

# Project RED: Revolutionizing Education

A Presentation for the  
U.S. Dept. of Education  
February 2, 2010



# Research is Critical to the Federal Agenda

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## Important Federal Programs Requiring Research

- Race to the Top
- i3
- School Improvement
- National Ed Tech Plan
- ESEA Reauthorization

## All Would Benefit from Project RED

- “The biggest hole is research, development & evaluation”
- Critical to go beyond anecdotal observations
- Ways education technology builds efficiencies and revenue positive effects
- The big question: What works and why

# Project RED is Unique

- The only national study that:
  - Focuses on the future -- technology rich environments
  - Ties implementation practices to test scores in over 1,000 schools
  - Focuses on the impact of technology on academic achievement as well as on positive financial implications
- Project RED is the only research project focused on the Department of Education's challenge:  
***How to do more with less & achieve around the five focus areas***

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**In 1978, microcomputers  
entered U.S. classrooms  
with much fanfare.**



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**Thirty years  
forty million computers  
and sixty billion dollars  
later...**



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**We're still looking  
for  
compelling results.**



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# Enter Project RED



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# Research Quality Underpinnings

- 8 Ph.D.s specializing in education research methodology participated in multiple project reviews
- Focused on reliably-worded questions and responses
- Substantial resources devoted to obtaining a response rate of over 1,000 completed surveys.
- Respondents
  - Building principals (47%)
  - Building technology coordinators (25%)
  - District technology coordinators (~10%)
  - Superintendents (~10%)



# Research Methodology Advisors

- Alan Davis, Ph.D. - University of Colorado
- Sandra Elliot, Ph.D. - Texas New and Charter School Initiative
- Carrie Germeroth, Ph.D. - McREL
- Michael Gielniak, Ph.D. One-to-One Institute
- Arlen Gullickson, Ph.D. Western Michigan University
- Rod Muth, Ph.D. University of Colorado
- Kelly Woods, Ph.D. Pearson

# It Takes More Than Technology...

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Project RED success depends on

- New federal and state education policies and legislation
- Implementation of identified success factors
- Strong leadership at all levels – Teachers to Governors to President
- Teachers transforming their classrooms
- Appropriate technology



# National Ed Tech Plan and Project RED

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- Project RED provides strong research supportive of the National Ed Tech Plan's five focus areas:
  - Productivity
  - Assessment
  - Teaching
  - Learning
  - Infrastructure
- Project RED identifies areas requiring additional research.
- Project RED addresses the positive financial impact attributable to technology.



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# Productivity & Project RED

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- First large scale national study providing data on the many positive benefits accruing to “All learners having Broadband Internet access and a digital learning device 24/7” .
- First and only national study with actual data reflecting “... improved educational outcomes and cost savings.”
- Savings can be realized from non-instructional areas, such as copy machine costs. The typical high school spends more than \$100,000/year. If costs were reduced by 50%, the savings could exceed some states’ technology budgets.

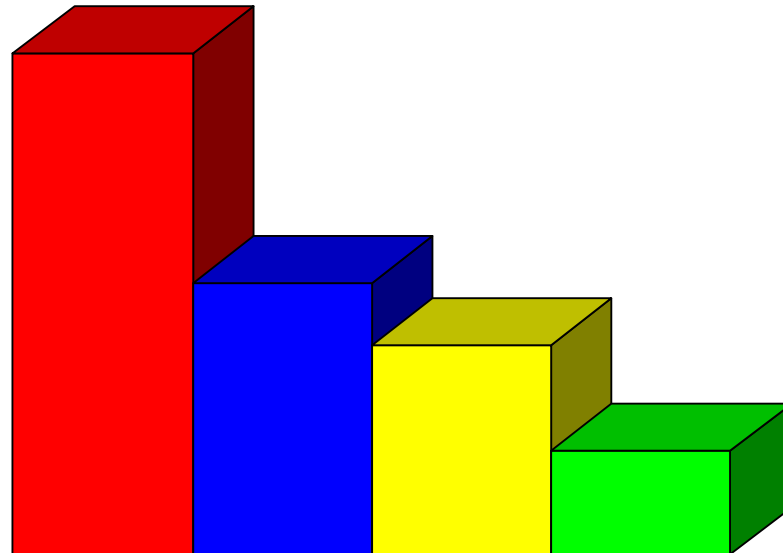


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# Productivity – Cost Savings

## Copy Machine Cost Reductions Attributed to Technology

Pct. of Respondents reporting Great Improvement

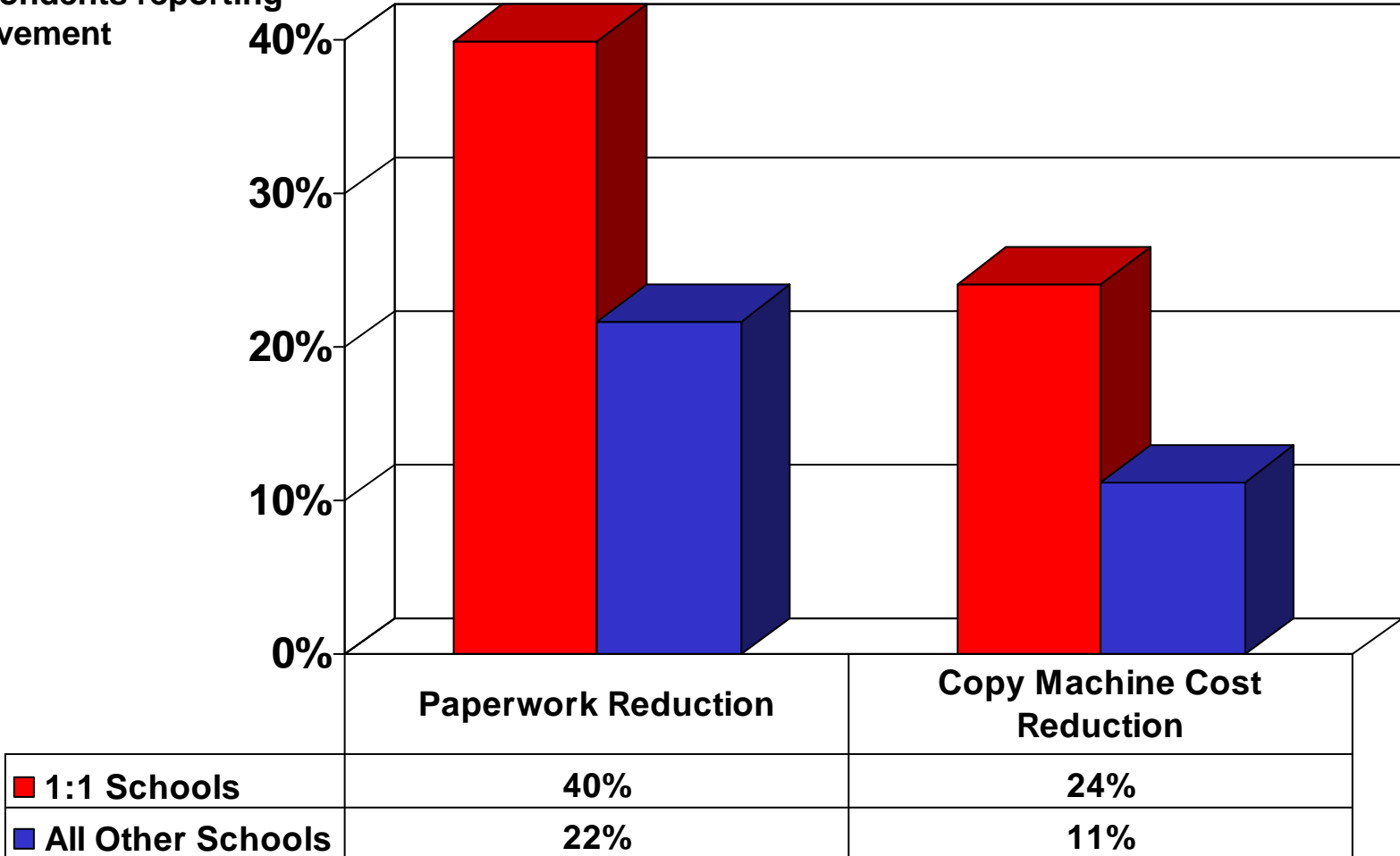


■ 1:1 Schools	24%
■ Continuous access not 1:1	13%
■ Many have access not all	10%
■ Few have access	5%

How has deployment of ubiquitous technology changed the following?

# Productivity & Savings in 1:1 Schools

Pct. of Respondents reporting Great Improvement



# Assessment

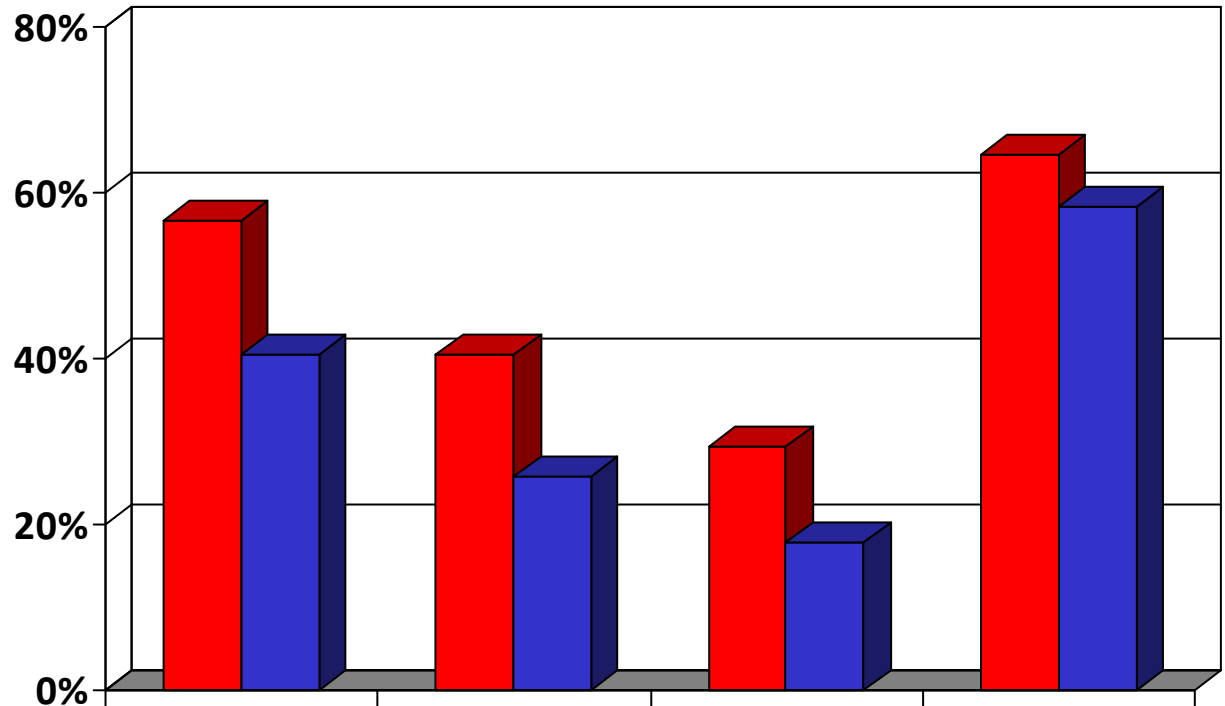
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- Schools using online formative assessment at least weekly outperform those who do not...
  - 16% delta in discipline reductions
  - 7% delta in high stakes test score increases
  - 14% delta for dropout-rate reduction
  - 12% delta in teacher attendance
  - Substantial gains were also realized in course completion rates and in plans for college attendance



# Online Formative Assessment: Improvement in Outcomes

Pct. of Respondents  
Reporting Great Improvement



	Discipline Action Reduction	Dropout Rate Reduction	Teacher Attendance Increase	High Stakes Test Scores Improvement
■ At Least Weekly	57%	40%	30%	65%
■ Monthly, Less Often or Not At All	41%	26%	18%	58%

**How frequently do students actually use technology for Online Formative Assessments?**



# Teaching

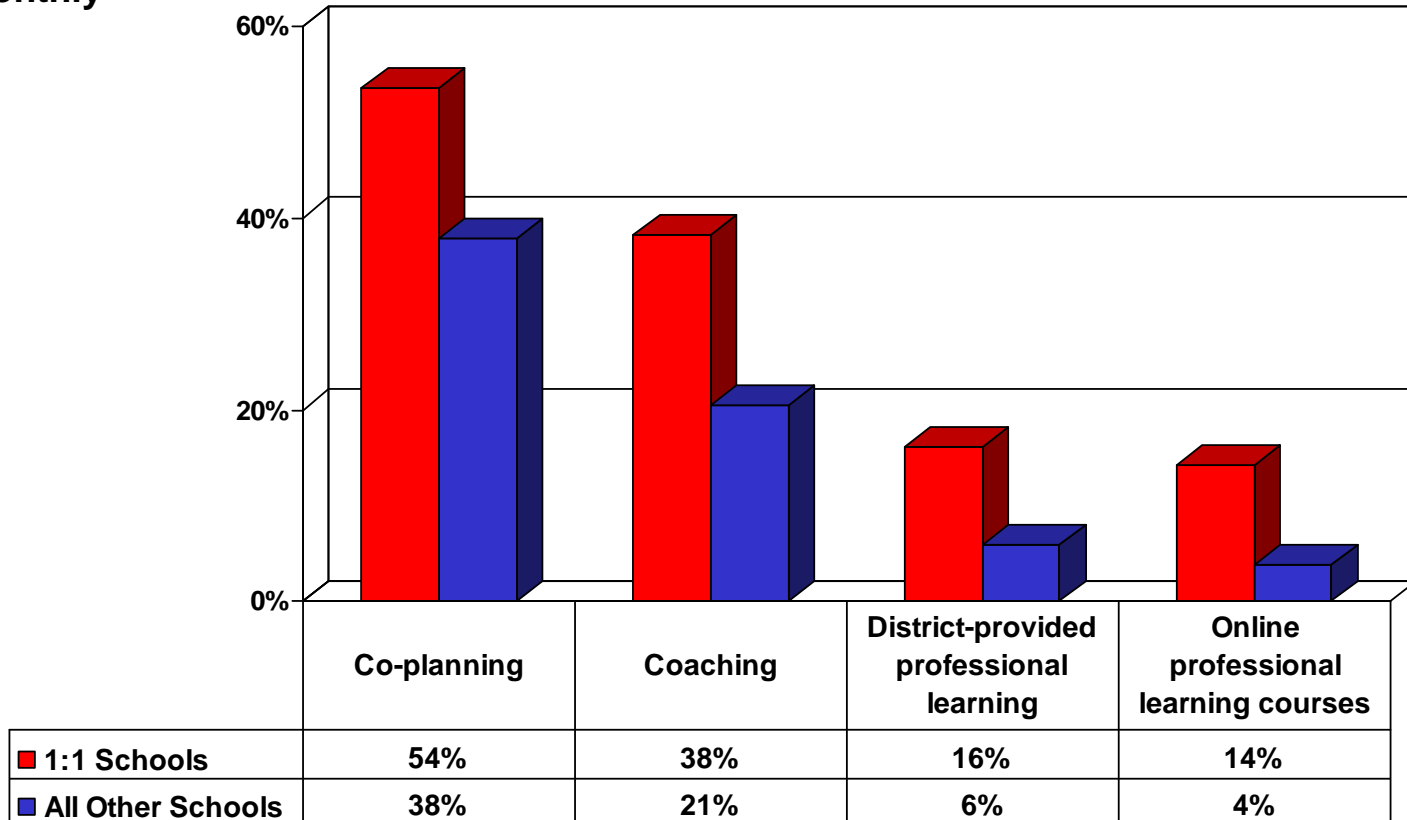
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- Teachers have more frequently-scheduled Professional Learning in technology-rich schools.
- Principals more frequently act as the instructional team leader in technology-rich schools.



# Professional Learning

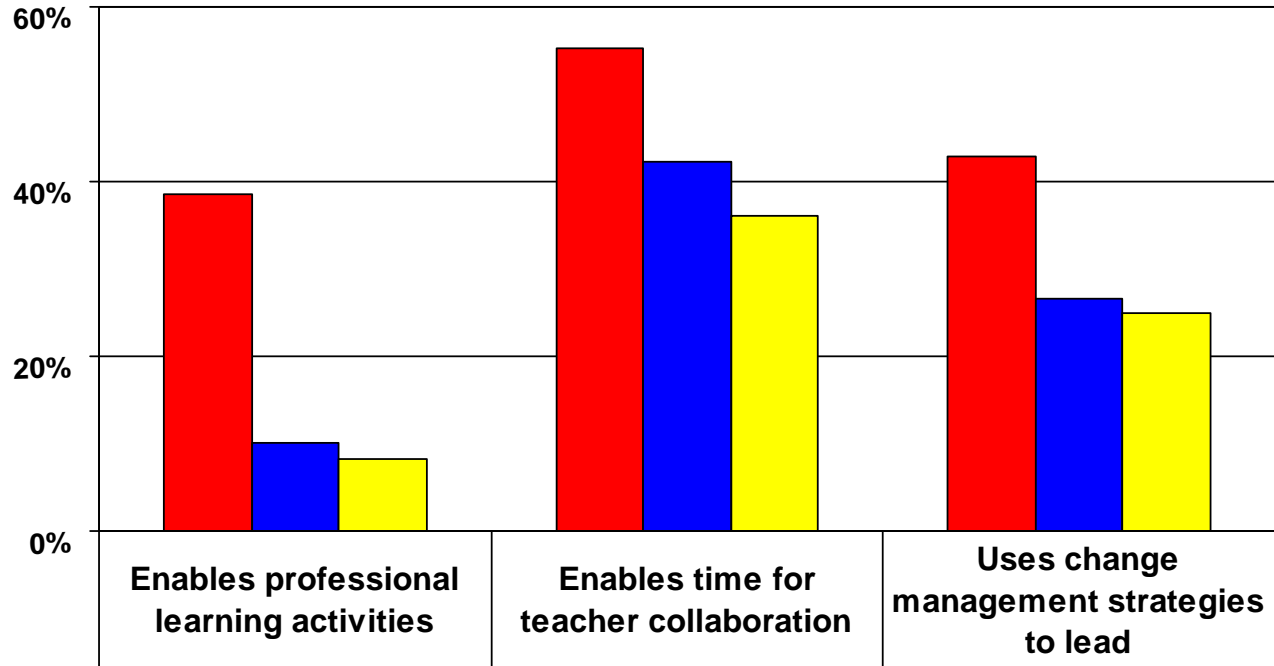
Respondents Reporting  
At Least Monthly



**In support of your tech program, how frequently does the typical teacher experience the following professional learning activities?**

# Principal's Leadership Role

Respondents Reporting Activity At Least Weekly By the Principal



<span style="color: red;">■</span> 1:1 Schools	39%	55%	43%
<span style="color: blue;">■</span> Many have access	10%	42%	27%
<span style="color: yellow;">■</span> Few have access	8%	36%	25%

**Describe the principal's role as the leader of the technology initiative.**

# Learning

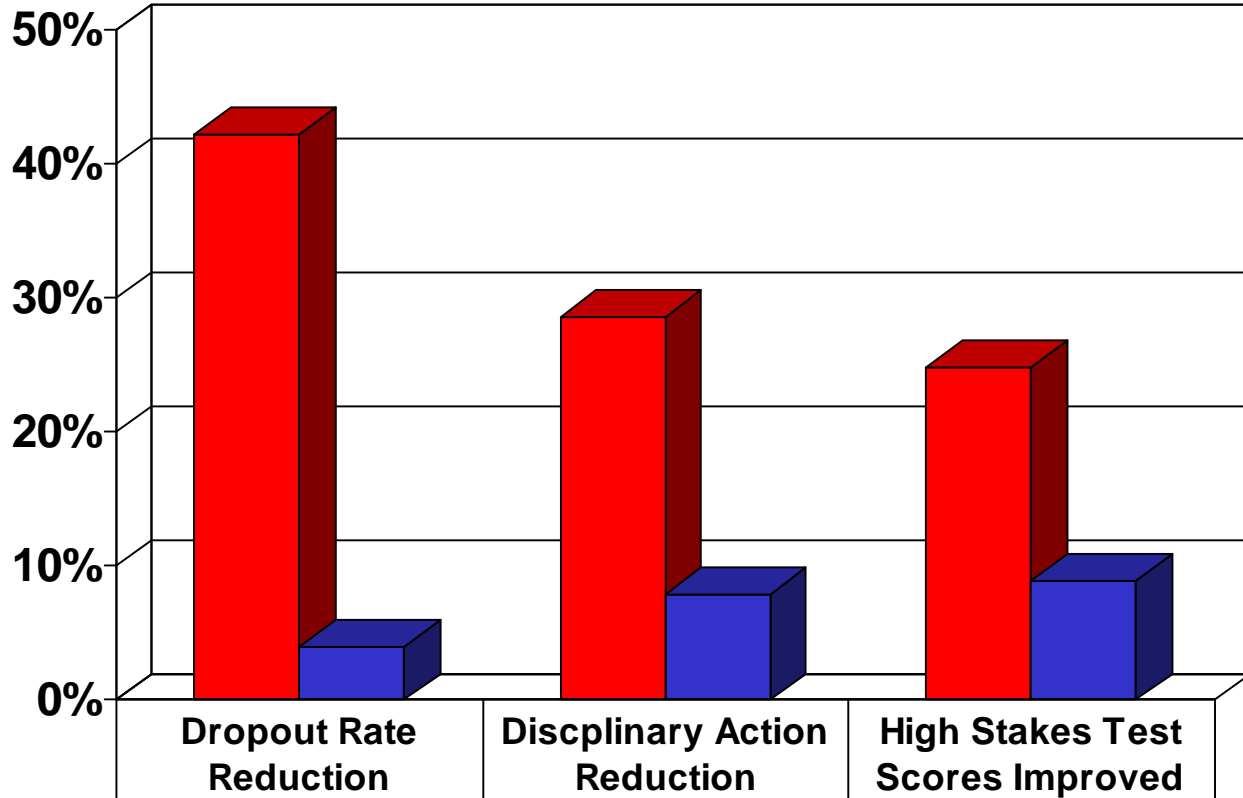
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- Respondents report major improvements due to deployment of technology:
  - High Stake Test Score Increase: 72%
  - Disciplinary Action Reduction: 55%
  - Dropout Rate Reduction: 52%



# Learning Outcomes Improvement

Pct. of Respondents Reporting Great Improvement

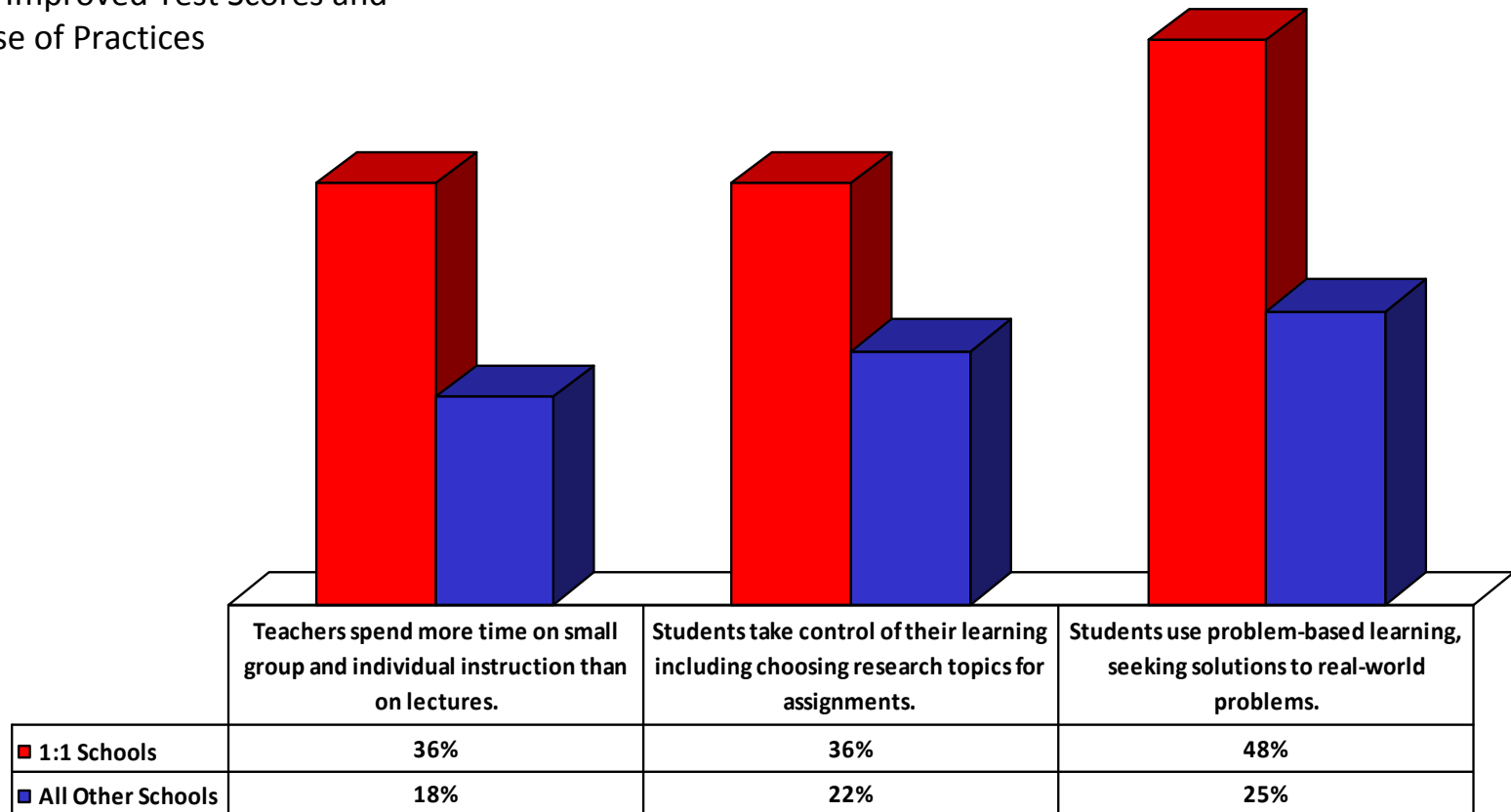


<b>1:1 Schools</b>	<b>42%</b>	<b>29%</b>	<b>25%</b>
<b>All Other Schools</b>	<b>4%</b>	<b>8%</b>	<b>9%</b>

**How has deployment of ubiquitous technology changed the following?**

# Test Scores Positively Linked to Learner-Centered Practices

Pct. of Respondents reporting Greatly Improved Test Scores and Daily Use of Practices



Indicate how teachers and students in your school use technology in instruction.

# Project RED Team

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Contact us!

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# Project RED -- Who

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- Project RED Team
  - One-to-One Institute, a nonprofit focused on professional learning in technology
  - The Greaves Group and The Hayes Connection, authors of the America's Digital Schools series
- Supported by: SETDA, CoSN, ISTE, SIIA, NSBA, AASA, AESA and ASBO
- Sponsored by: Intel, Apple, Pearson, Qwest, and eChalk

