Florida Innovates School Survey Results 2007-2008 Overview

Office of Technology Learning and Innovation
Florida Department of Education

In response to the No Child Left Behind (NCLB): Enhancing Education Through Technology (EETT) Act, the Florida Department of Education (FLDOE) Office of Technology Learning and Innovation administers an annual technology survey that provides important information about technology integration and capacity in Florida schools. Stakeholders and policy makers can use the results for planning and evaluating technology initiatives and to monitor goal achievement associated with the EETT requirements.

Results presented here are from the 2007-08 school year administration (Fall of 2007) of the Florida Innovates Survey. This analysis includes only elementary, middle/junior, high, and combination (e.g., schools that contain more than one level such as 6th grade to 12th grade) schools (N= 2756). Schools included in the analysis for this year included public schools in all 67 county school districts, the Florida Virtual School, and the P.K. Yonge Developmental Research School. The response rate for the survey was 97%. To facilitate the reporting requirements on schools, the Fall 2007 survey presented a reduced number of items in each section (relative to previous surveys). In addition, the districts provided some of the information that had been previously provided by the schools.

This report includes the following areas: Instructional Leadership, Access to Technology, Digital Learning Environment, Florida Digital Educators, and 21st Century Skills.

Instructional Leadership

The largest proportion of schools (34%) indicate spending $5,000 or less on technology-related initiatives during the 2007-08 school year, as shown in Figure 1. Twenty-seven percent of schools estimate spending more than $20,000, and 20% of schools report spending from $5,000 to $10,000. The remaining schools (18%) estimate having spent between $10,000 and $20,000 during the 2007-08 academic year.

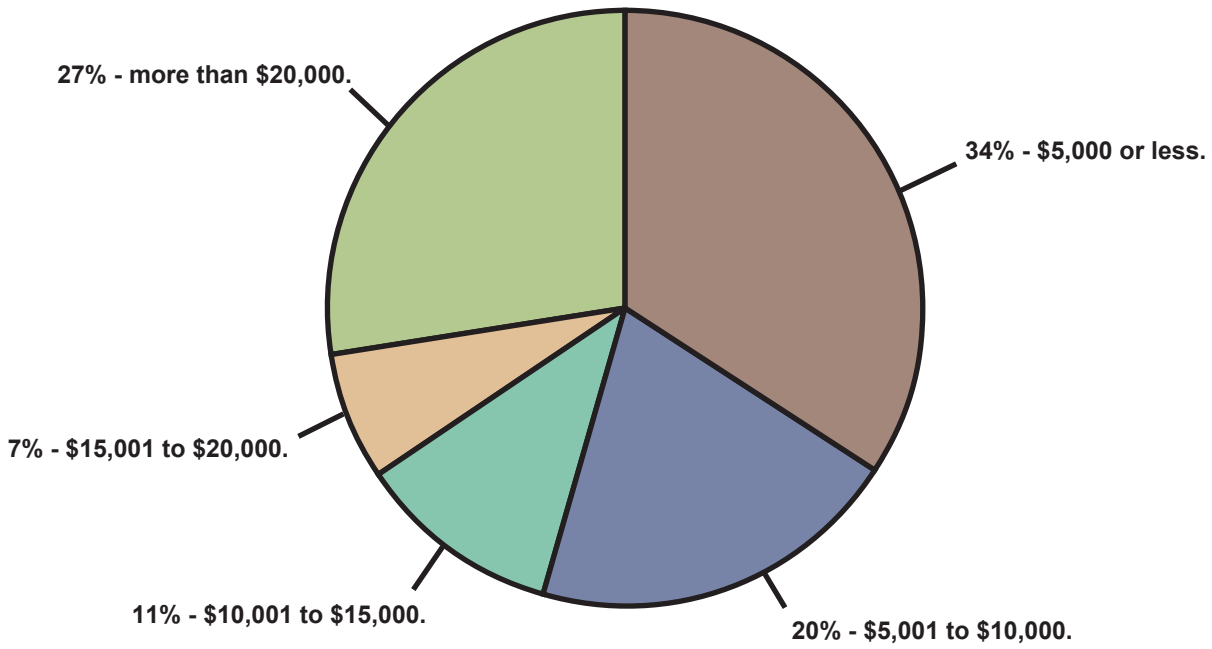

Figure 1: Total funds spent on technology initiatives.

Figure 2 illustrates the percentage of funding spent in each of the major areas. When examining where schools allocate their revenues, the primary cost for technology related initiatives in Florida's schools is hardware (54%). As can be gleaned, two other areas of high expenditure include software (18%) followed by the costs associated with the professional development for instructional technology (11%).

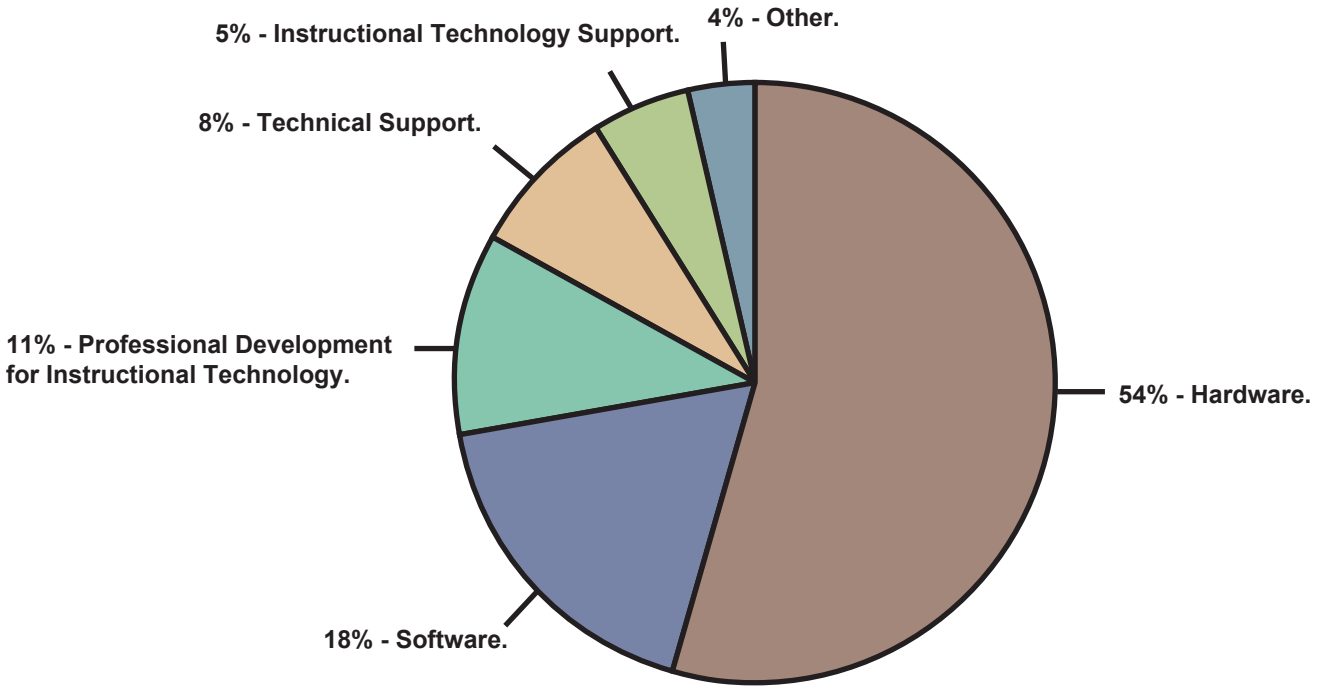

Figure 2: Percentage of technology budget by funding category.

Access to Technology

Approximately 70% of computers available for student use are "modern" (e.g., 512MB RAM, 200MB or more disk space, etc.). The majority of modern desktop computers for student use are located in classrooms (46%) and computer labs serving general education (17%), as shown in Figure 3. Twenty-once percent of modern computers available for students are laptops.

Technology in Instructional Areas

The five most available digital devices reported by schools, in order, are projection devices, VCRs, graphing calculators, DVD/VCR combo devices, personal learning systems (e.g., Leap Pads), and sound enhancement systems (e.g., Audio Enhancement, Caliphone, etc.). Ninety-eight percent of the student desktops and laptops have high-speed Internet connections, less than 1% connect via dial-up speeds (56/28kbps), and the remaining have no Internet connectivity.

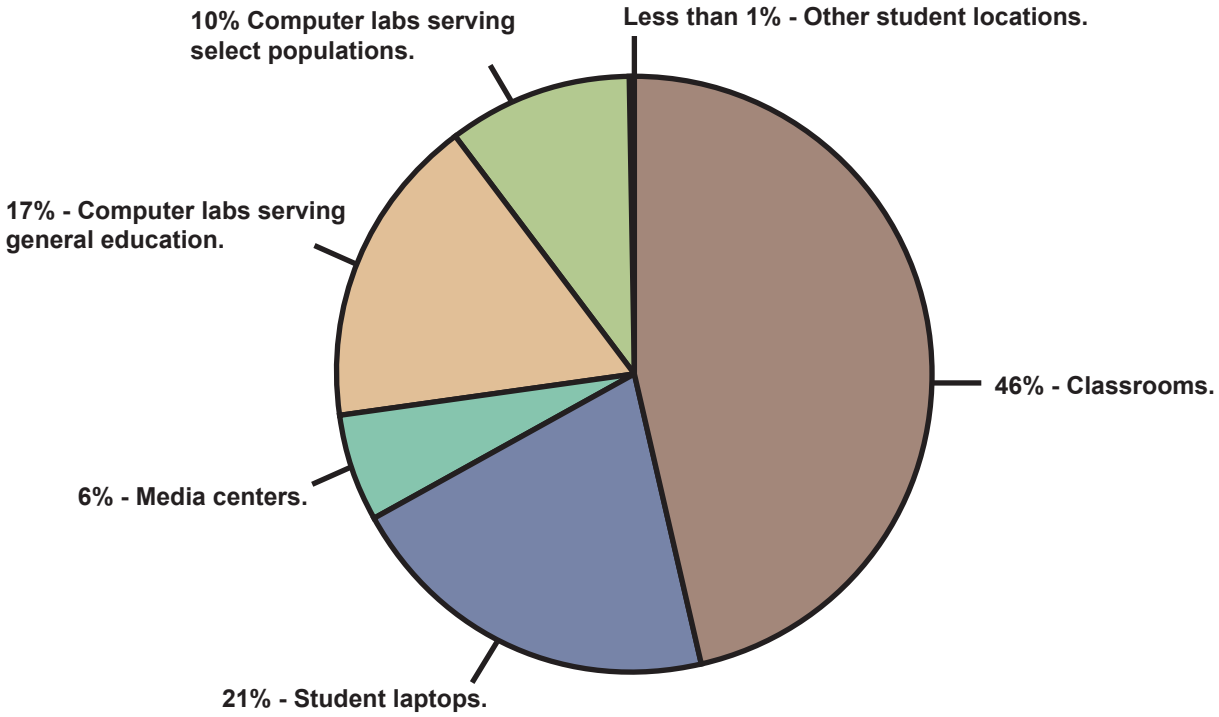

Figure 3: Locations of modern computers for student use.

Digital Learning Environment

The optimal digital learning environment requires that technology be integrated throughout the teaching and learning process in all curricular areas. Technology integration in the curricula entails the teachers' and students' seamless use of technology as a tool to accomplish a given task in a disciplined study that promotes higher-order thinking skills. The goal of all districts has been to have all schools effectively and fully integrate technology. On average, districts report that approximately one-third of their schools have met this goal: elementary (33%), middle/junior (32%), and high schools (32%).

Software Available on Student Computers

More than 90% of schools report having the following application software on more than half of their student computers: basic and robust word processing, spreadsheet, and presentation software (see Figure 4). The majority of schools also reported that 50% or more of their student computers had general reference tools, FCAT/standardized test preparation tools, integrated learning systems, content specific tutorials, and graphics software. Less than 25% of the schools reported having video editing, content specific simulation, and web authoring tools installed on more than half of the student computers.

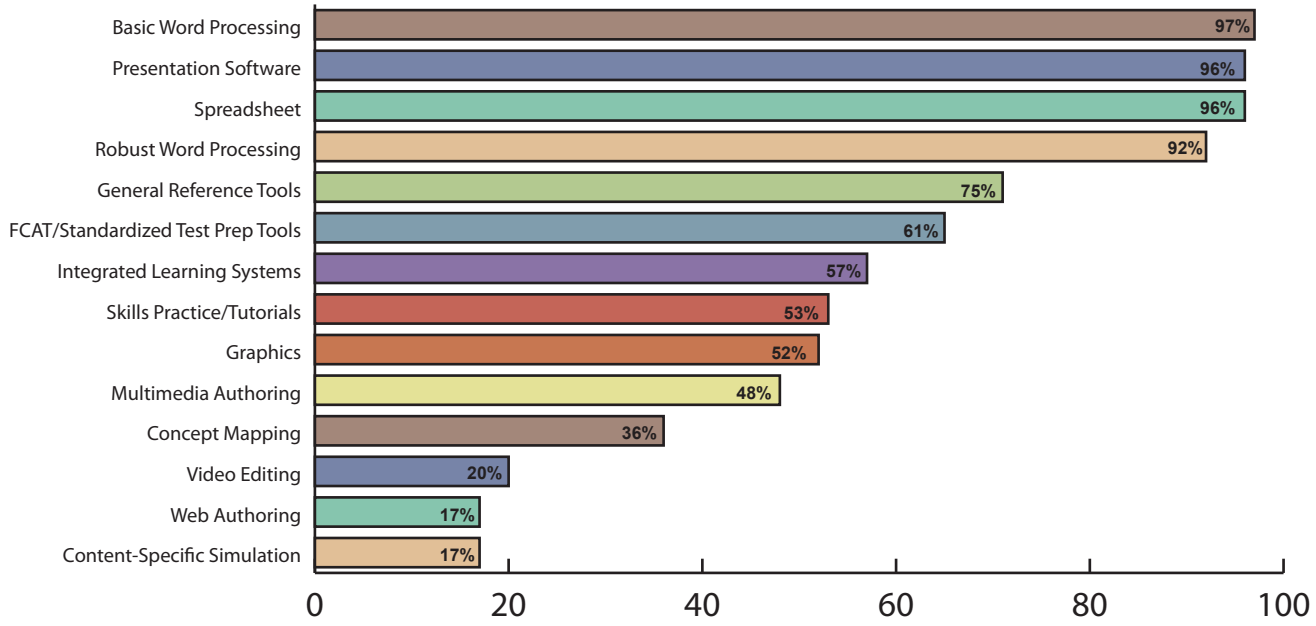

Figure 4: Percent of schools reporting having more than 50% of student computers with software available by software application.

Student Use of Software

Regarding frequency of use, over 50% of the schools in Florida report that for several days or more per week their students use electronic research information sources, integrated learning systems, drill and practice software, and tool-based software (e.g., word processors, spreadsheets) (see Figure 5). Approximately 50% of schools report that simulation software (e.g., Sim city), multimedia (e.g., desktop video), and presentation software (e.g., PowerPoint) are used less than weekly.

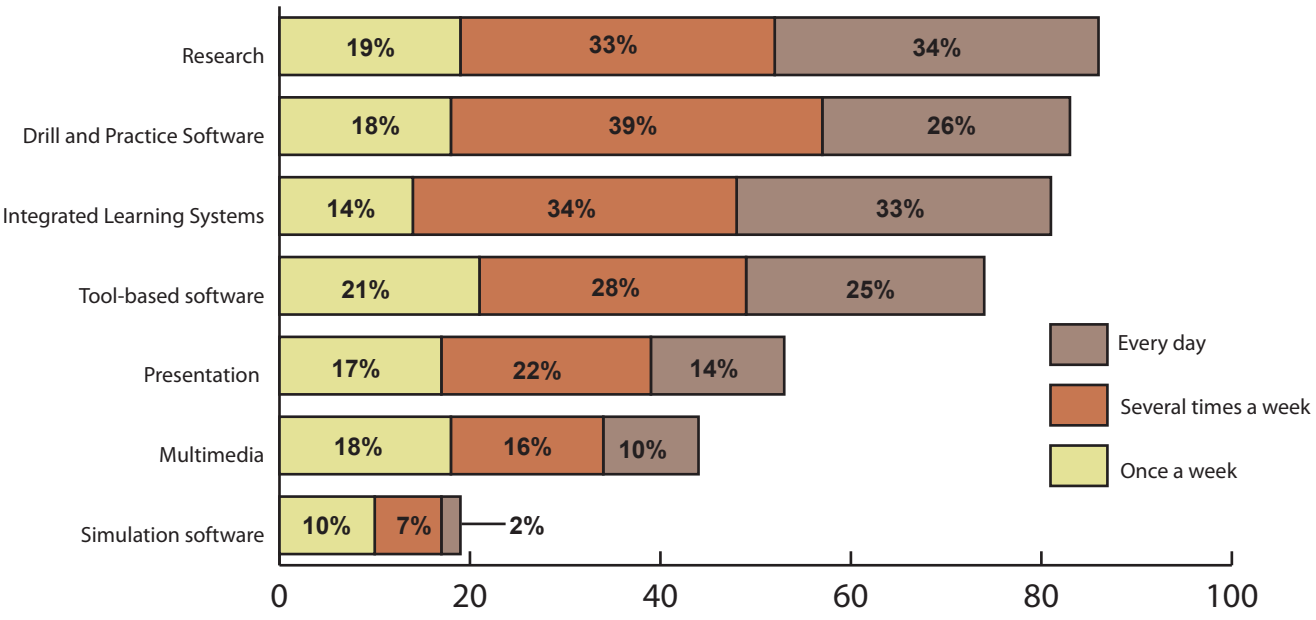

Figure 5: Percent of schools reporting frequencies of students using technology for various purposes.

Evaluation of Student Technology Literacy

The Florida Department of Education defines Technology Literacy as the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century. To adequately assess the technology literacy of students, Florida schools use a variety of methods; therefore, schools were asked to designate all of the methods that they use. Observations by teachers (89%) are the most frequently reported method for schools to assess the level of student technology literacy, followed by performance assessments (55%), objective assessments (42%), self-assessments (31%), surveys (29%), and portfolios (25%), as shown in Figure 6. Only 8% of schools report not using any of these methods to assess student technology literacy.

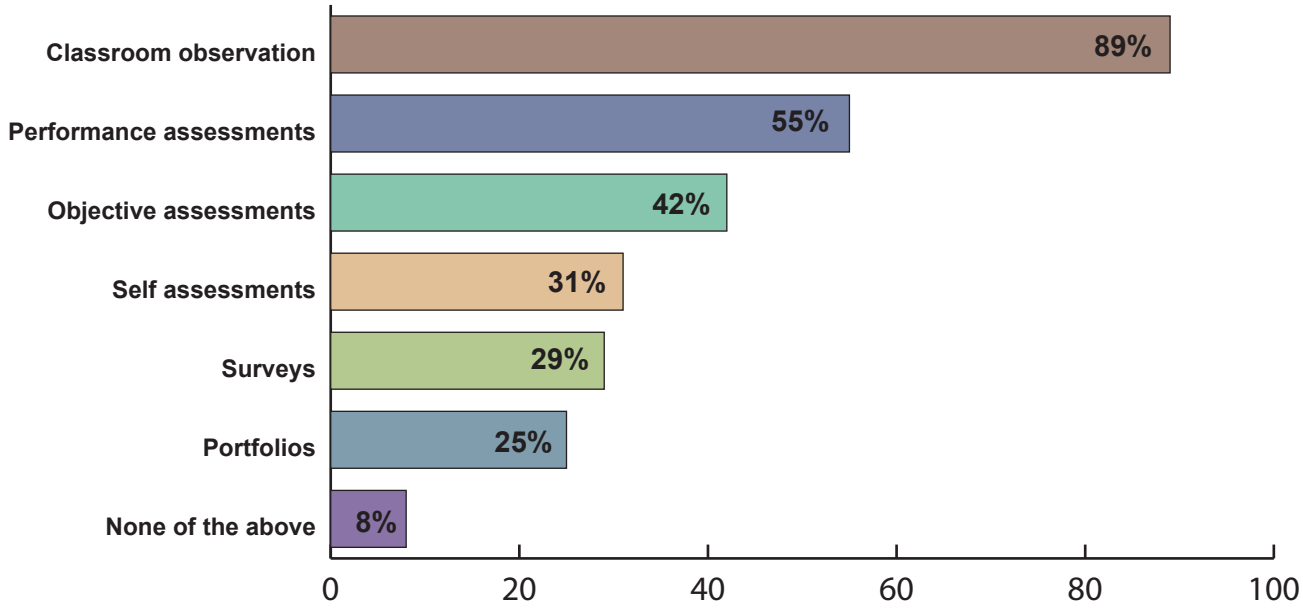

Figure 6: Percent of schools using various methods for assessing technology literacy of students.

Florida Digital Educators

Teacher Use of Technology

As shown in Figure 7, the majority of schools report that more than half of their teachers regularly use technology for email communication with other school or district staff (98%), administrative tasks (lesson plans, grade book, reports, and attendance) (97%), analysis of student assessment information (88%), and research (79%). Fifty percent or more of schools also indicated half of their teachers use technology for the delivery of lessons (63%), email to students or parents (51%), and for presentations (54%). Schools report less frequent teacher use of webpage publishing (15%), desktop video production (9%), and video conferencing (3%) software.

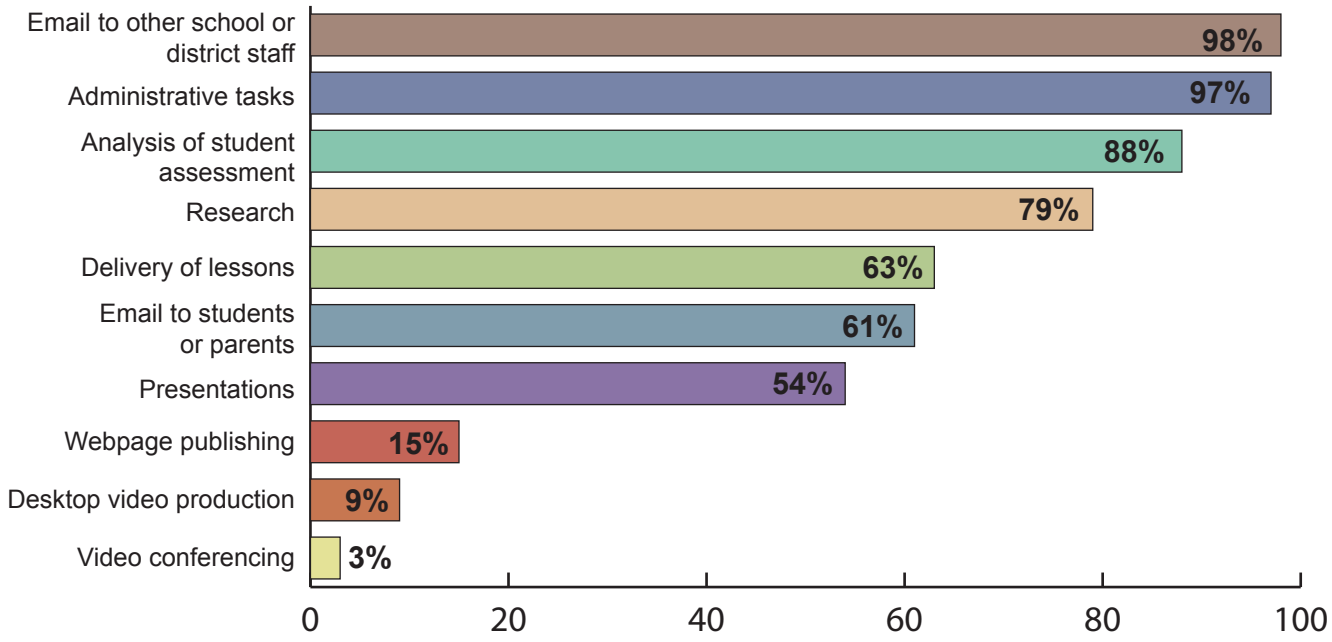

Figure 7: Percentage of schools reporting more than 50% of teachers using technology for a variety of purposes.

Districts classified their teachers by their most common instructional use for technology (see Figure 8). In the typical school in Florida, 44% of teachers use technology most commonly to deliver curriculum content and students work independently on drill and practice and 24% of teachers most commonly direct students in the conventional use of tool-based software, such as word processing, graphic organizing, or designing presentations and spreadsheets.

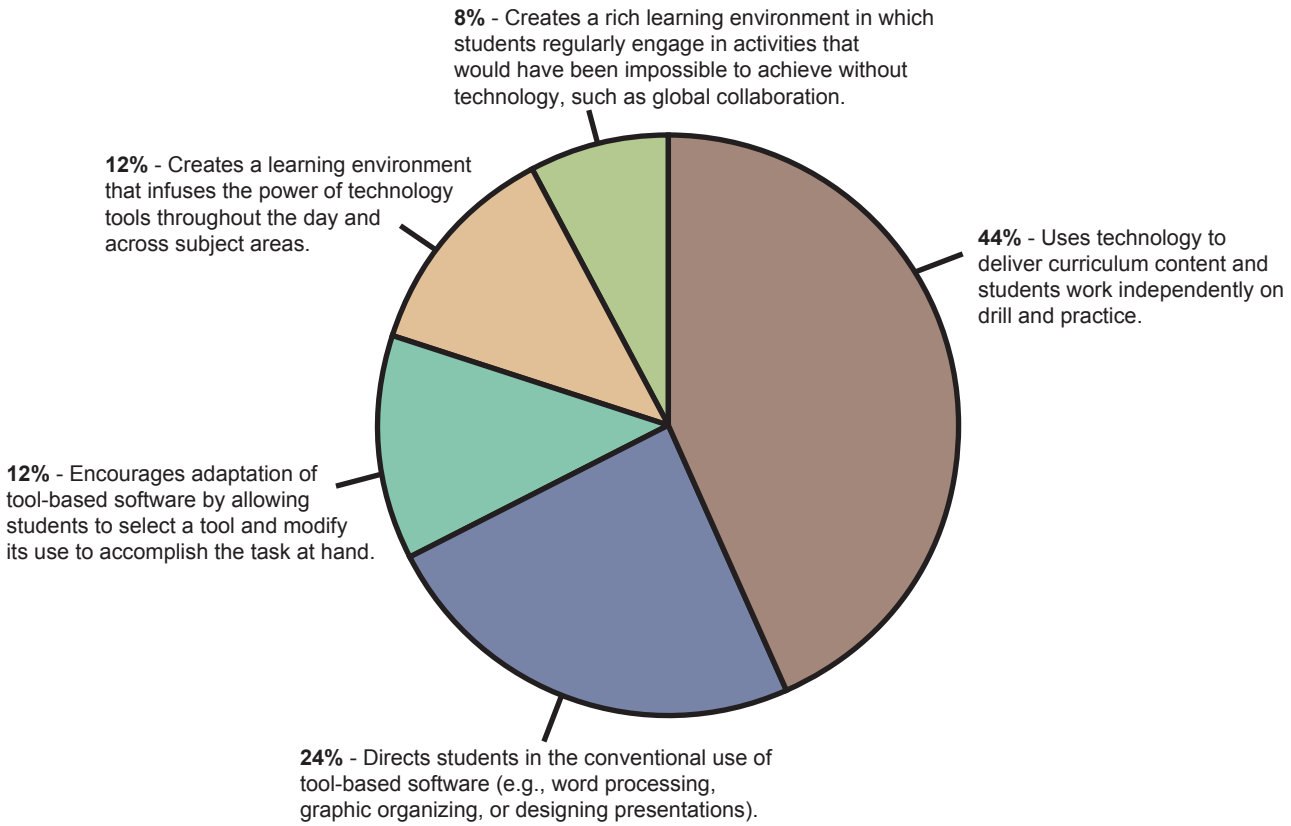

Figure 8: Most common instructional use for technology by teachers.

In examining each instructional method that teachers use with technology separately, 73% of schools report that more than half of their teachers use technology as a supplement to instruction. More than half of Florida schools report that 50% or more of their teachers use technology as a tool occasionally within curriculum areas, for providing instruction, and as a method for delivering instruction (see Figure 9).

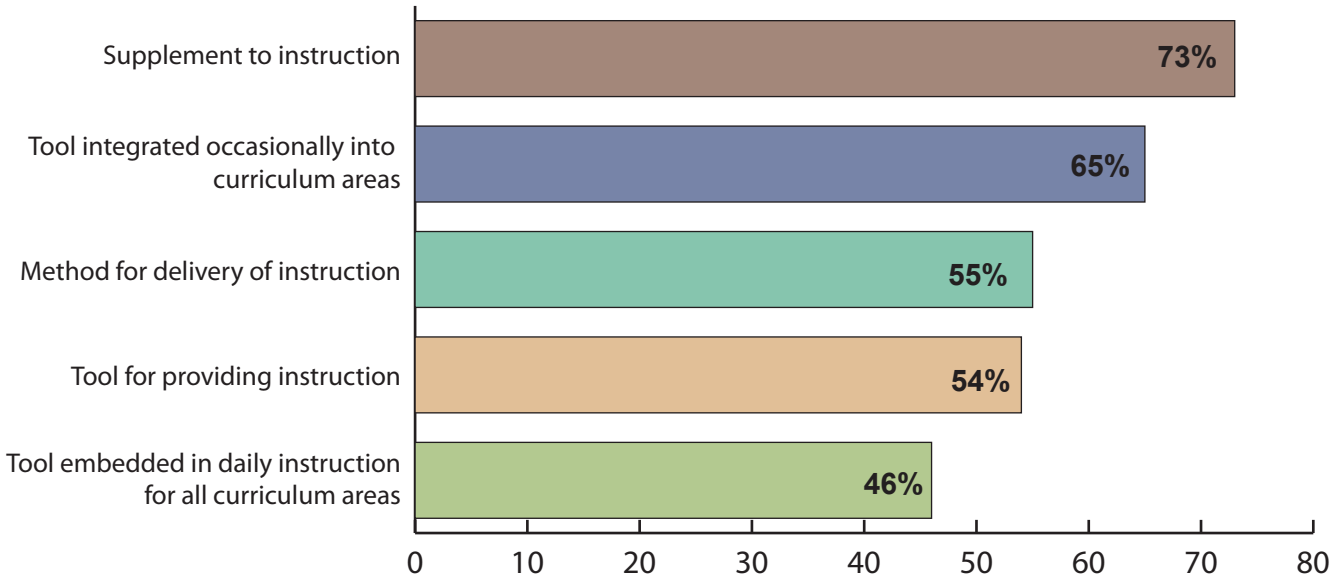

Figure 9: Percent of schools reporting more than half of their teachers are using technology in various instructional methods.

Professional Development

To effectively and seamlessly integrate technology, educators need support and professional development. All schools were asked to report the number of educators (and the percentage of personnel in each job category) who were involved in technology-related professional development opportunities. During the 2007-08 school year, in a typical school in Florida, the following percentages of educators in each position participate in technology related training opportunities: library and media specialists (84%), administrators (77%), technology specialists (74%), and teachers (69%), as shown in Figure 10.

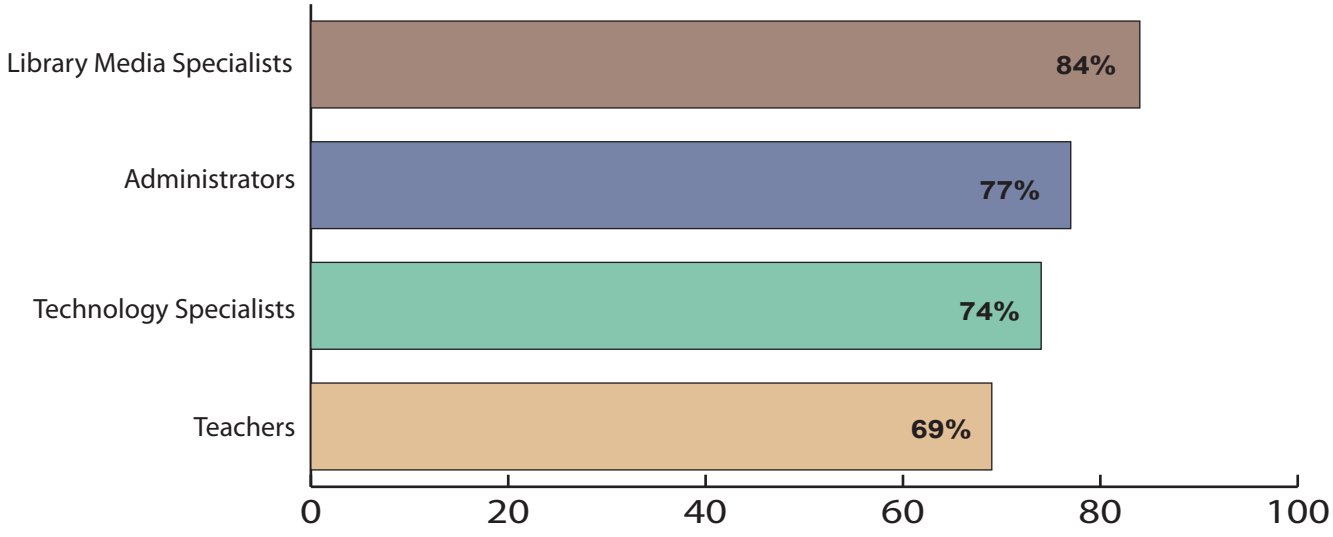

Figure 10: Percent of educators in a typical Florida school, who were involved in technology related professional development by job category.

Schools can determine technology-related professional development needs through a variety of methods; therefore, school districts were asked to designate all methods that they used to determine their need. Approximately 82% of school districts report that professional development needs were software specific; about 66% of the school districts used the Inventory for Teacher Technology Skills and 57% used the School Technology Resources Survey to determine their needs. Districts based their technology-related professional development opportunities on a variety of models (see Figure 11). Nearly half of professional development opportunities use hands-on instruction.

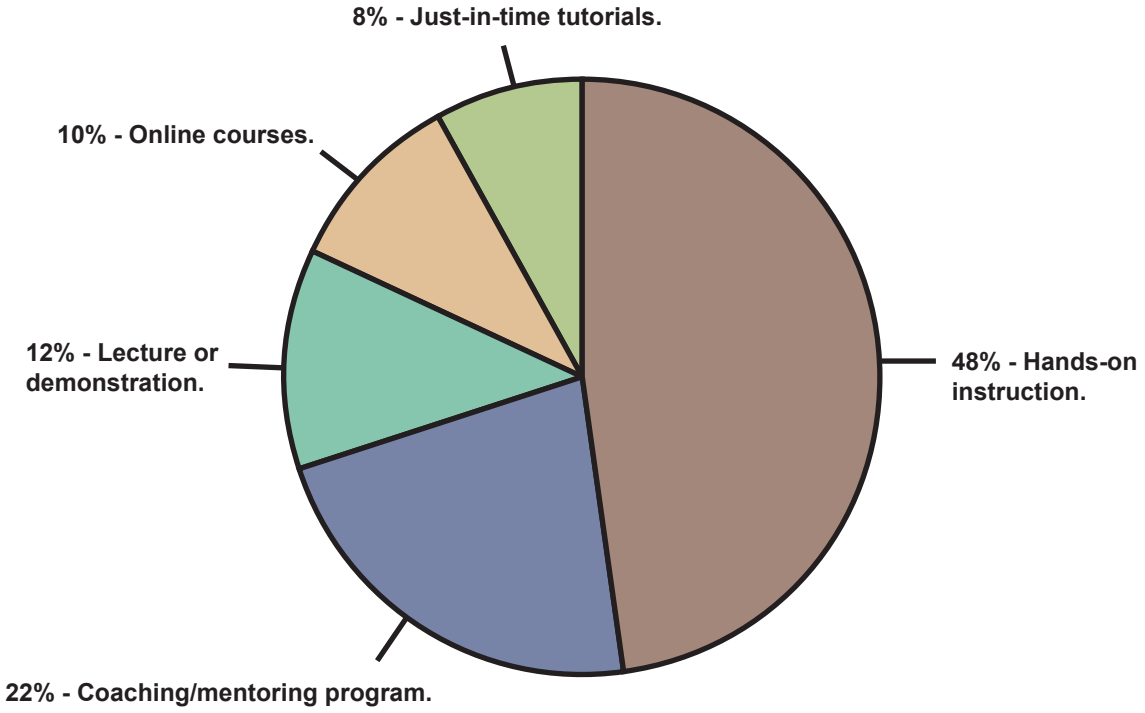

Figure 11: Instructional models used for professional development opportunities.

During the 2006-07 academic year, teachers had a variety of training opportunities offered (see Figure 12). The two most commonly offered training opportunities were for administrative and management applications (e.g., grade books, lesson planning, record keeping, IEPs, data management systems, etc.) (30%) and the integration of technology and curriculum (27%).

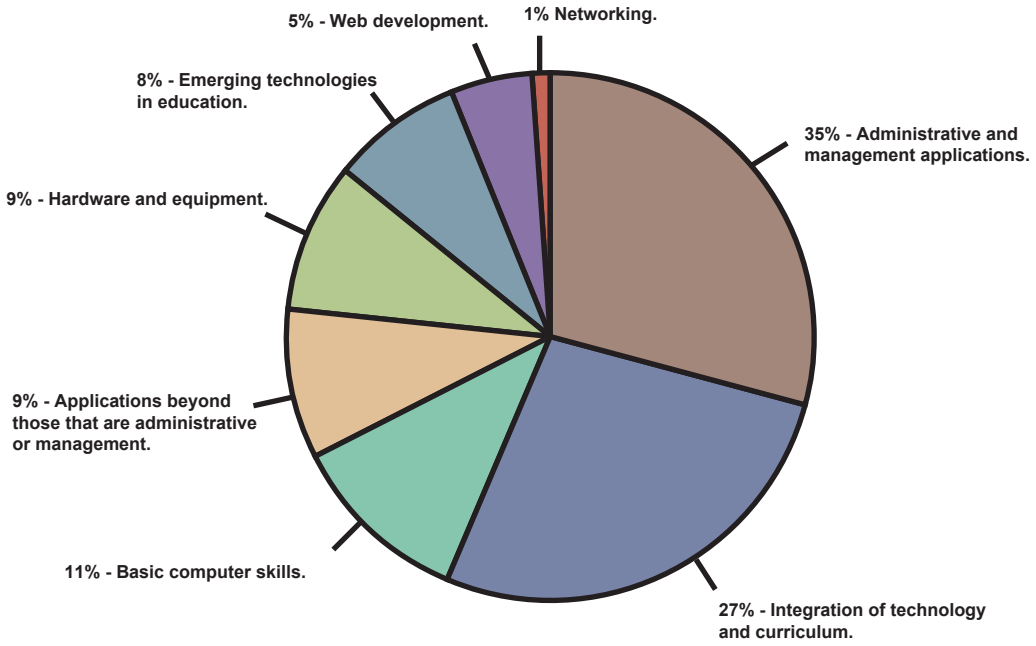

Figure 12: Training opportunities in various technology areas available to teachers during 2006-07.

21st Century Skills

The 21st Century Skills section of the survey was designed to gauge the readiness of schools and teachers for digital classrooms in which digital materials are used as opposed to traditional printed materials. Schools report that approximately 58% of their teachers are prepared to teach with digital instructional materials. When asked to cite the single largest barrier to the digital classroom, 35% of schools indicate the number one barrier is access to digital devices for the delivery of instruction (see Figure 13). The barrier that schools relate second most frequently is the readiness of teachers (28%).

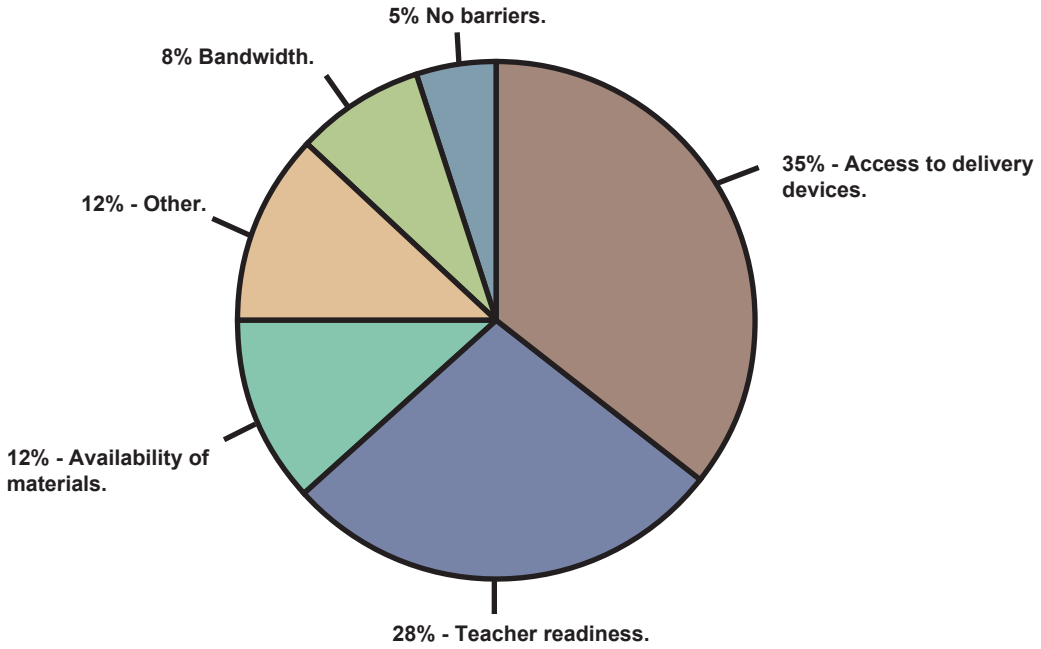

Figure 13: Barriers to implementation of digital classrooms.