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TECHNOLOGY IN TODAY'S ABE CLASSROOM

A LOOK AT THE TECHNOLOGY PRACTICES AND PREFERENCES
OF ADULT BASIC EDUCATION TEACHERS

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WORLD EDUCATION

Introduction

Love it or hate it, technology remains a significant issue for the adult basic education (ABE) system in the United States today. Even though the investments in educational technology in ABE do not come anywhere near those of our elementary, secondary, and post-secondary education systems, most ABE programs today use technology in some way, and many programs—and states— have made significant investments in the field's technological infrastructure.

As an organization that provides technical support and training to the ABE field, we have seen firsthand the increase in technology use in programs across the United States. What has been less clear to us, however, is how that

Many of the most popular uses were consistent with what educational technology proponents have long-cited as effective practices.

technology is actually being used by teachers in their everyday practice, what teachers *want* to use it for, and what kinds of supports and professional development are perceived to be valuable in achieving these goals. Thus, in the winter of 2003, we embarked on a regional survey of the states in the northeastern U.S. (where we are located and have the most experience), in order to gain some insights into these questions. The purpose of this survey was primarily to help us understand how to direct our own services better, but we also recognize that this information may be of value to others in the field. While this was not a rigorously scientific survey, it is the only one we know of to look at these questions on a

large-scale, regional, multi-state level. We are convinced, moreover, that these questions should be addressed by any serious educational technology policy and research initiatives in adult education.

In all we received surveys from 482 teachers and 129 ABE programs across 11 states (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland) and Washington DC.

We asked teachers to identify the type of program in which they taught (community-based organization (CBO), local education agency (LEA), public library, community college, work site, family literacy center, corrections institution, or other); learner-level taught (beginning literacy, beginning ABE, intermediate ABE, advanced ABE, ASE/GED/adult diploma, beginning ESOL, intermediate ESOL, or advanced ESOL); as well as the number of total years they have been teaching in adult basic, GED or ESOL education. We deliberately surveyed only those programs that had paid teaching staff.

We also provided separate surveys for program directors (or their equivalents), in order to learn more about their perspectives on technology planning and ongoing support for technology. (For a more detailed description of our methodology, see page 2.)

A Glass Half Full, or Half Empty?

Surveys of this nature can either seem encouraging or discouraging, depending on your perspective. In general we found that teachers are using technology in a wide variety of ways. And, encouragingly, many of the most popular uses were consistent with what educational technology proponents have long-cited as effective practices, such as using

technology to support collaboration and teamwork. (Interestingly, however, teachers appear to prefer non-technical modes of professional development for learning about technology and teaching.)

However, while it is exciting that teachers are using technology in so many interesting ways, it is sobering to see that well over a decade after the personal computing revolution, few teachers reported feeling highly proficient in many common educational uses of technology. In terms of barriers, while lack of up-to-date equipment and access to tech support are still cited, the most significant barriers appear to have more to do with a lack of time—especially paid time—for teachers to learn about technology, or make it a priority.

To take advantage of technology's potential, adult educators, program directors,

and policymakers need to critically assess the performance of the array of technology-related practices, the quality of learning that they support, and the assistance and training needed to sustain them. It appears from our survey that adult educators have significant preferences as to where they want to go with technology. Are the preferences identified here a true reflection of the field at large? Do these practices increase the quality of learning in ABE? If so, how do we support those practices? And are these practices consistent with the perceptions and priorities of policymakers? The answers are beyond the scope of this report, but we hope that these questions—and others raised here—will stimulate fruitful discussion among the entire adult education community.

Methodology

Technology in Today's ABE Classroom is a public report based on data from two interrelated surveys of adult literacy programs conducted throughout the northeast U.S. during the winter of 2003. These surveys were designed, tabulated, and analyzed by World Education staff.

The purpose of these surveys was essentially market research. World Education's work in technology and adult literacy in the U.S. has centered around states and programs in the northeast, and this survey was designed as an opportunity to obtain a more thorough understanding of technology use in the region to help guide our own program support efforts. It was not a rigorously scientific survey and should not be seen as one. Nonetheless, because there is a disappointing lack of current data on technology use among adult education practitioners and programs at the national or regional level, this survey may suggest trends or raise questions that will inspire further scrutiny.

When we looked for program directories, we found that several states only have directories of programs supported through federal/state funding. Thus the decision was made to focus only on federal/state-funded programs. Programs providing instructional services solely through volunteer tutors were also screened out; we reasoned that both staff development and access to technology would be quite different for volunteers than for paid teaching staff. A random number generator was then used to select approximately 40% of those programs (428 of 850) to mail surveys. (In order to help ensure that each state would provide enough returned surveys to analyze, it was decided to mail surveys to every program in states where there were 30 or less potential programs on that state's list.)

A total of 129 program surveys (30%) and 482 teacher surveys were returned.

Tools of the Trade

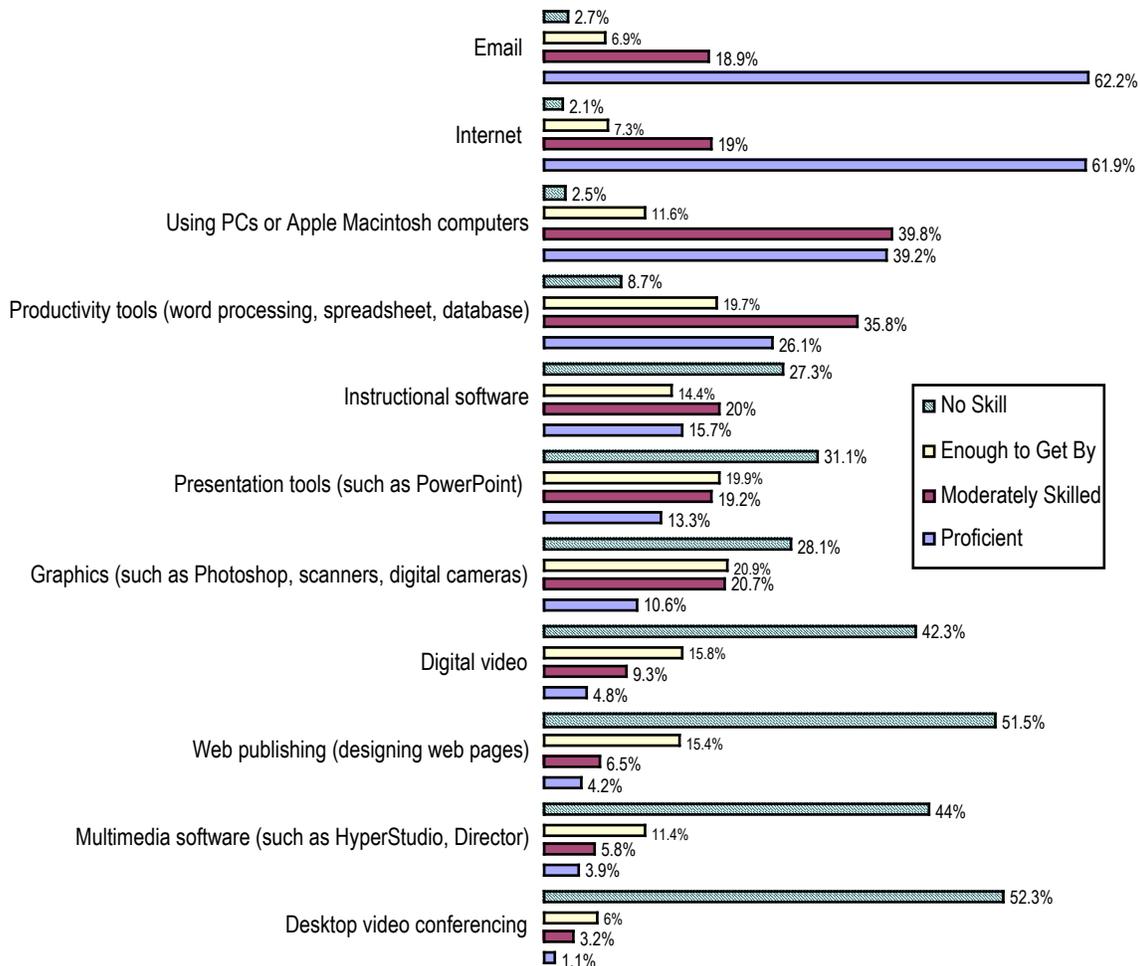
Interestingly, teachers responding to our survey are far and away more confident accessing the Internet and using e-mail than they are with the general use of PCs themselves.

Our respondents also tended to claim superior proficiency with everyday applications (e-mail, Internet, word processing) than with instructional software. It is important to note that the lack of perceived proficiency with instructional software may be the result of a real or

perceived lack of opportunity to access a wide variety of instructional software products. Applications such as e-mail and word processors are nearly ubiquitous and are often part of users first orientation to computing.

Fewer than one in ten teachers responding to our survey felt proficient in high-end uses of computer technology, such as digital video, multimedia, or desktop video. More than half of the respondents claimed no skill at all in either Web publishing or desktop video.

Tech-Savvy: How ABE Teachers Assess Their Own Technology Skills



Technology at Work

When we asked teachers to identify how they use technology on the job, only three choices received affirmative responses from more than half the teachers responding:

- Using technology to create lessons
- Using technology for drill and practice skills
- Accessing lesson plans on the Web

In all three cases, one could argue that these practices tend to emphasize the timesaving or labor-saving aspects of technology more so than innovative teaching practices. Of course, time- and labor-saving is probably one of the main reasons people use technology in the first place. But this does raise a question about our expectations for technology: are we expecting innovation, or efficiency? Or both?

What is most interesting and exciting, perhaps, is the high number of respondents who reported using technology to help students create products or conduct research. This was cited even slightly more often than using educational software. Moreover, other uses of technology that educational technology experts recommend (using technology to support collaboration, using models and simulation, electronic field trips) were cited by at least one out of every five teachers.

Somewhat surprising, perhaps, was the last-place showing of distance learning, which, despite its high profile, does not appear to involve many adult education teachers at this time.

Generally, whatever the use of technology, teachers with more years of teaching experience were more likely to cite it as part of their practice. In fact, teachers with more than ten years of experience cited every one

of these uses as much or more often than those with 0-2 years of experience.

Also not surprising: Teachers who considered themselves “proficient” technology users tended to cite all of the different uses of technology in our survey at a higher rate than others. Among those who saw themselves as having just enough skills to get by, or no skill whatsoever, the use of so-called “drill and practice” software was their most likely choice (at 64% for the “enough-to-get-by” folks and 45.5% for those citing no technology skills at all.) Thus an interesting set of questions arises. First, putting aside one’s opinion about the utility of drill and practice software itself, why would teachers with limited tech experience be more likely to choose this use of technology ahead of others? Is it because it is simple to use, or because they have more limited expectations about what technology can do? Second, how effective are these products for learners if implemented by teachers who claim to have very limited tech skills?

On the other hand, there were few indications from this data that the type of ABE program in which a teacher works (CBO, LEA, etc.) has a significant impact on their choice of technology use. One exception: the use of drill and practice software, which was cited significantly more often by teachers working in community college settings (70.6%) and teachers working in correctional facilities (82.1%).

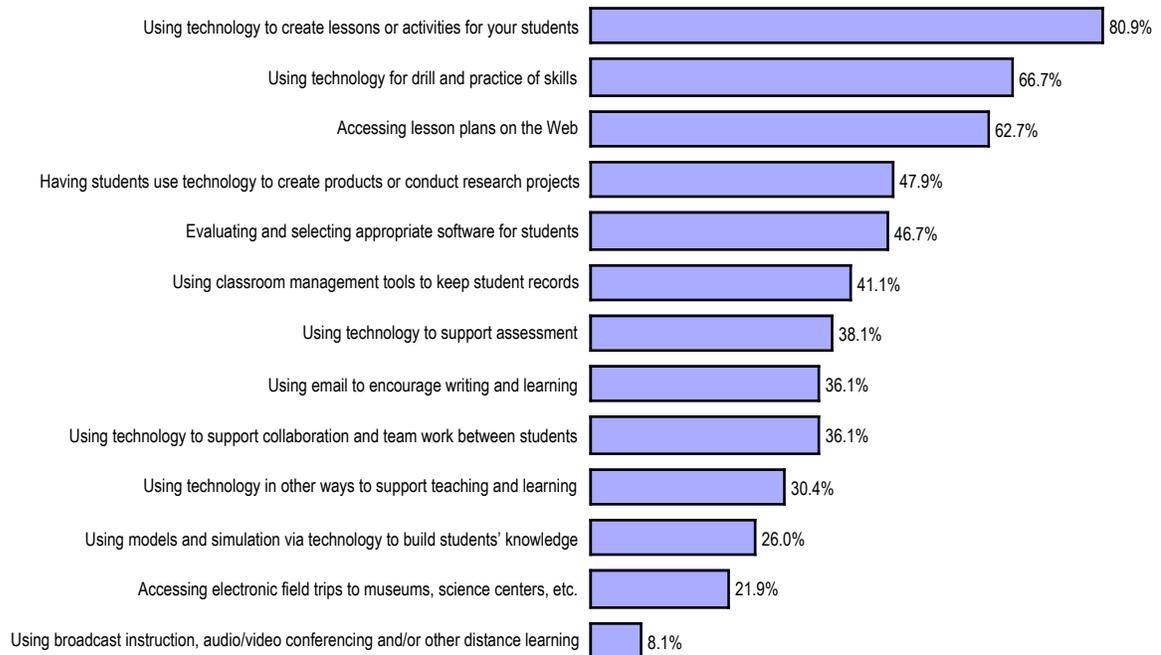
Similarly, the number of hours per week spent teaching was generally not a good predictor of whether a teacher was more or less likely to choose a particular technology use, although generally, teachers who teach more than 20 hours per week cited all of the uses included in the survey as much or more

often than those who taught only 1-4 hours per week.

Most surprising, no clear relationship emerged between learner level taught and

technology practices, although teachers who taught at the beginning levels—either ABE or ESOL—were generally less likely than other teachers to be using any of these technology practices.

How Teachers Use Technology



About World Education

Based in Boston, World Education is a nonprofit organization providing training and technical assistance in non-formal education around the world, with a special emphasis on adult literacy, small enterprise development, and maternal and child health. World Education's **Literacy Division** strengthens the ability of programs, organizations, and communities in the United States to serve adult learners. We work with practitioners and programs to help adults improve their basic education or English language skills. We train teachers, program managers, and community leaders in proven approaches and share research findings that can inform practice. We also identify and support potential leaders within the adult literacy community. The Literacy Divisions' technology work is designed to support standard uses of technology in adult literacy instruction while identifying and encouraging other promising approaches, especially those that support learner-centered teaching practice.

Technology Training

Not surprisingly, teachers responded favorably to the possibility of training in nearly every technology use included in the survey.

Many of the most popular uses cited by teachers were also among the uses teachers expressed interest in when asked about training. This suggests, not surprisingly, that teachers may often desire further training in technology practices they are already using.

One notable difference in responses was between those who identify themselves as skilled technology users and those who feel

much less skilled. For example, the top four uses of technology chosen by teachers who identified themselves as proficient technology users were almost entirely different from those teachers who identified themselves as having just enough skills to get by.

But whatever the use, in most cases, teachers who reported less skills with technology expressed the most interest in technology-related training. However, roughly half of all respondents who considered themselves proficient users also expressed interest in training.

Training Needs: What Teachers Want to Learn More About



Proficient Users

Of those who responded, the top four choices:

Use models and simulation via technology to build students' knowledge	67.0%
Use technology to support collaboration and teamwork between students	63.5%
Have students use broadcast, audio/video conferencing and/or other distance learning	61.5%
Have students go on electronic field trips to museums, science centers, etc.	61.4%

Users with "Enough to Get By"

Of those who responded, the top four choices:

Use technology to create lessons or activities for students	82.8%
Access lesson plans on the Web	80.8%
Have students go on electronic field trips to museums, science centers, etc.	76.9%
Help students use technology to create products or conduct research projects	76.0%

Using Technology for Professional Development

Teachers responding to our survey do not extensively use technology to access professional development opportunities. *Sixty percent* of our respondents reported never having done so.

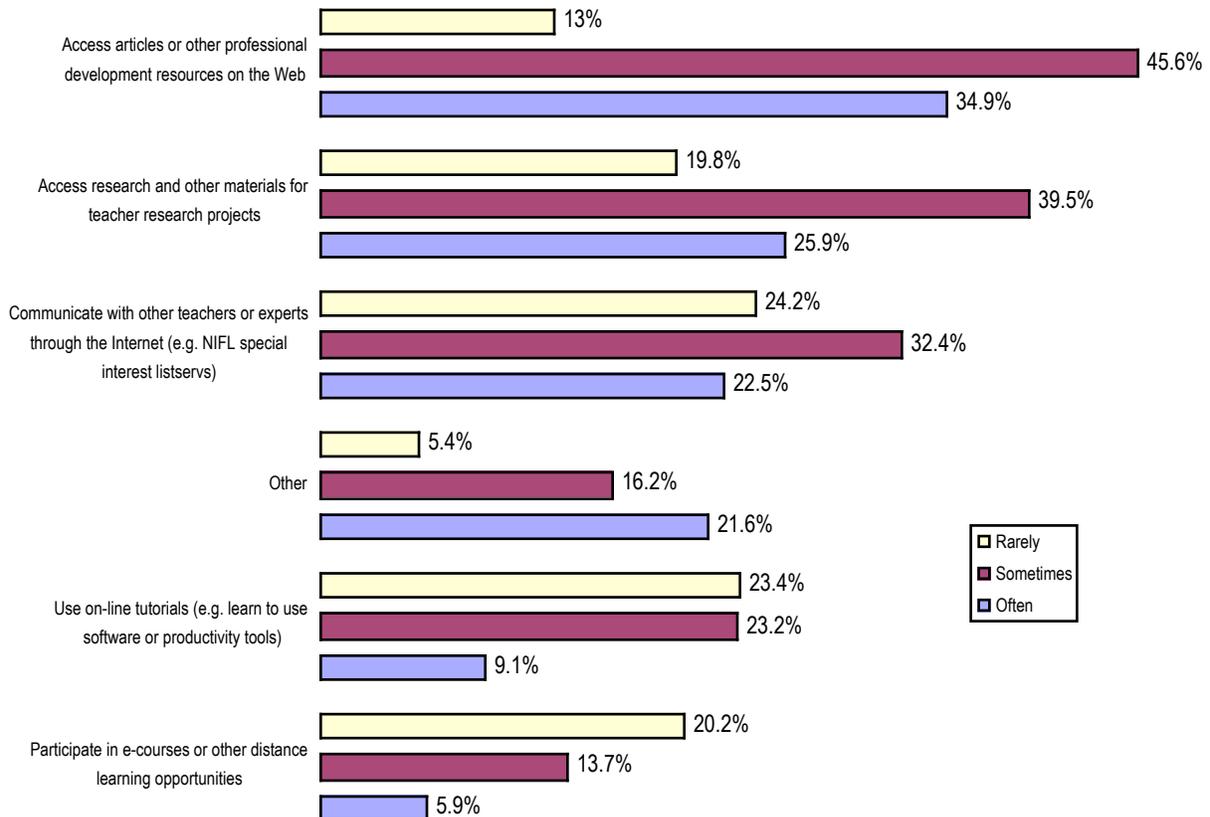
For those that do, the most popular uses of technology for this purpose tend to be those that can be accomplished quickly, and independently, such as accessing articles or research.

The most frequently cited form of interactive or collaborative professional development using technology is the use of the Internet to communicate with other

teachers, such as through an e-mail discussion group. And yet, even here, less than 25% of our respondents say they do this often.

The lowest use cited in our survey is participation in e-courses or distance learning. Only 5.9% reported doing this often. Although, if one assumes that the 20.2% who responded "rarely" on this question have participated in at least *one* e-course or distance learning activity, then perhaps this result is not quite as discouraging. Still, distance learning and e-courses are clearly not a widespread use of technology for professional development at this time.

How do Teachers Use Technology for Professional Development?



Tech Aid: How Are Teachers Supported?

Many teachers appear to be out of the loop when it comes to technology funding at their program. More than 40% of the

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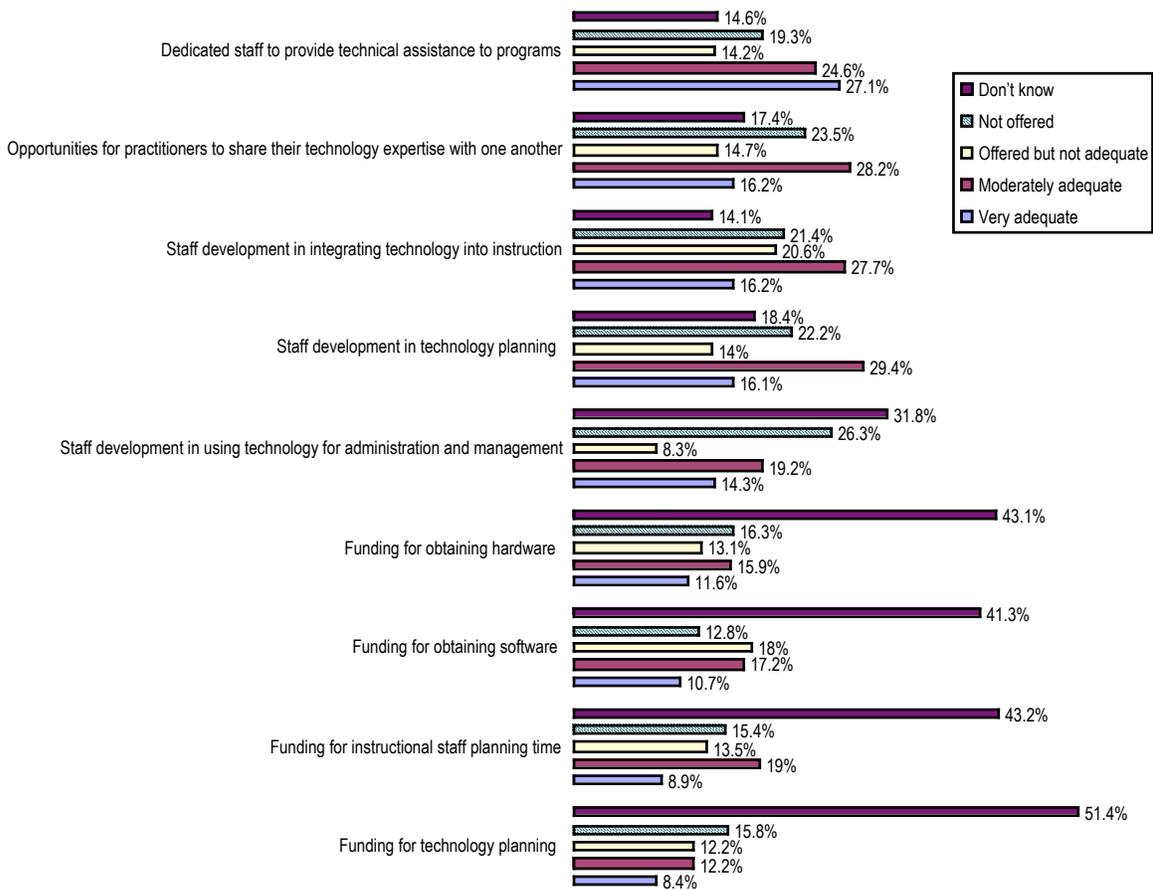
teachers who responded to our survey did not know whether funding for hardware, software, or instructional staff planning time

was adequate at their program. More than half did not know if funding for technology planning was adequate.

Also significant: among the supports they are aware of, rarely do teachers perceive those supports as being even *moderately* adequate. Surprising perhaps, funding for software was second only to staff development in terms of dissatisfaction.

One encouraging note: technical assistance staff was rated as very adequate more often than any of the other choices.

How Teachers Rate Their Program's Tech Supports



Increasing Skills

What kinds of training have teachers received in order to increase their technology skills? And which kinds of training models do they prefer?

Few teachers had participated in technology-based forms of training (the use of electronic networks for sharing resources and expertise, or distance learning courses).

We asked teachers to indicate whether they had experience with any of ten different training models. While there were no runaway hits, several favorites emerged. A less-than-one day workshop, for example, is not only the model that most of our respondents have participated in, it also remains among the most popular. On the other hand, the number of teachers who expressed interest in this model was significantly less than the number of teachers who had participated in this kind of training at least once. Interestingly, the workshop series, with time in between to

practice, was the most popular choice among those responding to this question, although fewer teachers have participated in this type of model. The third most popular model is teacher-sharing sessions.

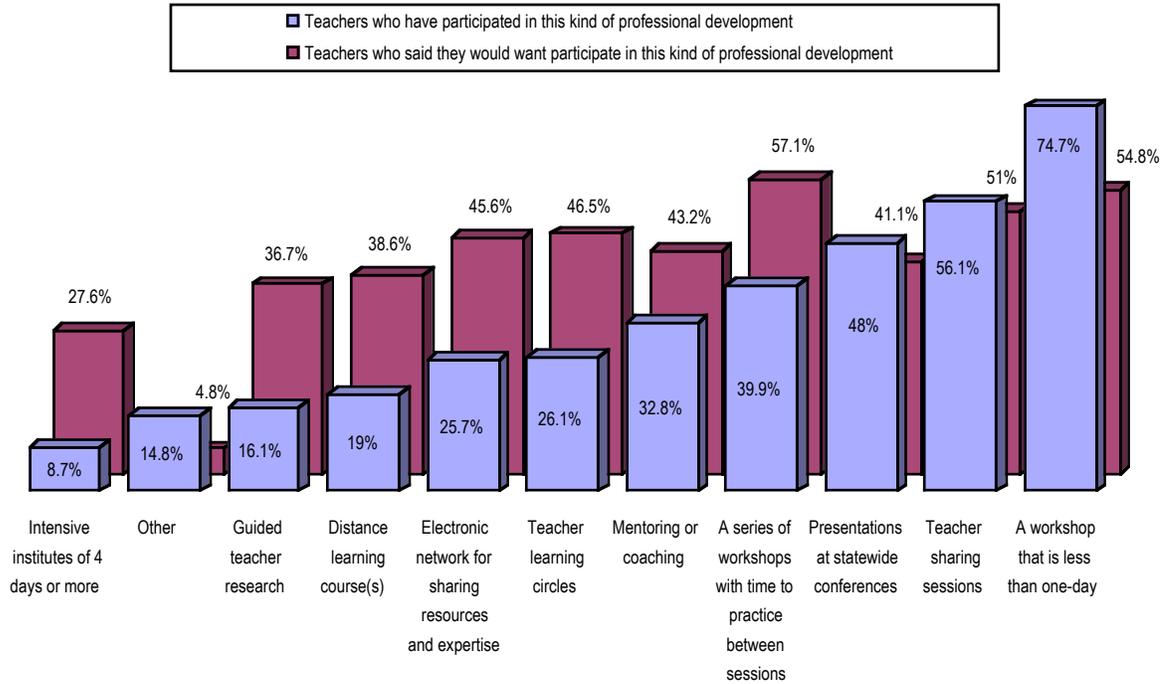
Few teachers had participated in technology-based forms of training, but among those who were interested in this option, the use of electronic networks for sharing resources and expertise with other teachers was cited more often than distance learning courses.

Overall, there was at least *some* interest in most of the training models suggested, which implies that a wide number of approaches are viable. Nonetheless, it also appears that teachers tend to value face-to-face models over virtual, technology-based models.

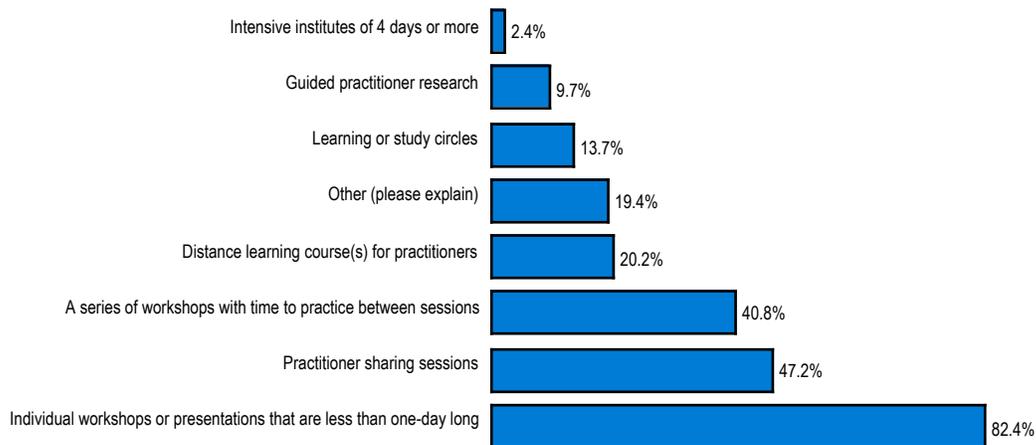
When we asked program directors about which of these models of staff development had been offered recently, we found that the largest gap between teacher interest and what program directors cited as being offered is the workshop series model. While the workshop series model was the most popular among teacher respondents, only about 40% of program directors said that they had offered this kind of staff development.



Models of Staff Development: Practices and Preferences



According to Program Directors' responses, these are the models of staff development they've offered within the last two years to help staff use technology.



Continuing Barriers

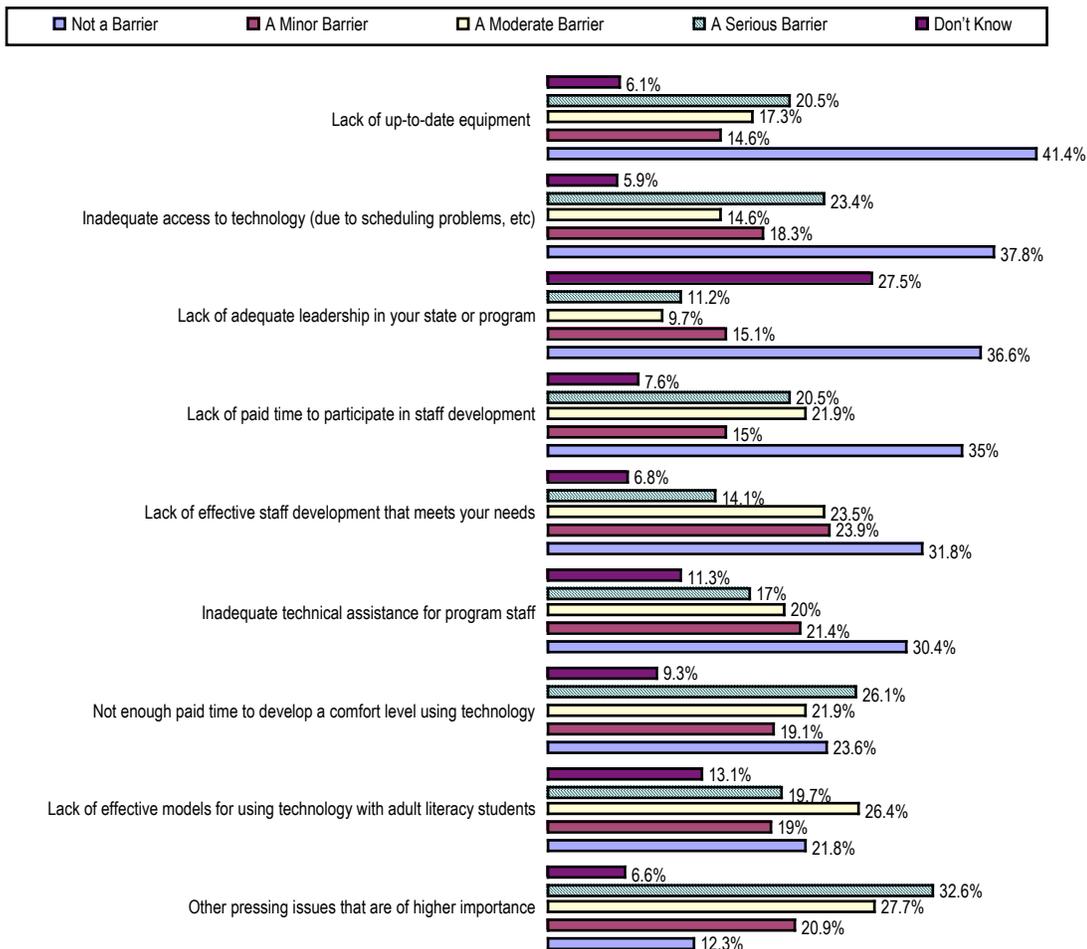
Despite the variety of uses ABE teachers have found for technology in their teaching practice, significant barriers remain.

We asked teachers about nine frequently-cited barriers and asked them to indicate whether these barriers were serious, moderate, minor, or nonexistent for them. Not surprisingly, lack of up-to-date equipment and access to tech support are still cited as barriers; what is surprising is that the most significant barriers (pressing issues of higher importance, inadequate access to the technology due to scheduling

issues, and lack of paid time to learn about technology), appear to have more to do with issues related to staff time, compensation and priorities. In other words, the most significant barriers cited are not specifically related to technology itself.

It's especially encouraging, perhaps, that more than 40% of the teachers surveyed do not see a lack of up-to-date equipment as a significant barrier at all, which implies many programs have been able to acquire a reasonable infrastructure for use by their teachers and learners.

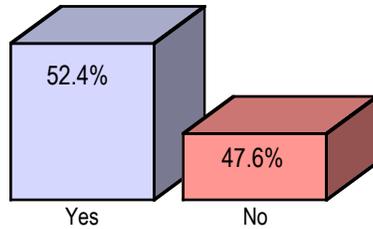
How serious are the Barriers?



Technology Planning

Only a little over half the program directors responding to the survey said that

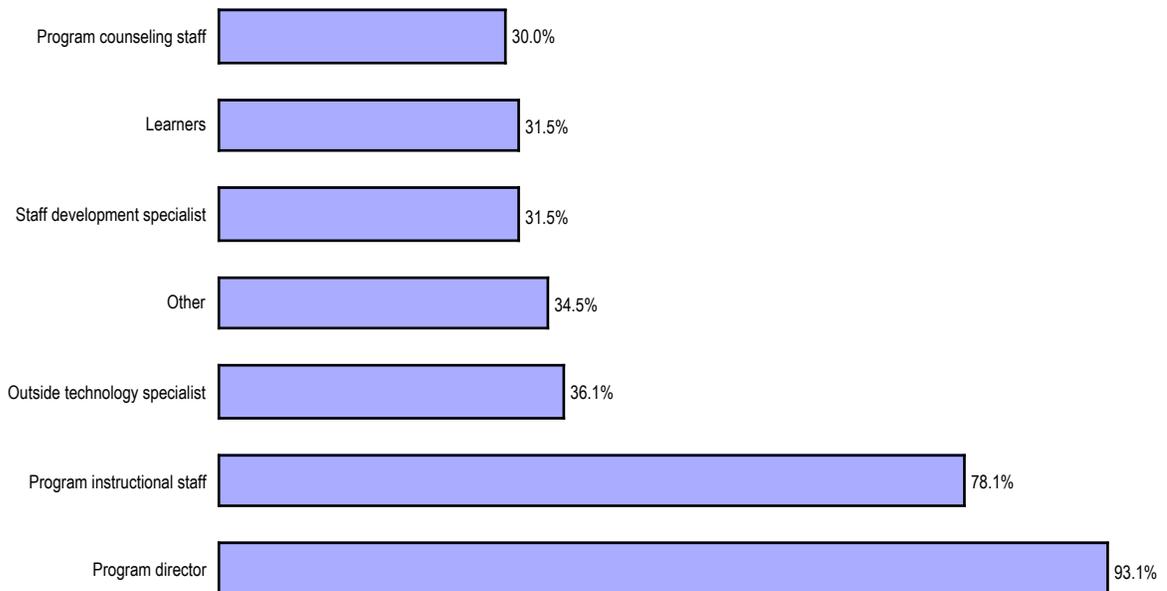
Program Directors:
Has your program developed a tech plan?



their program had developed a technology plan. Furthermore, when those plans were developed, the survey data indicates that program directors play a larger role in decision-making than other program constituents, although teachers were involved most of the time as well.

This data raises the question: how effective are those plans that do not have any involvement from other key program constituents? It is particularly discouraging to see only a third of the program directors cite learners as being involved in the process.

Program Directors: Who Was Involved In Developing Your Tech Plan?



Data for this report was compiled by World Education, with the generous assistance of state Adult Education leaders in the Northeast.