

Section V: Data Analysis

Community Involvement

The following tools were used to collect data for the Community Involvement Section:

Home/School Connection Survey	Tool 12
Current work with public librarian	
Student Quick Surveys	Tool 27c

From this data it can be determined that

- Parents feel there is adequate support for technology use in the district
- Parents are somewhat confident users
- Parents assist students in schoolwork involving technology
- Parents do not know if workshops are offered for them
- Parents would like training and support in technology use from the school

Other observations that fall under Community Involvement include

- School district maintains informational website
- School district provides teachers voicemail to communicate with parents
- Building administrators send out newsletters to parents
- District provides district newsletter for community
- Email contact information is listed for many staff members
- District works with area businesses for special projects such as KidTech*

*KidTech is grant-funded project where students worked with equipment donated by local companies. Students cleaned, replaced faulty parts and reinstalled software as part of the hardware and software learning experience. Local vendors also did demonstrations in their area of expertise for the students. The district hopes to continue the program, pending grant funding, to provide equipment to underprivileged students.

Curriculum and Instruction

The tools used in analyzing Curriculum and instruction include

ISAT data 2001,2003,2004	
PSAE data, 2003,2004	
Building Administrator Survey	Tool 29
Teacher quick survey	Tool 27b
Teacher survey	Tool 7
State Report Cards 2004	
School Improvement Plans	
Student Quick Survey	Tool 27c

ISAT and PSAE subgroup population for LEP and Ethnic were not high enough to report.

Administrator and Faculty

Based on the data from these tools it can be determined that:

- Administrators lack training in curriculum design and assessment with technology.
- Although administrators use technology on a daily basis, it is limited to personal use.
- Administrators believe in standard-based technology use is expected for all students.
- Administrator perceptions and actual practices for technology implementation as defined for teachers and students by NCREL differ.
- Administrators do not involve themselves in the process of effective technology implementation due to lack of knowledge, time or tools.
- Administrators use email to communicate with staff on at least a weekly basis
- Administrators believe students are getting regular and frequent use of technology.
- Administrators work hard to provide adequate and wide-ranged professional development for teachers.
- Teachers feel confident as users, but not able to train others
- Teachers use technology on a monthly or weekly basis
- Teachers rate accessibility to technology at school as high
- Teachers use technology professionally on a daily basis¹
- Teachers use technology with students at least weekly²
- Teachers lack training in curriculum design and assessment with technology.

- Teachers feel they need training in designing learning projects using technology³.
- Teachers use technology in the classroom for class work (Accelerated Reader, Typing etc) or free time.

¹ Attendance is automated, thereby forcing teachers to login and use the computer daily; this could taint the responses for computer use.

² In opposition to this response, Part III of Tool 7 shows the largest percentage of teachers never or seldom use ANY of the 28 technology tools listed.

³ In Tool 27b, which was given to the larger population of teachers, they indicated “Good” for developing lessons with effective uses of technology; this could be a discrepancy in understanding curriculum design with technology.

Student Achievement

The areas of concentration for the district are reading and math. The analysis shows specifically that gaps in math warrant special attention and therefore will be the focus for the next few years. The district has already adopted a new reading series and is currently working with Gretchen Courtney on developing new, innovative instructional practices within that series, therefore many technology strategies have been incorporated. However, the analysis for reading is also included.

Math

Specifically looking at student data, a longitudinal study with the Class of 2011 students from third (2002) and fifth (2004) grade indicate large gaps in math scores in all demographic areas and in both genders. In all areas compared, the gap widened with time and students with IEPs show the largest gap. LEP or Ethnic populations were not taken into consideration due to the low percentage.

The subtest areas with the largest gaps include

- Algebraic relationships/Representations
- Geometric Concepts
- Data Organization/Analysis

Students’ situational application of mathematical principles needs developed
Parents may not be adequately prepared to help students in math

Eighth grade math scores show a consistent pattern of scores over three years. However this data is not from the same class of students and therefore could be considered inconclusive. What can be compared between the two sets of scores is that scores under Geometric Relationships are consistently lower at 8th grade than 3rd or 5th while other subtests seem to remain the same.

Prairie state math scores increased a small amount from 2003 to 2004, again not being longitudinal data, it is difficult to determine why or how.

Reading

Reading scores show relatively few gaps. In fact with the Class of 2011 data, even the students with IEPs showed gains in every subtest between 3rd and 5th gain with the exception of vocabulary, which only dropped by average 1 percent. The hypothesis formed from this data is that we are doing well with reading and will maintain the strategies already in place.

Professional Development

The tools used to collect data include

Building Admin Survey	Tool 29
Teacher Survey	Tool 7
Teacher Quick Survey	Tool 27b
Artifact Review	
School Improvement Plans	

Administrators

- Administrators understand and support the need for standards based technology.
- Administrator's perceptions of effective technology and what is defined by NCREL in the NETS for students and teachers as effective technology use differ.
- Administrators lack involvement and training in curricular design using technology .
- Administrators use of personal technology is high.
- Administrators model the personal use of technology to teachers.

Teachers

From this data it can be concluded:

- Teachers feel they learn about effective technology uses in workshops and through one on one.
- Teacher's perception of effective technology use and actual practices differ.
- Teachers' need extended collaborative training to be effective.
- Teachers cite web tools as the highest priority for training.
- Teachers need training on assessing technology projects.

- Assessment needs to include follow through/reflection.
- Teachers may not be comfortable enough to train others on skills they have learned
- Teachers are not comfortable implementing unfamiliar technology

Artifact review

Artifacts reviewed for this section include:

- Workshop listings
- Workshop rosters
- Project templates completed during workshops
- Workshop Evaluations

Teachers and administrators will be given ample opportunity to take part in conferences, workshops, mentoring, and small group instruction sessions to develop skills necessary to effectively implement technology into the classroom according to the National Educational Technology Standards. This training will provide not only useful instruction but also CPDUs in technology and in their content area supporting teachers and administrators in their efforts to maintain a highly qualified status.

Technology Deployment and Sustainability

Technical Support Survey	Tool 23
Policies and Procedures analysis	Tool 13
Tool Capacity Analysis	Tool 20
Instructional Tech Inventory	Tool 18
Technical Support Analysis	Tool 22
Teacher survey	Tool 7
Building Admin Survey	Tool 29
Building Walk-through	Tool 31
Computer Replacement Schedule	

From the data collected and analyzed it can be concluded that:

- Technology accessibility is high
- Accessibility to network and Internet resources is consistent and dependable
- Ratio of computers to students is a 1:3 or 1:4 ratio for every building
- Placement of tools is dependent upon grade level

- At this time perhaps 25% of computers are considered “aging”. Many of these are teacher workstations.
- Instructional tools such as Smartboards, LCD projectors and digital cameras are more at elementary level than middle school or high school.
- Very few student produced technology projects visible.

Technical support

- Job Assessment/Evaluation procedures include technology component needs established
- Common Curriculum Toolkit not in place
- Guidelines for accepting donated equipment—not in place
- Security procedures for users—not standardized
- Work with stakeholders in clarifying policies and practices

- Technical support is regular-off site
- Tech to workstation ratio less than desirable
- Tech issues resolved typically within the week
- Contract with outside vendor to help with large projects
- Two full time trained staff members, full time helpdesk support
- High School and Middle School networks and servers need updated