.03% were proficient – a 0.67% decrease over last year.

Spreadsheet Integration Project Assessment in Social Studies					
Grade	Year	Data	Proficient	Assessed	Gain
6	2004-05	Count	985	1161	
		Percent	84.84%		-2.66%
	2003-04	Count	987	1128	
		Percent	87.50%		0.79%
	2002-03	Count	1031	1189	
		Percent	86.71%		
7	2004-05	Count	910	1052	
		Percent	86.50%		-2.20%
	2003-04	Count	1005	1133	
		Percent	88.70%		0.95%
	2002-03	Count	881	1004	

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		Percent	87.75%		
8	2004-05	Count	962	1108	
		Percent	86.82%		2.45%
	2003-04	Count	1155	1369	
		Percent	84.37%		2.32%
	2002-03	Count	1248	1521	
		Percent	82.05%		