

2002-03 Interim Technology Plan

Executive Summary

In 1999 the Burlington School District had a technology audit completed by Phi Delta Kappa. The information from this audit was used to develop a K-12 Technology Strategic Plan which was implemented in July 2000. One critical component of that plan was the development of a district coordination and direction of technology efforts, a significant change from the building-based technology planning which had resulted in inequitable, fractured, and ineffective approaches to integrating technology in instruction. This plan continues that vision, with some differences in application at the elementary, middle, or high school level, but with the majority of the initiatives in alignment. Three detailed plans are attached, one for each level, but the reader will note a high degree of similarity.

The previous strategic plan has resulted in the implementation of several initiatives which are components of the six elements of the State Information Technology Plan. These include: 1) Information Technology Standards Assessment Tool (ITSA Tool), which is used to assess teachers and leaders; 2) Hardware and Software Standards, so every new or donated computer meets specific requirements; 3) Technology Support Services, a district staffing model with on-line and help desk support to effectively meet the support needs of the schools; and 4) Policy and Board Coordination, to implement hiring procedures, policies to meet CIPA standards, and reporting on the IT plan on a regular basis.

This plan continues these components, continues the vision and goals of the original strategic plan, and coordinates efforts across the district. It addresses the six elements of the State Information Technology Plan through several major initiatives. These are briefly described in each of the six elements below.

Professional Development

Needs assessment of all teacher and administrative personnel will be done each fall using the ITSA Tool. Professional Development staffing has been increased at elementary and middle schools to provide building level support for all teachers to work on individual technology goals. The Library/Technology Curriculum group, in collaboration with the District Technology Director, will research and develop models of integrated technology instruction to promote through the individual teacher goals. This group is one of nineteen curriculum groups which will meet for nine inservice days next school year. Title 2D funds will be allocated to provide research and pilot programs in best practices in technology integration.

Standards for Students, Teachers, and School Leaders

Needs assessment profiles and standards for teachers and school leaders have been developed and are assessed regularly (ITSA Tool). The goals of the Curriculum Study Groups including curriculum integration of technology and reporting of results, and the Library/Technology Curriculum group in particular will develop grade-level expectations for technology integration across all curricular areas. Student profiles will be relatively limited during the first year, using elements from the Addison Central

Supervisory Union student assessments. These will be improved and enriched as the curriculum groups continue their work.

Program Support

There is district leadership and coordination of funding and technical support to enable the schools to concentrate on curricular and professional development issues with technology. A networked student information system is being installed this summer, and will coordinate all student demographic data across the district, allowing administrators to study student performance and its relationship to other parameters. A pilot project will implement a literacy/math database system for the elementary level to allow teachers to focus in on individual student objectives and achievement. Finally, there is a close collaboration between the Technology Director and the Grant Director to allow continued development of partnerships and opportunities for increase access, such as through the 21st Century or Linking Learning to Life programs.

Access and Infrastructure

A fiber network being installed this summer will connect all schools, and concurrent infrastructure upgrades will improve the speed of access at the classroom level. This network will also allow the pilot testing and eventual deployment of video over IP at any site in the district. Integrating computer lab and library resources, together with staffing increases in the library media center, will improve student access to technology at the elementary and middle school levels. Web resources will be used to improve communications and promote involvement with parents and other stakeholders, and a web resource bank will be developed to deliver models of high-quality instruction integrating technology to teachers. Building-level strategies will be implemented to promote technology during parent-teacher or parent-school events.

Program Policies

Many of the items under this element have been implemented through the previous plan (see introduction), and will continue to be promoted and coordinated through the District Technology Director. A critical element is the close collaboration between the Director and the Board Technology Committee, to develop and promote policies and models for access, filtering, hiring, professional development, purchasing, web use, acceptable use, and tech support.

Program Assessment

The technology planning team will continue to meet to audit the progress of this plan on a bi-monthly basis, with reports to Board Technology Committee on a semi-annual basis. Data collection and reporting on all administrator and teacher profiles will occur each fall, and goal reporting will occur each June. Rigorous student evaluation will be in the planning stages next year, as the Library/Technology Curriculum group determines grade level expectations and develops assessments, and as the literacy/math database program is piloted.

Elementary Schools

1. Strategies for improving academic achievement and teacher effectiveness:

Action steps that the school will take to improve academic achievement, including technology literacy, and improve the capacity of all teachers to effectively integrate technology into the curriculum and instruction.

Action Steps

Curriculum Groups

The District will create Curriculum Groups, including grade level groups at the elementary school level, and content area groups which cross the middle school and high school levels. One of these is a Library/Technology Curriculum Group. One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning, including grade level expectations, sample anchor tasks and assessments, and integration models.

Professional Development Staff

Staffing will increase in areas that can provide direct services to teachers in the area of professional development to effectively integrate technology, including the following:
Elementary Schools: increasing the library/media specialist staffing at each elementary school from an average of 50% to full time; providing a full-time technology professional development resource specialist to coordinate and train teachers and library media specialists.

Job descriptions for the library media specialists throughout the district will be adapted to include professional development and technology components.

District Coordination

The District, through the Director of Technology, will provide coordination, leadership and direction for technology functions (such as standardization of software tools and hardware, coordination, development and implementation of technology strategies) to improve reliable access for all teachers and students.

2. Goals:

Articulate the school's specific goals for using advanced technologies to improve student achievement.

Goals

Database Pilot Projects

The District will implement a pilot project, developing and testing a student literacy and math database for elementary grades (Pre-K – 5) which will allow teachers to track and review student performance on grade level standards based objectives and change instruction to meet student needs in those areas.

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice.

Development of Curriculum Materials Resource Bank

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

Library/Technology Curriculum Group and Professional Development Staff

These staff will identify and pilot test selected advanced technologies that show promise for improving student achievement, and develop student technology standards, grade level expectations, and assessments for those standards.

3. Steps to increase accessibility:

Describe the steps the school will take to ensure increased access to technology.

How will the school use federal funds to help students in high poverty, or schools that are identified for corrective action under Title I, prepare teachers to integrate technology effectively into curricula and instruction.

Action Steps

Integrate computer lab and library resources

Each school will take steps to increase student access to technology in the school library by incorporating more computers in the library/media center.

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice. This will help us target, track performance, and provide resources to students in high poverty in the District.

Database Pilot Projects

The District will implement a pilot project, developing and testing a student literacy and math database for elementary grades (Pre-K – 5) which will allow teachers to track and review student performance on objectives and change instruction to meet student needs in those areas.

District Coordination

The Director of Technology with other educators and the Title funds administrator will coordinate services from other federal funds (Title and Grant) to focus on improving teacher training and student access at high poverty schools and those schools identified for corrective action.

4. Promotion of curricula and teaching strategies that integrate technology:

Describe how the school will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction, based on a review of relevant research, and leading to improvements in student achievement.

Action Steps

Library/Technology Curriculum Groups

One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning. These curricula will be promoted to other curriculum groups through regular meetings.

Professional Development Staff

One of the roles of the technology professional development staff will be to work directly with teachers, modeling and promoting effective curricula and teaching strategies for technology integration.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to share relevant research and effective curricula and teaching strategies.

Director of Technology will promote effective strategies directly to administrators through meetings and information briefs.

Administrators will include promotion of effective technology use as part of action planning.

Outside Contacts

The district will encourage professional development staff and other faculty and administrators to participate in conferences at regional, state, and national levels in technology where the most current information on effective curricula and teaching strategies can be obtained.

5. Professional development:

Describe how the school will provide high-quality, ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center.

Action Steps

Professional Development Staff

Library/media center staff will work directly with teachers and principals in their building, working on individual goals for effectively using technology, encouraging staff

collaboration, modeling, and co-teaching. A technology professional development resource specialist will provide resources and training for the library/media center staff, as well as working directly with teachers.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to review and improve technology professional development practices, and to coordinate professional development needs across all schools.

Development of Curriculum Materials Resource Bank (on-line)

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

6. Technology type and cost:

Describe the type and estimated costs of the *technologies* to be acquired (note: this should be a broad overview, not a listing of hardware).

Technology acquisition and estimated cost

Fiber Optic Network (district total costs)

Dark fiber will connect all the schools, creating a high-speed WAN for the sharing of student data and resource files. Initial hardware costs, \$30,000. Yearly line charges, \$20,000.

Infrastructure Upgrades (district total costs)

Yearly improvements, replacements, and upgrades to the local area networks in the schools (servers, fiber backbones, switches) will cost \$40,000.

Student Information System (district total costs)

Initial licensing and installation of Open District Student Management System, \$40,000. Hardware (server) to support system, \$10,000. Yearly technical support and upgrade costs, \$14,000.

Database Pilot Projects

Initial hardware (citrix and filemaker pro servers) for the database, \$10,000. Software licenses for the database, \$10,000. Consulting costs for database development, \$10,000.

Hardware Replacement (district total costs)

Approximately 144 new student computers are required yearly. Donations and grants provide some of them. Cost including basic software licenses, \$125,000.

7. Coordination with other resources:

Describe how the school will coordinate activities funded through E²T² with activities supported with funds from other sources (funds from other federal Title programs, state and local sources, that support technology acquisition and integration must be coordinated under the technology plan).

Process and Action Steps

The activities funded through state and local sources, grants and federal title programs will be coordinated as follows:

Director of Technology will coordinate local budget funds to support activities at all schools in the district, and will coordinate any other state or federal funds (e.g., e-rate) to support this plan.

Director of Technology will coordinate Title and Grant funds through regular meetings with the District Grant Director and Title Funds Administrator. These administrators meet weekly as part of the district management team. In addition, these administrators will have other meetings as necessary to discuss staffing, funding, assessment, or other resource issues related to grant and federal title funds.

Coordination at local school levels will occur through building principals, who meet monthly, and through the library/media center and professional development staff, who meet at least monthly.

8. Integration of technology with curricula and instruction:

Describe how the school will integrate technology (including the use of software and electronically delivered materials) into curricula and instruction. After each action step, indicate the anticipated date for the initiation of that item.

Action Steps and Date

Information Technology Standards Assessment (9/02)

Each teacher in the district will complete an information technology standards assessment, which will inform professional development in technology to improve teacher practice in technology integration.

Student Technology Standards (6/02)

The library/technology curriculum group will develop grade level expectations and assessments in information technology for students, to direct integration of technology into curricula and instruction.

District Software Standards (9/02)

Software licenses for each elementary and middle school will be purchased to allow technology integration models for all students using Inspiration (semantic modeling tool), TableTop (database tool), and FrontPage (web authoring tool).

9. Innovative delivery strategies:

Articulate the action steps that will show how the school will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.

Action Steps

There are no anticipated action steps for integrating distance learning technologies in the elementary schools for the next fiscal year.

10. Parental involvement:

Describe how the school will use technology effectively to promote parental involvement and increase communication with parents. Include the strategies that will be used to inform parents about the technologies and their proper use.

Action Steps and Communication Strategies

School Web Sites

Each school will have a web site coordinator, and there will be specific standards for information available for parents on that site, including teacher contact information, school calendars, and school news. The district web site will have a searchable e-mail address listing for parents to contact teachers electronically.

Professional Development Staff

Professional development staff at each building will coordinate with faculty and building principals to promote involvement and communication with parents using at least one of the following strategies: Using parent-teacher meetings to show student work in technology, showing school technologies through open houses, having individual class and team presentations to parents of student technology work, using parent groups or PTO meetings to showcase school or class technology work.

District Coordination

Regular meetings of three groups, the professional development staff, school web site coordinators, and the library/media center team, will be used to discuss strategies for increasing parent involvement and communication.

Grant Coordination

The Director of Technology will work with the District Grant Director to research strategies and implement pilot projects using the following strategies:

Linking with parent and community programs (e.g., after school programs, adult learning programs) to provide technology access for parents;

Coordinating with other programs that provide additional access for underrepresented groups, such as ESL parents.

11. Collaboration with adult literacy service providers:

Describe how the school will develop programs, where applicable, in collaboration with adult literacy service providers. If this item is currently “not applicable” please provide an explanation, then suggest ways that the school could collaborate with Adult Literacy providers in the future.

Description of Anticipated Collaboration

Adult literacy providers are linked directly to the high school through the Continuing Education program, which is housed in the high school. The Continuing Education Program Director participates in all district administrator meetings and uses the District Web Site to promote programs.

12. Accountability measures:

Describe the accountability measures that the applicant will use to evaluate the extent to which activities funded under this program are effective in integrating technology into curricula and instruction. Specifically address increasing the ability of teachers to teach (with technology), enabling students to reach challenging State academic standards.

Accountability Measures

Activities directly funded under this program include technology professional development resource specialists (elementary and middle schools), support for district literacy and math databases, support for research of effective practices, and support for web site development.

Accountability measures for related activities described in the overall technology plan are described below.

Information Technology Standards Assessment

Data on the teacher and administrator assessments will be collected and analyzed yearly at the district level. Teacher technology professional development goals will be integrated into the evaluation process at the building level, and the results will be summarized at the building level.

Student Technology Standards

Grade level expectations and assessments developed by library/technology curriculum team will be piloted during the 2002-2003 school year and implemented across all the curriculum in the 2003-2004 school year. Student results will be analyzed and reported at the district level for the pilot and full implementation. Comparison between performance on technology standards and student achievement will be reported.

Database Pilot Projects

Performance results for students on literacy and math objectives will be analyzed as part of the pilot project during the 2002-2003 school year.

Professional Development Staff

Technology professional development staff (library/media center personnel at the elementary and middle school level) will report on teacher contact time, specific goals met (building level summary), and demonstrated technology curriculum integration by teachers.

District Coordination

Minutes of the regular meetings of groups involved with district coordination processes and an annual report to the board will be used to evaluate the effectiveness of the coordination measures. In addition, a board technology committee will meet monthly to foster board support of the plan and its budget.

13. Supporting resources:

Describe the supporting resources, such as services, software, other electronically delivered learning materials, and print resources, that will be acquired to ensure successful and effective uses of technology.

Supporting Resources

Staffing

The district will provide a technology support team consisting of a network engineer, backup network administrator, and repair personnel trained in A+ and Apple repair procedures.

Equipment (End user hardware)

The district will budget sufficient funds to support a regular replacement schedule (five year cycle) and sufficient end user hardware (student computers in a 1-5 ratio to students at any given school) to support the technology integration.

Infrastructure

The district will budget sufficient funds to maintain, repair, and upgrade on a regular cycle the infrastructure, WAN, LAN, and necessary servers to support the technology integration plan.

Web Resources

The district will provide a web server and supporting resources to maintain and develop the server to provide electronically delivered resources to the students, staff, parents, and community.

Research and Development

The district will allocate a portion of its resources yearly to research, and to develop pilot projects to determine pedagogically effective and fiscally sound mechanisms to integrate technology into instruction.

Middle Schools

1. Strategies for improving academic achievement and teacher effectiveness:

Action steps that the school will take to improve academic achievement, including technology literacy, and improve the capacity of all teachers to effectively integrate technology into the curriculum and instruction.

Action Steps

Curriculum Groups

The District will create Curriculum Groups, including grade level groups at the elementary school level, and content area groups which cross the middle school and high school levels. One of these is a Library/Technology Curriculum Group. One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning, including grade level expectations, sample anchor tasks and assessments, and integration models.

Professional Development Staff

Staffing will increase in areas that can provide direct services to teachers in the area of professional development to effectively integrate technology, including the following: Middle Schools: increasing the library/media specialist staffing at each middle school from 75% to full-time; providing a full-time technology professional development resource specialist to coordinate and train teachers and library media specialists at the elementary and middle school level. Job descriptions for the library media specialists throughout the district will be adapted to include professional development and technology components.

District Coordination

The District, through the Director of Technology, will provide coordination, leadership and direction for technology functions (such as standardization of software tools and hardware, coordination, development and implementation of technology strategies) to improve reliable access for all teachers and students.

2. Goals:

Articulate the school's specific goals for using advanced technologies to improve student achievement.

Goals

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice.

Development of Curriculum Materials Resource Bank (on-line)

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

Data Collection and Analysis

The District will pilot test using data collection tools and graphing calculators in middle school science and math classes.

Library/Technology Curriculum Group and Professional Development Staff

These staff will identify and pilot test selected advanced technologies that show promise for improving student achievement, and develop student technology standards, grade level expectations, and assessments for those standards.

3. Steps to increase accessibility:

Describe the steps the school will take to ensure increased access to technology.

How will the school use federal funds to help students in high poverty, or schools that are identified for corrective action under Title I, prepare teachers to integrate technology effectively into curricula and instruction.

Action Steps

Integrate computer lab and library resources

Each school will take steps to increase student access to technology in the school library by incorporating more computers in the library/media center.

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice. This will help us target, track performance, and provide resources to students in high poverty in the District.

District Coordination

The Director of Technology with other educators and the Title funds administrator will coordinate services from other federal funds (Title and Grant) to focus on improving teacher training and student access at high poverty schools and those schools identified for corrective action.

4. Promotion of curricula and teaching strategies that integrate technology:

Describe how the school will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction, based on a review of relevant research, and leading to improvements in student achievement.

Action Steps

Library/Technology Curriculum Groups

One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning. These curricula will be promoted to other curriculum groups through regular meetings.

Professional Development Staff

One of the roles of the technology professional development staff will be to work directly with teachers, modeling and promoting effective curricula and teaching strategies for technology integration.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to share relevant research and effective curricula and teaching strategies.

Director of Technology will promote effective strategies directly to administrators through meetings and information briefs.

Administrators will include promotion of effective technology use as part of action planning.

Outside Contacts

The district will encourage professional development staff and other faculty and administrators to participate in conferences at regional, state, and national levels in technology where the most current information on effective curricula and teaching strategies can be obtained.

5. Professional development:

Describe how the school will provide high-quality, ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center.

Action Steps

Professional Development Staff

A technology professional development resource specialist will be the primary source for teachers and principals at the middle school level, and will be assisted by the additional staffing of the library/media center.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to review and improve technology professional development practices, and to coordinate professional development needs across all schools.

Development of Curriculum Materials Resource Bank (on-line)

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

6. Technology type and cost:

Describe the type and estimated costs of the *technologies* to be acquired (note: this should be a broad overview, not a listing of hardware).

Technology acquisition and estimated cost

Fiber Optic Network (district total costs)

Dark fiber will connect all the schools, creating a high-speed WAN for the sharing of student data and resource files. Initial hardware costs, \$30,000. Yearly line charges, \$20,000.

Infrastructure Upgrades (district total costs)

Yearly improvements, replacements, and upgrades to the local area networks in the schools (servers, fiber backbones, switches) will cost \$40,000.

Student Information System (district total costs)

Initial licensing and installation of Open District Student Management System, \$40,000. Hardware (server) to support system, \$10,000. Yearly technical support and upgrade costs, \$14,000.

Hardware Replacement (district total costs)

Approximately 144 new student computers are required yearly. Donations and grants provide some of them. Cost including basic software licenses, \$125,000.

Interactive Television

Cost of hardware to set up two interactive television sites at middle schools, \$20,000.

7. Coordination with other resources:

Describe how the school will coordinate activities funded through E²T² with activities supported with funds from other sources (funds from other federal Title programs, state and local sources, that support technology acquisition and integration must be coordinated under the technology plan).

Process and Action Steps

The activities funded through state and local sources, grants and federal title programs will be coordinated as follows:

Director of Technology will coordinate local budget funds to support activities at all schools in the district, and will coordinate any other state or federal funds (e.g., e-rate) to support this plan.

Director of Technology will coordinate Title and Grant funds through regular meetings with the District Grant Director and Title Funds Administrator. These administrators meet weekly as part of the district management team. In addition, these administrators will have other meetings as necessary to discuss staffing, funding, assessment, or other resource issues related to grant and federal title funds.

Coordination at local school levels will occur through building principals, who meet monthly, and through the library/media center and professional development staff, who meet at least monthly.

8. Integration of technology with curricula and instruction:

Describe how the school will integrate technology (including the use of software and electronically delivered materials) into curricula and instruction. After each action step, indicate the anticipated date for the initiation of that item.

Action Steps and Date

Information Technology Standards Assessment (9/02)

Each teacher in the district will complete an information technology standards assessment, which will inform professional development in technology to improve teacher practice in technology integration.

Student Technology Standards (6/02)

The library/technology curriculum group will develop grade level expectations and assessments in information technology for students, to direct integration of technology into curricula and instruction.

District Software Standards (9/02)

Software licenses for each elementary and middle school will be purchased to allow technology integration models for all students using Inspiration (semantic modeling tool), TableTop (database tool), and FrontPage (web authoring tool).

9. Innovative delivery strategies:

Articulate the action steps that will show how the school will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.

Action Steps

A pilot project will set up an interactive television network between the high school and each middle school, to deliver a Chinese language course to middle school students.

10. Parental involvement:

Describe how the school will use technology effectively to promote parental involvement and increase communication with parents. Include the strategies that will be used to inform parents about the technologies and their proper use.

Action Steps and Communication Strategies

School Web Sites

Each school will have a web site coordinator, and there will be specific standards for information available for parents on that site, including teacher contact information, school calendars, and school news. The district web site will have a searchable e-mail address listing for parents to contact teachers electronically.

Professional Development Staff

Professional development staff at each building will coordinate with faculty and building principals to promote involvement and communication with parents using at least one of the following strategies: Using parent-teacher meetings to show student work in technology, showing school technologies through open houses, having individual class and team presentations to parents of student technology work, using parent groups or PTO meetings to showcase school or class technology work.

District Coordination

Regular meetings of three groups, the professional development staff, school web site coordinators, and the library/media center team, will be used to discuss strategies for increasing parent involvement and communication.

Grant Coordination

The Director of Technology will work with the District Grant Director to research strategies and implement pilot projects using the following strategies:

Linking with parent and community programs (e.g., after school programs, adult learning programs) to provide technology access for parents;

Coordinating with other programs that provide additional access for underrepresented groups, such as ESL parents.

11. Collaboration with adult literacy service providers:

Describe how the school will develop programs, where applicable, in collaboration with adult literacy service providers. If this item is currently “not applicable” please provide an explanation, then suggest ways that the school could collaborate with Adult Literacy providers in the future.

Description of Anticipated Collaboration

Adult literacy providers are linked directly to the high school through the Continuing Education program, which is housed in the high school. The Continuing Education Program Director participates in all district administrator meetings and uses the District Web Site to promote programs.

12. Accountability measures:

Describe the accountability measures that the applicant will use to evaluate the extent to which activities funded under this program are effective in integrating technology into curricula and instruction. Specifically address increasing the ability of teachers to teach (with technology), enabling students to reach challenging State academic standards.

Accountability Measures

Activities directly funded under this program include technology professional development resource specialists (elementary and middle schools), support for district literacy and math databases, support for research of effective practices, and support for web site development.

Accountability measures for related activities described in the overall technology plan are described below.

Information Technology Standards Assessment

Data on the teacher and administrator assessments will be collected and analyzed yearly at the district level. Teacher technology professional development goals will be integrated into the evaluation process at the building level, and the results will be summarized at the building level.

Student Technology Standards

Grade level expectations and assessments developed by library/technology curriculum team will be piloted during the 2002-2003 school year and implemented across all the curriculum in the 2003-2004 school year. Student results will be analyzed and reported at the district level for the pilot and full implementation. Comparison between performance on technology standards and student achievement will be reported.

Professional Development Staff

Technology professional development staff (library/media center personnel at the elementary and middle school level) will report on teacher contact time, specific goals

met (building level summary), and demonstrated technology curriculum integration by teachers.

District Coordination

Minutes of the regular meetings of groups involved with district coordination processes and an annual report to the board will be used to evaluate the effectiveness of the coordination measures. In addition, a board technology committee will meet monthly to foster board support of the plan and its budget.

13. Supporting resources:

Describe the supporting resources, such as services, software, other electronically delivered learning materials, and print resources, that will be acquired to ensure successful and effective uses of technology.

Supporting Resources

Staffing

The district will provide a technology support team consisting of a network engineer, backup network administrator, and repair personnel trained in A+ and Apple repair procedures.

Equipment (End user hardware)

The district will budget sufficient funds to support a regular replacement schedule (five year cycle) and sufficient end user hardware (student computers in a 1-5 ratio to students at any given school) to support the technology integration.

Infrastructure

The district will budget sufficient funds to maintain, repair, and upgrade on a regular cycle the infrastructure, WAN, LAN, and necessary servers to support the technology integration plan.

Web Resources

The district will provide a web server and supporting resources to maintain and develop the server to provide electronically delivered resources to the students, staff, parents, and community.

Research and Development

The district will allocate a portion of its resources yearly to research, and to develop pilot projects to determine pedagogically effective and fiscally sound mechanisms to integrate technology into instruction.

High School

1. Strategies for improving academic achievement and teacher effectiveness:

Action steps that the school will take to improve academic achievement, including technology literacy, and improve the capacity of all teachers to effectively integrate technology into the curriculum and instruction.

Action Steps

Curriculum Groups

The District will create Curriculum Groups, including grade level groups at the elementary school level, and content area groups which cross the middle school and high school levels. One of these is a Library/Technology Curriculum Group. One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning, including grade level expectations, sample anchor tasks and assessments, and integration models.

Professional Development Staff

Staffing will be used in areas that can provide direct services to teachers in the area of professional development to effectively integrate technology, including the following:
High School: providing a 20% technology lead teacher at the high school.
Job descriptions for the library media specialists throughout the district will be adapted to include professional development and technology components.

District Coordination

The District, through the Director of Technology, will provide coordination, leadership and direction for technology functions (such as standardization of software tools and hardware, coordination, development and implementation of technology strategies) to improve reliable access for all teachers and students.

SDI

Technology will be included as a component of this year's School Development Institute at the high school.

2. Goals:

Articulate the school's specific goals for using advanced technologies to improve student achievement.

Goals

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice.

Development of Curriculum Materials Resource Bank (on-line)

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

Course Requirements

Basic entry-level technology course (graduation requirement) will be continued. Graphing calculators will be integrated in all appropriate math classes.

Library/Technology Curriculum Group and Professional Development Staff

These staff will identify and pilot test selected advanced technologies that show promise for improving student achievement, and develop student technology standards, grade level expectations, and assessments for those standards.

3. Steps to increase accessibility:

Describe the steps the school will take to ensure increased access to technology.

How will the school use federal funds to help students in high poverty, or schools that are identified for corrective action under Title I, prepare teachers to integrate technology effectively into curricula and instruction.

Action Steps

Networked Student Information System

The District will implement Chancery Open District, which will allow transfer of student information and standardized test scores through our district, simplifying the process for administrators and teachers to review trends and evaluate instructional practice. This will help us target, track performance, and provide resources to students in high poverty in the District.

District Coordination

The Director of Technology with other educators and the Title funds administrator will coordinate services from other federal funds (Title and Grant) to focus on improving teacher training and student access at high poverty schools and those schools identified for corrective action.

4. Promotion of curricula and teaching strategies that integrate technology:

Describe how the school will identify and promote curricula and teaching strategies that integrate technology effectively into curricula and instruction, based on a review of relevant research, and leading to improvements in student achievement.

Action Steps

Library/Technology Curriculum Groups

One of the major tasks of this group will be to research and develop curriculum and assessment standards for technology literacy and for using technology to improve student learning. These curricula will be promoted to other curriculum groups through regular meetings.

Professional Development Staff

One of the roles of the technology professional development staff will be to work directly with teachers, modeling and promoting effective curricula and teaching strategies for technology integration.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to share relevant research and effective curricula and teaching strategies.

Director of Technology will promote effective strategies directly to administrators through meetings and information briefs.

Administrators will include promotion of effective technology use as part of action planning.

Outside Contacts

The district will encourage professional development staff and other faculty and administrators to participate in conferences at regional, state, and national levels in technology where the most current information on effective curricula and teaching strategies can be obtained.

5. Professional development:

Describe how the school will provide high-quality, ongoing, sustained professional development for teachers, principals, administrators, and school library media personnel to further the effective use of technology in the classroom or library media center.

Action Steps

Professional Development Staff

A technology resource teacher has been identified for 20% time. This person will work with teachers and departments on professional development in technology.

District Coordination

Regular meetings of two groups, the professional development staff and the library/media center team, will be used to review and improve technology professional development practices, and to coordinate professional development needs across all schools.

Development of Curriculum Materials Resource Bank (on-line)

Professional development staff will collect and organize resources and models of best practices in technology integration in web-based format.

District will develop shared e-mail groups or list-serves to share web sites and models of best practices among professional development staff team.

6. Technology type and cost:

Describe the type and estimated costs of the *technologies* to be acquired (note: this should be a broad overview, not a listing of hardware).

Technology acquisition and estimated cost

Fiber Optic Network (district total costs)

Dark fiber will connect all the schools, creating a high-speed WAN for the sharing of student data and resource files. Initial hardware costs, \$30,000. Yearly line charges, \$20,000.

Infrastructure Upgrades (district total costs)

Yearly improvements, replacements, and upgrades to the local area networks in the schools (servers, fiber backbones, switches) will cost \$40,000.

Student Information System (district total costs)

Initial licensing and installation of Open District Student Management System, \$40,000. Hardware (server) to support system, \$10,000. Yearly technical support and upgrade costs, \$14,000.

Hardware Replacement (district total costs)

Approximately 144 new student computers are required yearly. Donations and grants provide some of them. Cost including basic software licenses, \$125,000.

7. Coordination with other resources:

Describe how the school will coordinate activities funded through E²T² with activities supported with funds from other sources (funds from other federal Title programs, state and local sources, that support technology acquisition and integration must be coordinated under the technology plan).

Process and Action Steps

The activities funded through state and local sources, grants and federal title programs will be coordinated as follows:

Director of Technology will coordinate local budget funds to support activities at all schools in the district, and will coordinate any other state or federal funds (e.g., e-rate) to support this plan.

Director of Technology will coordinate Title and Grant funds through regular meetings with the District Grant Director and Title Funds Administrator. These administrators meet weekly as part of the district management team. In addition, these administrators will have other meetings as necessary to discuss staffing, funding, assessment, or other resource issues related to grant and federal title funds.

Coordination at local school levels will occur through building principals, who meet monthly, and through the library/media center and professional development staff, who meet at least monthly.

8. Integration of technology with curricula and instruction:

Describe how the school will integrate technology (including the use of software and electronically delivered materials) into curricula and instruction. After each action step, indicate the anticipated date for the initiation of that item.

Action Steps and Date

Information Technology Standards Assessment (9/02)

Each teacher in the district will complete an information technology standards assessment, which will inform professional development in technology to improve teacher practice in technology integration.

Student Technology Standards (6/02)

The library/technology curriculum group will develop grade level expectations and assessments in information technology for students, to direct integration of technology into curricula and instruction.

High School

The high school will integrate technology in the following areas:

Student Portfolios (9/02)

Graphing Calculators (9/02)

9. Innovative delivery strategies:

Articulate the action steps that will show how the school will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance-learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.

Action Steps

The High School will participate in the Vermont Interactive Television Network for its second year.

A pilot project will set up an interactive television network between the high school and each middle school, to deliver a Chinese language course to middle school students.

10. Parental involvement:

Describe how the school will use technology effectively to promote parental involvement and increase communication with parents. Include the strategies that will be used to inform parents about the technologies and their proper use.

Action Steps and Communication Strategies

School Web Sites

Each school will have a web site coordinator, and there will be specific standards for information available for parents on that site, including teacher contact information,

school calendars, and school news. The district web site will have a searchable e-mail address listing for parents to contact teachers electronically.

Professional Development Staff

Professional development staff at each building will coordinate with faculty and building principals to promote involvement and communication with parents using at least one of the following strategies: Using parent-teacher meetings to show student work in technology, showing school technologies through open houses, having individual class and team presentations to parents of student technology work, using parent groups or PTO meetings to showcase school or class technology work.

District Coordination

Regular meetings of three groups, the professional development staff, school web site coordinators, and the library/media center team, will be used to discuss strategies for increasing parent involvement and communication.

Grant Coordination

The Director of Technology will work with the District Grant Director to research strategies and implement pilot projects using the following strategies:

Linking with parent and community programs (e.g., after school programs, adult learning programs) to provide technology access for parents;

Coordinating with other programs that provide additional access for underrepresented groups, such as ESL parents.

11. Collaboration with adult literacy service providers:

Describe how the school will develop programs, where applicable, in collaboration with adult literacy service providers. If this item is currently “not applicable” please provide an explanation, then suggest ways that the school could collaborate with Adult Literacy providers in the future.

Description of Anticipated Collaboration

Adult literacy providers are linked directly to the high school through the Continuing Education program, which is housed in the high school. The Continuing Education Program Director participates in all district administrator meetings and uses the District Web Site to promote programs.

12. Accountability measures:

Describe the accountability measures that the applicant will use to evaluate the extent to which activities funded under this program are effective in integrating technology into curricula and instruction. Specifically address increasing the ability of teachers to teach (with technology), enabling students to reach challenging State academic standards.

Accountability Measures

Activities directly funded under this program include technology professional development resource specialists (elementary and middle schools), support for district literacy and math databases, support for research of effective practices, and support for web site development.

Accountability measures for related activities described in the overall technology plan are described below.

Information Technology Standards Assessment

Data on the teacher and administrator assessments will be collected and analyzed yearly at the district level. Teacher technology professional development goals will be integrated into the evaluation process at the building level, and the results will be summarized at the building level.

Student Technology Standards

Grade level expectations and assessments developed by library/technology curriculum team will be piloted during the 2002-2003 school year and implemented across all the curriculum in the 2003-2004 school year. Student results will be analyzed and reported at the district level for the pilot and full implementation. Comparison between performance on technology standards and student achievement will be reported.

District Coordination

Minutes of the regular meetings of groups involved with district coordination processes and an annual report to the board will be used to evaluate the effectiveness of the coordination measures. In addition, a board technology committee will meet monthly to foster board support of the plan and its budget.

13. Supporting resources:

Describe the supporting resources, such as services, software, other electronically delivered learning materials, and print resources, that will be acquired to ensure successful and effective uses of technology.

Supporting Resources

Staffing

The district will provide a technology support team consisting of a network engineer, backup network administrator, and repair personnel trained in A+ and Apple repair procedures.

Equipment (End user hardware)

The district will budget sufficient funds to support a regular replacement schedule (five year cycle) and sufficient end user hardware (student computers in a 1-5 ratio to students at any given school) to support the technology integration.

Infrastructure

The district will budget sufficient funds to maintain, repair, and upgrade on a regular cycle the infrastructure, WAN, LAN, and necessary servers to support the technology integration plan.

Web Resources

The district will provide a web server and supporting resources to maintain and develop the server to provide electronically delivered resources to the students, staff, parents, and community.

Research and Development

The district will allocate a portion of its resources yearly to research, and to develop pilot projects to determine pedagogically effective and fiscally sound mechanisms to integrate technology into instruction.