

Today's Students Speak Up About Emerging Technologies Within Education

**Speak Up 2009
National Findings**

June 9, 2010

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Defining 21st century education . . .

“I believe that the purpose of education is not to make men carpenters, but to make carpenters men. To be competitive in a workplace that is changing and will change continuously throughout our careers, **my peers and I need to be able to read and understand new information at a level never before prevalent.** This should be, however, a familiar aim for the forces of academia, however, **since what we must learn, in essence, is to learn.**”

I would ensure a broad and balanced education that exposes every student to rigorous inquiry in every discipline, from physics to pottery and makes them **active participants in the process of inquiry and learning.**”

*11th grade student
Pittsburgh PA*



Today's Discussion: The Big Questions

- ▶ What are the **expectations of today's students (and parents)** for technology use within education?
- ▶ How does that student vision for 21st century learning **compare with the educators' vision?**
- ▶ How well are today's **schools meeting the expectations** of students?
- ▶ Are we appropriately **preparing our teachers** (current and future) to support this new vision?

Today's Agenda:

- *What is Speak Up?*
- *Student Vision for 21st Century Education*
- *Parents' and Educators' Response*
- *Conversation Time*

**Speak Up Research Project:
Views of Students, Teachers, Parents,
Administrators & Pre-Service Teachers**



What is Speak Up?

- ▶ **Annual national research project**
 - ▶ Online surveys + focus groups
 - ▶ Open for all K-12 schools and schools of education
 - ▶ Schools/districts/colleges get back their own data for planning and budgeting

- ▶ **Collect data ↔ Stimulate conversations**
 - ▶ K-12 Students, Teachers, Parents and Administrators + Pre-Service Teachers

- ▶ **Inform policies & programs**
 - ▶ Analysis and reporting – national reports, state reports, district reports
 - ▶ Services: custom reports, consulting with districts and state agencies
 - ▶ NCES back end database – provide statistically significant samplings

- ▶ **7 years of empowering authentic voices – since 2003:**
 - ▶ **1.6 million K-12 students**
 - ▶ **142,000 teachers**
 - ▶ **82,000 parents**
 - ▶ **10,500 school leaders**
 - ▶ **23,000 schools – from all 50 states, DC, American military base schools, Canada, Mexico, Australia**

1.85 million respondents



**Speak Up is facilitated annually
by **Project Tomorrow**
(formerly known as NetDay)**

***Project Tomorrow
(www.tomorrow.org)
is the leading education nonprofit
organization dedicated to the
empowerment of student voices in
education.***

Speak Up survey question themes

- **Learning & Teaching with Technology**
- **21st Century Skills: Digital Citizenship**
- **Science and Math Instruction**
- **Career Interests in STEM and Teaching**
- **Professional Development / Teacher Preparation**
- **Internet Safety**
- **Administrators' Challenges**
- **Emerging Technologies in the Classroom**
 - *Mobile Devices, Online Learning, Digital Content*
 - *Educational Games, Web 2.0 tools and applications*
- **Designing the 21st Century School**





Why do schools & districts participate in Speak Up?

Collect **unique data** from stakeholders

Give stakeholders a **voice** in national/state policy

Support **specific initiatives** such as digital content, online learning, mobile devices, 1:1 programs or new teacher professional development programs

Model for students the value of **civic engagement** and being part of a national discussion

Recognition as an **innovation leader**

Demonstrate to students, teachers and parents that their **ideas are valued** by their education leaders

Understand the future of K-12 education

Saluting our Speak Up 2009 Sponsors:



Blackboard[®]K-12



Thank you to our K-12 National Champion Outreach Partners:



And the 75+ other national education and business associations & nonprofit groups that promote Speak Up to their stakeholders, members & affiliates.

Activities, Attitudes & Aspirations

Disconnects & Differences

Trends & Leverage Points

National Speak Up 2009 Participation: 370,565



- ✓ **K-12 Students** **299,677**
- ✓ **Teachers** **38,642**
- ✓ **Parents (in English & Spanish)** **26,312**
- ✓ **School/District Administrators** **3,947**
- ✓ **Schools / Districts** **5,757 / 1,215**

- ✓ **Pre-Service Teachers** **1,987**
- ✓ **Schools of Education** **71**

Participating States = all 50 states

Top 12 (# of participants):

TX, AZ, AL, CA, FL, MD, PA, NC, AR, MO, NY, IL

National Speak Up 2009 Participation: 370,565



About our K-12 Schools:

- 97% public, 3% private
- 38% urban, 31% suburban, 32% rural
- 54% Title 1 eligible – indicating community poverty
- 42% majority-minority student population

About our Schools of Education/Aspiring Teachers

- 89% four year public institutions
- 2/3 undergraduates; 1/3 graduate students



Release of two national reports
March 16 and May 5, 2010
Available at www.tomorrow.org



▶ **Creating Our Future:**

**Students Speak Up
about their Vision for
21st Century Learning**

**Speak Up 2009 National
Findings: K-12 Students &
Parents**

▶ **Unleashing the Future:**

**Educators Speak Up
about the Use of
Emerging Technologies
for Learning**

**Speak Up 2009 National
Findings: Teachers, Aspiring
Teachers & Administrators**

Sampling of Key Findings: Speak Up 2003 – 2009



- ▶ Persistent digital disconnect between students and adults
- ▶ Students' frustrations with the lack of technology use in school
- ▶ Lack of relevancy in education exacerbated
- ▶ Students function as a “Digital Advance Team”
- ▶ Students adopt and adapt emerging technologies for learning
- ▶ Introducing the “Free Agent Learner”

Introducing the “Digital Advance Team”

Today’s K-12 Students

Adopting/adapting technologies for learning

Tech trend setters

Their use predicts widespread acceptance

Out of school use drives in school use

Pace car for others

Teachers ultimately catch up

Result:

A new uniquely “student vision”
for leveraging emerging
technologies to drive achievement
and educational productivity

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements in the Student Vision

- ▶ **Social-based learning**
- ▶ **Un-tethered learning**
- ▶ **Digitally-rich learning**

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements

▶ **Social-based learning**

Students want to leverage emerging communications and collaboration tools to create personal networks of experts

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements

▶ **Un-tethered learning**

Students envision technology-enabled learning that transcends classroom walls

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements

▶ **Digitally-rich learning**

Students see the use of relevancy-based digital tools, content and resources as key to education productivity

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning

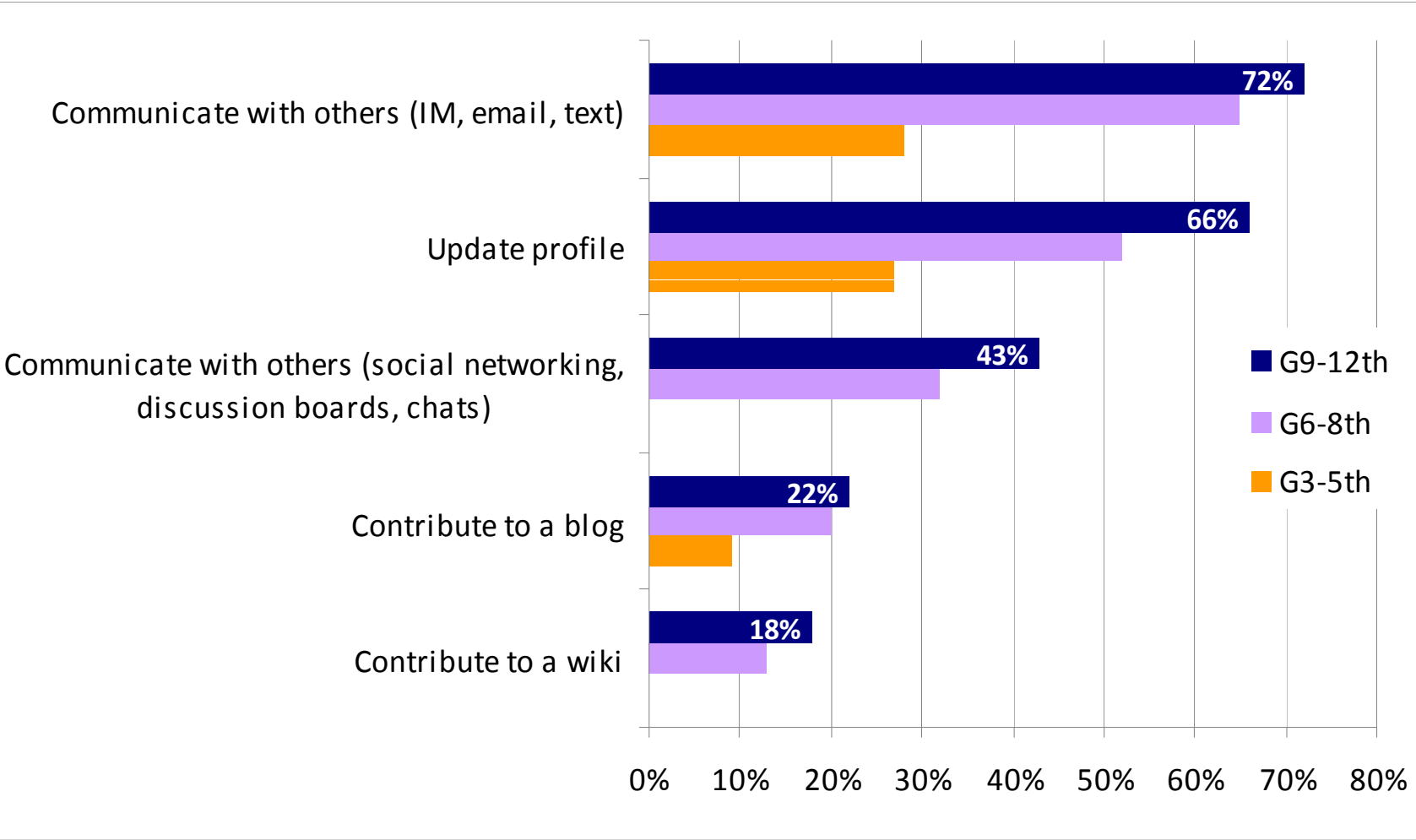


Three Essential Elements

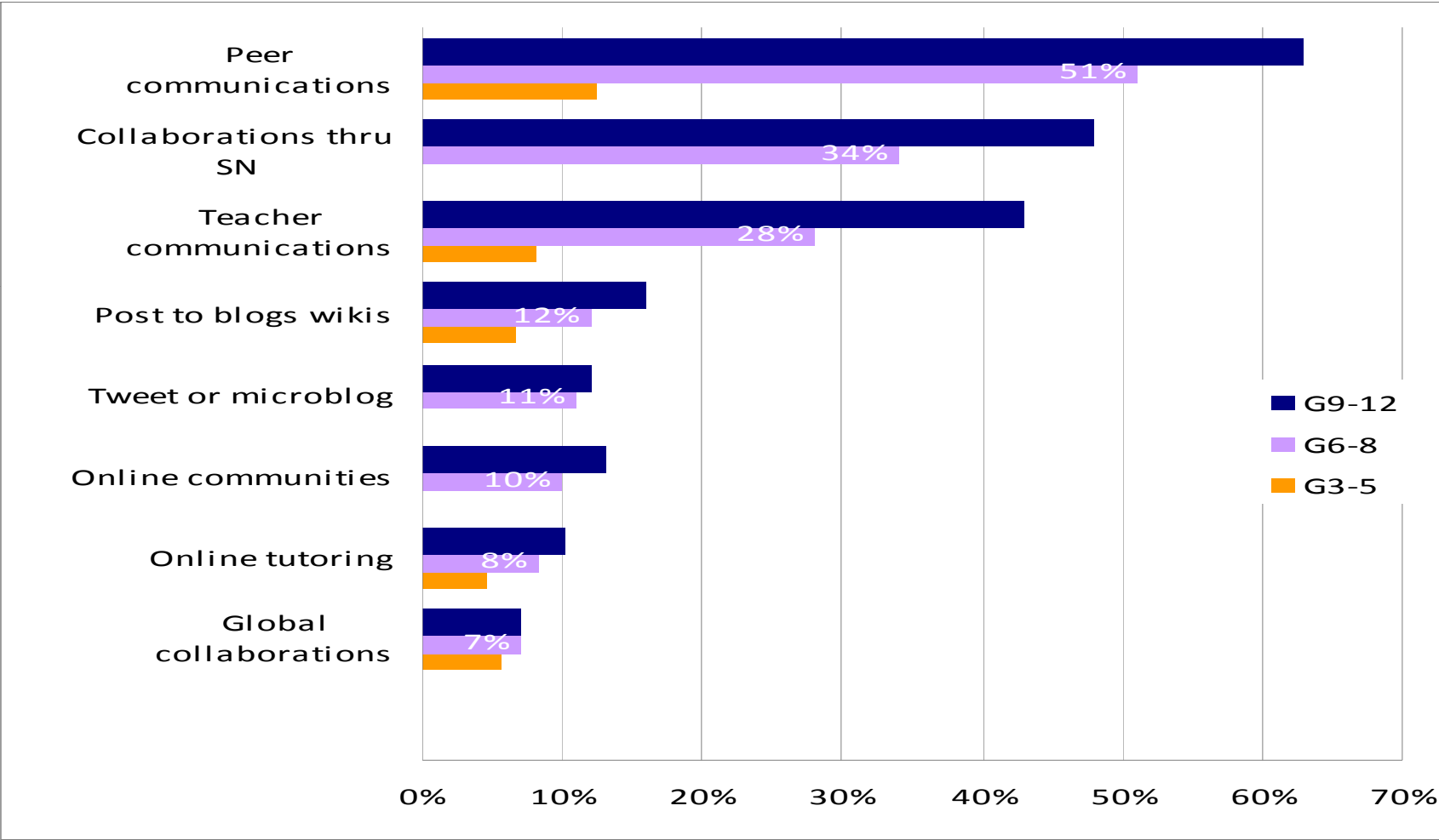
▶ **Social-based learning**

- Communication and collaboration tools

Students' use of technology for communication and collaboration outside of school



Students' use of collaboration and communications tools for school work



Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements

▶ **Un-tethered learning**

- Using mobile devices
- Online learning

K-12 students have a lot of personal devices that they would like to use for schoolwork



Personal device	K-2	Gr 3-5	Gr 6-8	Gr 9-12
Laptop	27%	32%	53%	70%
Cell phone	17%	29%	59%	67%
Smart phone	14%	17%	24%	31%
MP 3	35%	55%	80%	85%

Audience response

Besides communications and research, how do students say that using “mobile devices” in school will help them with schoolwork?

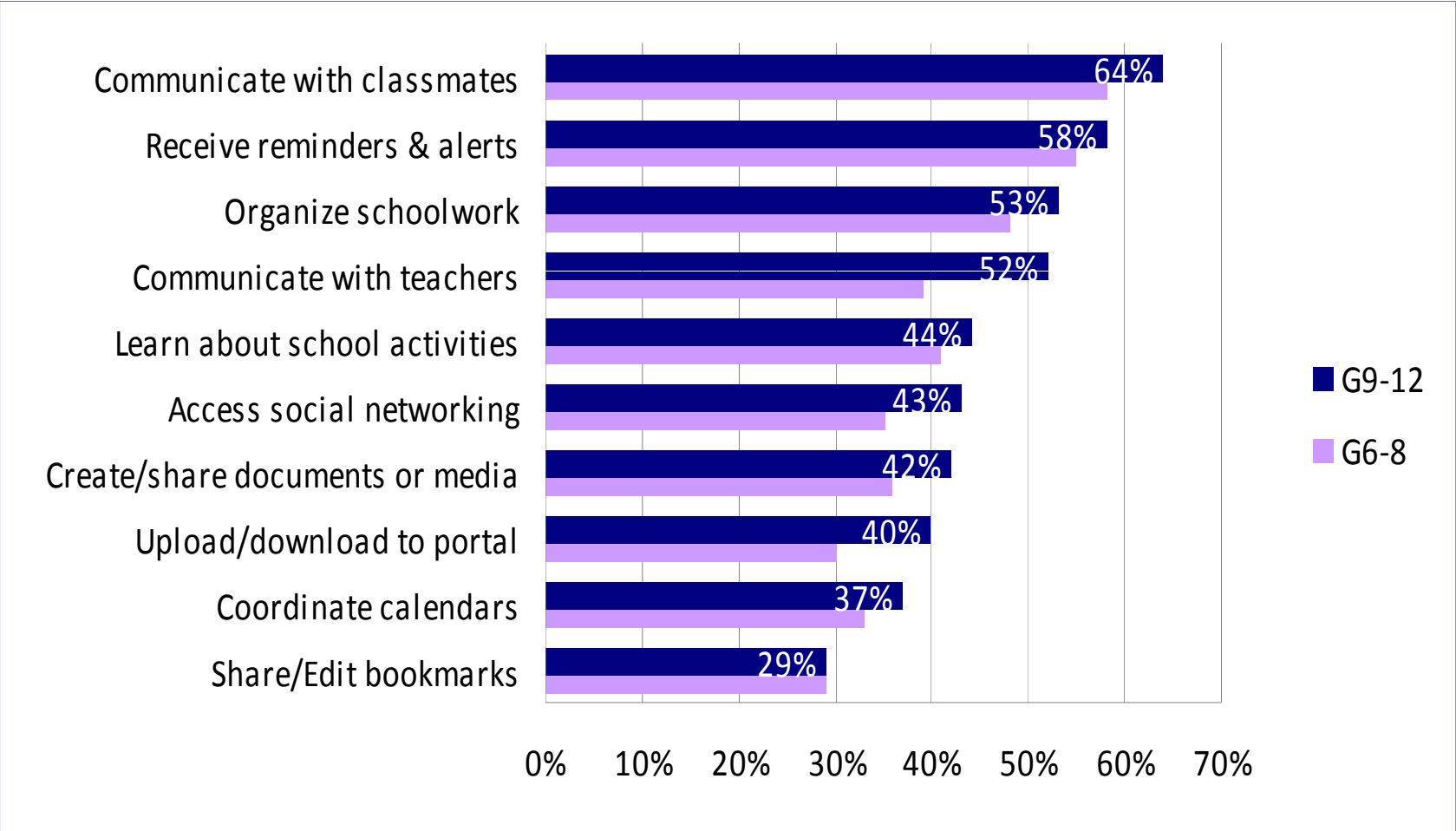
Choose top response:

- A. Access social networking site
- B. Access online textbooks
- C. Share documents, videos and podcasts
- D. Receive reminders and alerts
- E. Take videos of class presentations or labs to review later

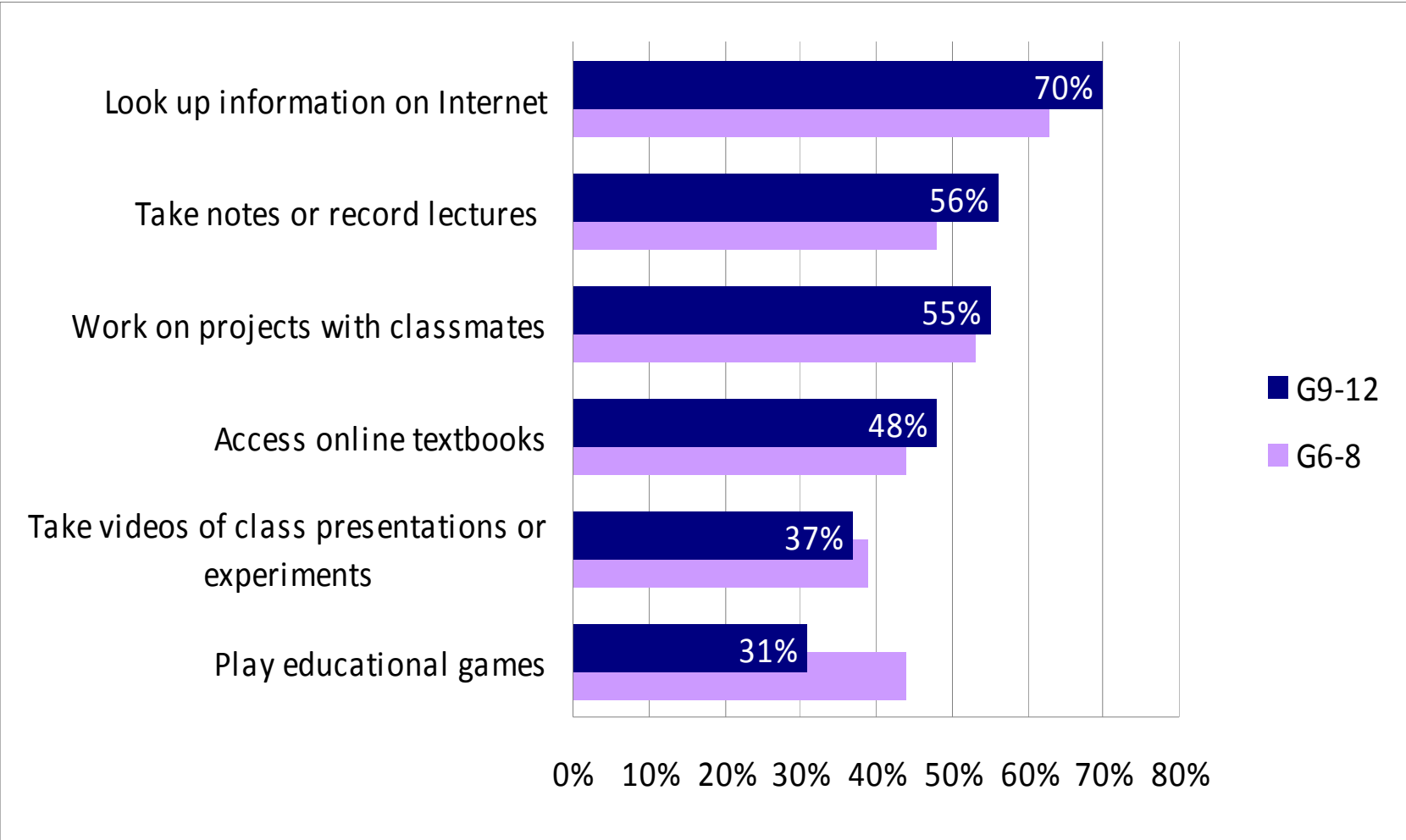
Besides communications and research, how do students say that using “mobile devices” in school will help them with schoolwork?

Access social networking site	35%
Access online textbooks	44%
Learn about school activities	41%
Share documents, videos and podcasts	36%
Receive reminders and alerts	55%
Take videos of class presentations or labs	39%

Students believe that mobile devices can enhance personal productivity



Students' suggested use of mobile devices for learning purposes



Administrators' perspectives on mobile devices within learning

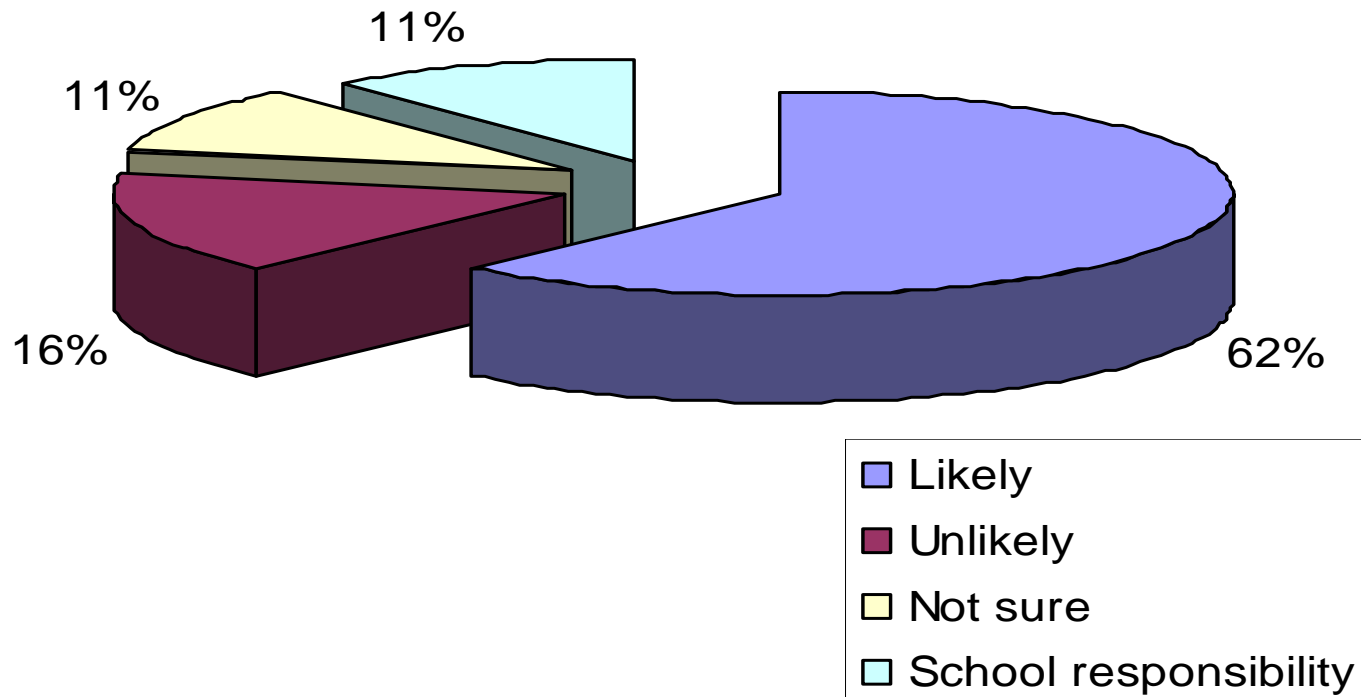


- ▶ What prevents administrators from allowing students to use their own devices?
 - **Current district policies (49%)**
 - **Concerns about theft (47%)**
 - **Concerns about network security (47%)**
 - **Teachers are not trained (45%)**
 - **Digital equity concerns (42%)**

Parents' willingness to purchase mobile devices for their child to use at school



Parents Evaluate Mobile Devices Purchase



Students and online learning

- ▶ **17% of high school students say they have taken an online class**

Of those students:

- 31% have taken an online class led by a teacher
- 29% have taken a self-study online class
- 19% have had a blended class
- 21% took an online class outside of school

Students and online learning



- ▶ Know someone who has taken an online class?
 - Yes: 65% of high school students
 - Yes: 53% of middle school students

1/3 of parents have taken an online class for work or personal reasons

What are the top barriers students face with online classes?

Institutional barriers such as:

**“I don’t know about the classes offered at my school”
(28%)**

“My school does not offer online classes” (25%)

**“I don’t know how to find information about online
classes” (20%)**

“I don’t know how to sign up for online classes” (21%)

What are the top barriers students face with online classes?

Personal knowledge barriers such as:

**“I have not found a class that I am interested in”
(21%)**

**“I am not sure this is a good way for me to learn”
(21%)**

“I cannot afford to take an online class” (16%)

Student interest in online learning



If you have not taken an online class, would you be interested?

YES!

38% of high school students

33% of middle school students

22% of students in grades 3-5

High school students' value proposition on online learning



▶ Learning

- **Work at own pace (51%)**
- **In control of my learning (40%)**
- **Easier for me to be successful (28%)**
- **Greater sense of independence (28%)**
- **More motivated to learn (24%)**

High school students' value proposition on online learning



▶ Productivity

- **Earn college credit (49%)**
- **Take class not offered (44%)**
- **Fits schedule better (37%)**
- **Get extra help (35%)**
- **My technology skills will improve (31%)**
- **Easier to review class materials (29%)**

What administrators are telling us

Who is your primary audience for online learning classes in your district?

- **Teachers – 55%**
- **Administrators – 32%**
- **Students in traditional settings – 26%**
- **At risk students – 21%**
- **Home schoolers – 12%**

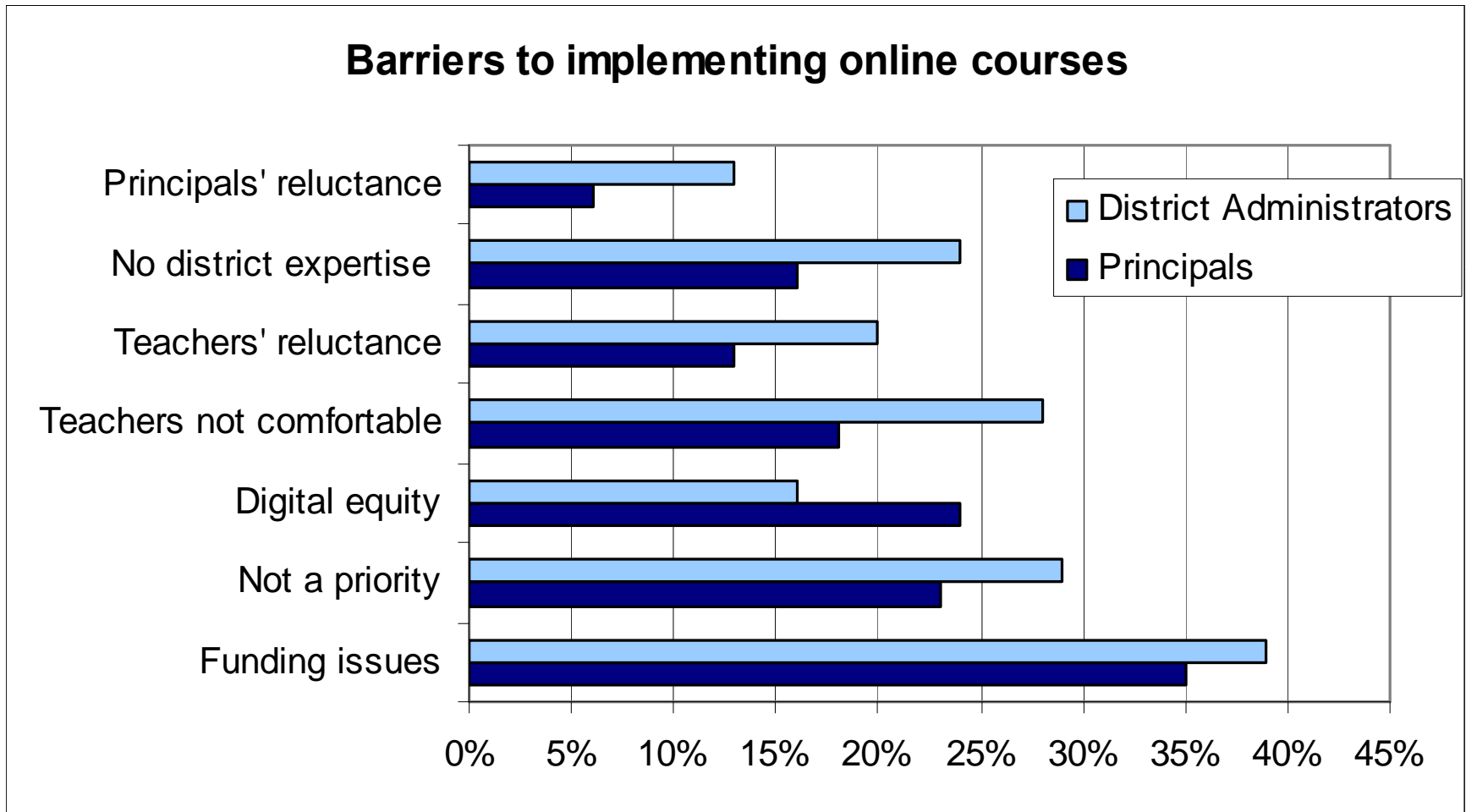
What administrators are telling us

Audience Poll

Besides funding, what are the most significant barriers to implementing online courses?

- A. Not a priority in our district
- B. Teachers are not comfortable with the tools
- C. We don't have the in-district expertise to develop courses
- D. Teachers are reluctant or not interested in teaching an online class
- E. Digital equity concerns

What administrators are telling us



Teachers, Social Media & Professional Development



- ▶ **31% have participated in a 100% online course**
- ▶ **38% would like their district to offer more online PD classes**

- ▶ **41% would like online collaboration tools as part of a PLC plus:**
 - ▶ Centralized repository of teaching resources – 35%
 - ▶ Easy access to student data – 32%
 - ▶ Use blogs and wikis to share best practices – 25%
 - ▶ Podcasts and webcasts to connect with experts – 23%

Teachers, Social Media & Professional Development



Teachers are self-directing their own PD as well:

- ▶ **48% are already finding podcasts and videos on their own to improve their teaching effectiveness**
- ▶ **28% are seeking help from other teachers through social media tools**
- ▶ **23% have found an online class to take**
- ▶ **22% have provided online help to peers**

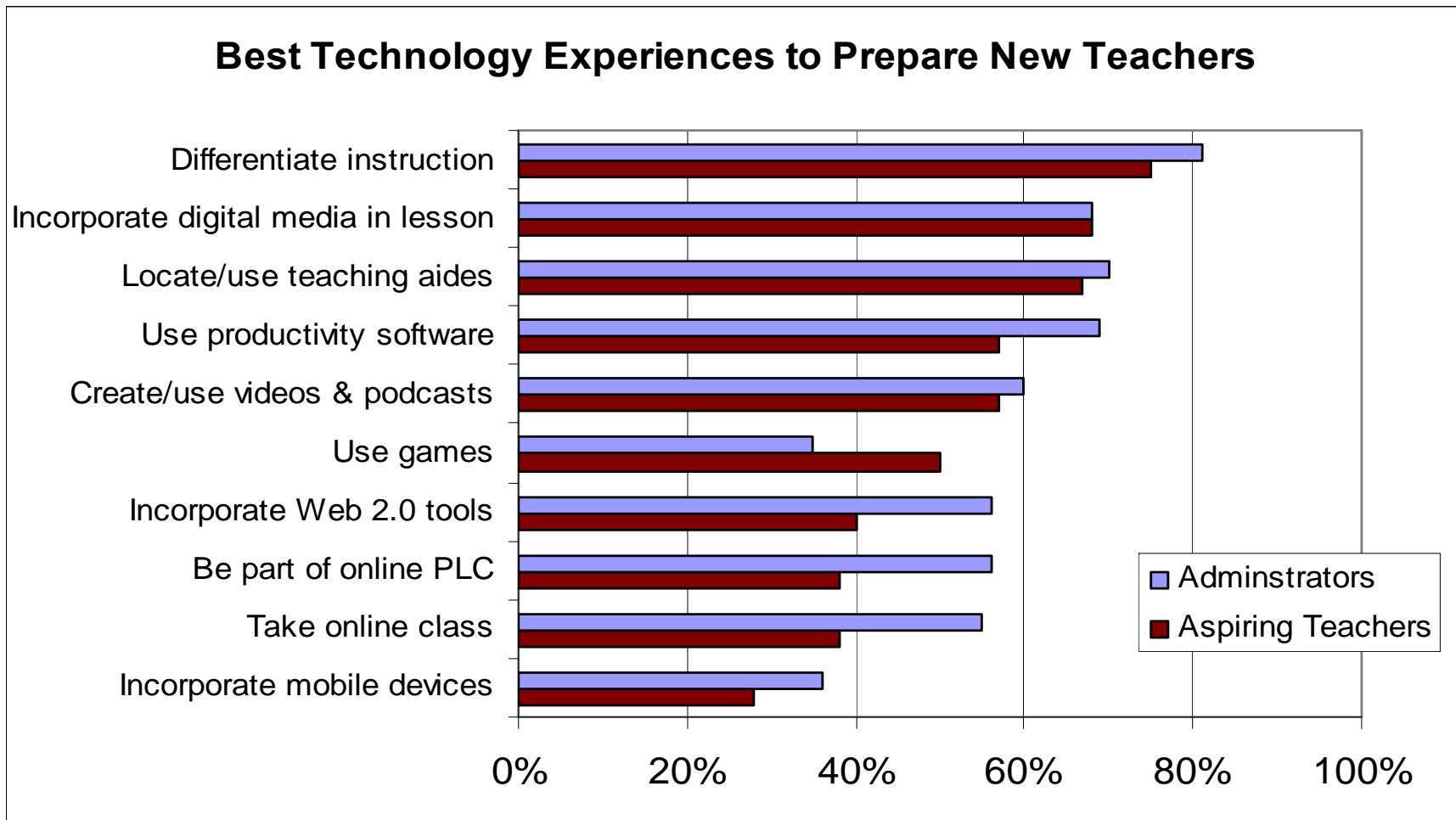
Administrators, Social Media & Professional Development



Administrators are also leveraging emerging technologies for PD:

- ▶ **46% have accessed a podcast or video about a topic of relevance to profession**
- ▶ **41% have sought out experts online to provide insights**
- ▶ **40% have participated in a webinar**
- ▶ **32% have taken an online class**
- ▶ **13% have created a video or podcast to share knowledge with others**

Online learning as prep for 21st century teaching: Pre-service teachers & administrators



What we learned from the pre-service teachers



- ▶ **52% have taken an online course as part of their teaching prep program**
- ▶ **Top benefits:**
 - ▶ **Fits my schedule – 63%**
 - ▶ **Saves time – 51%**
 - ▶ **I can review materials later – 38%**
 - ▶ **I am more accountable for my own learning – 35%**
- ▶ **Yet, only 4% say they are learning how to teach an online course as part of their education**

Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements

▶ **Digitally-rich learning**

- Online textbooks
- Games
- Simulations and animations
- Creating using digital media

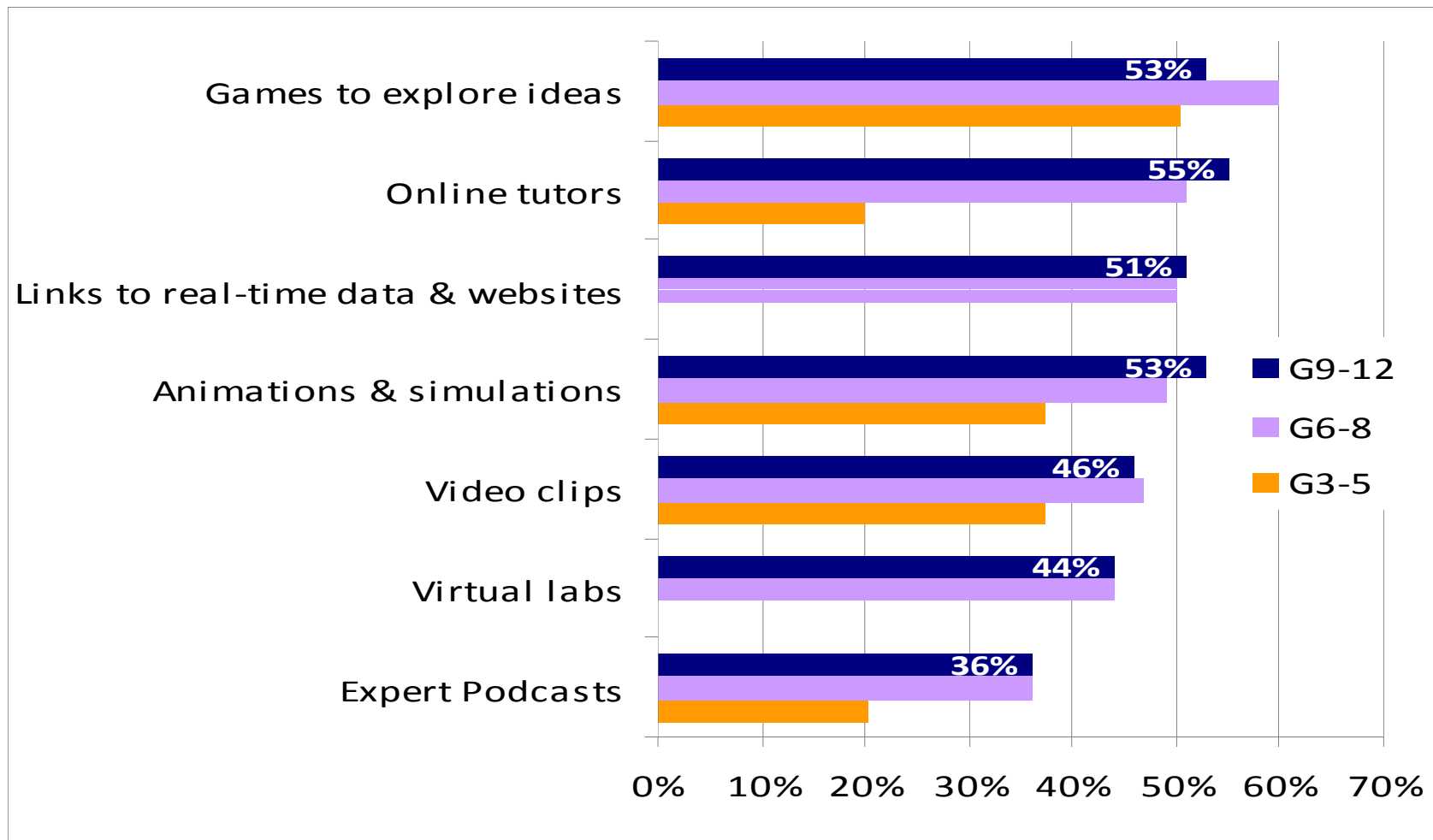
Students' desires for the features and functionality of online textbooks



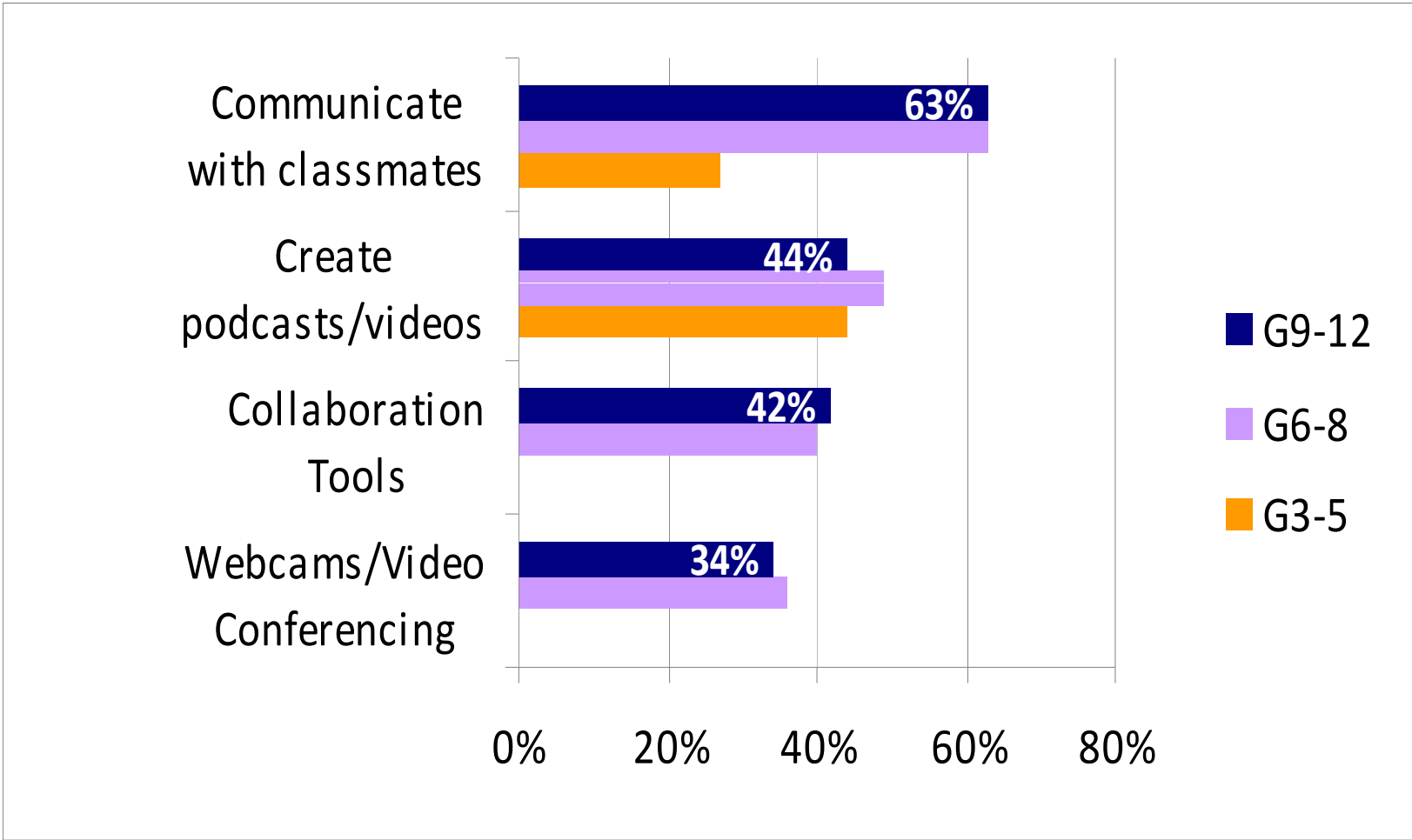
Three themes emerge from the data:

- **Students want interactivity and relevancy**
- **They want tools to facilitate collaboration**
- **They want ways to personalize learning**

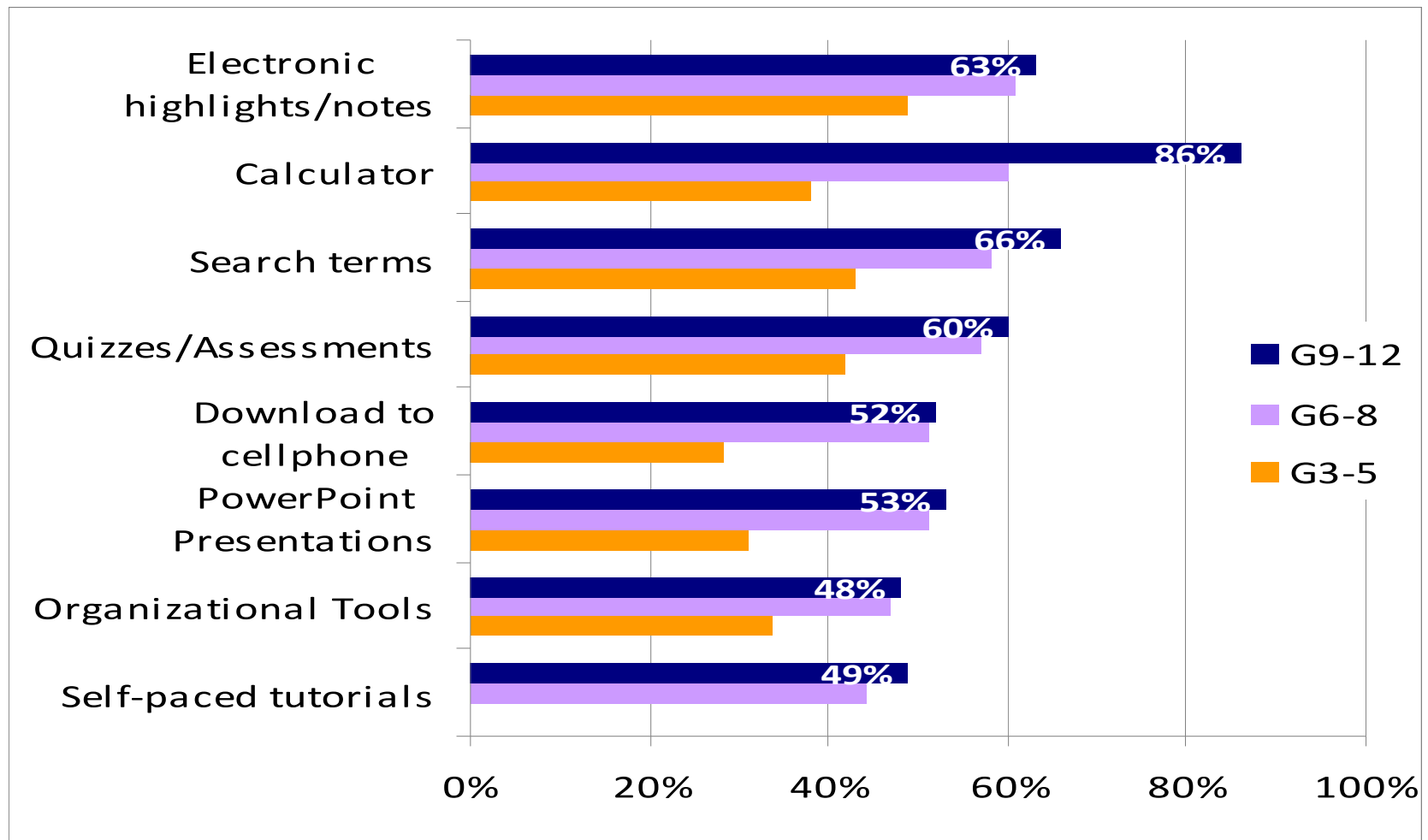
Students want their online textbooks to be interactive and relevant



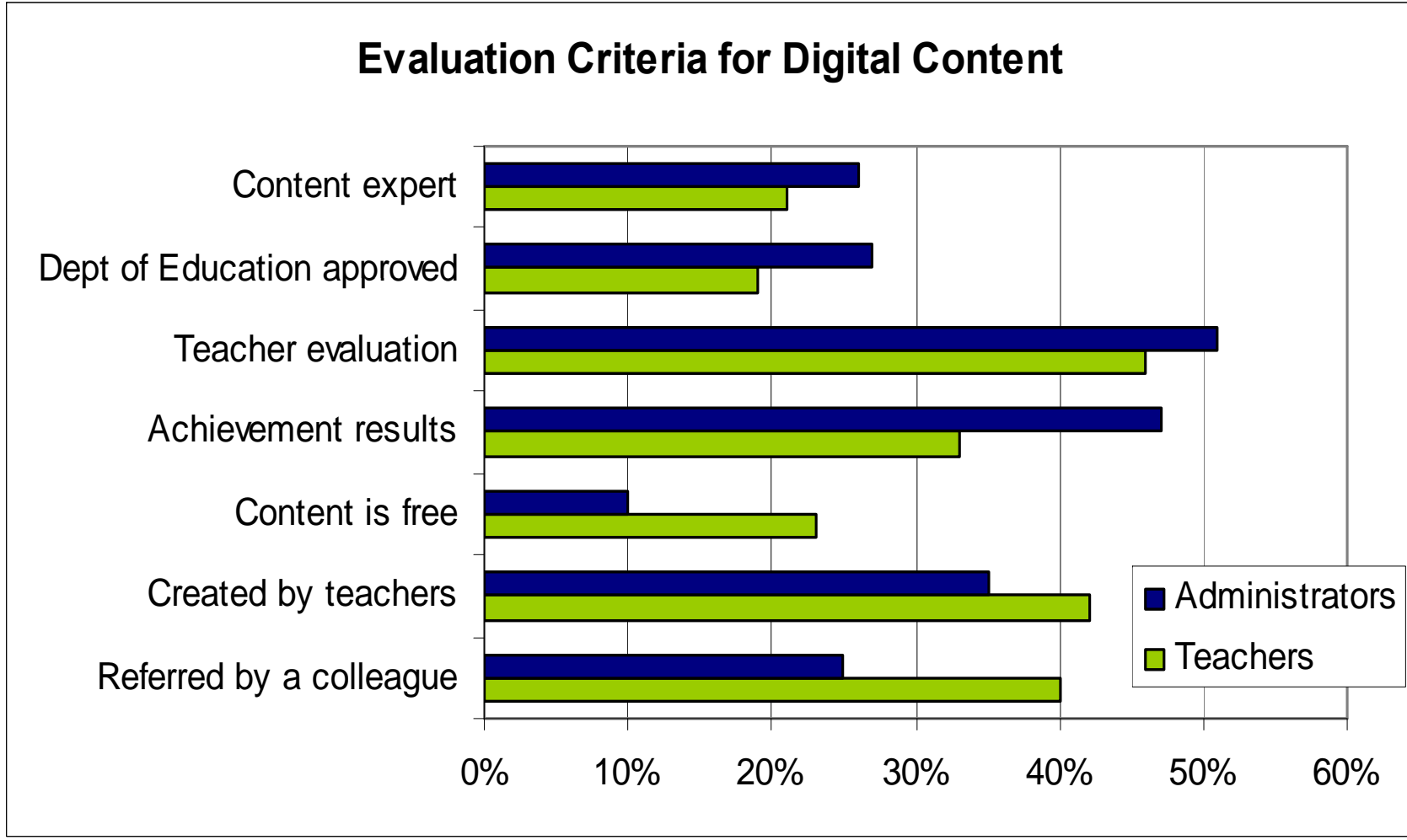
Students want their online textbooks to have tools that facilitate collaboration



Students want to use their digital textbooks to personalize learning



What is the best way to evaluate the quality of digital resources used in your classrooms?



Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



Three Essential Elements in the Student Vision

- ▶ **Social-based learning**
- ▶ **Un-tethered learning**
- ▶ **Digitally-rich learning**

Unleashing the Future:
Educators “Speak Up” about the Use of
Emerging Technologies for Learning



**What is the value proposition for
technology in education?**

Audience response

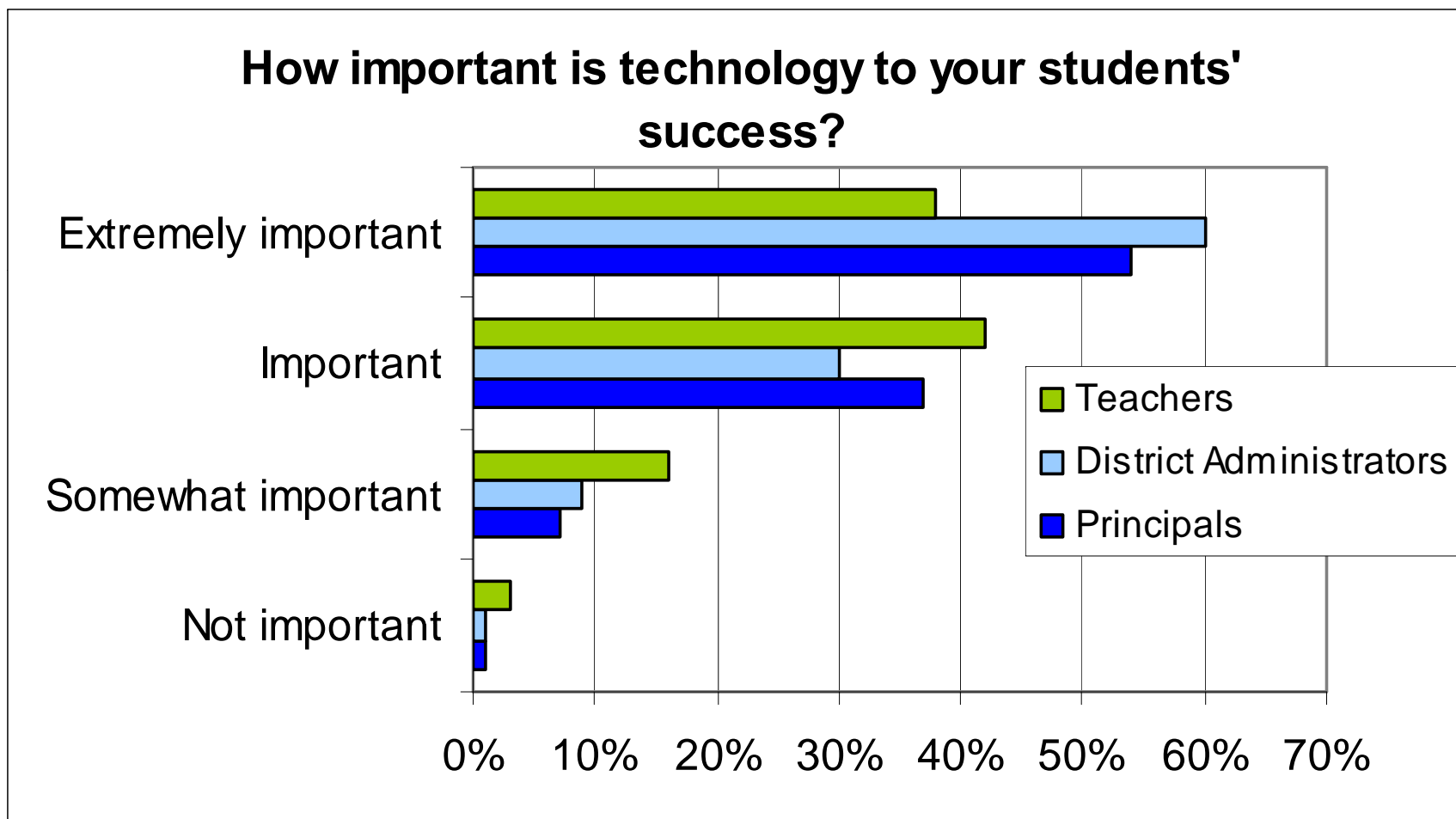
Who do you think is most “bullish” on the importance of effective use of technology for student success? (Besides students!)

A. Teachers

B. District administrators

C. School principals

What is the value proposition for technology in education?



Teachers: How has your use of technology within instruction impacted your students?

Top responses:

More motivated to learn	51%
Developing creativity	39%
More participation in discussions	30%
Applying knowledge to practical problems	30%
Developing problem-solving/critical thinking skills	27%

Teachers: How has the use of technology improved your effectiveness as a teacher?

Top responses:

Better organized 59%

More productive 53%

Facilitating student centered learning 39%

Encouraging students to be self-directed 39%

Creating more relevant lessons 36%

Creating more interactive lessons 34%

Managing class more effectively 29%

More connected with students 22%

**What challenges do administrators
say are “waking them up” in the
middle of the night?**

Wake up issues for administrators

▶ District Administrators say:

- ▶ **Funding (66%)**
- ▶ **Use of technology (53%)**
- ▶ 21st century skills (38%)
- ▶ Using data to assess achievement (35%)
- ▶ Test scores (33%)

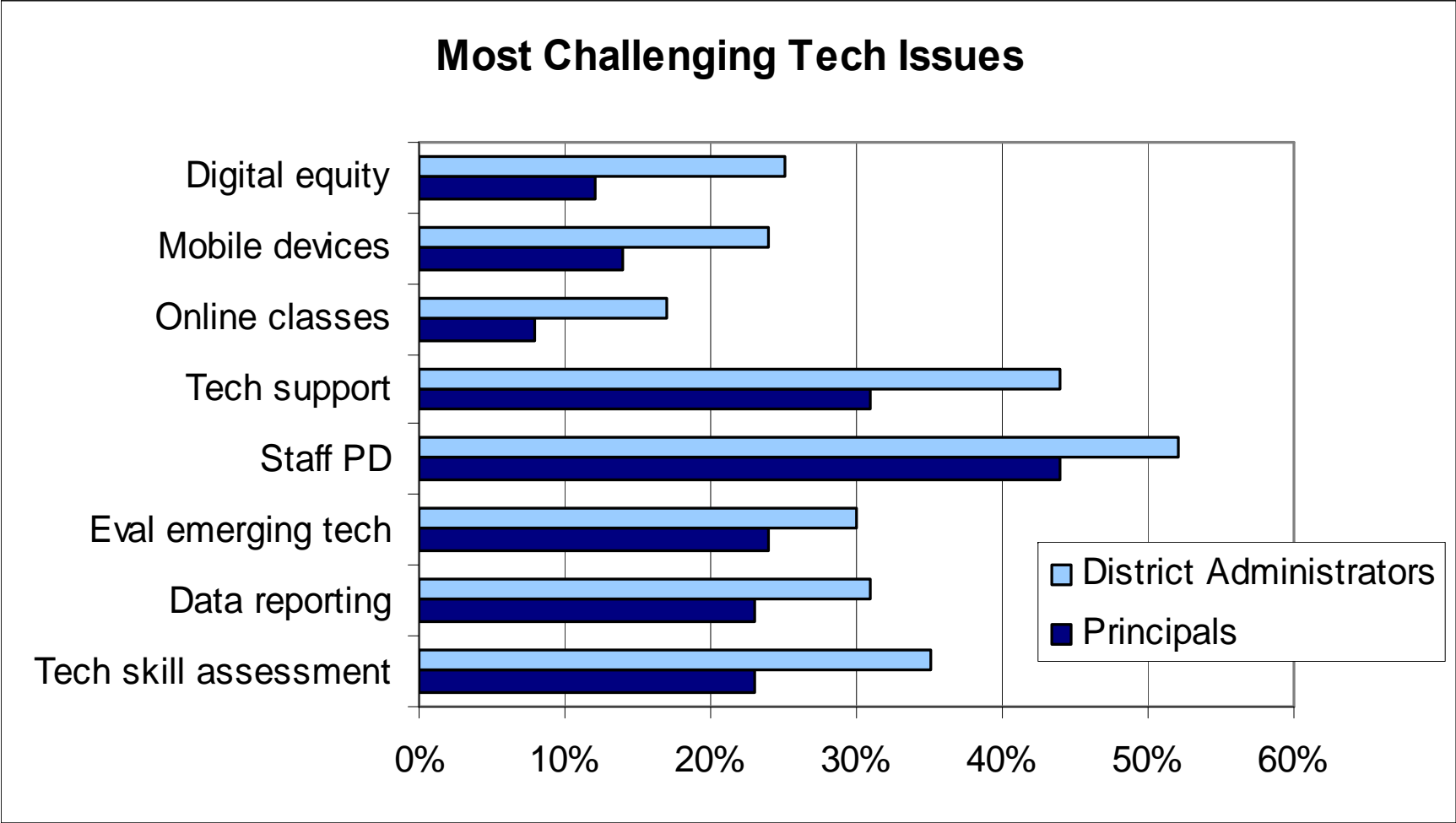
▶ Principals say:

- ▶ **Test scores (55%)**
- ▶ Funding (50%)
- ▶ Communications with parents (38%)
- ▶ School safety (36%)
- ▶ Diversity (35%)

≈

- ▶ **Use of technology (27%)**

Wake up “tech” issues for administrators



Administrators talk about barriers and emerging technologies

- ▶ Besides funding, what barriers prevent you from implementing

Online classes

Mobile devices

Digital content

Administrators talk about barriers and emerging technologies

- ▶ Besides funding, what barriers prevent you from implementing

Common theme:

Teachers are not trained or comfortable using these tools

Teachers “Speak Up”

What technology are you using in your classroom to enhance student achievement?



Accessing the Internet	Communications tools
Computer projection	Digital media tools

≥ 63%



Teachers “Speak Up”

What technology are you using in your classroom to enhance student achievement?

Accessing the Internet	Communications tools
Computer projection	Digital media tools

≥ 63%

Games (42%)	Document camera (38%)
Interactive whiteboards (36%)	Collaboration tools (27%)
Online textbooks (19%)	Mobile devices (10%)
E-portfolios (10%)	Virtual simulations (5%)

≤ 42%

Pre-service Teachers “Speak Up”



What tech tools are you learning to use in your methods class?

Some top vote getters:

Using word processing/spreadsheet tools	53%
Creating presentations	44%
Finding digital resources for lessons	40%
Using e-portfolios	31%
Creating a website for my class	28%
Using student gradebooks	25%
Using Web 2.0 tools	23%

Pre-service Teachers “Speak Up”



What tech tools are you learning to use in your methods class?

Bottom vote getters:

Teaching an online class	4%
Managing a class with an LMS	11%
Using technology for science inquiry	12%
Using student achievement data	14%



Today's Discussion: The Big Questions

- ▶ What are the **expectations of today's students (and parents)** for technology use within education?
- ▶ How does that student vision for 21st century learning **compare with the educators' vision?**
- ▶ How well are today's **schools meeting the expectations** of students?
- ▶ Are we appropriately **preparing our teachers** (current and future) to support this new vision?

**Imagine you are designing the
ultimate school.**

**Which technology tools and services
would have the greatest positive impact
on learning?**

**Imagine you are designing the
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**Which technology tools and services
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on learning?**

Are we all on the same page?

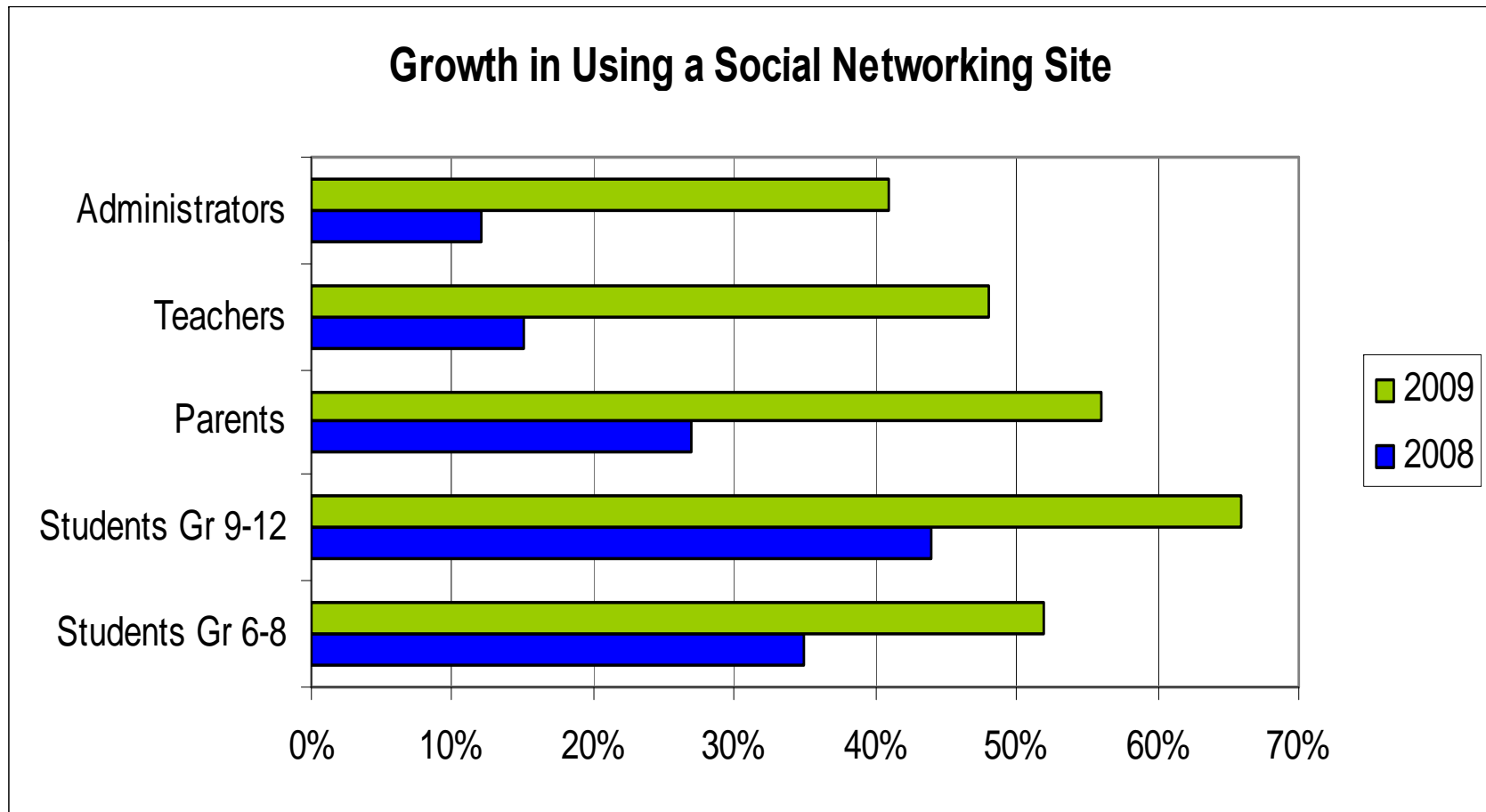
Audience response

Which stakeholder group do you think had the largest percentage increase in regular use of a social networking site from 2008 to 2009?

Choose top response:

- A. Middle school students (Grades 6-8)
- B. High school students (Grades 9-12)
- C. Parents
- D. Teachers
- E. Administrators

Which stakeholder group do you think had the largest increase in regular use of a social networking site from 2008 to 2009?



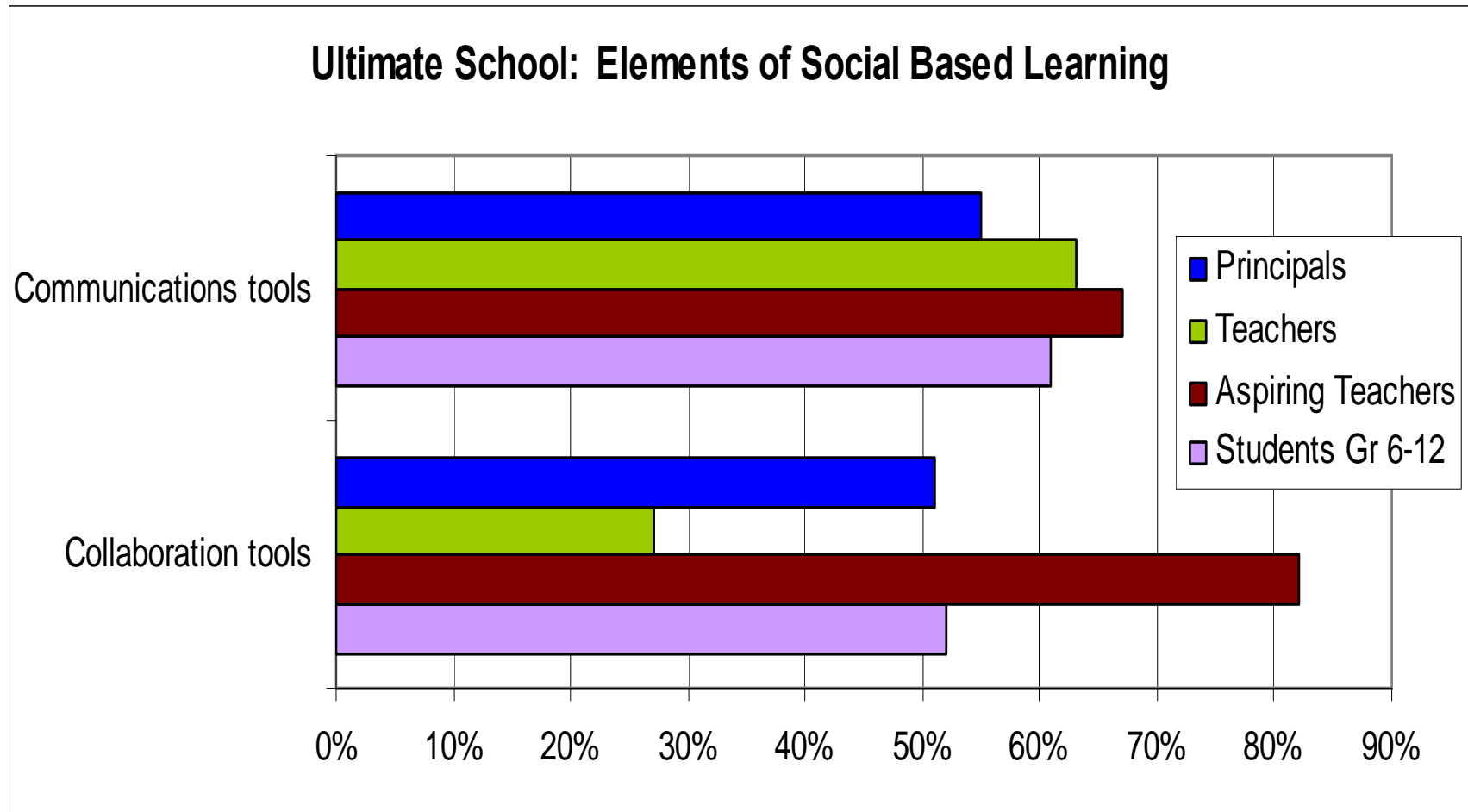
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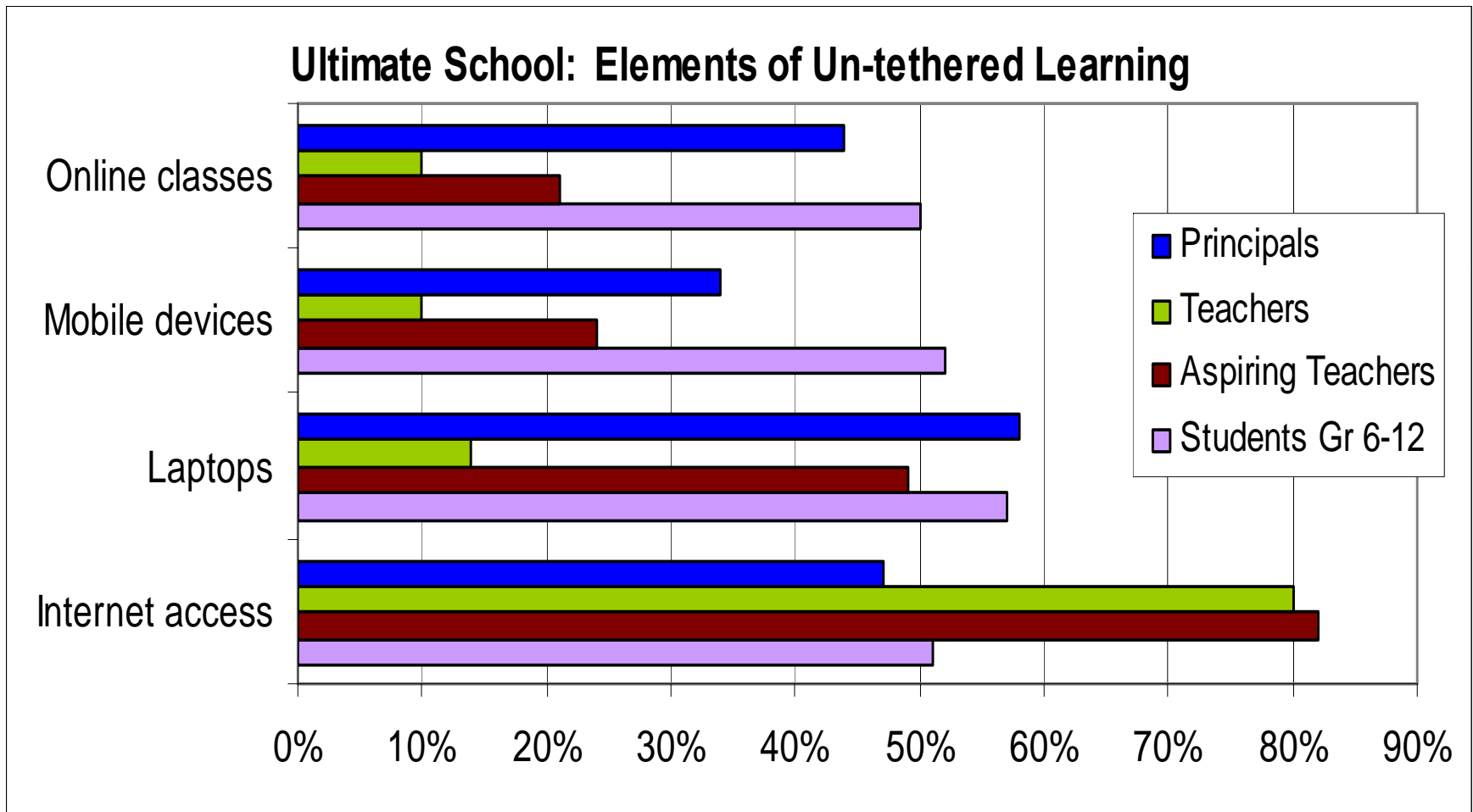
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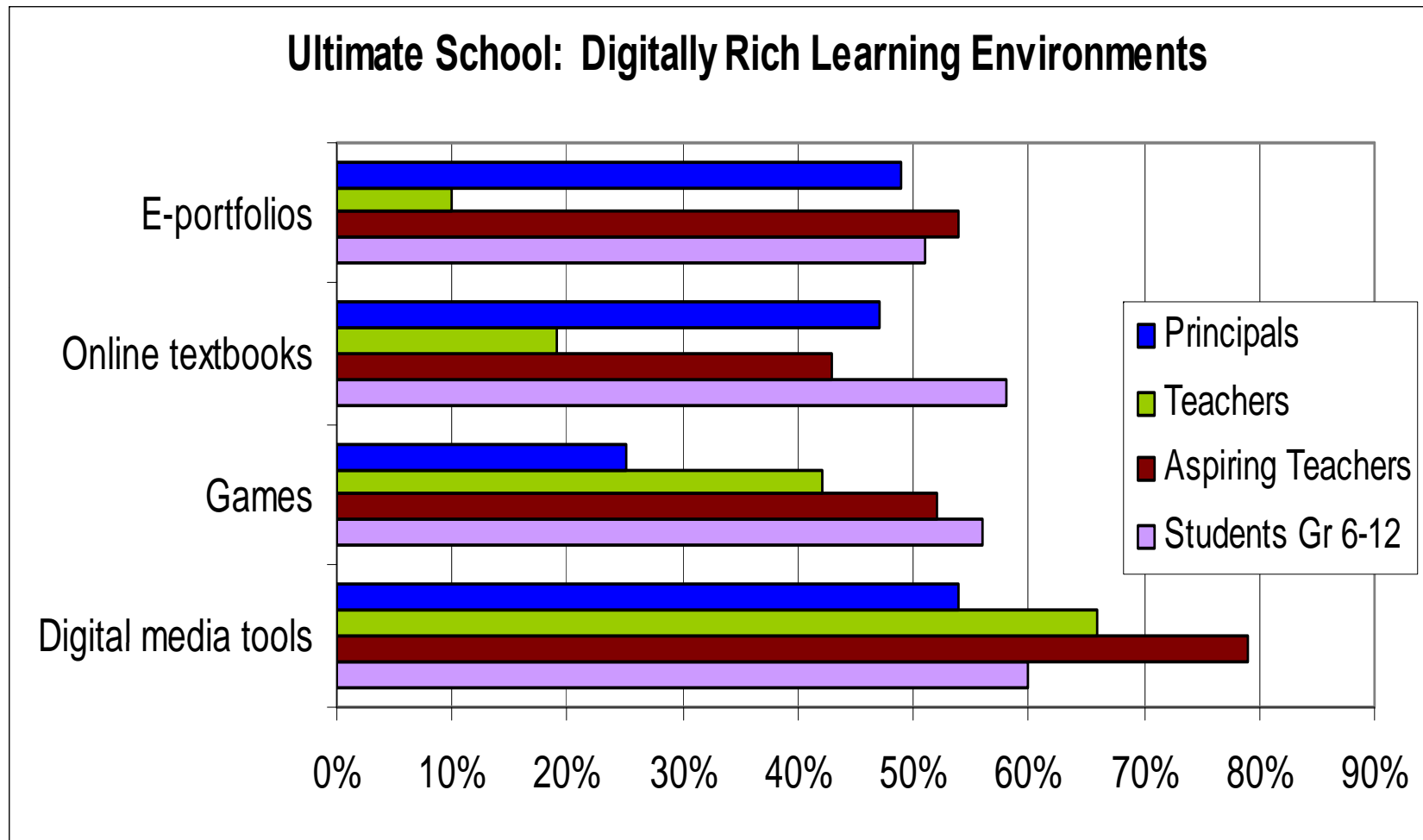
Unleashing the Future: Educators “Speak Up” about the use of Emerging Technologies for Learning



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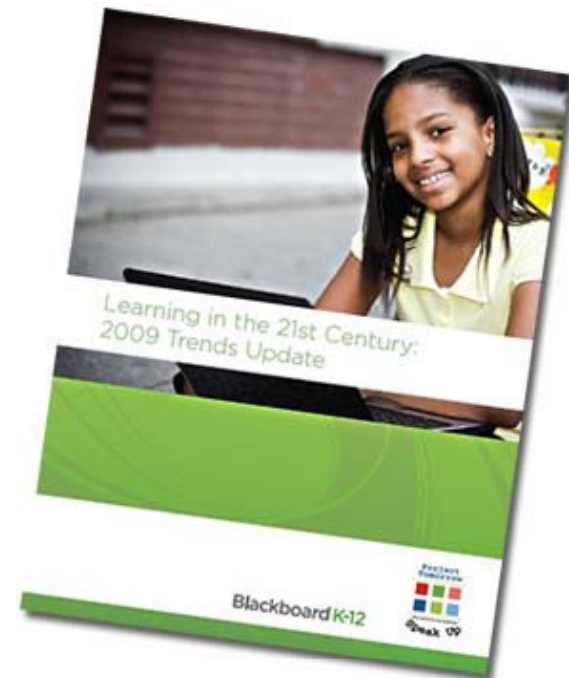
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More Speak Up? www.tomorrow.org



- ▶ National Speak Up Findings
- ▶ Additional data analysis from Speak Up 2009
- ▶ Presentations, podcasts and webinars
- ▶ Reports and white papers
- ▶ Information about other services
- ▶ Information about Speak Up 2010





More Speak Up? www.tomorrow.org

**New report to be released at ISTE 2010 in Denver on
online learning trends and findings from Speak Up
2009**

When: Invitation breakfast on Tuesday, June 29

http://www.tomorrow.org/speakup/learning21Report_2010_Update.html

Special presentation at ISTE 2010

**Title: Mobile Devices + Web 2.0 = Engaged
and Empowered Learners”**

When: Monday, June 28 @ 11 am CCC 205/207

Plan now to participate in Speak Up 2010!



Online surveys available for:

K-12 students

Parents (in Spanish too!)

Teachers

Administrators

Pre-service teachers

**Surveys open for input:
October 2010**

No fee to participate. No limit on the # of surveys submitted. 100% confidential.

Free online report for all Speak Up participating districts w/ your local data: Feb 2011

Release of National Speak Up Findings in Congressional Briefings: Spring 2011

A vision for education in 2019



“School will become a **24 hour around the clock opportunity** with students logging into school from “home.” The role of the teacher will be to **lead and assist students in “discovering”** the uses for the technology and information. **Every student from Pre-K through twelfth grade** will have access to learning through the most advanced IT devices available. **Learning will occur online** at least 80% of the time. **School buildings will be open** on evenings and Saturdays for remediation, recreation and community activities for the purpose of socialization.”

Principal from Michigan



Thank you.
Let's continue this conversation.

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