

# **Instructional Technology Audit**

## ***Summary***

In March, 2007 the Newton Public Schools Technology Advisory Committee (TAC) charged Sun Associates (the Evaluators) with creating an audit of technology integration practices across the district. Working with the district's Director of Information Technology and various taskforce members, Sun Associates designed a data collection scheme that drew data from the following sources:

### Focus Groups

- 3 Teacher Groups (n=56)
- 3 Parent Groups (n=28)
- 2 Administrator/Coordinator Groups (n=18)

### Online Surveys

- Teachers (n=574)
- Parents (n=444)
- High School Students (n=54)

The evaluators feel confident that the data collected accurately represents opinions of teachers and parents across the district. Similar questions, asked of dissimilar populations, give consistent findings across respondent groups. Therefore, even with the response/sample rates experienced, the evaluators are confident of the findings. If there had been more time to collect data, the evaluators would have strived for additional – non-self-reporting – data sources to further define and refine the findings.

### Summary Findings

#### Technology Use

- There is use of technology by teachers, students, and administrators across the district. At all levels, some measure of technology use exists. Sun Associates finds the usage in Newton Public Schools to be consistent with most other high-performing, relatively well-funded, public school districts.
- Teachers and administrators across the district make strong use of email to communicate among themselves and with parents.
- Teacher instructional usage fits predominantly into a “presentation” mode where teachers use technology (projectors and computers) to present found information to whole classes. PowerPoint and the WWW figure prominently as tools used within this model (see table, below). At specific grade levels and in particular subjects, other modes exist: there is broad use of technology tools in math (graphing calculators), science (simulation tools, Proscopes), and languages (various multimedia tools).
- Students use technology largely as a production tool. There is broad student use of PowerPoint and word processors.

### Elementary Issues

- Old, increasingly fragile, equipment
- Lack of technical and instructional support
- Insufficient quantities of laptops and projectors
- Lack of equity between buildings

### Middle School Issues

- Broad dissatisfaction with switch to PC laptops
- Insufficient quantity of laptops and projectors
- Labs are often full and difficult to schedule
- Insufficient technical and instructional support

### High School Issues

- Need more projectors (at North)
- Overall, need more equipment (laptops) for students and teachers

Overall, these issues tend to cluster around the basic point that Newton currently provides a less than adequate technology infrastructure in terms of quantity and functionality of equipment. Related is the fact that teachers believe that the district does not have adequate levels of *instructional* support for technology.

The evaluators find that teachers at all levels are for the most part confident in their basic technology skills. They know what they want to do, and, in most cases, *how* to do it. Many voiced a desire for additional support for integration at the building level, and nearly all described the available infrastructure (equipment and instructional support) as inadequate to support their desired level of use.

Parents are for the most part satisfied with how their students and teachers are using technology, although they profess some degree of ignorance as to what is actually happening in the schools (both in fact and in intent). Few parents want to see technology have a greater role in their children's education, but most recognize the basic importance of technology as a tool for teaching and learning.

### Recommendations:

The district needs to develop an updated technology plan that is rooted in a comprehensive vision for how technology should support teaching and learning. The emphasis should be on building upon and supporting existing strengths (teacher knowledge, use, and expertise). The plan must define how the district will support its ongoing technology use in terms of routine maintenance and replacement of equipment. It must also underscore the district's commitment to providing the necessary instructional technology staffing and professional development supports to teachers. In short, the current call from teachers and parents is to improve upon the current rather than to build new systems and structures.