

## IMPLEMENTATION

To implement the goals and objectives of Instructional Technologies for Learning in a New Century, the district must provide modern and efficient technology systems for students and staff in each building. The following characteristics are proposed to provide technology which will meet stated objectives.

1. The systems should provide easy access to instructional and application software throughout the building. This means the centralization of much of the delivery of software from a network server<sup>1</sup>.
  2. The systems should accommodate technology work centers for large groups. Although a ratio of one computer per student is ideal, a ratio of one computer for every two students is sometimes acceptable. The work centers should be designed to accommodate a full classroom of workstations (28-30).
  3. The systems should accommodate small group work centers in or near the classrooms.
  4. The systems should provide teachers easy access to the available software for planning curriculum integration.
  5. The systems should have the capability for every room to have access to the building media center's electronic card catalog system.
  6. The system will maintain software standards which provide for efficient sharing of information and documents across the district.
  7. The systems should deliver standard office productivity software tools for word-processing, spreadsheets, presentations and communications.
  8. The systems should support high quality output for materials designed by staff and special projects written by students.
  9. Each building should be provided with access to new technologies as they become available and are deemed important to the delivery of instruction.
  10. The systems should provide for expansion in the number of workstations and additions of new technologies and features.
  11. On-site support persons must be identified for each site. Each support person will be provided training to assist in the implementation, staff development and trouble-shooting. In most instances, this will be the media specialist and the instructional technology advisory council member.
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Every district site will be connected to the administrative network with workstations available to principals, assistant principals, administrative assistants, counselors, nurses, and office support personnel. All staff at the Learning Resource Center will be provided access to the administrative network.

Continued support for new technologies is important to the maintenance of high standards. Curriculum needs will drive the acquisition and implementation of new technologies. Hardware and software additions and replacements will be based on new technology developments and assessment of learners' needs. Assistive and adaptive technologies will be made available as required for individual students. Older systems will be replaced with upgraded systems, sold or put to less demanding uses as appropriate. This *evergreen* philosophy will be used to keep technology refreshed while still providing for growth.

### ***Training/Professional Development***

Professional development is identified as the most critical element in ensuring successful implementation of the district's instructional technology program. Sharing ideas and techniques in the use of educational technologies is important to encourage creativity and support innovation. The effectiveness of professional development is dependent upon its quality and relevance. Follow-up support will be provided to teachers, administrators and support staff. It is critical the leadership of the district be dedicated to the success of the program and that school administrators understand and support the educational applications of technology in the classroom, providing leadership to the program.

Technology is viewed by the West Des Moines Community Schools as a major tool in teaching and learning. The curriculum-based, student-centered training will be on-going and integrated on a K-12 basis. Enhanced training for incorporating technology will be aligned with the district's curriculum review and adoption cycle.

The following aspects of a professional development plan for infusing educational technology are viewed as vital:

- Instruction in the application of instructional technologies is an integral part of all curriculum and instructional professional development, with an emphasis on the ways in which technology serves as a part of varied instructional strategies selected to meet curriculum objectives and student needs and interests.
- Professional development which includes uses of educational technology is provided in multiple venues in order to assure equal access to all teachers.
- All professional development is tailored to meet the needs of the participants.
- Professional development will be planned and available for support staff as is appropriate for the staff position.
- Carefully constructed courses are developed to ensure the integrity and consistency of the program.

- All professional development includes the training on the equipment equivalent to the equipment the employees will use at their buildings, and affords opportunities to expand the participant's skills on other types of equipment and software.
- Professional development is ongoing, providing long term support for implementation. Frequent follow-up for support and progress checks by site administrators and staff development providers is strongly encouraged.
- A train-the-trainer model provides for site-based experts and encourages staff leadership and a culture of sharing.
- On-going evaluation, both specific professional development offerings and of the overall program, takes place as the Human Resources Division monitors the activities provided by the district and activities initiated at the local sites.
- Personnel at each site are trained to provide technical support for the implementation of technology as part of effective instructional strategies. ITAC members are strongly encouraged to facilitate frequent discussion groups to grade level or curricular area. This fosters increased awareness, varied applications, and innovation.
- A district technology training center will be established in the Learning Resource Center to include opportunities to preview software, review and practice with district standard software, and to develop successful skills in uses of instructional technologies. Sample lesson plans, curriculum guides, and comparable facilities will be provided at the technology center. New hardware and software will be maintained to model new technologies and applications.
- Professional development provides all teachers, instructional assistants and administrators a logical, sequential series of steps focused on the ways in which curriculum and instruction can be **strengthened** and **enriched** through a wide range of technological applications.

In general, the workshops and in-service activities revolve around three modes.

- **Awareness** of the potential for strengthening curriculum and instruction through technology. This mode includes presentations that model uses of educational technologies in content area and instructional strategy workshops, conferences on educational uses of technology, and workshops focused on educational uses of specific kinds of technology. Awareness level professional development includes active participation, affording teachers experiences in using various kinds of technology as they explore the ways in which technology can be used to strengthen instruction. Peer discussions of implementation and integration strategies are key to raising awareness of effective strategies.
- **Application** of varied uses of educational technology. This type of activity includes workshops focused on specific types of technology use, on varied types of technology to meet one focused educational need, or on use in one focused curriculum area.
- **Innovation** and project dissemination. These staff development programs provide opportunities for teachers who are using instructional technologies in innovative ways or whose students have been involved in projects using technology to meet and

share. These professional development activities might well include students sharing with teachers and other students the ways they are using technology to enhance their education. Innovation can also be fostered by providing extra-work schedule funding for research or additional funds for unique hardware or software. The number of funded projects would be based on available funds and curricular goals to be addressed.

Professional development programs involving technology are coordinated through the Human Resources Division and its staff development advisory council. The instructional technology coordinator and technology director are active members of the staff development advisory council.

The Human Resources Division is responsible for the identification and development of courses to be offered, with input from the staff development advisory council, Teaching and Learning Services Division, building administrators, and other interested groups. Site-based training, provided by the site staff and trainers from other sites, meet the immediate needs identified through local site needs assessment. Assistance from the Human Resources Division and Teaching and Learning Services Division will be provided as needed.

Participants should, when possible, be given the opportunity to gain credit for their efforts. Credit for the sessions should be coordinated through the Human Resources Division. Other shorter sessions which highlight a specific skill or piece of software should also be offered.

An intensive effort should be made to identify qualified personnel who would be professional facilitators for the sessions in their area of interest and expertise. As the staff grows in expertise, this pool of talent for others to tap into will grow.

Several methods can be used to foster technology skills development. Examples include:

- sharing sessions after school hours in each building.
- sharing sessions for grade level/subject area specific methods.
- distance learning and/or Internet-based instruction for staff (and students).
- send district personnel to informative conferences to ensure an updated staff development program. Session concepts should be integrated into the district plan.
- send district personnel workshops.
- college and university courses.
- summer workshops and sessions for those unable to participate during the regular year.
- other potential training sources include university partnerships, business partnerships, and individuals such as parents and friends.
- students should not be overlooked as resources, as they have many experiences.