Tools for Teaching and Learning - 2006
North Dakota Educational Technology Plan

Purpose of the North Dakota Educational Technology Plan

The purpose of this plan is to identify the goals, strategies, timelines and measures that state entities will use in supporting the use of technology in schools. The plan also provides guidance to North Dakota K-12 educators, school leaders and other stakeholders as they plan to implement technology in local school districts.

The 2006 plan is consistent with the ND Educational Technology Council's mission of *"coordinating the use and development of technology systems to enhance educational opportunities for elementary and secondary education,"* the ND Department of Public Instruction's mission of providing *"a comprehensive system of educational opportunities for all,"* the ND Department of Career and Technical Education's mission of providing *"all ND citizens with the technical skills, knowledge, and attitudes necessary for successful performance in a globally competitive workplace,"* and the ND Information Technology Department's goal of *"maximizing our technology investments through the adoption of a shared vision and spirit."*

This 2006 plan is a revision of the 2003 plan and is consistent with the 2004 U.S. Department of Education plan, *Toward a New Golden Age in American Education: How the Internet, the Law and Today's Students are Revolutionizing Expectations* (*http://www.ed.gov/about/offices/list/os/technology/plan/2004/index.html*). The 2006 plan is developed to be consistent with the 2003 *North Dakota Library/Technology Literacy Standards* (*http://www.dpi.state.nd.us/standard/content/tech.pdf*), the *No Child Left Behind* Act of 2001 (*http://www.ed.gov/nclb/landing.jhtml?src=pb*) and the technology planning requirements of the federal E-Rate program (*http://www.universalservice.org/sl/applicants/step02/technology-planning/*).

Process for Developing this Plan

The 2006 state educational technology planning process began in 2005 with the identification of teachers, technology coordinators, administrators and state educational technology staff to serve on the planning committee. The work was done in person, by video and online (http://www.ndetc.k12.nd.us/techplan/blog/).

The 2006 ND Technology Planning Committee:

- Dan Pullen – ND ETC Director, Planning Committee Chair
- James Bear, Montpelier - Technology Coordinator/Teacher
- Barb Bickel, Bowman – Technology Coordinator/Teacher
- Mike DeFoe, Devils Lake – Technology Coordinator
- Jeff Fastnacht, Ellendale - Superintendent
- Ray Hintz - ND CTE Representative
- Julie Jaeger, Minot - Teacher
- Paul Jensen, Kindred - Technology Coordinator
- Tim Kadrmas - EduTech Representative
- Chris Kalash – ND DPI and ND ETC Member
- Shawneen Voiles, Minot - Teacher and ETC Member
- Wayne Wermager - EduTech Representative
- Jerry Zimprich, Bismarck - Special Education Representative

A draft version of this plan was made available for public comment from April 3 through April 17, 2006. Comments were sought through online postings, via email and in small group presentations. Input from the public comment process was used to develop a final draft of the plan, which was approved by the planning committee on April 21, 2006 and adopted by the North Dakota Educational Technology Council on May 4, 2006.

Related Resources

In addition to the 2006 state technology plan document, other related technology planning resources will be made available for use by schools:

- School Technology Survey Instrument (April 2006),
- Template for School Technology Planning (October 2006),
- Approval Process for School Technology Plans (October 2006).

Vision for Educational Technology in North Dakota

Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.

Toward achieving this vision, the North Dakota Educational Technology Plan has five goals.

Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.*

Goal #1: A vision for educational technology will be available to schools to help guide their technology planning and implementation.

Rationale: The vision of how and why technology is to be used in schools is the destination, identifying "where we want to go" with technology. Without a clearly defined vision that is known and understood by all stakeholders, everyone will struggle and technology implementations will not have the structure or support necessary to sustain learning environments in which technology is integral to student achievement.

Strategy	Measure	Timeline
1.1 The state will have a clear vision for educational technology developed with input from school leaders and educators.	The state educational technology plan includes a clear vision statement.	May 2006.
1.2 The ND Educational Technology Council will communicate the state's vision for educational technology to stakeholders.	The state educational technology plan is published and distributed to appropriate groups: ND DPI, ND CTE, NDEA, NDCEL, NDATL, other administrator groups and public/legislative groups.	By October 2006 and annually.
1.3 North Dakota schools will, as part of their annual technology planning process, use a broad-based stakeholder group, including parents to develop a clear vision for educational technology.	School technology plans submitted to state agencies for approval include an educational technology vision. Annual ND ETC survey identifies school student information systems, websites and other stakeholder communication media.	Revised school tech plans submitted to ND ETC by April 2007. ND ETC survey is completed April 2006 and annually.

Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.*

Goal #2: Schools will create learning environments that include effective technology resources for educators and students.

Rationale: Access to technology resources is necessary to ensure that all students have the resources needed to gain 21st century skills. The types of technology tools available and the performance capabilities of those tools should be at a level that will support and sustain current learning practices and will also encourage new and innovative learning practices.

Strategy	Measure	Timeline
2.1 The state will continue to ensure that all high schools have basic connectivity through North Dakota STAGEnet.	ND ITD data indicate that all high schools have basic connectivity.	Annually via E-Rate process and biennially in the legislative process.
2.2 The state will provide the support needed to ensure that STAGEnet and other technology resources are reliable and useful for schools to use in teaching, learning and administration of schools.	State funding for ND ETC, EduTech, ITD, IVN and other agencies is maintained. Performance data from ITD, EduTech and ND IVN indicate support provided.	December 2007 and biennially.
2.3 The state will make financial and other resources available to support the implementation of educational technology, including distance education (state funds, federal title, IDEA and vocational funds, and E-rate discounts).	State and federal funds are secured and made available to schools. Reports from E-Rate, ND ETC, DPI, CTE and EduTech indicate funding and other support provided to schools.	December 2007 and annually.

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Strategy	Measure	Timeline
2.4 Schools will improve student-to-computer ratios (e.g. by implementing mobile or other labs, handheld or one-to-one initiatives) in order to provide regular and equitable access for all students to modern multimedia computers and related devices, including assistive technology for students with disabilities.	Data from school annual MIS reports indicate 90% of school districts have student to computer ratios better than 3.5 to 1 by 2007.	December 2007 and annually.
2.5 Schools will provide technical support so technology resources are reliable and available to educators and students.	Data from membership reports from the state's technology coordinators organization, from DPI MIS reports and from schools' consolidated applications for federal program funds indicate funding levels for salaried and contracted support services. Annual ND ETC survey indicates reliability of school technology resources.	Dec 2007 and annually. ND ETC survey is completed April 2006 and annually.

Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.*

Goal #3: Educators will use appropriate technologies to improve their teaching and other professional practices.

Rationale: Teachers and administrators must possess skills that allow them to be innovators in technology-rich teaching, learning and administrative environments. Through professional development, educators should become proficient at aligning technology use with student learning standards/goals, and integrating technology seamlessly into the curriculum.

Strategy	Measure	Timeline
3.1 The ND ETC will endorse the National Educational Technology Standards for Teachers and School Administrators as a guide for K-12 schools and schools of education to use in developing educational programs.	An endorsement of the ISTE NET Standards is published by the ND ETC and is posted on its website.	October 2006.
3.2 ND ETC and ND DPI will develop a definition for "Curriculum Integration," which will be used to guide schools in their efforts to integrate technology into all curriculum areas.	A definition of technology integration is agreed upon and submitted as part of DPI's federal report and posted on the ND ETC website.	April 2006.
3.3 Schools will use the ND Professional Competency Continuum (PCC) or other tools to assess the technology literacy of all educators.	All schools will have 85% of their educators complete the ND PCC annually; completion rate tracked by ETC.	April 1, 2006 and annually.
3.4 Schools will make technology proficiency a part of their annual staff evaluation processes.	Annual ND ETC survey indicates an increase in the number of schools that use technology literacy of educators as part of annual evaluations.	ND ETC survey is completed April 2006 and annually.

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Rationale: Teachers and administrators must possess skills that allow them to be innovators in technology-rich teaching, learning and administrative environments. Through professional development, educators should become proficient at aligning technology use with student learning standards/goals, and integrating technology seamlessly into the curriculum.

Strategy	Measure	Timeline
3.5 Schools will make professional development available to educators that meets their technology skill and curriculum integration needs as identified in school education improvement and professional development plans.	EduTech services data indicate that schools are meeting the technology professional development needs of teachers.	September 2006 and annually.
	Education improvement and professional development plans indicate that schools identify technology as a means to achieve school goals each year.	Educational improvement data analyzed in November 2006 and annually.
3.6 Schools will make use of student information systems and communication systems such as websites to communicate with students and parents.	Number of schools that use parent communications tools in their student information systems increase annually.	September 2006 and annually.
	Annual ND ETC survey indicates an increase in the number of schools that use web or other systems to communicate with stakeholders.	April 2006 and annually.

Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.*

Goal #4: Educators will provide students with technology-rich learning opportunities.

Rationale: Technology in schools has the potential to transform teaching practices and student learning. It provides opportunities for educators to break through isolation and serves as a catalyst for significant changes in learning practices.

Strategy	Measure	Timeline
4.1 ND ETC and ND DPI will endorse the use of the North Dakota Library/Technology Literacy Standards as the guideline for determining student technology literacy in general, and "Eighth Grade Technology Literacy" as identified in the federal No Child Left Behind law.	Endorsement made by ND ETC at their quarterly meeting. DPI endorsement contained in the consolidated application for federal programs. Annual ND ETC survey indicates an increase in the number of schools that ensure technology literacy of students.	October 2006. April 2006 and annually.
4.2 Educators will implement standards-based learning opportunities that use technology enhanced instructional strategies to meet the learning styles/needs of all students, including students with disabilities.	PCC data indicate an increase in the number of teachers at transformation level in teaching/learning strategies. Annual ND ETC survey indicates an increase in the percentage of teachers who implement technology enhanced learning opportunities.	May 2006 and annually. April 2006 and annually.

Goal #4: Educators will provide students with technology-rich learning opportunities.		
Rationale: Technology in schools has the potential to transform teaching practices and student learning. It provides opportunities for educators to break through isolation and serves as a catalyst for significant changes in learning practices.		
Strategy	Measure	Timeline
4.3 Educators will use technology to engage students in collaborative, project-based, problem-based, inquiry-based and other authentic learning activities.	PCC data indicate an increase in the number of teachers at transformation level in teaching/learning strategies. Annual ND ETC survey indicates an increase in the percentage of teachers who engage students in collaborative, project-based, problem-based, inquiry-based and other authentic learning activities.	May 2006 and annually. April 2006 and annually.
4.4 Schools will use distance learning and other technologies to ensure that students graduate ready for work or post-secondary education.	ND Division of Independent Study and ND ETC data indicate an increase in the number of schools offering distance learning opportunities. DPI Approval and Accreditation records indicate the number of courses that are provided via electronic media and are in compliance with state teacher licensure laws.	September 2006 and annually. December 2006 and annually.

Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement.*

Goal #5: Schools will employ technology systems that help improve classroom practice by assessing and monitoring student achievement.

Rationale: Data systems that are integrated into the daily operations of the school, from the classrooms to the administrative and business offices, are key to greater efficiency and the capability to differentiate instruction.

Strategy	Measure	Timeline
5.1 The state will assist schools in implementing student information and other school data systems that help track achievement and allow analysis necessary to differentiate instruction in order to better meet the learning needs of all students, including students in NCLB subgroups.	EduTech reports indicate increase in electronic student information system implementations. Annual ND ETC survey indicates increased school use of data systems to differentiate instruction.	September 2006 and annually. April 2006 and annually.
5.2 Schools will use technology-based systems to assess student achievement, track student progress and analyze achievement results in order to improve learning outcomes for all students, including students in NCLB subgroups.	Annual ND ETC survey indicates increase in number of schools using data warehousing tools, electronic student information systems and other electronic teaching/learning tools such as online adaptive testing and electronic portfolios.	April 2006 and annually.

Background and Current Status

Goal #1: A vision for educational technology will be available to schools to help guide their technology planning and implementation.

The vision of how and why technology is to be used in schools is the destination, identifying "where we want to go" with technology. Without a clearly defined vision that is known and understood by all stakeholders, everyone will struggle and technology implementations will not have the structure or support necessary to sustain learning environments in which technology is integral to student achievement.

The 2004 National Education Technology Plan includes a student-focused vision, "There is no dispute over the need for America's students to have the knowledge and competence to compete in an increasingly technology-driven world economy. This need demands new models of education facilitated by educational technology."

The National Educational Technology Standards for Students (NETS-S) developed by the International Society for Technology in Education (ISTE), identify "vision with support and proactive leadership" as an essential condition to realizing powerful uses of technology. ISTE's NET Standards for Teachers confirm, "Shared vision means that the commitment to technology is systemic." Further, ISTE's Technology Standards for School Administrators (TSSA) include as the first standard, "Educational leaders facilitate the shared development by all stakeholders of a vision for technology use and widely communicate that vision."

Clear expectations are required to take a strong vision and put it into practice in the classroom. District and building administrators play a key role in communicating the vision to stakeholders and setting expectations for translating that vision into practice. It is not acceptable to continue having students learn in the same way and consider that "a vision." Technology needs to be used to teach students new ways to learn.

To make the vision become a part of the community, stakeholders must be involved in the development and the support of the vision. Including parents, students and other stakeholders in a process of collaborative, informed planning will foster enthusiasm and urgency for the implementation of the vision.

2006 Status

The vision for educational technology in North Dakota has evolved in the last decade to reflect the changing role of technology in schools – from a few specialized systems used by a few teachers and administrators, to everyday tools for teaching and learning used by students and teachers, as well as school administrators, staff and parents. The 2006 vision, *"Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved classroom teaching and student achievement,"* clearly identifies that we need good technology resources to successfully do the job of teaching, learning and operating our schools.

Goal #2: Schools will create learning environments that include effective technology resources for educators and students.

Schools must put in place the infrastructure and other resources necessary to provide and maintain effective and efficient technology deployment and connectivity on an equitable basis. As access to educational resources increases through the use of technology, it is critical that all students in North Dakota have an equal opportunity to participate in technology-enriched learning. Otherwise, we may fail to serve the learners at greatest risk (subgroups identified in NCLB and IDEA 2004): those with special needs, those with limited English proficiency, those scoring poorly on standardized tests, those with socioeconomic backgrounds that put them at risk, those for whom a historic technology bias exists, and those living in remote areas that lack access to a broad range of curriculum choices and informational resources.

The types of technology tools available and the performance capabilities of those tools should be at a level that will support and sustain current learning practices, but will also encourage new and innovative learning practices. The range of technology tools must go beyond desktop computers with Internet connectivity, and include hardware and software that is appropriate and specific to individual curriculum areas such as math, science, the performing arts, and career and technical education, as well as include video and other distance learning technologies.

Local schools and districts should have an annual plan for updating, refurbishing, and replacing hardware and software resources. Obsolete hardware and software and the lack of well planned and managed networks make the issue of connectivity difficult and create inequities for students.

Adequate and consistent funding is essential to successful integration of technology in schools. Schools should provide funding mechanisms for on-going costs of employing and training technical support staff and equipment replacement. Schools should provide adequate ratios of support personnel based on the size and complexity of the environment to ensure adequate response time and customized support to meet the instructional and equipment maintenance needs of each building.

2006 Status

All high school buildings in the state are connected to the state network (STAGEnet) and the Internet with a minimum ATM T1. General funds and E-Rate reimbursement pay for this basic connectivity at no cost to public schools. Public and private schools purchased additional connectivity beyond that provided by the state and they use local funds to pay for the portion of the cost not reimbursed by E-Rate. The appropriation to ND ITD for support of school connections to K-12 STAGEnet in 2005-06 is $1,700,000.
E-rate discounts received by ND schools in 2005-2006:

ND SchoolNet	$2,300,000
Other school E-Rate discounts	$1,800,000

Educational technology funds are made available to North Dakota schools in 2005-06 by the Department of Public Instruction through Title II Part D:

Formula distribution to schools and statewide programs	$1,140,000
Competitive grants to 5 schools (new and continuation)	$ 997,000

Federal IDEA funds administered by ND DPI are used for special education activities including assistive technology for children with disabilities. In the 2004-05 budget, of the $979,000 in state set-aside IDEA-B funds, $57,000 in field discretionary grants were awarded for technology-related projects. $122,000 was used for statewide technology projects including data systems, data collection and assistive technology.

The ND Educational Technology Council coordinates K-12 educational technology statewide and oversees EduTech and the ND Division of Independent Study (state distance education high school). The ND ETC 2005-07 budget is $886,000, including:

Classroom Transformation Grants to 27 schools	$475,000
Video Classroom construction grants to 5 high schools	$ 49,000
Statewide license for Atomic Learning	$ 55,000

The ND Department of Career and Technical Education provides funding to K-12 schools for a number of CTE programs. In the 2005-06 school year funds directed to schools for the Information Technology, Technology Education and HiTech Consortium programs were $780,000 in state funds and $370,000 federal.

EduTech supports the use of educational technologies in K-12 schools by providing email and web-hosting services as well as training and implementation of statewide applications such as virus protection and Internet filtering for compliance with the Children's Internet Protection Act for 35,000 K-12 networked computers. EduTech also supports school use of other services such as PowerSchool and Atomic Learning. Eighty-one school districts use PowerSchool Student Information System and most other districts use some other electronic student information system. The 2005-06 appropriation for all EduTech services is $1,326,174.

In the 2005-06 school year 98.5% of ND public school districts have Internet access in instructional areas. 90% of school districts report a student to computer ratio of 3.5 to 1 or better. The statewide average student to computer ratio is 2.4 students per Internet connected computer, with a range of 0.5 to 6 students per computer.

149 public high school districts have video networking capabilities used to share high school courses through distance education; 10 high school districts do not have a video classroom. $257,000 of ND IVN's annual budget is used to support scheduling and other technical aspects of K-12 video networking.

The North Dakota Association of Technology Leaders (NDATL) is the state's membership organization for K12 technology coordinators. NDATL has 232 members representing 108 school districts as well as state agencies and other public service providers. NDATL provides professional development opportunities for its members.

Goal #3: Educators will use appropriate technologies to improve their teaching and other professional practices.

Administrators at the building and district level greatly influence changes in the culture of a school. Because of this, they should model the effective use of technology in support of learning and administrative functions and be expected to maintain a knowledge of the applications of technology to teaching and learning. Administrators should initiate and support professional development processes that reflect attention to principles of adult learning. ISTE's NET Standards for Administrators are a valuable resource for administrators to use in their own professional development (http://cnets.iste.org/administrators/a_stands.html).

The most important factor in student achievement is teacher quality. Teachers must possess skills that allow them to be innovators in a technology-rich environment. If educators are not effective users of technology, they will not recognize how technology can be used in the classroom. Educators must be prepared to support students in achieving high academic performance through the effective use of technology.

Focused professional development will help ensure that technology is used effectively to create new opportunities for learning and to promote student achievement. Through professional development, educators should become proficient at aligning technology use with student learning standards/goals, and integrating technology seamlessly into the curriculum. ISTE's NET Standards for Teachers are a useful guide to developing technology competency (http://cnets.iste.org/teachers/t_stands.html). The ND Professional Competency Continuum is aligned with the ISTE standards and is a valuable annual technology self-check for all educators (http://pcc.hprtec.org/).

Communicating school and student results to parents and the larger community can lead to stronger support for all school efforts to improve student achievement. School websites and communication tools within student information systems can be used effectively to communicate with parents and other stakeholders.

2006 Status

The ND ETC and ND DPI have agreed to use the ND Professional Competency Continuum (PCC) as the basis of our definition of "Technology Integration." The Professional Competency Continuum (PCC) defines curriculum integration (curriculum, learning and assessment) using the following indicators and the levels at which educators achieve these competencies.

Curriculum Design: Educator is skilled at identifying opportunities within the curriculum for improving student learning through the use of technology and is capable of designing technology-enriched learning activities that are aligned with curriculum standards.

Teaching/Learning Strategies: Educator uses a variety of instructional strategies for teaching and learning with technology (authentic problem, project, and inquiry-based) and is able to match specific strategies with the learning needs of individual students.

New Roles for Educators: Educator understands the possibilities for new roles for educators (facilitator, co-investigator, coach, guide,) that better support learning in a technology-rich classroom and has mastered specific strategies for adopting these roles such as modeling, mediating, explaining and providing options without controlling.

New Roles for Students: Educator understands the possibilities for new roles for students (teacher, independent learner, collaborator, investigator, problem solver and producer of knowledge and products valued by stakeholders outside the classroom) that better support learning in the technology-rich classroom and has explicit strategies for supporting students as they adopt these roles.

Assessment: Educator is skilled in the design and implementation of a variety of ongoing, seamless assessment strategies, including portfolio, performance and product-based assessments that are viewed by students as a valuable part of learning, and are more relevant in the technology-rich classroom than paper and pencil assessments that primarily involve recall and seatwork.

The ND Professional Competency Continuum (PCC) has been used annually in North Dakota schools for 7 years. ND DPI uses the PCC as an annual requirement for schools applying for Title II-D funds. Since 2004 all schools have had at least 85% of their educators complete the PCC. Schools are on track to meet that goal in 2006.

PCC data indicate that educator "Curriculum, Learning and Assessment" competencies lag behind the other three competency areas by 5% on a ten-step scale and have also shown the smallest amount of growth over the last four years. The other three areas are "Core Technology Skills, Classroom and Instructional Management, and Professional Practice." Within the Curriculum, Learning and Assessment competency area, Curriculum Design is the strongest indicator, while the New Roles for Educators and Students indicators have shown the least amount of growth over four years.

Professional development is offered to educators by EduTech regional and state level staff. In the last 12 months EduTech offered 394 workshops covering 128 different topics. Over 4,700 educators from 84 districts attended these offerings. Both basic technology skills workshops and advanced curriculum integration sessions were delivered by EduTech. Local district staff, higher education and private sector providers also offered professional development for educators in ND schools.

School use of electronic student information systems has increased dramatically in the past three years. Eighty-one school districts, which include nearly 50% of all K-12 public school students, now use PowerSchool as their student information system. Current data indicates that 90% of school districts have a website that they use for communication with their constituents and the wider general public.

Goal #4: Educators will provide students with technology-rich learning opportunities.

Technology in schools has the potential to transform teaching practices and student learning. It provides opportunities for educators to break through isolation and serves as a catalyst for significant changes in teaching and learning.

What do students need to learn, and how can technology promote those learning goals? A clear set of goals, expectations and criteria for student learning should be part of the school improvement plan and based on national and state standards, including the NIMAS instructional materials accessibility standards for students with disabilities (http://nimas.cast.org/). Only then can technology plans be made for purchasing equipment and materials, and for assessing how well the technology helps achieve identified student-learning goals.

The effective use of technology enables educators to implement new teaching techniques designed to increase student learning through engaging authentic activities. Teachers who use technology as a tool to support strategies such as problem-based, inquiry-based and project-based learning create environments in which students can work in self-directed, collaborative teams and develop higher-order thinking skills.

Online instruction or courses delivered by video or other distance learning technologies can make it possible for students to receive high quality instruction that is personalized to their needs. Schools can use these new types of learning to expand opportunities and choices for students and to offer professional development for educators.

2006 Status

North Dakota defines technology literacy for students in its Library/Technology Literacy Standards, which includes benchmarks for grades 4, 8 and 12. The 8th grade benchmarks represent the level of technological literacy that 8th grade students should achieve(http://www.dpi.state.nd.us/standard/content/tech.pdf).

For teachers, the statewide average in the “Teaching and Learning Strategies” competency area of the PCC is just over 6 on a 10 point scale. The statewide average score in that competency area has increase by 5% in the last four years.

The North Dakota Division of Independent Study offers courses to schools and individual students throughout the state and worldwide via video conference, web-based delivery and print options. Of the 185 NDIS course titles, 82 are available online. In the last school year over 1,030 North Dakota students took over 1,800 courses through NDIS. In the last three years the number of North Dakota students taking NDIS courses increased by 3% and the number of courses they took increased by 9%.

During fall semester 2005 in the 10 school-based video consortiums across the state, over 2,600 students attended a high school class via video networking in one of 169 K-12 video classrooms. 207 courses were taken by those students, including foreign languages, math, science, and advanced placement courses for college credit.

Goal #5: Schools will employ technology systems that help improve classroom practice by accessing and monitoring student achievement.

Federal and state agencies, local school boards and the general public, require schools to be accountable for their results. A systematic process should be in place for continuous assessment, evaluation and reporting the extent to which students are progressing and whether educational objectives are being met. Data systems that are integrated into the daily operations of the school from the classrooms to the administrative and business offices are key to greater efficiency and the capability to differentiate instruction. Systems that are interoperable allow school leaders to use data from a number of sources and disaggregate the data for purposes of analysis.

The use of such tools as curriculum mapping applications, electronic individualized education plans and computer assisted assessments help educators plan teaching strategies to better meet the individual needs of all students, including the subgroups identified in NCLB. Assessment, including online student testing tools and electronic portfolios, should be a seamless part of the learning process and focus on measuring student performance in authentic ways. Assessment tools should be varied and provide data that will support accountability. Conclusions regarding instructional results should be communicated and used to support data-driven decisions.

2006 Status

Seventy-three ND public school districts currently use MAP (Measures of Academic Progress) online testing from NWEA to periodically assess student academic achievement. These 73 districts include over 74% of the state's K-12 public students. The MAP adaptive assessment program is aligned to North Dakota academic standards. MAP testing results enable teachers to identify specific areas where each student needs improvement and then to develop individualized instructional strategies to address those deficiencies.

The ND DPI discontinued its contract with TetraData as a statewide data warehousing solution in December 2005. Lack of use by schools was identified as the reason for the end of the project. One school district continues to use TetraData as a comprehensive data warehousing and analysis application. Three other districts and one educational association (JPA) are actively seeking a data warehousing application and the ND ETC is facilitating an RFP process intended to result in a statewide contract for a data warehouse that all schools may purchase.

The ND DPI is currently planning for a statewide electronic Special Education Case Management System including an Individualized Education Program (IEP) system to replace the various manual and software based IEP systems used by schools and special education units around the state.

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