

Needs Assessment

A variety of instruments are used to determine technology needs within the Drew Central School District. The Technology Support Index (TSI) (<http://tsi.iste.org>) assessment is a tool for schools and districts to profile their technology support programs and to provide solutions based on those unique profiles. This instrument was completed on October 19, 2011 by the Instructional Technology Coordinator.

The ISTE National Education Technology Standards for Teachers Rubrics for Digital-Age Teachers was converted into a survey instrument to assess the level of successful implementation of the technology standards for teachers. District-wide and building-level results were compiled to give the Technology Planning Committee a detailed picture of the district's progress in implementing the NETS-T standards. This instrument was administered on-line to district teachers during the period October 13-28, 2011. 88 invitations to participate were emailed to all district teachers with 44 completing the survey. The response rate was 50%.

A Student Survey was administered on-line to all students in grades 2-12 within the district during the first week of November 2011. 476 students took this survey for a 56% rate of return. This survey was used to assess student and teacher use of computers in the classroom and to gather data about computer access and use at home.

Recommendations from the TSI assessment include:

- • adopt a systematic replacement cycle for technology equipment, either through equipment leasing or purchase;
- • limit software installation to only a list of approved programs;
- • consider purchasing service warranties that cover the expected service life of the equipment;
- • limit the number of operating systems that are supported within the district;
- • consider adding additional support staff to minimize downtime and ensure technology resources are readily available;
- • develop a HelpDesk;
- • build basic troubleshooting skills into the professional development program for all teachers;
- • implement a just-in-time training program;
- • implement a trouble ticketing system to track history of computers and users;

Viewing the NETS-T survey as a rubric describing key performance benchmarks for the use of technology as a tool for teaching and learning helps to track increasing levels of attainment that may be used to identify the success of teachers in the full implementation of the standards. The four levels of attainment that are used to identify the success of teachers in the full implementation of the NETS-T standards are:

- The **Beginning (0.00-1.99)** level describes behaviors expected of teachers who

are just beginning to use technology to improve teaching and learning.

- The **Developing (2.00 – 2.99)** level describes behaviors expected of teachers who are becoming more adept and flexible in their use of technology in an educational setting.

- The **Proficient (3.00-3.99)** level describes behaviors indicating that teachers are using technology efficiently and effectively for improving student learning.

- The **Transformative (4.00)** level describes behaviors that involve exploring, adapting, and applying technology in ways that fundamentally change teaching and learning and address the needs of an increasingly global and digital society.

Significant findings from the NETS-T survey indicate that building-wide and district-wide teachers are at the **Developing** stage of transitioning their classrooms from industrial-age to digital-age places of learning. Professional development activities should be designed to continue to move from teacher-centered to student-centered classrooms.

Scores on each standard by building:

1. Facilitate and Inspire Student Learning and Creativity

Elementary – 2.27

Middle School – 2.55

High School – 2.64

2. Design and Develop Digital-Age Learning Experiences and Assessments

Elementary – 2.35

Middle School – 2.28

High School – 2.55

3. Model Digital-Age Work and Learning

Elementary – 2.07

Middle School – 2.07

High School – 2.22

4. Promote and Model Digital Citizenship and Responsibility

Elementary – 2.19

Middle School – 2.21

High School – 2.23

5. Engage in Professional Growth and Leadership

Elementary – 2.16

Middle School – 2.11

High School – 2.18

These results indicate a need for training to support Standard 3: Model Digital-Age Work and Learning as a high priority for Professional Development. This standard speaks to the teachers' knowledge of digital tools and their use in supporting student learning. The teachers indicated in the survey that their weakest performance indicator for this standard was "modeling and facilitating effective use of current and emerging digital tools to locate, analyze, evaluate and use information resources to support research and learning".

The Student Survey indicated that 85% of the students have a computer at home. 75% of those students have an internet connection at home. The majority of the internet connections at home are through slow dial-up connections. High-speed broadband connections are available to fewer than 25% of homes. Students who have computers at home report easy access to those computers. Computer ownership at home is a relatively new status for our students. More than half of students who have computers at home report having only had them for four years or fewer.

Despite these shortcomings most students believe they can use a computer with confidence and can figure out how to do just about anything they need to do. At school they are more likely to ask a teacher or a friend for help rather than other resources. While teachers frequently use computers in classrooms for instruction, students use computers in their classes less than once per week. High School students occasionally use computers to write papers for class. Elementary students almost never use computers to write papers for their classes. Most students report it is always or usually easy to find a computer at school, however.