

Burlington Supervisory District 15

District Technology Plan

2007-2009

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This plan was completed following the guidelines provided by the Vermont State Department of Education for local technology plans. It includes the following schools:

- Burlington High School
- Edmunds Middle School
- Lyman C. Hunt Middle School
- Champlain Elementary School
- C. P. Smith Elementary School
- Edmunds Elementary School
- H.O. Wheeler Elementary School
- J. J. Flynn Elementary School
- Lawrence Barnes Elementary School
- ONTOP Alternative Program

Part I. 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 district coordination and direction of technology efforts, including changes in staffing and budgetary processes. This represented a significant change from the building-based technology planning that had resulted in inequitable, fractured, and ineffective approaches to integrating technology in instruction.

In 2002 a Transitional Technology Plan was developed per state requirements. This plan continued several initiatives implemented from the original plan, including: 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. In addition, the plan maintained the vision and goals of the original strategic plan, coordinated efforts across the district, and addressed in detail each of the six elements of the State Information Technology Plan through several major initiatives.

In 2005, a review of the goals 2002 plan identified many successes. However, three specific actions played a crucial role in allowing the overall plan to move forward. These are: Staffing for Tech Support and Professional Development, District Standards for Hardware and Software, and improvements to Infrastructure and Access for all buildings. Staffing for tech support is at the 250 cpu/staff level, but several practices have been implemented which have enabled the users across the district to have reliable service, rapid repair (24 hour target time), and an expectation of network and internet usability (99% up time). These practices include a help desk, which addresses a significant (80%) of problems immediately, an on-line tech support request system, hardware and software standardization, imaging, and a remote desktop management and repair system. Professional Development staffing has been increased in every elementary and middle school, so teachers can get just-in-time help on curriculum integration, either through the library media center coordinator or by having a technology integration specialist work directly with them in the classroom. The professional development initiatives have been standardized through regular meeting and collaboration among these staff. Hardware and software standards have improved access and reliability, decreasing repair time and allowing for transfer of educational integration models across schools as appropriate. Finally, a reliable infrastructure enables all staff to access resources, including curriculum materials, Internet, or their personal storage from any building in the district. The review also indicated several challenges, including variable support for the plan from school to school by the building administrators, and varied success from classroom to classroom on promoting and implementing the effective integration of technology in the curriculum. There are also budgetary limitations that dictate steady but sometimes slow improvement of classroom resources, and this may provide a hindrance for some teachers.

The goals of the 2005 plan focused on implementing the State Technology Standards (known as the Technology Grade Cluster Expectations or GCE), integration technology in the curriculum, and emphasizing the need for principal support and accountability with these processes. For example, the action steps required each teacher to have yearly technology goals, to align their work with the technology GCE and performance tasks, and to include at least one GCE activity in each grade 3-8, and for principals to support for these items. In addition, there was a continued emphasis on supporting the foundations that have allowed us to reach this point, such as tech support and professional development staffing.

The 2005 plan also noted the critical role of leadership in the success of the technology plan. The leadership and support starts at the Board level with the Board Technology Committee (now the

Infrastructure and Technology Committee). These members have been extremely well informed about the role technology is playing in the district. The superintendent also supports a district-level administrator to direct the technology program. The director's leadership provides vision, planning, and coordination to maximize effective use of resources available. Building administrator leadership includes modeling effective use, promoting use of electronic systems such as e-mail, supporting and promoting technology with parents, and supporting the efforts of teachers working to integrate technology. The district would not have been able to show such progress without the continued support and leadership of all of these people.

This current plan includes some of the same goals of the previous plan, as well as maintaining the necessary foundations that have allowed the progress to date. The goals for curriculum integration focus more closely on the building and classroom level in grades K-8, and the top priority is to use a curriculum mapping survey as a process to more clearly identify what each teacher and student is accomplishing. This will allow a more precise focus on areas of the GCE that need attention, or grades or classrooms that aren't providing the same opportunities for students. The work of the technology professional development team (two Technology Integration Specialists, 50% of six elementary school librarians, and 25% of two middle school librarians) will be a critical ingredient, through working directly with classroom teachers, sharing sample integrated units across grades and schools, and promoting effective teaching practices for technology. This team will meet regularly throughout the year, and their work will be supported by the building and district administrators.

The plan also continues the work in the areas of overarching elements, maintaining processes and funding for access and infrastructure, hardware, software, technical support and district leadership. The current process for reviewing and promoting policies will be sustained, although the continual change in the electronic landscape requires regular review, revision, and training. The web site will continue to be used as an important element in communication with the community. Internal network resources will continue to be used for document sharing among the local educational community.

The elements of the evaluation plan continue several of the same mechanisms that have been used for the past two plans, allowing for some longitudinal review of impact. New elements include the school status survey, the student portfolio data, and elements of the overall plan review.

This plan was developed through the work of a principal review committee, which reviewed each item on the previous plan and recommended future goals. Additional review and comment was provided by the district technology professional development educators, district and building administrators, and the school board Infrastructure and Technology Committee.

II. Review of Previous Plan

The previous plan had a multitude of goals. Information on the success of these goals was determined by looking at annual survey results for faculty and students, a longitudinal study of the impact of the changes implemented subsequent to the 1999 Technology Audit, and a review by participants on the committee. The list of goals met and not met or irrelevant is summarized in Table 1.

In addition, certain themes became apparent. There was no consistent mechanism for providing technology professional development at the upper grades, specifically at the high school, technical center, and alternative programs (ONTOP and Horizon). Federal funding to support those programs had been cut, and other mechanisms piloted to address the issue had met with varied degrees of success. Integrating technology into the curriculum at the elementary schools was highly dependent on the building leadership and culture, and did not result in consistent implementation or equitable impact for all students, despite having equal access to technology hardware, software, and tech support services. There was varied success with implementing integrated technology units in core classrooms at the grade 3 – 8 level, and this contributed to variability in student experiences and their ability to meet the technology standards. It is unclear if the types of integrated units address the breadth of the technology standards, although student survey results indicate that in some cases the work is limited to research and presentation standards. There are also issues with the accountability measures being accurately completed. Overall, although there is a good level of supporting resources available, there is more work to be done to transform this into impact at the classroom level across the primary and middle grades.

TABLE 1

| # | GOALS MET | Evidence |
|----|--|--------------------------------------|
| 1 | Maintain Technology Professional Development (Tech PD) Staffing at Elementary and Middle Schools. | Budget Review |
| 2 | Increase the integration of technology hardware in core curriculum classrooms in grades 3-8. | Building Inventory |
| 3 | Administrators and Tech PD Staff will promote examples of curricula, teaching strategies, and student work showing technology integration at faculty meetings, parent events, and open houses. | Event Calendars |
| 3 | All Tech PD Staff will work directly with teachers, modeling and promoting effective curricula and teaching strategies for technology integration. (MET AT MIDDLE SCHOOL LEVEL ONLY) | PD Staff Reports Plan Review Team |
| 4 | The primary mechanism for providing professional development is through the Tech PD staff. | Plan Review Team |
| 4 | Tech PD staff will collect and organize resources and models of best practices in technology integration in web-based format, in shared network resources, and in shared e-mail resources. Tech PD staff will train administrators and staff in using personal e-mail groups to share web sites and models of best practices among all professional staff. | Web Site Review |
| 5 | Budget is maintained at sufficient levels to support elements of plan. | Budget Review |
| 9 | 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. | Web Site Review |
| 11 | Portfolios of student work showing performance tasks or examples of the state Technology GCE will be created (MET AT HIGH SCHOOL LEVEL ONLY) | Plan Review Team |
| 12 | Supporting resources, such as services, software, other electronically delivered learning materials, and print resources, were available to ensure successful and effective uses of technology. | Budget Review |

= 2005 Plan Action Step

| # | NOT MET | Notes |
|----|---|---|
| 1 | Increase Tech PD services at the High School. | Federal Funding Cut |
| 1 | Focus all Tech PD work on one of the following: integrating the state technology GCE and performance tasks or teacher technology literacy. Each teacher shall have a yearly technology goal in alignment with this step. Administrators will support teacher technology goals work. | Variable Results by School |
| 2 | Coordinate classroom technology integration models with curriculum directors and subject area teacher-leaders for identified schools and subject areas, including math specialist, reading specialist, and ESL teachers. | Variable Results by subject area, need better coordination with curriculum subject area groups. |
| 2 | Focus Tech PD strategies on integrated curricular models for targeted groups in HS and MS programs, such as the 9 th grade core, Kaleidoscope, ONTOP, or Success programs | Core program dropped. Limited PD available for ONTOP and Horizon. |
| 3 | Administrators and Tech PD Staff will promote examples of curricula, teaching strategies, and student work showing technology integration at faculty meetings, parent events, and open houses. | Variable Results by School |
| 3 | The district will encourage Tech PD 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 | Variable Results by School |
| 4 | District Coordination: Monthly meetings of the technology professional development staff will be used to review and improve technology professional development practices, and to coordinate professional development needs across all schools. | Meetings held bi-monthly. Need administrator support and better meeting opportunities. |
| 7 | Each Teacher at grade levels 3-8 will complete one integrated activity that correlates with the State Technology GCE and/or the state Technology Performance Tasks. | Limited data available to support successful completion |
| 7 | Each teacher will continue to have a technology goal in alignment with the state Technology GCE or technology literacy standards. | Limited data available to support successful completion |
| 8 | Create or upgrade the Adelphia cable TV access points in each learning center so RETN or other educational channels are available. | New cable TV provider for district. Will update as available. |
| 8 | Promote uses of VILN or similar IP based video that is currently available at MS and HS through the library media center directors. | VILN changes at state level have not been implemented. |
| 11 | Logs of work by Tech PD Staff with building faculty and staff will be kept and collected regularly. | Process too cumbersome for valid completion. |
| 11 | 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. | Incomplete data. |

= 2005 Plan Action Step

III. Goal Section

A. Curriculum Integration

| Goal | Action Steps | Priority | Indicators for Actions | Measure | Timeline |
|---|---|----------|--|---|--|
| <p>Curriculum Mapping The Technology grade expectations (GCE) will be mapped to core curriculum units in all grades K-8.</p> | <ol style="list-style-type: none"> 1. Find or create a template or grid for mapping the Technology GCE. 2. Use this template to survey each school's current use. 3. Use survey to develop school and grade specific professional development models for integrating technology. | 1 | <p>Indicator 1. Template Indicator 2. Collection of template survey responses Indicator 3. Plan for action at each school</p> | <p>Measure 1. Template produced Measure 2. One summary document per school K-8. Measure 3. Summary document in subsequent year shows increase in implemented units.</p> | <ol style="list-style-type: none"> 1. End of summer 07. 2. End of September each year 3. October each year. |
| <p>Professional Development Technology professional development at the classroom, local building and district level will be maintained The goal of this work is to help teachers strengthen their ability to integrate technology deeply and meaningfully into the Core Content areas in grades 3-8.</p> | <ol style="list-style-type: none"> 1. Have regular meetings of tech professional development staff to review, plan, and coordinate efforts to meet this goal. 2. Model and promote teaching practices effective for meaningful technology integration at all grades; 3. Promote and facilitate an on-line learning opportunity for teachers to improve their abilities to the grade eight Technology grade expectations using Moodle. 4. Collaborate with building administrators to develop a collegial coaching or mentoring model for teachers at BHS, BTC, Ontop and Horizon. | 2 | <p>Indicator 1. Schedule and agendas of meetings Indicator 2. Implementation steps developed at meeting promoted at school level. Indicator 3. On-line learning units available. Indicator 4. Mentoring teams.</p> | <p>Measure 1. Attendance and minutes Measure 2. Tech PD reports on template at subsequent meetings Measure 3. Number of teachers accessing and using units. Measure 4. Number of participants and evaluation survey</p> | <ol style="list-style-type: none"> 1. Ongoing 2. Ongoing 3. January 08 4. May each year. |
| <p>Student Portfolio Establish an electronic student portfolio for every student grades 3-8.</p> | <ol style="list-style-type: none"> 1. Use the curriculum mapping template to survey each school's current use. 2. Provide staff with resources to help students create and evaluate their portfolios. 3. Promote student technology portfolios through exhibitions to board, faculty, and community. | 3 | <p>Indicator 1. Collection of template survey responses Indicator 2. Resources for portfolio creation and evaluation. Indicator 3. Review of benchmark portfolios at grades 4 and 7.</p> | <p>Measure 1. One summary document per school K-8. Measure 2. Resource folder of elements. Measure 3. Portfolio number and breadth.</p> | <ol style="list-style-type: none"> 1. End of September each year. 2. Ongoing 3. Prior to September each year. |

| Goal | Action Steps | Priority | Indicators for Actions | Measure | Timeline |
|--|---|----------|--|--|---|
| <p>Innovative Delivery and e-Learning Investigate and pilot models of innovative delivery and e-Learning.</p> | <p>1. The technology professional development educators will meet regularly to review and discuss innovative delivery and e-Learning strategies, and plan for implementing and evaluating these strategies 2. Create opportunities for reviewing and investigating innovative delivery and e-Learning through pilot projects, visits to other schools, and conferences.</p> | 4 | <p>Indicator 1. Schedule and agendas of meetings Indicator 2. Shared reports on pilot projects, site visits, and conference information.</p> | <p>Measure 1. Attendance and minutes Measure 2. Written evaluations of pilots, site visits, and conferences.</p> | <p>1. Ongoing 2. May each year.</p> |

B. Overarching Elements

| Goal | Action Steps | Priority | Indicators for Actions | Measure | Timeline |
|---|--|----------|---|---|---|
| <p>Maintain Support and Infrastructure Services. Tech support staffing and services to maintain hardware, software, and infrastructure will be maintained at current levels.</p> | <p>1. Maintain current level of tech support staffing at 300:1 computer/technician ratio. 2. Continue to purchase hardware at 5:1 student/computer ratio with 5 year life cycle. 3. Continue to develop and maintain software and hardware implementation standards.</p> | 1 | <p>Indicator 1. Tech support staff is retained and feel they are able to meet the district needs. Indicator 2. Student computer inventory. Indicator 3. Standards for new technology implementation are developed.</p> | <p>Measure 1. Employee evaluation. Measure 2. Statistical information on purchase rate and age of computers for student access. Measure 3. Documentation of standards is available on electronic resources.</p> | <p>1. May each year. 2. October each year. 3. Ongoing</p> |
| <p>Provide District Leadership, Policy, and Budgetary Support.</p> | <p>1. Maintain technology director position with clear responsibilities for these tasks. 2. Work with School Board on policy and budgetary issues.</p> | 2 | <p>Indicator 1. Position is maintained. Indicator 2. Coordination with the Board continues through the Infrastructure and Technology Committee.</p> | <p>Measure 1. Budget is approved. Measure 2. Meeting minutes and agendas.</p> | <p>1. January each year. 2. Ongoing</p> |
| <p>Use Website and District Infrastructure to promote communications. The school and district web sites will be used as a primary communication medium for parents, and the local district infrastructure will be a primary resource for electronic documents.</p> | <p>1. Maintain web site coordinator positions. 2. Develop additional web authoring capacity for key department communicators 3. Promote and use the internal electronic resources for document management for local educational community.</p> | 3 | <p>Indicator 1. Each school has a website coordinator. Indicator 2. Central office and school departments have visible and current web presence. Indicator 3. Educators access the electronic resources as a primary source of information.</p> | <p>Measure 1. Budget is approved. Measure 2. Visual review of web sites. Measure 3. Staff survey</p> | <p>1. January each year. 2. Ongoing 3. October each year.</p> |

C. Evaluation

The evaluation of this plan has six elements. Many of these elements have been part of previous plans, and will be continued to provide opportunities for longitudinal study. New elements include the school status survey, the student portfolio data, and elements of the overall plan review. Each of these elements is listed, together with a description, date, guiding questions, responsible parties and reporting mechanism.

| Element | Description | Date | Guiding Questions | Responsible Parties | Reporting |
|----------------------|---|--------------------|---|--|---|
| School Status Survey | Template looking at units addressing Technology GCE by grade across all grades K-8, by school. | October every year | <ol style="list-style-type: none"> 1. Are all areas of the Technology GCE being addressed in our school? 2. What examples of work are being done at other schools that might be implemented in our school? 3. What supporting resources does our school need (time, administrator support, other) to improve our implementation of the Technology GCE across the core content areas? | <p>Completed by Technology Professional Development Team for each grade 3 – 8.</p> <p>Reviewed and evaluated by Director and Technology Professional Development Team.</p> | Reported to Administrators and Curriculum Committee of the Board. |
| Faculty Survey | On-line survey of faculty use, knowledge, and comfort with technology, using tool similar to Survey Monkey. | October every year | <ol style="list-style-type: none"> 1. How is our school doing as a whole in terms of faculty capacity with technology? 2. Are there areas to target for professional development opportunities? | <p>Completed by all faculty, supported by Technology Professional Development Team and Building Administrators</p> <p>Compiled by Director and Reviewed by Director and Technology Professional Development Team.</p> | Reported to Administrators and Curriculum Committee of the Board. |
| Student Survey | On-line survey of student use, knowledge, and comfort with technology for educational purposes, using tool similar to Survey Monkey, for students in grades 6 and 9 about their previous school experience. | October every year | <ol style="list-style-type: none"> 1. How is our school doing as a whole in terms of student use of technology? 2. Are there areas to target for professional development opportunities? | <p>Completed by grade 6 and 9 students, supported by Technology Professional Development Team and Building Administrators</p> <p>Compiled by Director and Reviewed by Director and Technology Professional Development Team.</p> | Reported to Administrators and Curriculum Committee of the Board. |

| Element | Description | Date | Guiding Questions | Responsible Parties | Reporting |
|-------------------------------|--|--------------------------------|--|--|---|
| Student Portfolio Data | Review of use of student portfolios on internal network resources. Statistical summary by count and Technology GCE category at benchmark grades 4 and 7. | May every year. | <ol style="list-style-type: none"> 1. Are our students creating electronic portfolios? 2. Can students assess their own quality work? 3. Is the amount and breadth of student work increasing? | <p>Completed by Technology Professional Development Team with assistance from Tech Support.</p> <p>Compiled by Director and Reviewed by Director and Technology Professional Development Team.</p> | Reported to Administrators and Curriculum Committee of the Board. |
| Exemplary Student Work Review | Collection and review of exemplary student work with technology, organized by Technology GCE and grade level. | May every year. | <ol style="list-style-type: none"> 1. What kind of work in technology is being completed by students? | <p>Compiled by the Technology Professional Development Team.</p> <p>Reviewed by Director and Technology Professional Development Team.</p> | Reported to Administrators and Curriculum Committee of the Board. |
| Overall Review of Plan | Review of work of Technology Professional Development Team toward meeting the goals as developed in this plan. | December and April every year. | <ol style="list-style-type: none"> 1. How effective are the processes we are implementing to support integrating technology in the curriculum? 2. What are some things other schools have found successful that we can implement to improve the process? 3. Are there innovative delivery strategies and e-learning opportunities we need to promote? 4. What supporting resources (time, administrative support, other) do we need to be more successful? 5. Are there enough supports for the overarching elements? | <p>Completed by Technology Professional Development Team and Director.</p> <p>Reviewed and evaluated by Director and Technology Professional Development Team.</p> | Reported to Curriculum Committee of the Board as part of annual Technology Plan update. |

Signature/Certification Page

General Information: The signature (below) certifies that this school, district, or supervisory union meets all requirements for Informational Technology planning as defined by the State of Vermont under the federal “No Child Left Behind” legislation.

Name of supervisory union or school(s) covered by this Technology Plan:
Burlington Supervisory District 15

Technology Contact Person: L. Paul Irish Phone: 802.864.8465
Title: Director of Information Technology E-mail address: pirish@bsdvt.org

Contributors to this Educational Technology Plan and their affiliations:

Burr Warne, CEO Global Classroom, Burlington Community Member
David Lamberti, BHS Teacher
Kim Chase, HMS Teacher, Parent of Burlington students
Laura Demaroney, District Tech Support, BHS Graduate
Kelly Wood, Former Flynn Elementary School Librarian
Barbara Crook, Board of School Commissioners
Kathy Gallagher, Middle School Tech Integration Specialist

Other groups reviewing and adding comments include:

District Technology Professional Development Educators and Librarians
District Administrators and Building Principals
Curriculum Director
Infrastructure and Technology Committee of the Board

Certifications: Select one

This Educational Technology Plan was approved by our School Board on: _____
This Educational Technology Plan will be approved by our School Board on: August 14, 2007.

Children’s Internet Protection Act (CIPA) certification: One box (below) must be checked for the school to qualify for funds under this program.

The school certified CIPA compliance in it’s last E-Rate application
The school did not certify compliance with CIPA in it’s last E-rate application, but does certify, as part of this technology plan, that it meets CIPA requirements
The CIPA requirements do not apply because no funds made available under this program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet.

Signature: _____ Date: _____
(Superintendent/CEO)

Mail this page only to: Bill Romond, Vermont Department of Education, 120 State Street, Montpelier, VT 05620-2501