

Intel's Visionary Conference 2010  
Technology @ the intersection of educational change  
Washington DC



## STEM: Students, Teachers, Education and More Speak Up 2009 National Findings

**Julie Evans**  
**Chief Executive Officer**  
**Project Tomorrow**  
**April 16, 2010**

## Why we are here . . .

“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.**”

*(11<sup>th</sup> grader, Pittsburgh PA)*

# 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](http://www.tomorrow.org))  
is the leading education nonprofit  
organization dedicated to the  
empowerment of student voices in  
education.***

## Speak Up 2009 survey question themes

- **Learning & Teaching with Technology**
- **21<sup>st</sup> Century Skills: Digital Citizenship**
- **Math Instruction & Career Interests in STEM and Teaching**
- **Professional Development**
- **Internet Safety**
- **Education Continuity – Administrators’ Challenges**
- **Emerging Technologies in the Classroom**
  - *Mobile Devices, Online Learning, Digital Content / E-textbooks*
  - *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:



# Thank you to our 2009 National Champion Outreach Partners:



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



SU 2009 Congressional Briefing  
Washington DC  
March 16, 2010



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

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

Report/presentation available online at :

[http://www.tomorrow.org/speakup/speakup\\_congress.html](http://www.tomorrow.org/speakup/speakup_congress.html)

## ***Save the Date:***

National Release of the 2009 Speak Up Data Findings from K-12 Teachers, Administrators and Pre-Service Teachers (*new this year!*)

**Wednesday, May 5, 2010**

**12 noon – 1:30 pm**

**Rayburn House Office Building - Room B339**

**Presentation of Findings  
National Speakers  
Panel of Educators  
Discussion & Lunch**

**RSVP:  
[rsvp@tomorrow.org](mailto:rsvp@tomorrow.org)  
949-609-4660 x12**

Let's now listen to the voices of our  
education stakeholders



# Speak Up 2009 Selected Data Findings

# National Speak Up 2009 Participation: 370,565 surveys



✓ K-12 Students	299,677
✓ Teachers	38,642
✓ Pre-Service Teachers	1,987
✓ Parents (in English & Spanish)	26,312
✓ School/District Administrators	3,947
✓ Schools / Districts	5,757 / 1,215

Top Participating States (# of participants)

**Top 12: TX, AZ, AL, CA, FL, MD, PA, NC, AR, MO, NY, IL**

About Speak Up Schools:

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

# Sampling of Key Findings: Speak Up 2003 – 2009

+ 1.85 million surveys from students, parents & educators



- ▶ 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”

*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

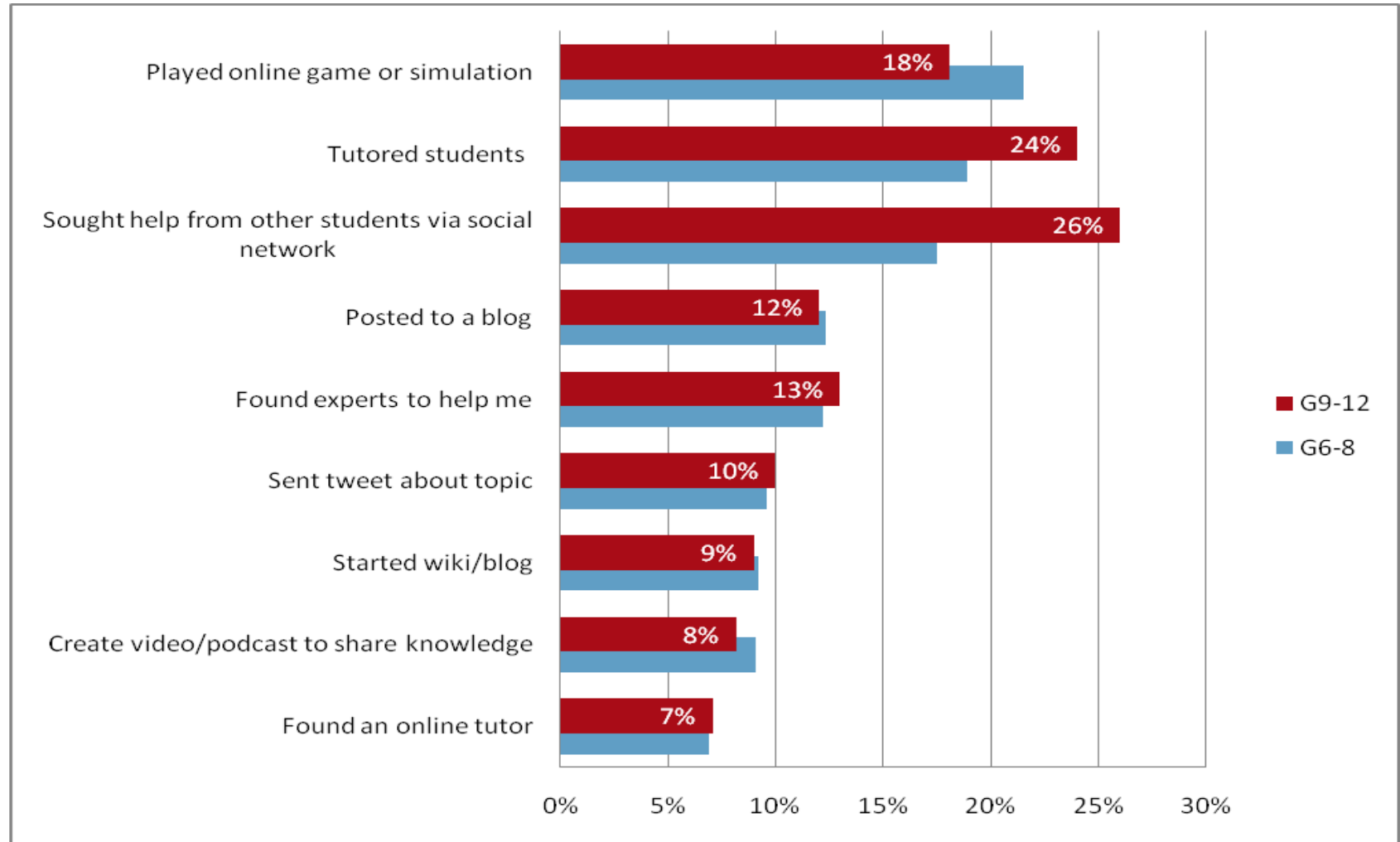


## *Three Essential Elements*

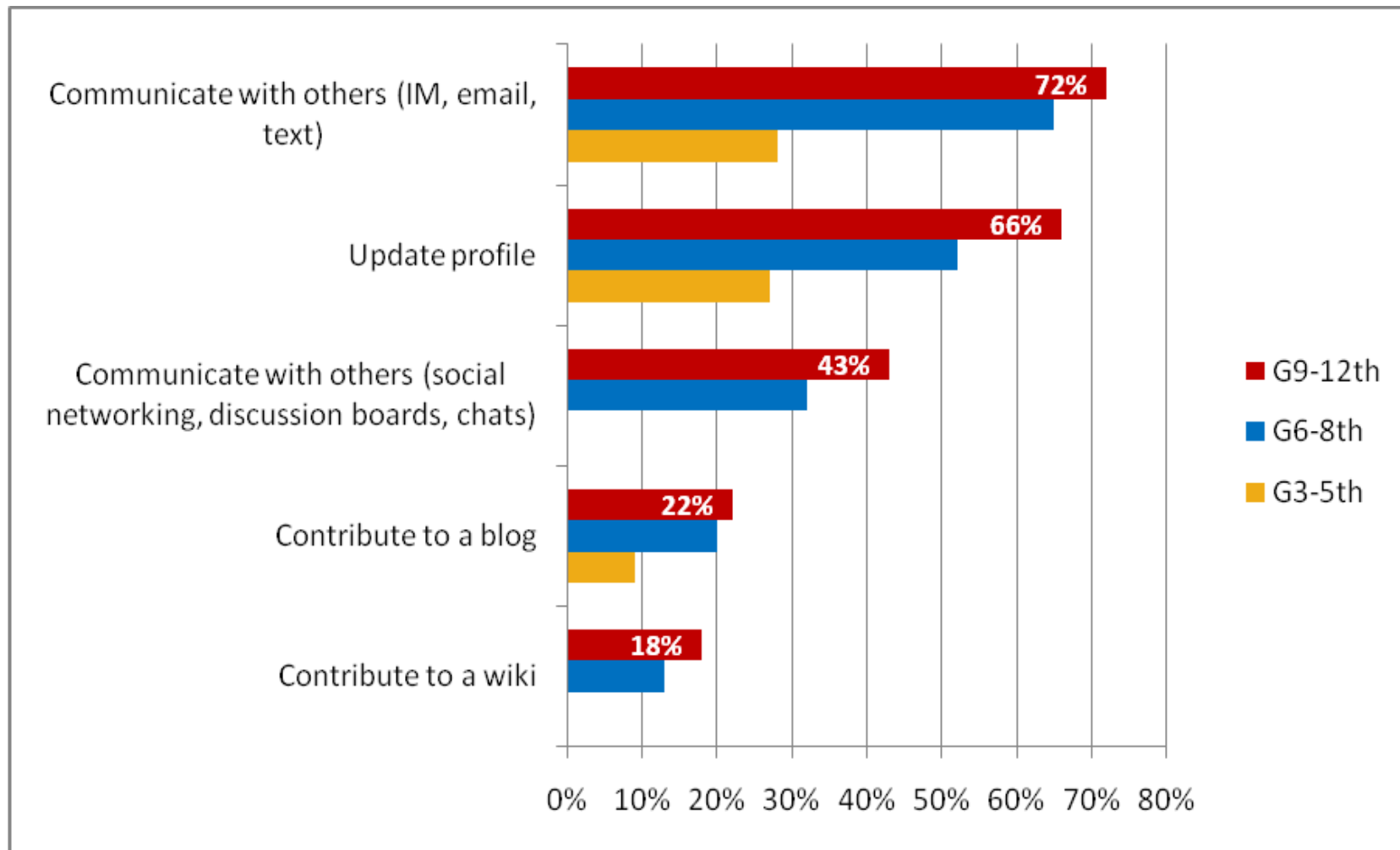
### ▶ **Social-based learning**

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

## ▶ Students are "Free Agent" Learners: Using technology tools on their own for learning

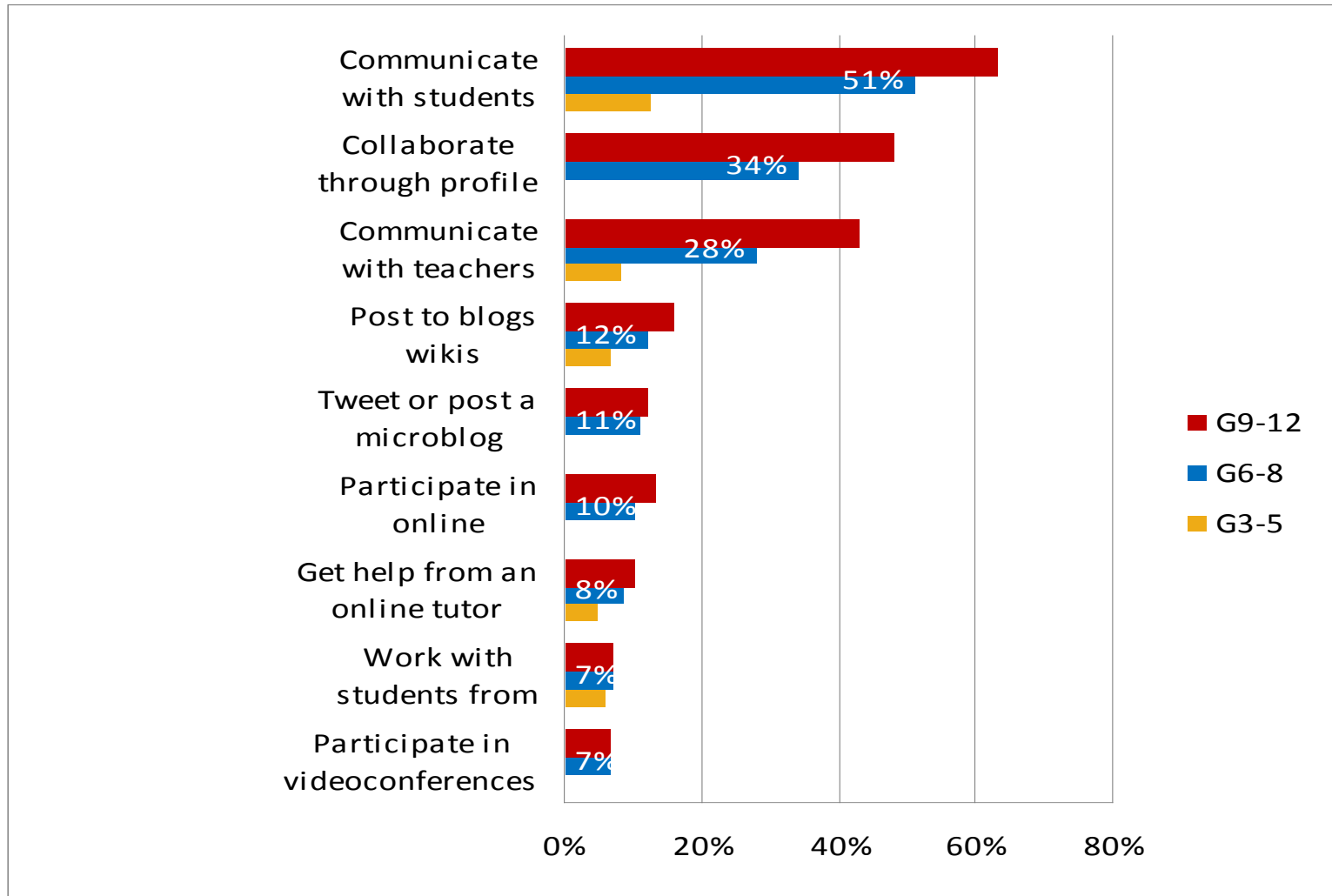


▶ **Students' use of technology for communication and collaboration outside of school**





# Students' use of collaboration and communications tools for school work



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

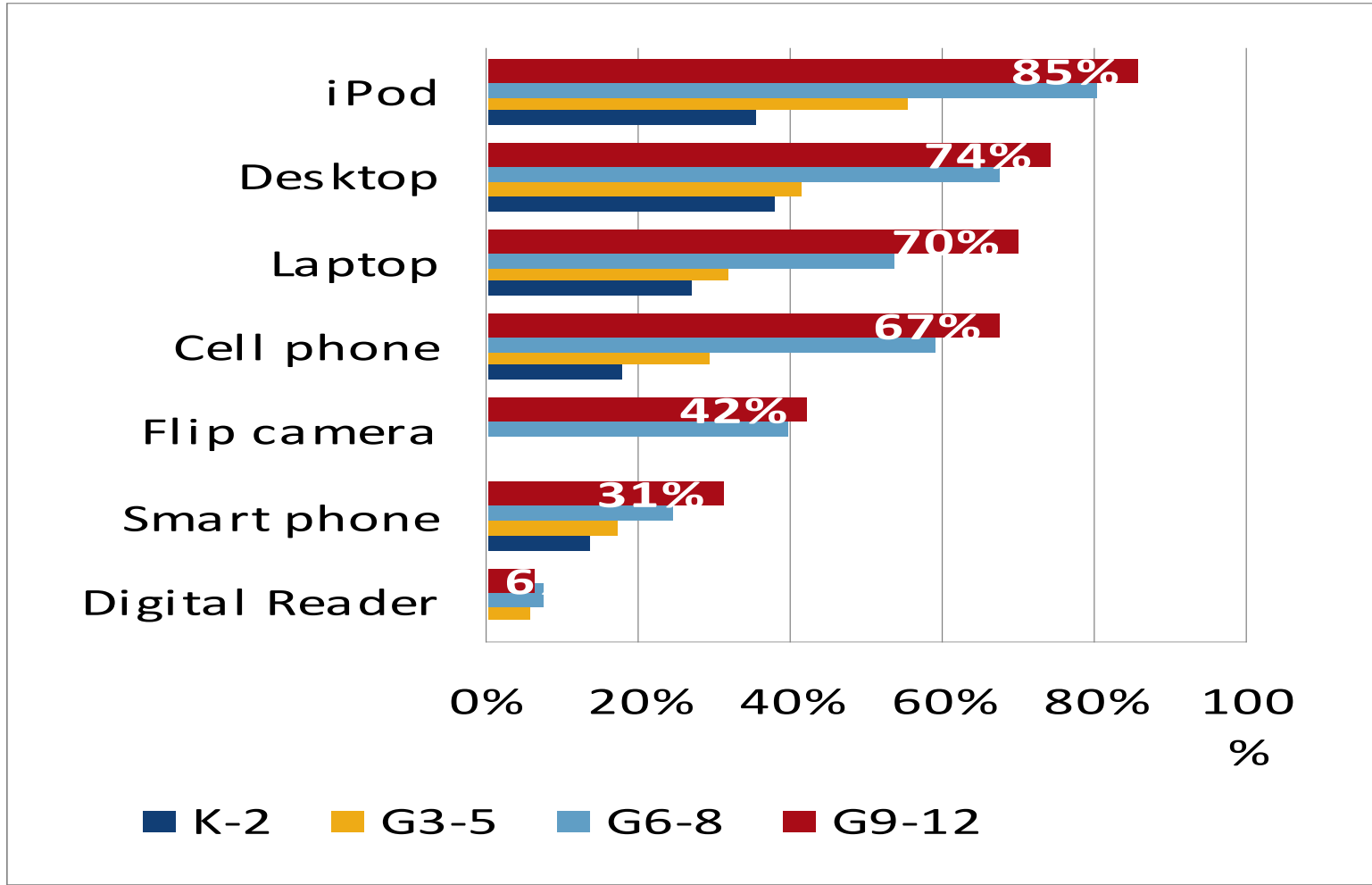


## *Three Essential Elements*

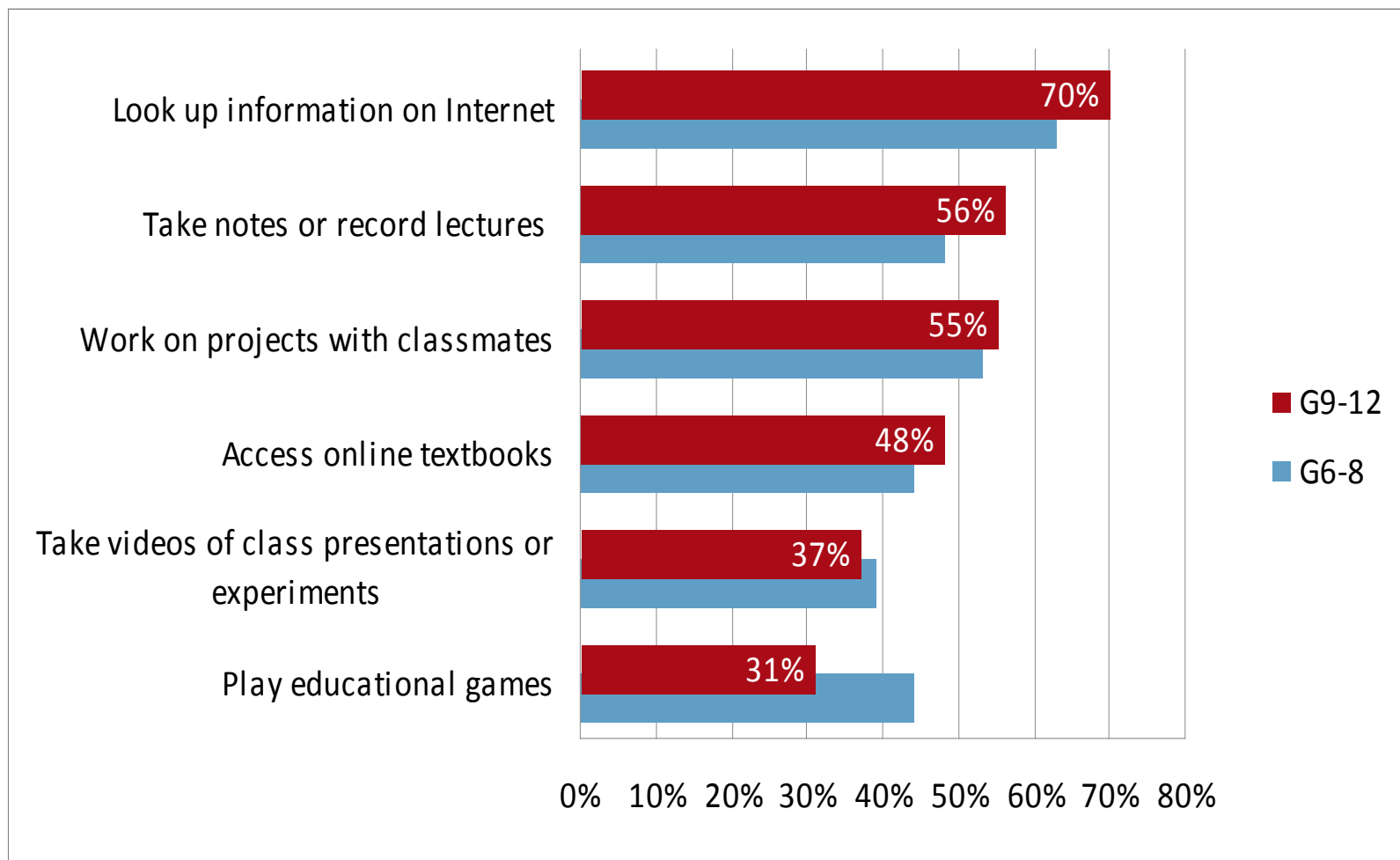
### ▶ **Un-tethered learning**

**Students envision technology-enabled learning that transcends classroom walls**

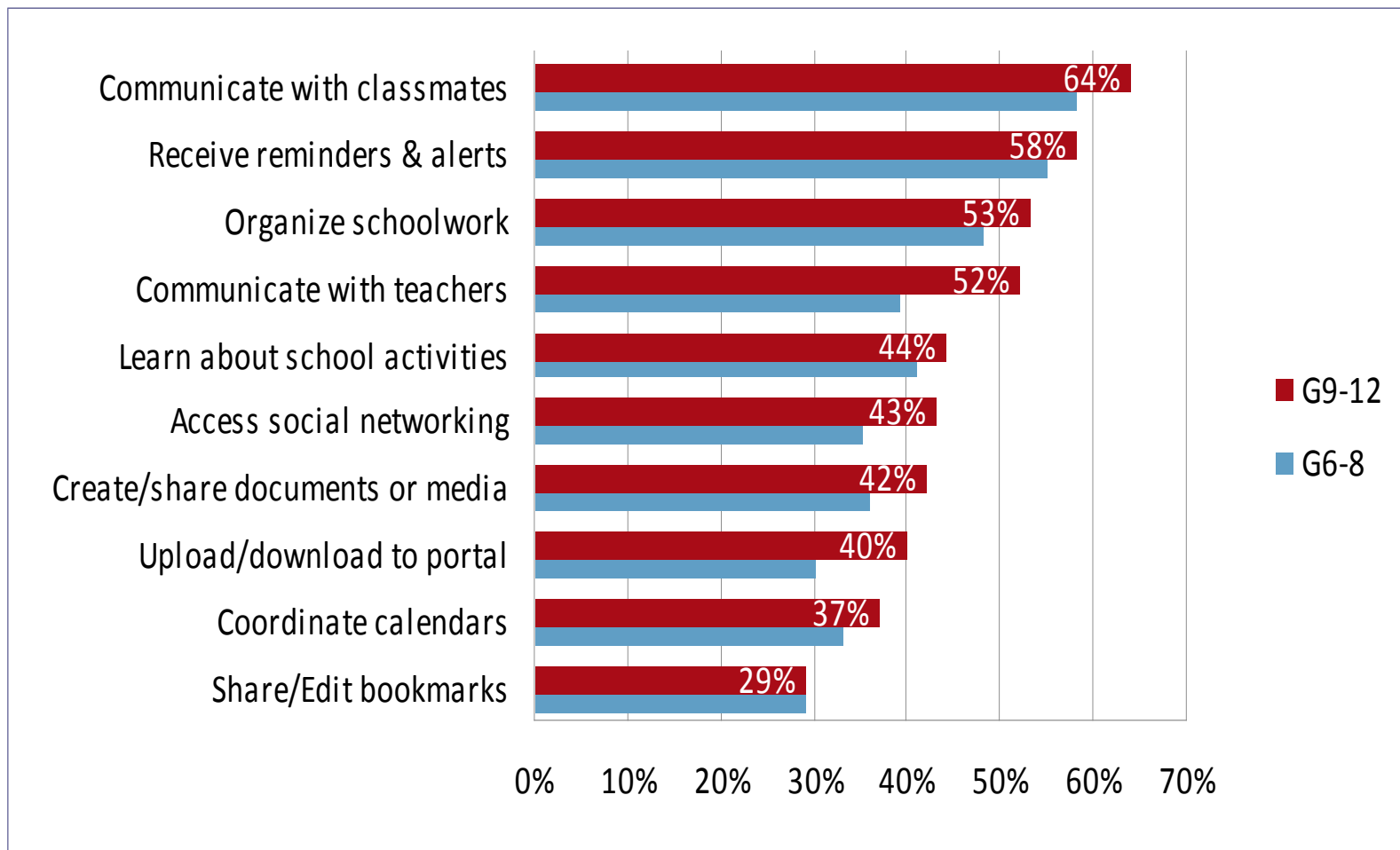
▶ **Mobile Devices: Students have personal access to a variety of electronic devices – even our youngest students!**



## ▶ Students' suggested use of mobile devices for learning purposes



▶ **Students believe that mobile devices can also enhance personal productivity**



## ▶ Students face obstacles using technology at school

### *Top responses:*

1. **I cannot use my mobile device (51%)**
2. School filters and firewalls block websites I need (48%)
3. Teachers limit our technology use (34%)
4. Too many rules! (27%)
  - ▶ Cannot access my communications tools
  - ▶ Rules that limit use of my school's technology

▶ **How schools could make it easier to use technology – the student point of view**

*Students say:*

1. **Let me use my own mobile device (58%)**
2. Give me unlimited Internet access on campus (41%)
3. Let me use my own laptop (41%)
4. Access my school projects from any computer – home or at school (40%)
5. I want to access my social networking site and communications tools (36%)

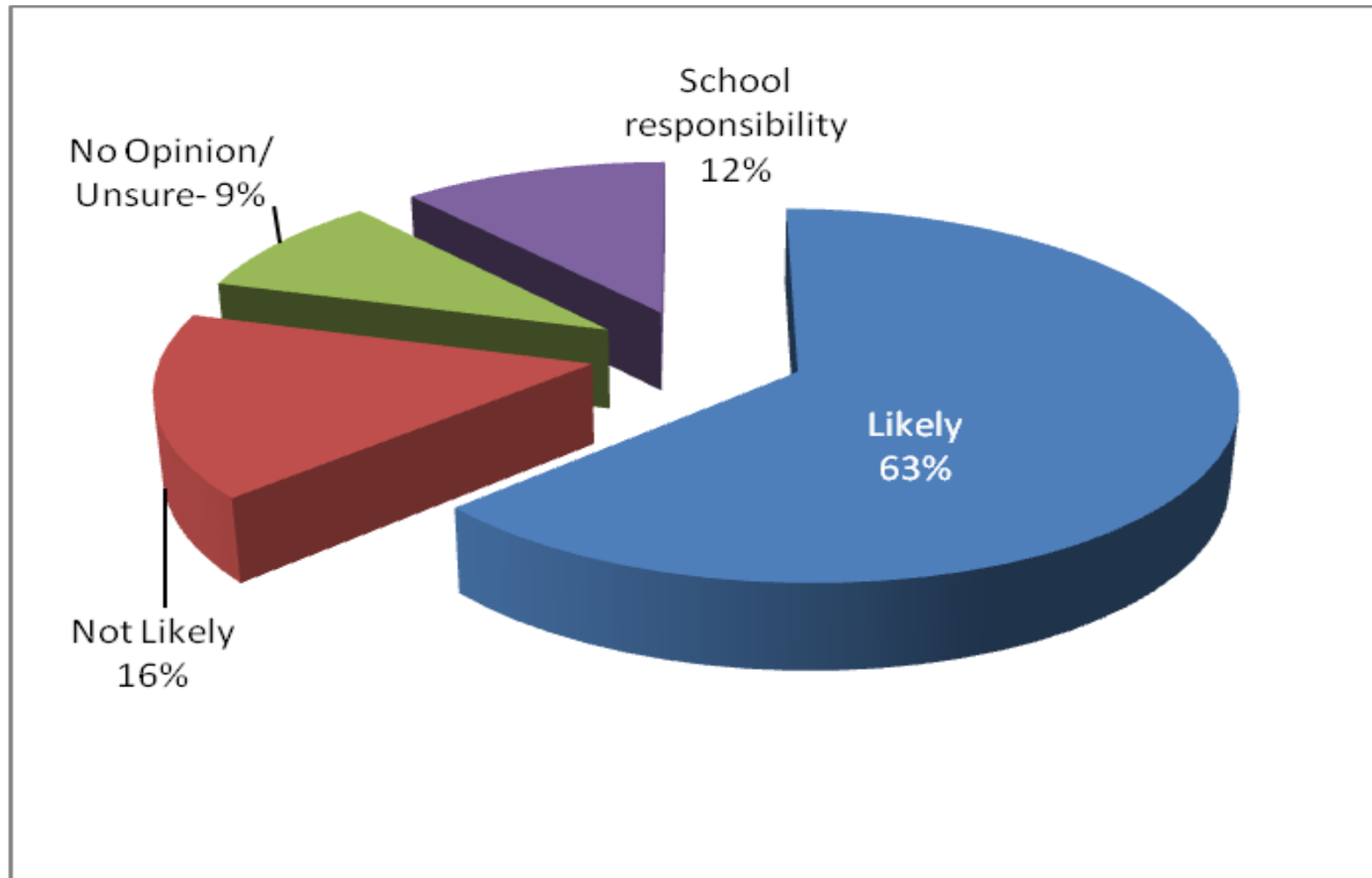
▶ **Teachers' beliefs about the potential benefits of using mobile devices for instructional purposes**

Increases student engagement	50%
Prepares students for world of work	40%
Extends school day for learning	36%
Improves teacher-parent-student communications	36%
Personalizes instruction	29%

▶ **Parents' beliefs about the potential benefits of using mobile devices for instructional purposes**

<b>Increases student engagement</b>	<b>43%</b>
Prepares students for world of work	41%
Extends school day for learning	38%
Provides access to online textbooks	37%
Improves teacher-parent-student communications	35%

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



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



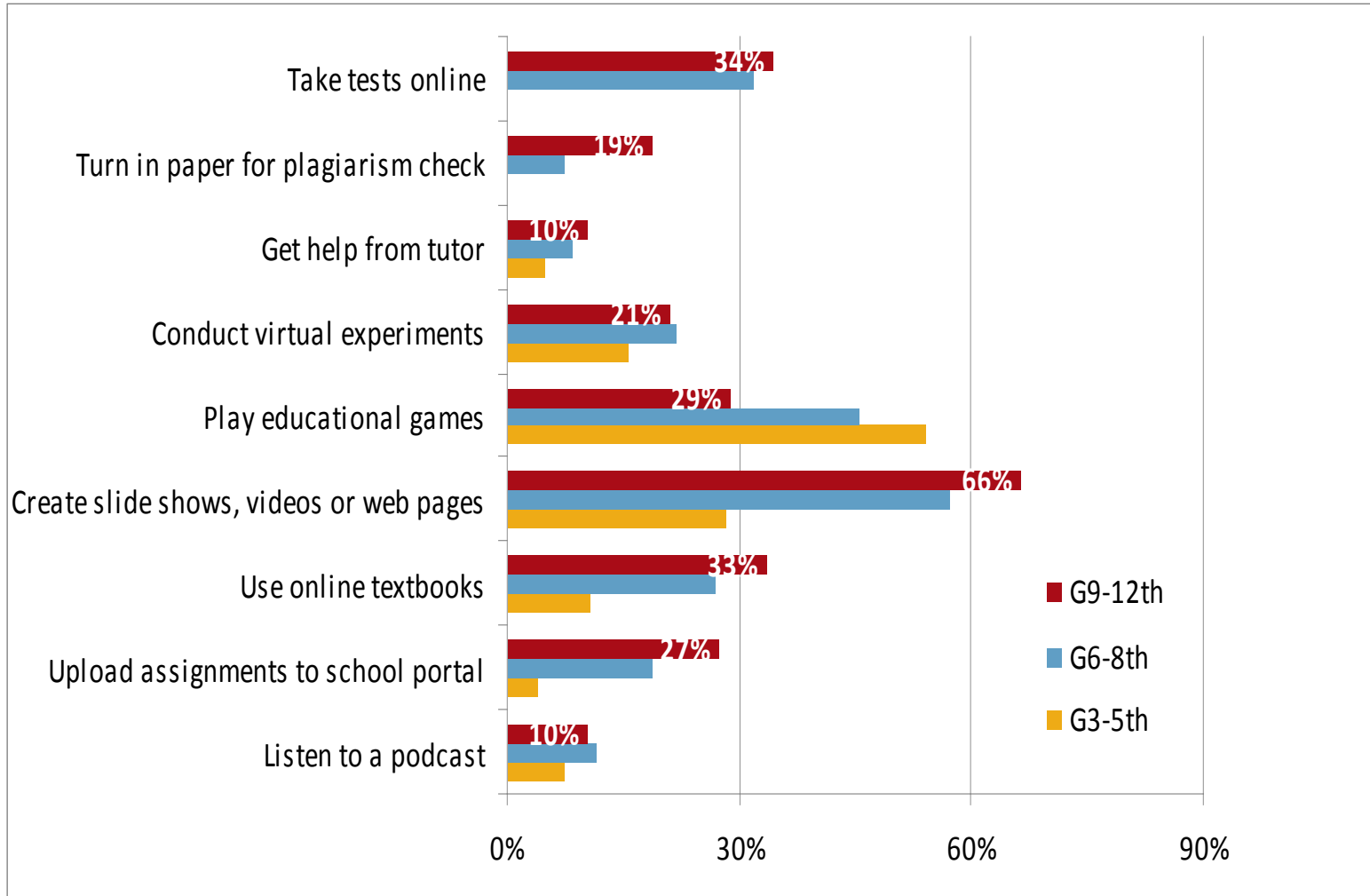
## *Three Essential Elements*

### ▶ **Digitally-rich learning**

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

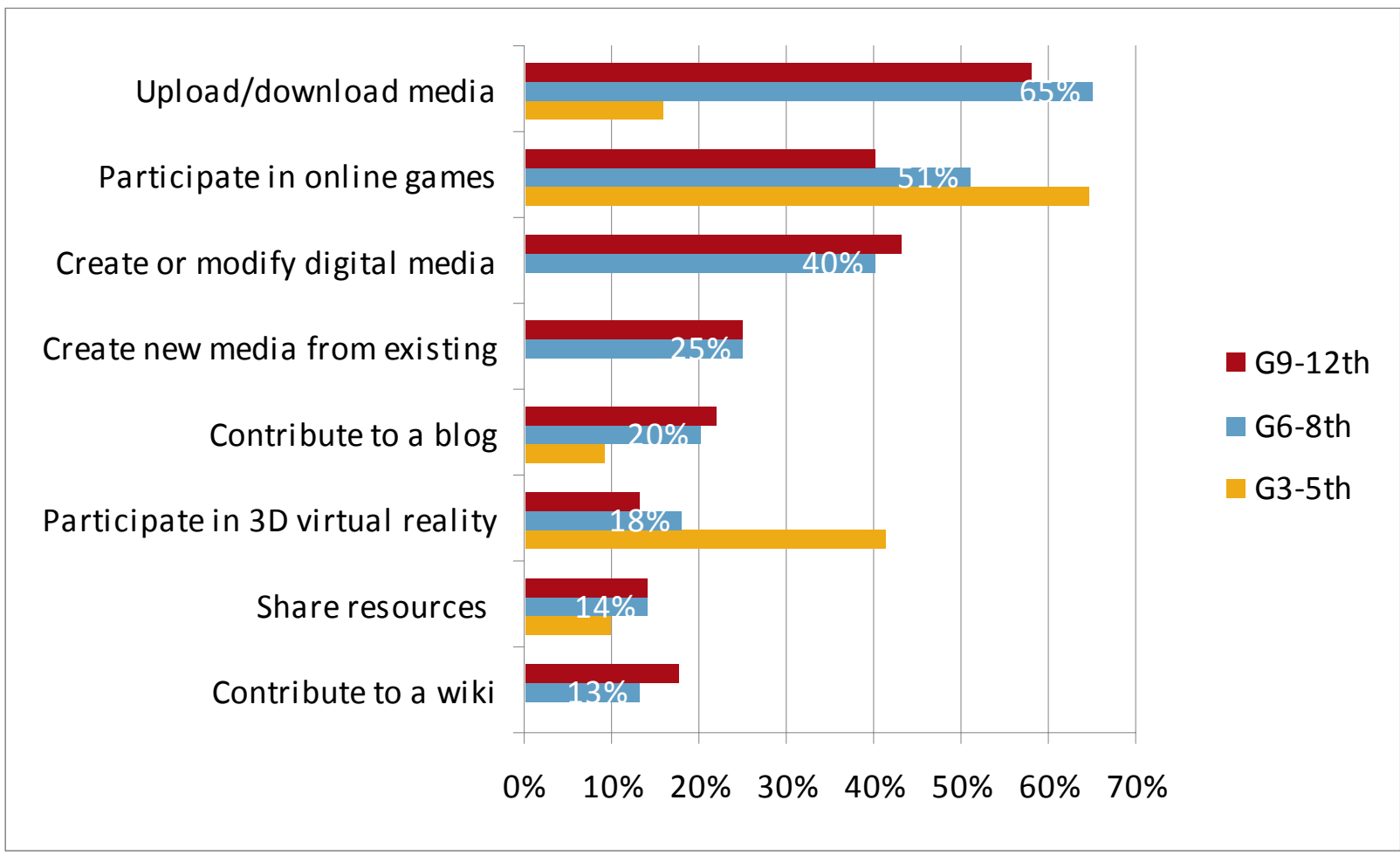


▶ **Students' use of digital resources for schoolwork**





# Students use of digital resources outside of school



# Digitally-rich learning

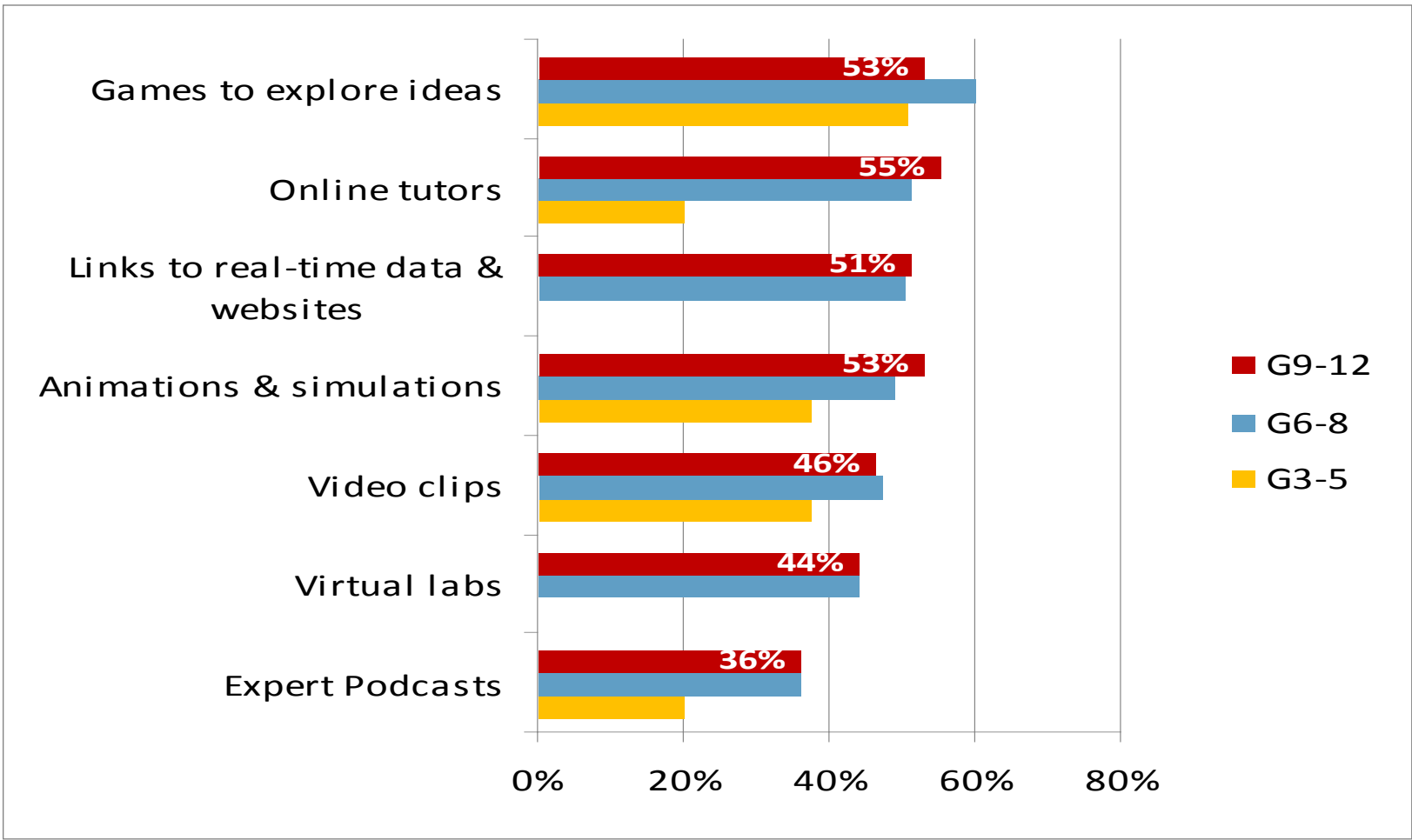
- ▶ **Students' desires for the features and functionality of online textbooks**

## *What do they want in an online textbook?*

- “Make it interactive and relevant”
- “Use it to facilitate collaboration”
- “Personalize it for my learning”

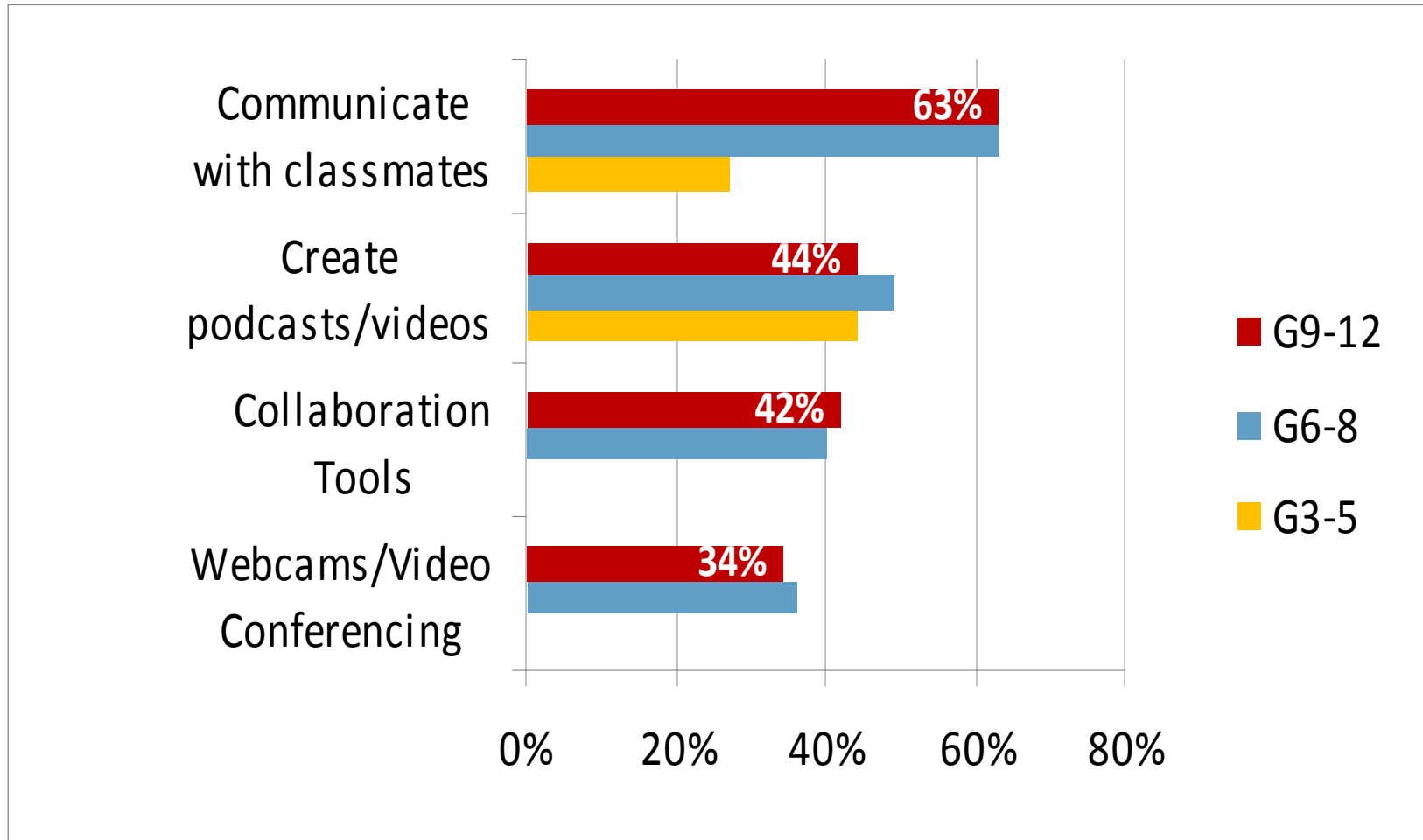


▶ **Students want their online textbooks to be interactive and relevant**



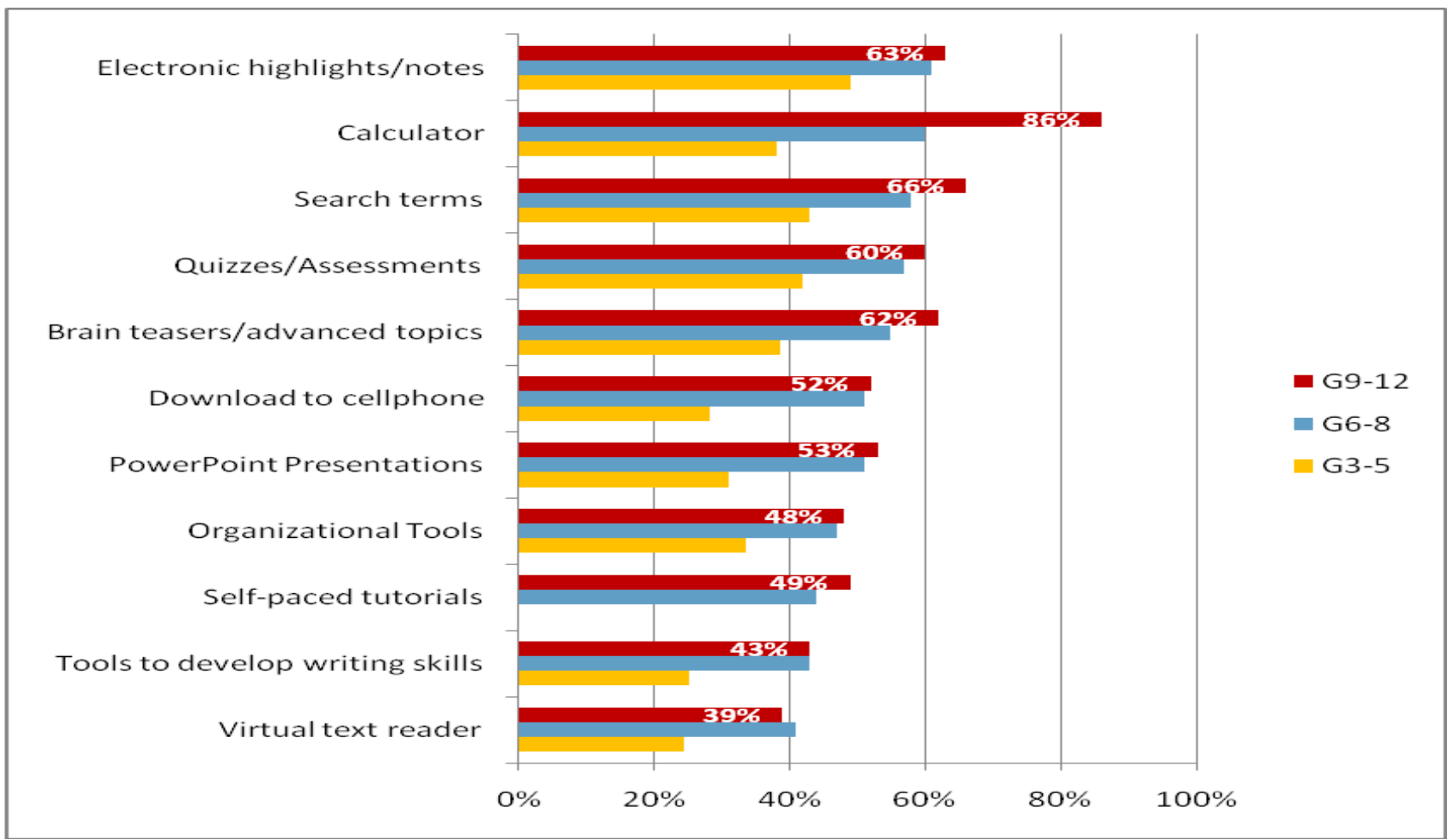


▶ **Students want their online textbooks to have tools that facilitate collaboration with peers and experts**





▶ **Students want to use their digital textbooks to personalize learning – make it work for me!**



***Imagine you are designing the ultimate school for  
21st century learners.***

***Which of these technology tools or strategies do  
you think holds the greatest potential for  
increasing student achievement and success?***

## Top responses in 2009:

*Students design the ultimate school for 21st century learning*

- ▶ **Communications tools (60%)**
- ▶ **Digital media tools (60%)**
- ▶ **Games and simulations (60%)**
- ▶ **Online textbooks (57%)**
- ▶ **Mobile computer for every student (57%)**
- ▶ **Interactive whiteboards (53%)**
- ▶ **Collaboration tools (51%)**
- ▶ **Digital resources (51%)**
- ▶ **Mobile devices (51%)**
- ▶ **Tools to help organize schoolwork (49%)**
- ▶ **Campus wide Internet access (49%)**
- ▶ **Online classes (48%)**

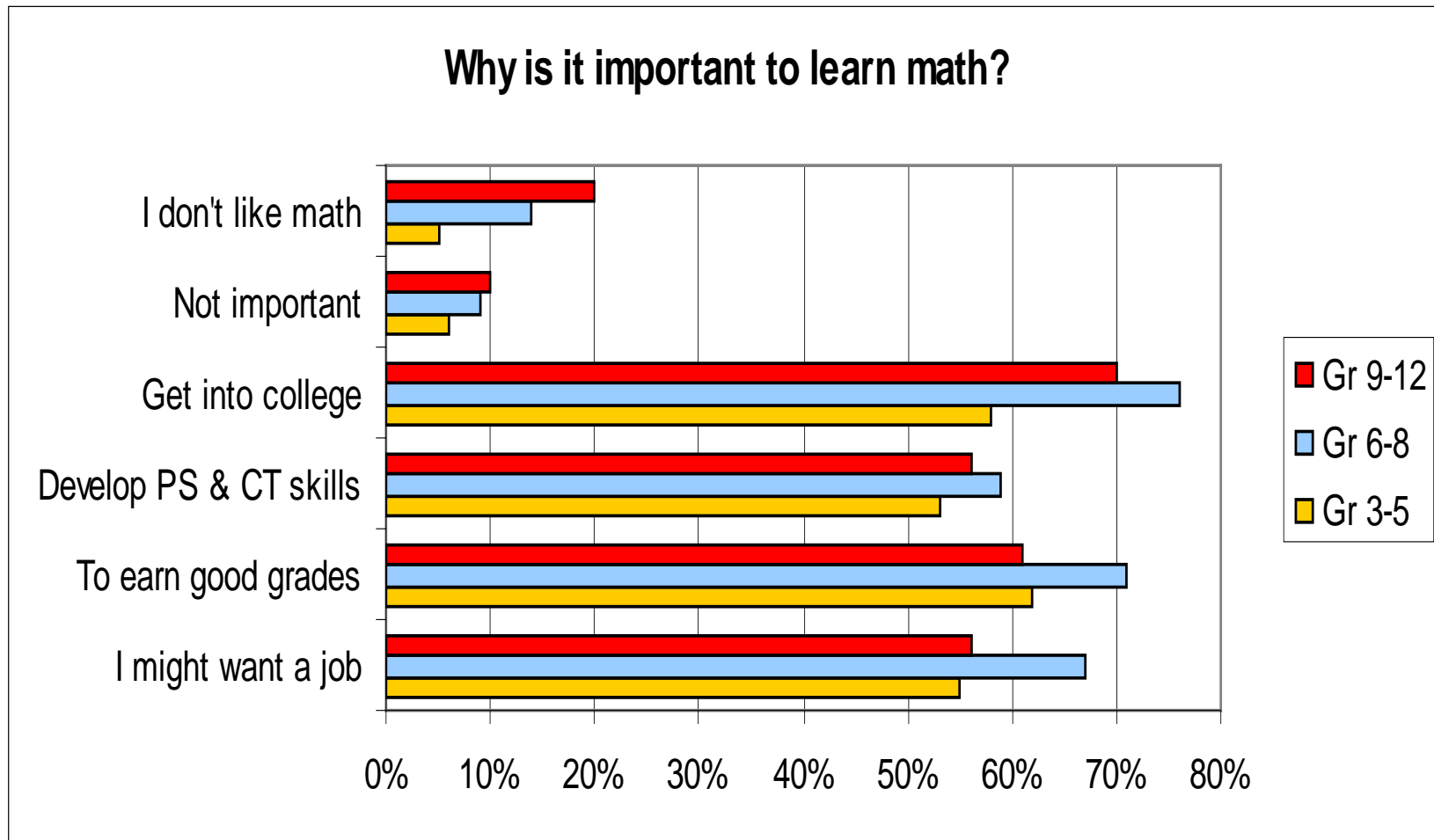
# Creating Our Future: Students Speak Up about their Vision for 21st Century Learning



## *Three Essential Elements in the Student Vision*

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- ▶ **Digitally-rich learning**

# Math and STEM Career Exploration



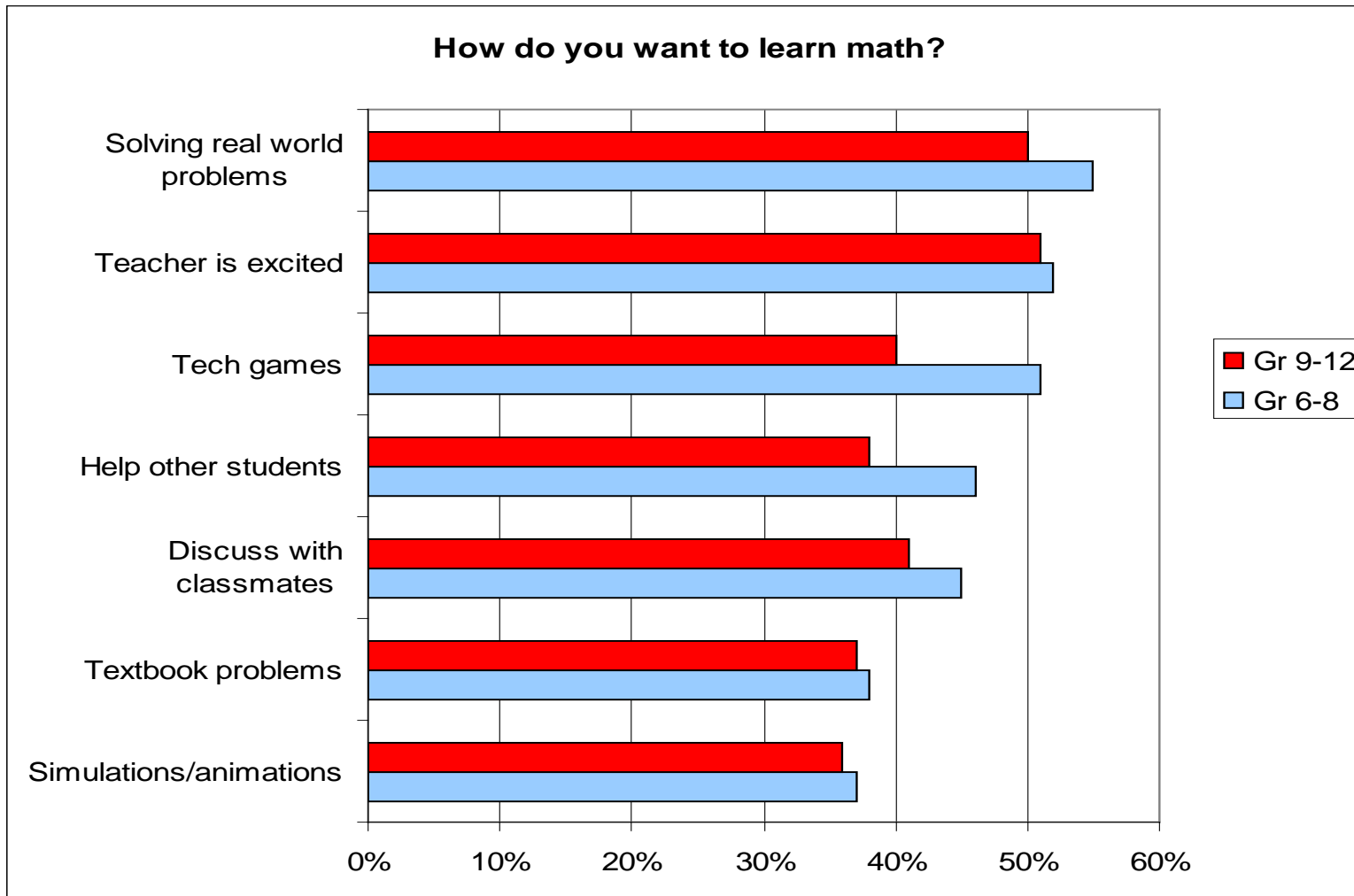
# Math and STEM Career Exploration



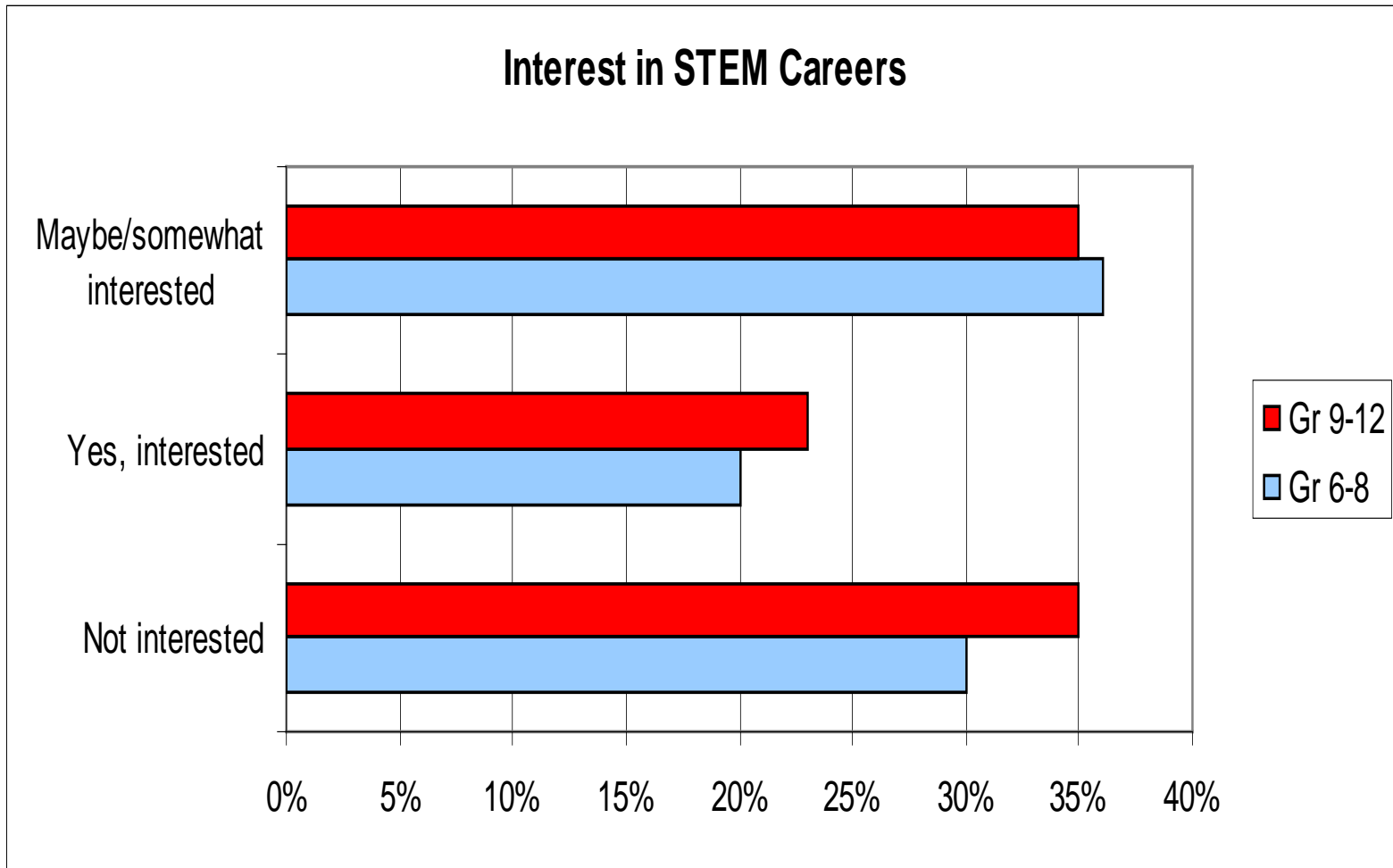
## Why do parents think math is important to their child's success?

- To develop problem solving and critical thinking skills 75%
- To be successful in a future job 65%
- To help my child get into college 49%

# Math and STEM Career Exploration



# Math and STEM Career Exploration



# Math and STEM Career Exploration



**Yes, I am interested: What would increase your interest in a STEM career?**

**Summer career exploration programs**

**After school programs**

**Competitions**

**College scholarships**

# Math and STEM Career Exploration



**Yes, I am interested: What would increase your interest in a STEM career?**

**Summer career exploration programs**  
**After school programs**  
**Competitions**  
**College scholarships**

**Somewhat/maybe interested: What would increase your interest in a STEM career?**

**Meeting successful role models**  
**Talk to professionals and visit companies**  
**Work with mentors**  
**Day in the Life videos and podcasts**

# Math and STEM Career Exploration



Parents: Which of these areas are you likely to encourage your child to pursue a career?

- **Science** **51%**
- **Math** **35%**
- **Engineering** **44%**
- **Technology** **49%**
- **Teaching** **28%**

# More Speak Up? [www.tomorrow.org](http://www.tomorrow.org)



Webinars, podcasts and reports such as:

## ***National Speak Up 2009 Findings***

***Students and Parents – available now***

***Teachers, Administrators, Pre-service teachers – May 5th***

***Learning in the 21<sup>st</sup> Century: A National Report of Online Learning  
(Oct 2007, Updated Jun 2008, 2009)***

***Inspiring the Next Generation of Innovators: Students, Teachers and Parents  
Speak Up about Science Education (Jun 2008)***

***Leadership in the 21<sup>st</sup> Century:  
The New Visionary Administrator  
(Oct 2008)***

***Parents' Perspectives, Parents' Priorities  
(Oct 2009)***



*Thank you!*

More data and reports are available on  
our website: [www.tomorrow.org](http://www.tomorrow.org)

Julie Evans  
Project Tomorrow  
[jevans@tomorrow.org](mailto:jevans@tomorrow.org)  
949-609-4660 x15

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