

# Digitally Inclined

## Teachers Increasingly Value Media and Technology

Teachers are increasingly positive in their use, acceptance and attitudes toward digital media and social networking, according to the seventh annual PBS survey on media and technology use. The findings for pre-K teachers—surveyed this year for the first time—mirror the strong interest of K-12 teachers in digital media and social networking.

The 2009 survey, conducted by Grunwald Associates LLC, revealed these key findings:

- A majority of teachers are using digital media, with applications including instruction, lesson planning, communications and professional development.
- Teachers who do use digital media value it and believe that it helps them—and their students—be more effective.
- Teachers continue to use video, but they increasingly access video online, rather than from broadcast, cable or videotape. And teachers are becoming more strategic in their media use and savvier about integrating it into their repertoire of instructional strategies and resources.
- Teachers value many different types of digital media, with games and activities for student use in school topping the list.
- Increasing numbers of teachers are joining virtual professional communities—and many are comfortable using social networking tools in their personal and professional lives.

The findings could herald positive changes in pre-K and K-12 education, including:

- More engaging, creative and collaborative learning environments
- New, different resources that support rigorous, inquiry-based learning and new tools for students to produce content and take charge of their learning
- More effective instruction for students with different learning styles and abilities
- More focused and flexible forums for collaboration and professional development, built around communities of interest and expertise, rather than around geography alone

PBS has conducted this annual survey since 2002, primarily to inform our internal decision making. We decided to share a select set of this year's findings that we think will be especially interesting and useful to educators, policymakers and the media industry as a whole.



Robert M. Lippincott  
Senior Vice President, Education  
PBS



### Defining Terms

**Digital media**—Newer multimedia content, such as Web interactive games, podcasts and lesson plans, usually created and/or accessed on digital devices—including computers, mobile devices, DVDs, CDs and the Web

**Social networks**—Online communities of people who share interests or activities

**Traditional media**—Conventionally delivered television, radio and other programming

## Key Findings

### Teachers' Use of Digital Media Increases Significantly

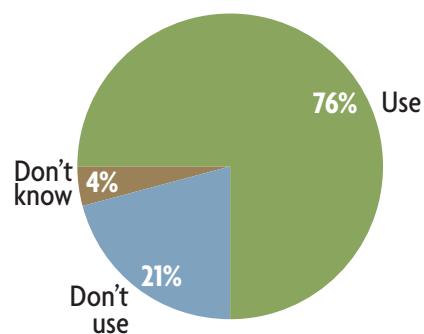
**At the K-12 level, a majority of teachers use digital media in their classrooms—and they use it often. Increasingly, they have ready access to technology in their schools and classrooms. Teachers are using technology to access traditional resources, such as lesson plans, videos and images, and new ones, including interactive simulations, student-focused multimedia and social networking sites. Pre-K teachers are less likely to use digital media in their classrooms—but those who do are as avid about it as K-12 teachers.**

More than three-quarters (76 percent) of K-12 teachers report that they use digital media in their classrooms, as shown in figure 1. This is up significantly from 69 percent in 2008. Eight in 10 of these teachers are frequent or regular users, with elementary teachers reporting the most frequent use. More than four in 10 teachers (44 percent) say they use digital media in their classrooms two times a week or more.

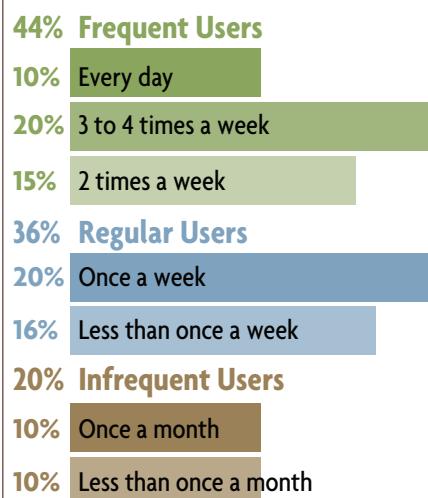
Classroom use of digital media by pre-K teachers is less common than it is among K-12 teachers, with only one-third (33 percent) reporting use, as shown in figure 2. Those who do use digital media, however, use it as much as K-12 teachers do. More than four in 10 (42 percent), in fact, use it two times a week or more.

Figure 1.  
**More Than Three-Quarters of K-12 Teachers Use Digital Media...**

**Use of Digital Media, K-12**



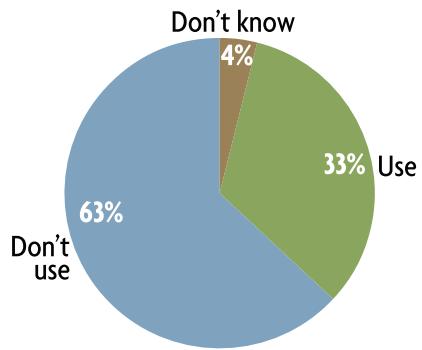
**... And Most of Them Are Frequent or Regular Users**



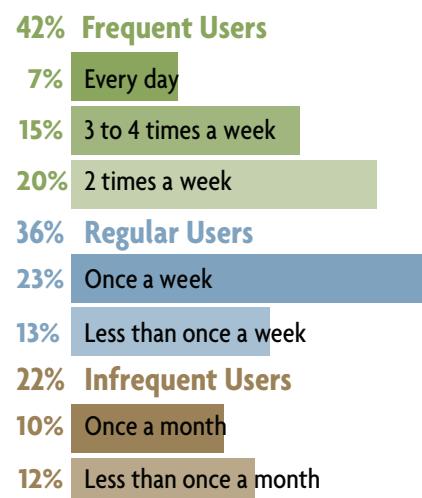
Source: PBS and Grunwald Associates LLC, 2009

Figure 2.  
**One-Third of Pre-K Teachers Use Digital Media...**

**Use of Digital Media, Pre-K**



**... And Most of Them Are Frequent or Regular Users**



Source: PBS and Grunwald Associates LLC, 2009

## **Access—and Frequent Uses—of Technology Are Trending Up**

At the K–12 level, the availability of equipment to access digital media resources has increased steadily—and in some cases surged—in both schools and classrooms, as shown in figure 3. More than nine in 10 K–12 teachers (93 percent) report that their schools have computers with Internet access, while eight in 10 (81 percent) say they have computer Internet access in their classrooms, up from 77 percent in 2008. In contrast, only about one-third (36 percent) of pre-K teachers have computers with Internet access in their classrooms.

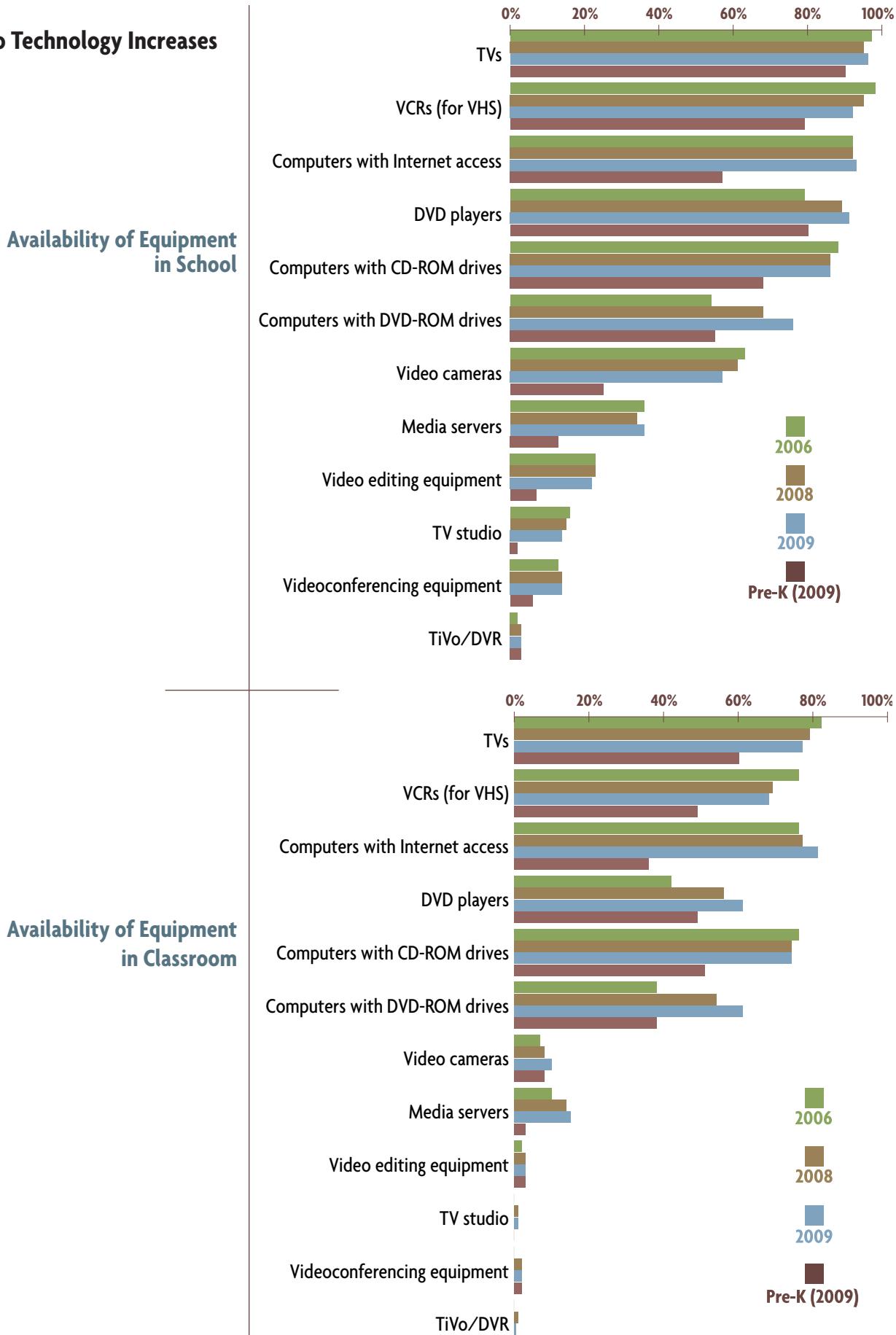
DVD players are nearly universal in K–12 schools, with 91 percent of teachers reporting that their schools have DVD players and 76 percent reporting that their schools have computers with DVD-ROM drives. Nearly two-thirds (61 percent) have DVD players or computer DVD-ROM drives in their classrooms, a significant increase from 2008. In pre-K classrooms, just under half (49 percent) of teachers have DVD players, while 38 percent have computers with DVD-ROM drives.

How are teachers using all of this equipment? Teachers narrowly prefer using purchased or recorded DVDs, especially at the high school level. Almost eight in 10 K–12 teachers (78 percent) access digital content from DVDs. But streaming or downloading content from the Internet is a close second, increasing significantly to 72 percent of teachers this year, up from 65 percent in 2008. However, pre-K teachers are far less likely to rely on the Internet for content; only about one in three (29 percent) use this method.

K–12 teachers most frequently rely on digital media for games and activities for students (58 percent), information on their own professional development (55 percent) and collecting images (51 percent). High school teachers are more likely to turn to digital media for primary source material and current event information. Elementary teachers look for games and activities for students to engage in outside of school. Pre-K teachers look for games and activities for students to use in school.

All of these frequent uses of digital media are trending up, as are some other uses, including student-produced multimedia (17 percent), student-created Web sites (11 percent), Web sites for student submissions (11 percent), and social media communities (10 percent). Pre-K teachers' frequent uses of digital media mirror that of K–12 teachers.

Figure 3.  
**Access to Technology Increases Steadily**



## Teachers Increasingly Value Digital Media and Believe It Helps Them—and Their Students—Be More Effective

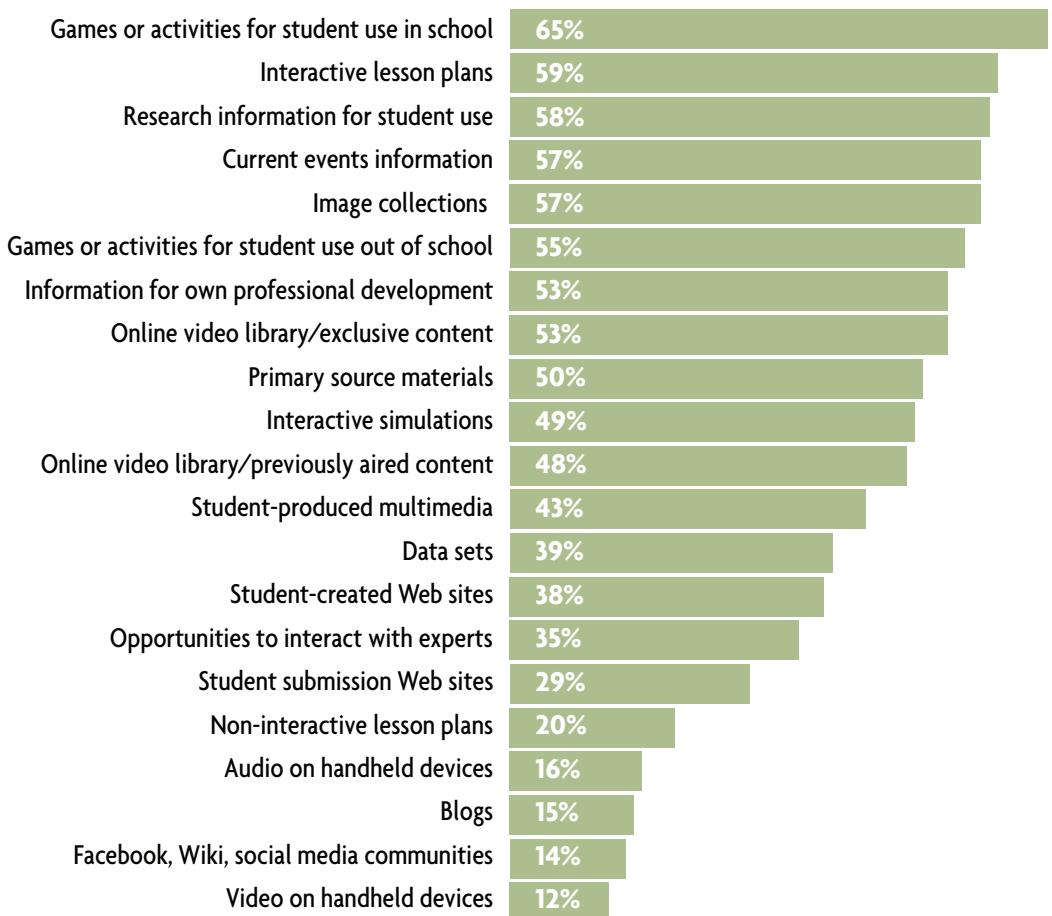
Teachers value many different types of digital media. They have strong positive attitudes about the effects of digital media on their own teaching and on students' engagement and achievement.

Both K–12 and pre-K teachers value many different types of digital media, with games and activities topping the list, followed by lesson plans, as shown in figure 4. High school teachers find more value in professional development information, opportunities to interact with experts, primary source materials, and student submission Web sites.

Teachers increasingly value student-produced work—including multimedia projects, Web sites and blogs, all of which show increases in teacher approval from 2008. Forty-three percent of teachers who use digital media highly valued student-produced multimedia this year, up from 36 percent in 2008; for student-created Web sites, 38 percent valued them highly this year, up from 33 percent in 2008; and for blogs, 15 percent valued them highly this year, up from 11 percent in 2008. This is part of the broader and important trend, in which young people are becoming producers—not just consumers—of digital media.

Figure 4.  
**Games, Activities Are Most Highly Valued Digital Media**

Percentage of teachers using digital media who highly value particular types of digital media

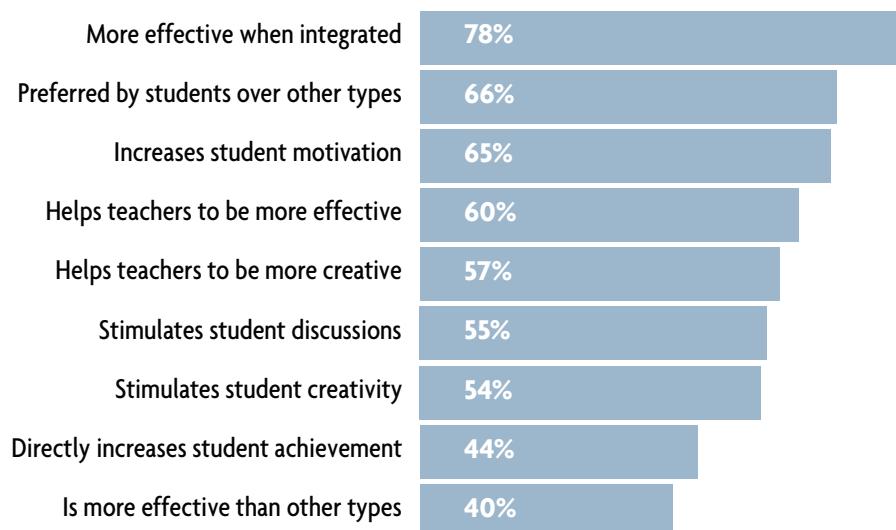


Source: PBS and Grunwald  
Associates LLC,  
2009

A majority of K–12 teachers (78 percent) strongly agree that digital media is more effective when it is integrated into instruction, as shown in figure 5. Teachers report that their students prefer digital media over other types of instruction and that digital media increases student motivation and stimulates discussions. Teachers also believe digital media supports their own creativity and student creativity. Pre-K teachers' attitudes mirror those of K–12 teachers, although their sentiments are not quite as strong—possibly because the sample of pre-K teachers who use digital media is not as large.

Figure 5.  
**Teachers Have Strong Positive Attitudes About Digital Media**

**Percentage of K–12 teachers using digital media who have strong positive attitudes about particular uses of digital media**



Source: PBS and Grunwald  
Associates LLC,  
2009

## Teachers Are Increasingly Strategic in the Art of Media Integration

A large majority of K–12 teachers (79 percent) and pre-K teachers (62 percent) strongly agree that TV and video content is more effective when it is integrated with other instructional resources in the classroom. Teachers' use of video is one indication that they are becoming more strategic in selecting short chunks of electronic content and targeting use for specific purposes. Teachers cite many benefits for integrating media into their instructional repertoires.

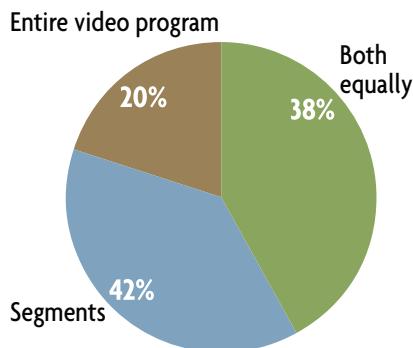
A majority of teachers (42 percent) are more likely to use partial segments of videos, as shown in figure 6, rather than entire programs, up significantly from 31 percent of teachers in 2008. The average segment length tends to be between 5 and 10 minutes—making it easier to sustain students' attention than with full programs that might have been more prevalent in the past. These findings are similar in pre-K, as shown in figure 7.

Teachers are using video just as heavily—if not more so—than in previous years. What's changed is how they obtain video. Teachers report that video segments now come from multimedia Web sites, along with more traditional sources, such as television programs, videotapes or DVDs.

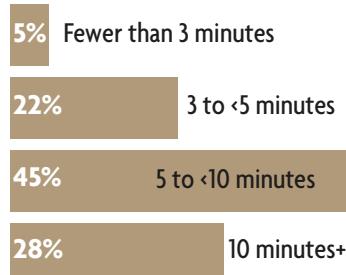
Figure 6.

### Short and to the Point: Video Segment Use Increases Significantly in K–12 Classrooms

#### Most Often Used Video Length, K–12



#### Average Length of Segments Used

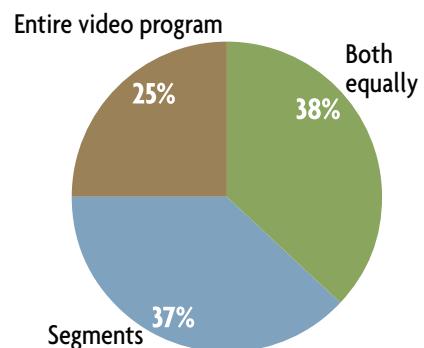


Source: PBS and Grunwald Associates LLC, 2009

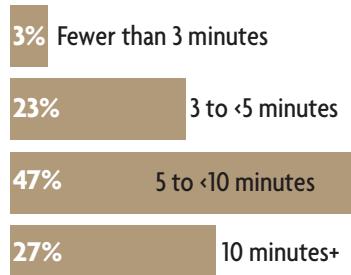
Figure 7.

### Pre-K Use of Video Segments Mirrors K–12 Use

#### Most Often Used Video Length, Pre-K



#### Average Length of Segments Used



Source: PBS and Grunwald Associates LLC, 2009

## The Educational Benefits of Integrating Video Into Instruction

Video is no mere diversion in America's classrooms. K-12 and pre-K teachers cite many reasons and benefits to integrate television and video content into their work.

### Reasons for Using Television and Video

**87 percent** of teachers say it **reinforces and expands on content they are teaching**

**76 percent** of teachers say it **helps them respond to a variety of learning styles**

**74 percent** of teachers say it **increases student motivation**

**66 percent** of teachers say it **changes the pace of classroom work**

**57 percent** of teachers say it **enables them to demonstrate content they can't show any other way**

**51 percent** of teachers use it to **introduce other learning activities**

**38 percent** of teachers say it **helps them teach current events and breaking news**

### Benefits of Using Television and Video

**58 percent** of teachers agree that it **stimulates student discussions**

**49 percent** of teachers agree that it **helps them be more effective**

**48 percent** of teachers agree that **students prefer television and video** over other types of instructional resources or content

**44 percent** of teachers agree that it **helps them be more creative**

**36 percent** of teachers agree that it **stimulates student creativity**

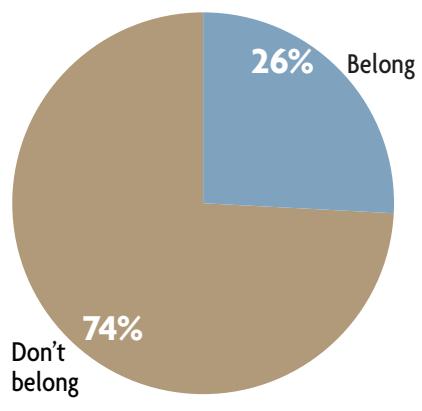
## **More Teachers Are Joining Virtual Professional Communities—and They're Comfortable with Social Networking**

**The advent of online professional communities and the explosion of social networking sites among adults over the past year or two seem to be capturing teachers' interest as well. Those who use social networking sites are comfortable with a variety of online activities.**

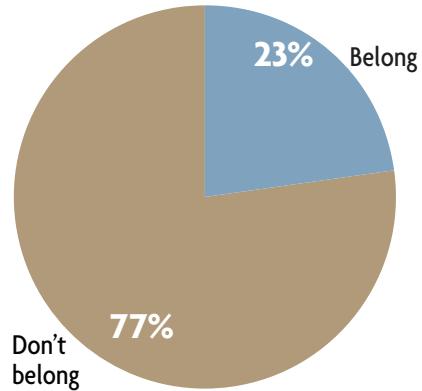
Overall, 29 percent of K–12 teachers report that they use a social networking site or social media community for classroom instruction. While we didn't ask about non-instructional uses, we believe more teachers may be using social networking in their personal lives.

One in four K–12 teachers (26 percent) belong to online communities specifically for teachers, up from 22 percent in 2008, as shown in figure 8. Slightly fewer pre-K teachers (23 percent) belong to online teacher communities.

Figure 8.  
**One-Quarter of Teachers Belong to Online Teacher Communities**



**K-12 Teachers**



**Pre-K Teachers**

*Source: PBS and Grunwald  
Associates LLC,  
2009*

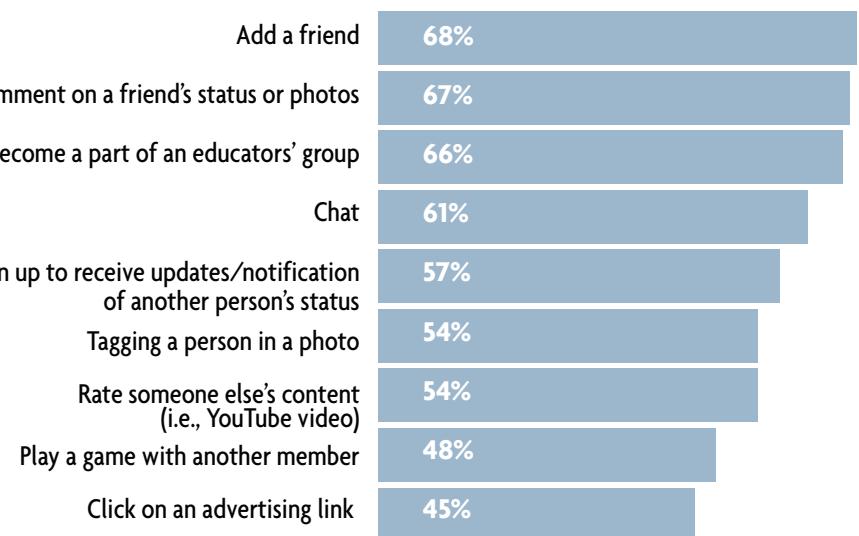
Teachers who use social networking or social media communities (such as wikis) for instruction were asked how comfortable they are performing a variety of social networking activities. Given that adults' use of online social networking is still emerging, teachers seem very comfortable in this environment.

In fact, the majority of K-12 teachers who use social networking are comfortable adding a friend, commenting on friends' postings and chatting, as shown in figure 9. Most of these teachers are also comfortable using social networking as a professional tool. Teachers say they are least comfortable clicking on advertising links—but this is more likely a matter of lack of interest than inadequate skills.

Social media in general—and more focused teacher communities in particular—appear to be an emerging trend for professional collaboration and communications.

Figure 9.  
**Teachers Are Comfortable Performing Social Networking Activities**

**Percentage of K-12 Teachers Who Use Social Networking Sites for Instruction and Who Are Comfortable with Particular Activities**



Source: PBS and Grunwald  
Associates LLC,  
2009

## About the Survey

This survey series is conducted by Grunwald Associates LLC, an independent research and consulting firm that has conducted highly respected surveys on educator and family technology use since 1995.

The nationwide, online survey reflects the views of 1,418 full-time classroom teachers (1,212 K–12 public school teachers and 206 pre-K teachers in public and private schools). This sample was selected to represent teachers in urban, suburban and rural regions and in districts of all sizes. The sample population also was controlled to match the distribution of teachers surveyed by grades taught, years of teaching experience and gender to allow for comparisons to previous years' surveys. Hypothesis managed the research and provided valuable assistance in the creation of this public report.

## About PBS

PBS, with its 356 member stations, offers all Americans—from every walk of life—the opportunity to explore new ideas and new worlds through television and online content. Each month, PBS reaches more than 115 million people on-air and online, inviting them to experience the worlds of science, history, nature and public affairs; hear diverse viewpoints; and take front-row seats to world-class drama and performances. PBS' broad array of programs has been consistently honored by the industry's most coveted award competitions. Teachers of children from pre-K through 12th grade turn to PBS for digital content and services that help bring classroom lessons to life. PBS' premier children's TV programming and Web site, [pbskids.org](http://pbskids.org), are parents' and teachers' most trusted partners in inspiring and nurturing curiosity and love of learning in children. More information about PBS is available at [www.pbs.org](http://www.pbs.org), one of the leading dot-org Web sites on the Internet.

## About PBS Education

PBS Education is building a collaborative network of 21st century educators and learners who turn to public media to transform teaching and learning. The PBS Teachers Web Site ([www.pbs.org/teachers](http://www.pbs.org/teachers)) offers a searchable library of over 9,000 free local and national standards-based teaching resources. It is also home to the leading online teacher professional development service, PBS TeacherLine. PBS Education is also developing the Digital Learning Library, a growing collection of purpose-built digital learning objects for pre-K–12 teachers and students that will be available through PBS member stations nationwide.

*Writing and design by Vockley•Lang*