

VI. PROFESSIONAL DEVELOPMENT

A. how teachers have access to educational technology in their instructional areas (such as using desktops, mobile laptop and wireless units, PDAs);

As of 2004, every staff member in the district has access to either a networked desktop or laptop computer and an email account for their professional use. Each classroom is equipped with the current standard of 2-4 networked desktop computers. The teachers and students in the district also have access to at least one computer lab in each of the schools. The district will continue to expand its use of mobile computer labs and wireless networking. The district will continue to investigate cutting edge and emerging technologies.

Over the course of the plan, teachers will be provided with network storage, removable storage devices; sometimes known as jump drives, allowing the ability to move numerous files with ease. This will ease the movement of files between home and school.

To support the infusion of technology in instructional practices, teachers have access to digital cameras, camcorders, scanning devices, digital projectors, and large screen monitors. The district will continue to expand the availability of technological tools.

The district will further investigate the use of on-line shared calendars for scheduling for use of equipment and an online tech support site. This will include an online tech support request system. The district has an on-site technician to help solve emerging technical problems before they affect instruction. The computer teachers are also on staff to infuse technology into curriculum & instruction. They teach computer skills through application of the NJ Core Curriculum Content Standards.

B. the process to identify and modify the NJ Core Curriculum Content area to support the infusion of technology;

As part of the Curriculum and Instruction Decision Making Process, through which the curriculum is modified and appropriate materials are secured, instructional technology will be incorporated into all curricula as appropriate. Technology will be seen as a tool for increased student learning rather than a separate content area. A digital best-practice library will be established to document the advances and encourage teacher use of these developed units and lesson plans.

C. how relevant research is used to integrate technology into curricula and instruction, to improve student academic achievement, as measured by New Jersey's Core Curriculum Content Standards;

The Chester Township School District has formed a district technology committee composed of representatives from all schools to discuss current research as provided through such resources as publications from ISTE (International Society of Technology in Education).

The pertinent research will then be disseminated to administration and staff members.

Grounded in this knowledge of current research, this group will preview and evaluate appropriate integration techniques, software, and websites to support the curriculum and ensure that all students maximize their achievement in the NJCCCS. They will help to support technology integration strategies such as: web quests, student creation of video, Problem-Based Learning, portfolios of student work, and digital art. The techniques chosen and the resources employed will be supported by the research on effective practices.

For example, research from the Principal Connection CD distributed at the NJ Elite sessions for administrators cite 10 steps to technology integration. The CTS are currently implementing and meeting these goals.

- Obtain a computer ratio of 5:1.
- Use technology across curricula.
- Ensure that activities reflect an appropriate use of technology.
- Make computers available outside class time.
- Teach basic computer skills in context.
- Encourage teachers to attend computer labs.
- Avoid computer use as a reward.
- Practice responsible computer use.
- Use the Internet as a supplemental resource.
- Evaluate Internet resources.

D. how ongoing, sustained professional development for all administrators is provided to further the effective use of technology in the classroom or library media center.

Only when we begin working with school leaders will schools ultimately achieve the potential offered by technology. School leaders will model professional growth by participating in professional learning activities. The current district administrators are proponents of using technology resources for their professional benefit. Leaders must make sure all technological activities support the school's mission and vision.

In support of the administrators over the course of this plan, a focus will be placed on developing the skills and knowledge to effectively use technology to support and create their vision for their schools by focusing on these areas:

- Technology's use in data-driven decision making
- Technology as a management tool
- Teaching, learning, and pedagogy
- Developmentally appropriate practices for using technology
- Intersection of pedagogy and technology
- Effective staff development
- Digital content – ebooks, etc...
- Assessment of technology and its use

E. Provide a summary of teacher and library media personnel proficiency in the use of technology within the District/Charter School.

There have been informal surveys done (See APPENDIX F). Additionally, we are planning on conducting extensive on-line staff surveys within the district.

Staff level of proficiency is outlined in the **TECHNOLOGY INVENTORY** section of the report outlines staff levels of proficiencies.

F. What professional development needs and barriers have been identified in the District/Charter School as it relates to using technology as part of instruction?

One of the major difficulties involved in technology professional development is melding experiences and opportunities too bring a better understanding of differentiating instruction to maximize student learning.

The disparate levels of teaching experience create another obstacle that needs to be overcome. Training must span all levels of experience from the beginner to the advanced. Additionally, training must be tailored to the many divisions of duties from the faculty, support staff, administrators, grade level staff, subject level staff, etc. This means providing many different types and levels of training opportunities.

One of the most effective training opportunities is the use of modeling the use of technology in the classroom. Getting teachers to use technology requires showing them how to use it with their own curriculum. The ability to do this in a timely and effective manner continues to be one of the barriers faced by the Chester Township School District. The 2003-2004 school year saw the advent of modeling in the Bragg School. It will be continued and expanded.

Our staff members appear to face the same barriers as those that were noted in various national surveys. The top issues cited were the lack of release time for teachers to learn/ practice/plan ways to use computers or the Internet, not enough computers or having outdated, or unreliable computers, lack of time in schedule for students to use computers in class, and a lack of good instructional software. Some teachers indicated a concern about student access to inappropriate materials. Many teachers indicated willingness to attempt to integrate technology into the curriculum, but feel they require more available training opportunities.

The district has begun and will continue to identify those staff members who are qualified to mentor or instruct their peers on how to better integrate technology on a formal or informal basis.

The district will continue to identify all barriers and develop ways to overcome them.

G. Based on teacher and library media personnel proficiency and the needs in the District/Charter School for professional development, list and describe ongoing, sustained, high-quality professional development opportunities planned for 2004-2007 include the involvement of all partners associated with professional development in the District/Charter School.

The district maintains a state-of-the-art computer lab in each building. We also have a Professional Development Center that is equipped with 24 state-of-the-art computers, a projector and Smart Board. When not in use for professional development, the lab is available for classroom use. Additionally, we have equipment such as student laptops (48), Mobile teaching stations, fully equipped media centers and outstanding software. Every classroom and office in the district is equipped with at least one networked/Internet connected computer and a printer. All curriculum areas have technology elements and staff are receiving ongoing training on implementing technology infusion. All goals and objectives are cross referenced to the CCCS. (see online curriculum at: <http://www.chester-nj.org/Curriculum/designer/index.htm>)

The Chester Township Board of Education recognized its obligation to provide for professional development in the area of technology. Pursuant to this end, the Chester School district sponsors a full Masters Degree in Educational Technology at Black River Middle School in Chester for all interested teachers not only in Chester but also throughout western New Jersey. A primary benefit is directly derived by creating a core of professionally trained experts who are in position to act as turnkey agents to train and inspire their fellow teachers in the advantages of technology. The change agents have experience an array of courses as part of Master Degree in Educational Technology, including selections from the following course experiences:

- Learning Theories, Motivation, and Relationship to Technology
- Introduction to Educational Technology
- Distance Learning for Educators
- Using the Internet in Education
- Research Applications in Educational Technology
- Using Integrated Software across the Curriculum
- Introduction to Hypermedia
- Technology in the Math/Science, Social Studies, Special Education, English, and Art/Music Curriculum
- Comparative Introduction to Computer Languages
- Publishing on the Web: Design, Theory, and Application
- Advanced Hypermedia
- Special Topic in Educational Technology
- Graphics and Graphic Design in Education

As a result, this synthesis of the academic offerings provides the teacher the opportunity to apply distant learning technologies in use today and anticipated for tomorrow. This application includes the implementation of telecommunication, real time two-way video and audio both over fiber and over T1 connections, and using room systems or desktop computers. The effect is that asynchronous and synchronous distance learning becomes modes of integrating graphical and text-based methods of distance instruction into the curriculum. In effect we have established a partnership in education that has the potential to be a partnership that influences generations.