Education Transformation Framework:

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WORLDWIDE EDUCATION

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Microsoft

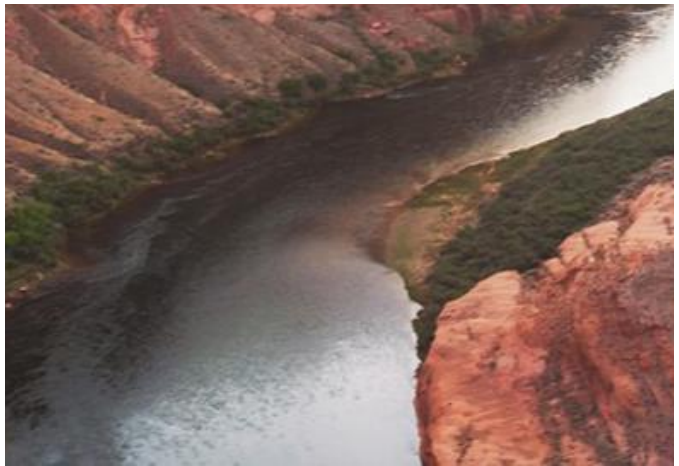
THE CONTEXT FOR DISCUSSION IS

TRANSFORMATION


Microsoft

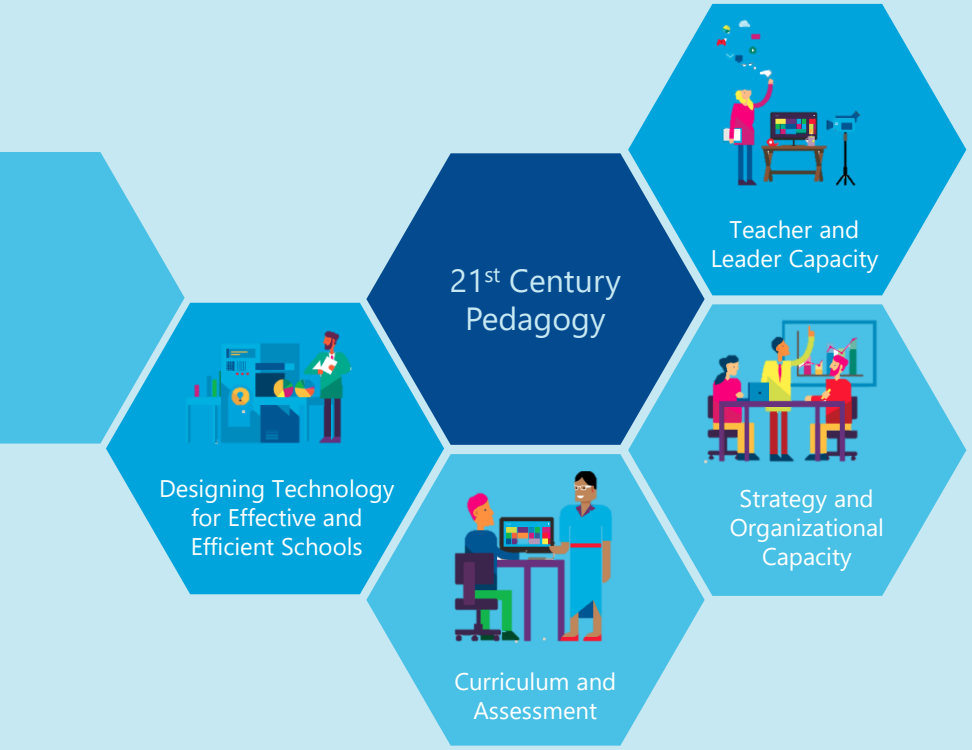


THINK BIGGER


Finland

Education Transformation



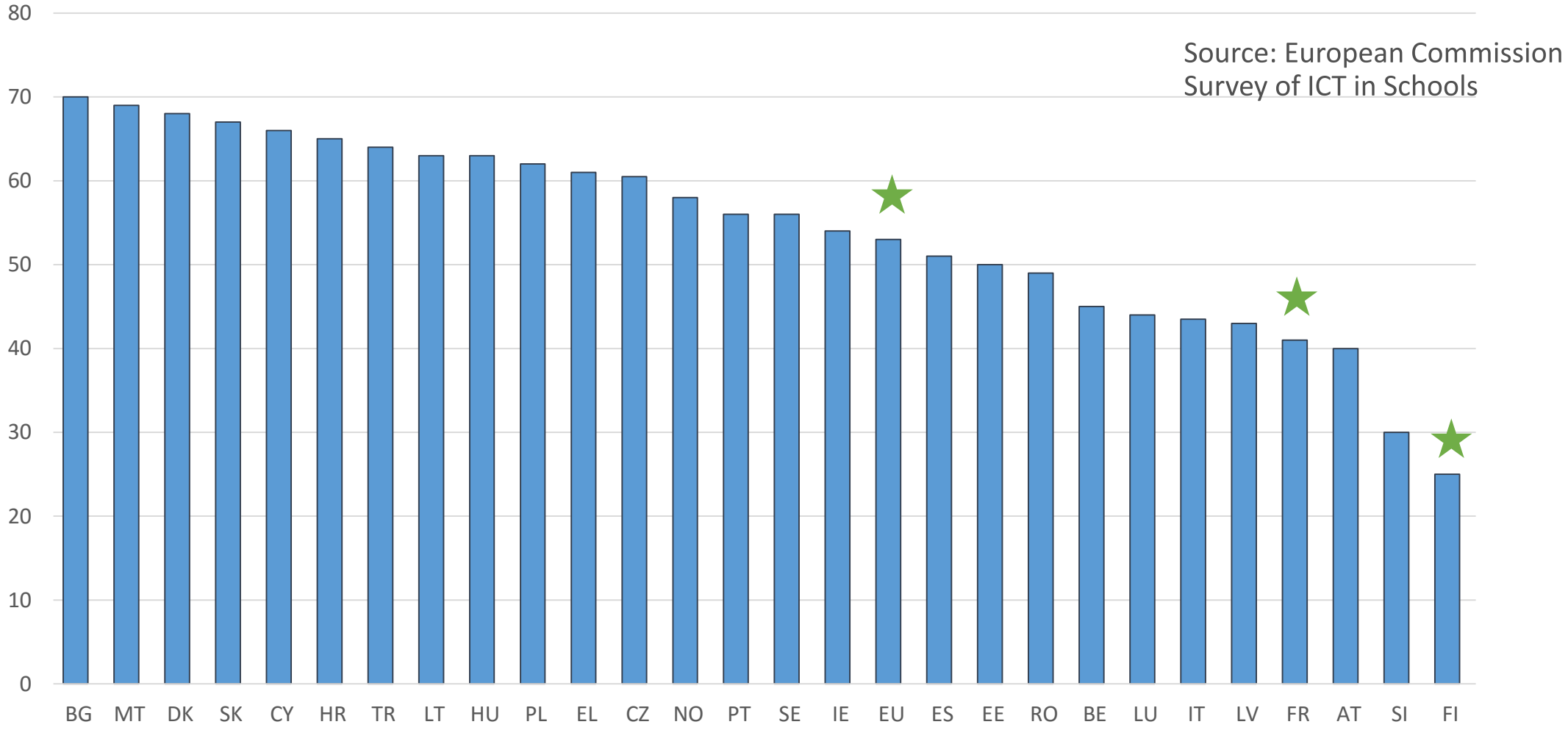
One of the world's North Stars for education innovation and quality is now transforming its education system in partnership with Microsoft.

Finland is a world leader trending down

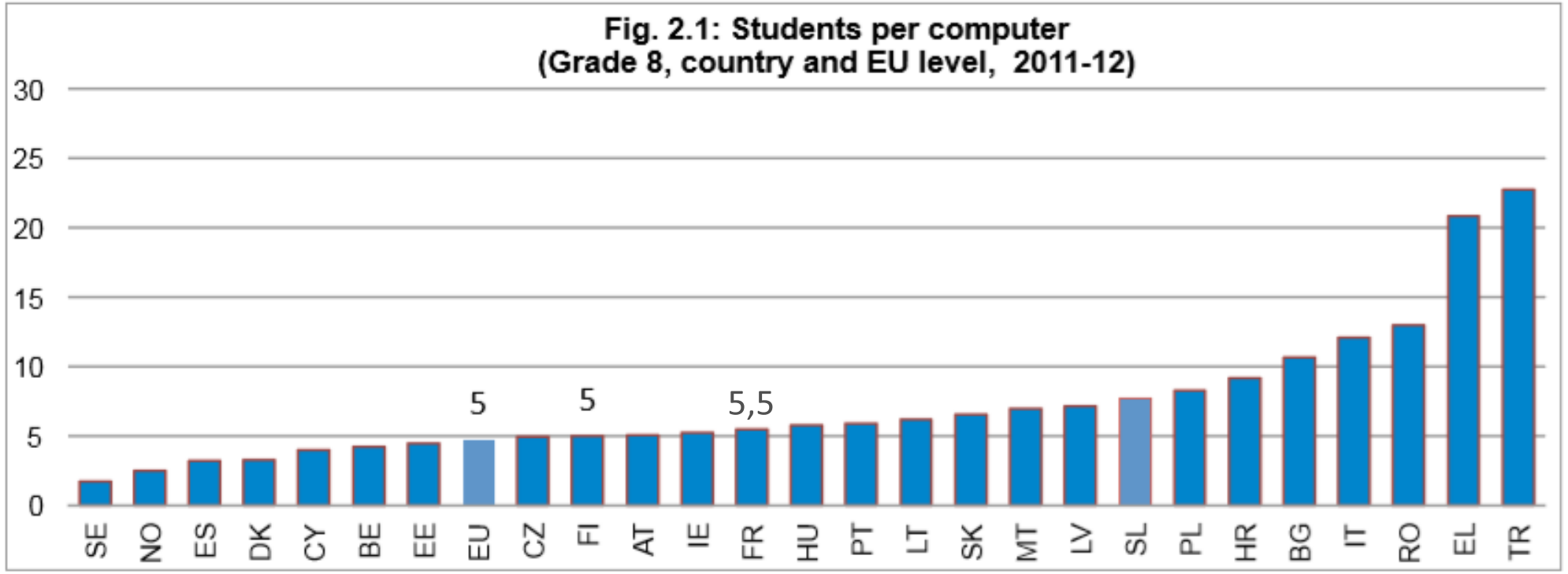
- Seen as a model around the globe for education with some of world's most qualified teachers
- Technology used less compared to other globally successful education systems (e.g. Singapore, Canada, Hong Kong)

Finland's PISA results 2003:	score points	OECD countries	all participants	Finland's PISA results 2012:	score points	OECD countries	all participants
Mathematical literacy	544	1st	2nd	Mathematical literacy	519	6th	12th
Reading literacy	543	1st	1st	Reading literacy	524	3rd	6th
Science literacy	548	1st	1st	Scientific literacy	545	2nd	5th

Students usage of ICT at Grade 8 in Europe

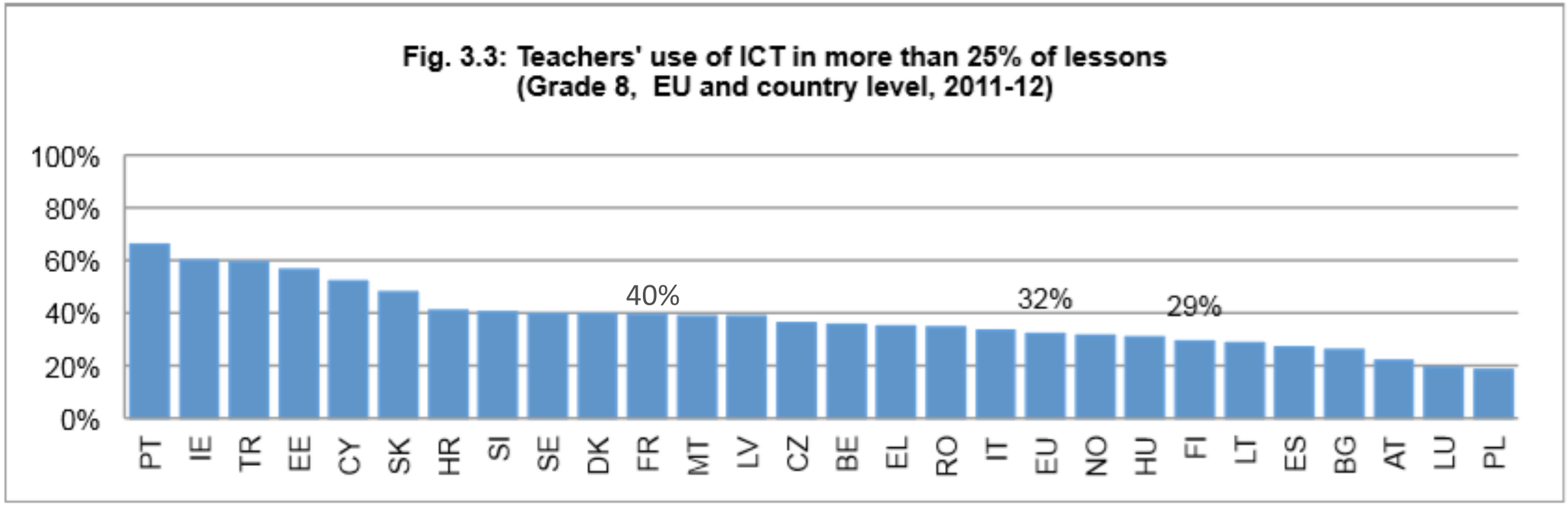


Students have access to PCs



Source: European Commission
Survey of ICT in Schools – Finland
National Report

… but teachers don’t use ICT in lessons much



- Note position of Portugal & Estonia: European countries which have advanced in education quality rapidly

Source: European Commission
Survey of ICT in Schools – Finland
National Report

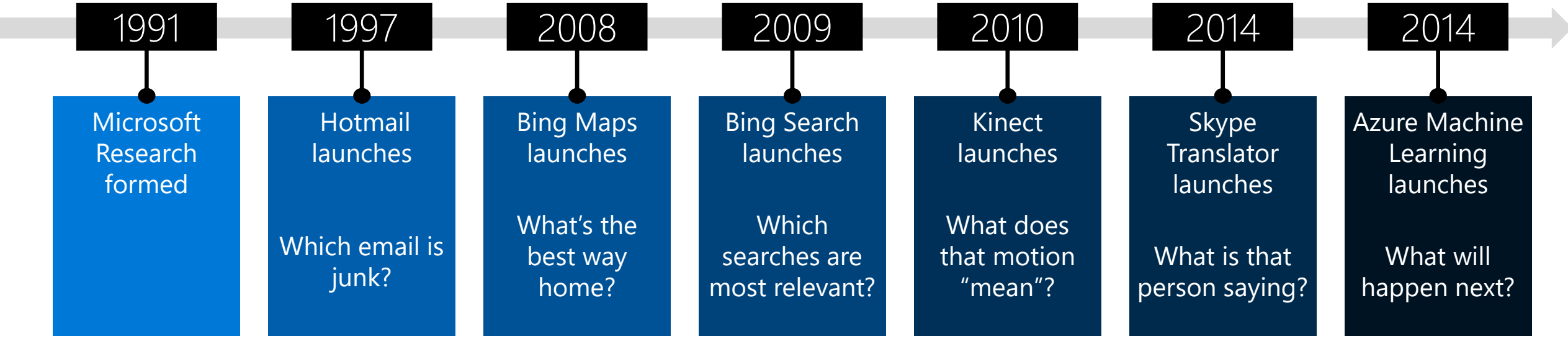
Deep Learning

Schools that support creative, happy and healthy individuals who contribute to the common good.

The POWER TO

KNOW

Microsoft and machine learning: Answering questions with experience



"Azure Machine Learning offers a data science experience that is directly accessible to business analysts and domain experts, reducing complexity and broadening participation through better tooling."

—**Hans Kristiansen**, Capgemini

TECHNOLOGY'S POWER TO

TRANSFORM

Video URL:
https://www.microsoft.com/en-us/store/apps/skype-translator-preview/9wzdncrdtbw7

Enable student achievement

Assess knowledge and ability	Predict future achievement	Track progress

Al Bino

Age: 10 | Grade 5

English Language Learner

standards

Use equivalent fractions as a strategy to add and subtract fractions.

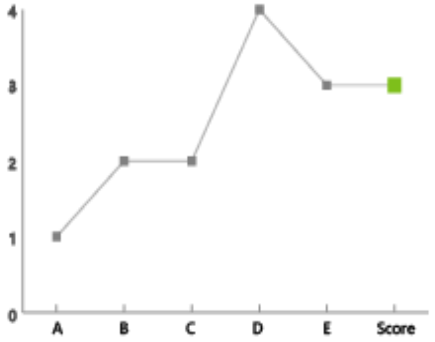
CCSS.MATH.CONTENT.5.NF.A.1

CCSS.MATH.CONTENT.5.NF.A.2

Apply and extend previous understandings of multiplication and division.

learning progression

Learning Goal: Use equivalent fractions as a strategy to add and subtract fractions.



social engagement

2 documents shared

5 comments

6 posts shared

commentary

3.2.15 - Ms. Wanda Rinn met with parents to discuss Al's difficulty in reading class. Need to schedule a second meeting to discuss possible accomodations.

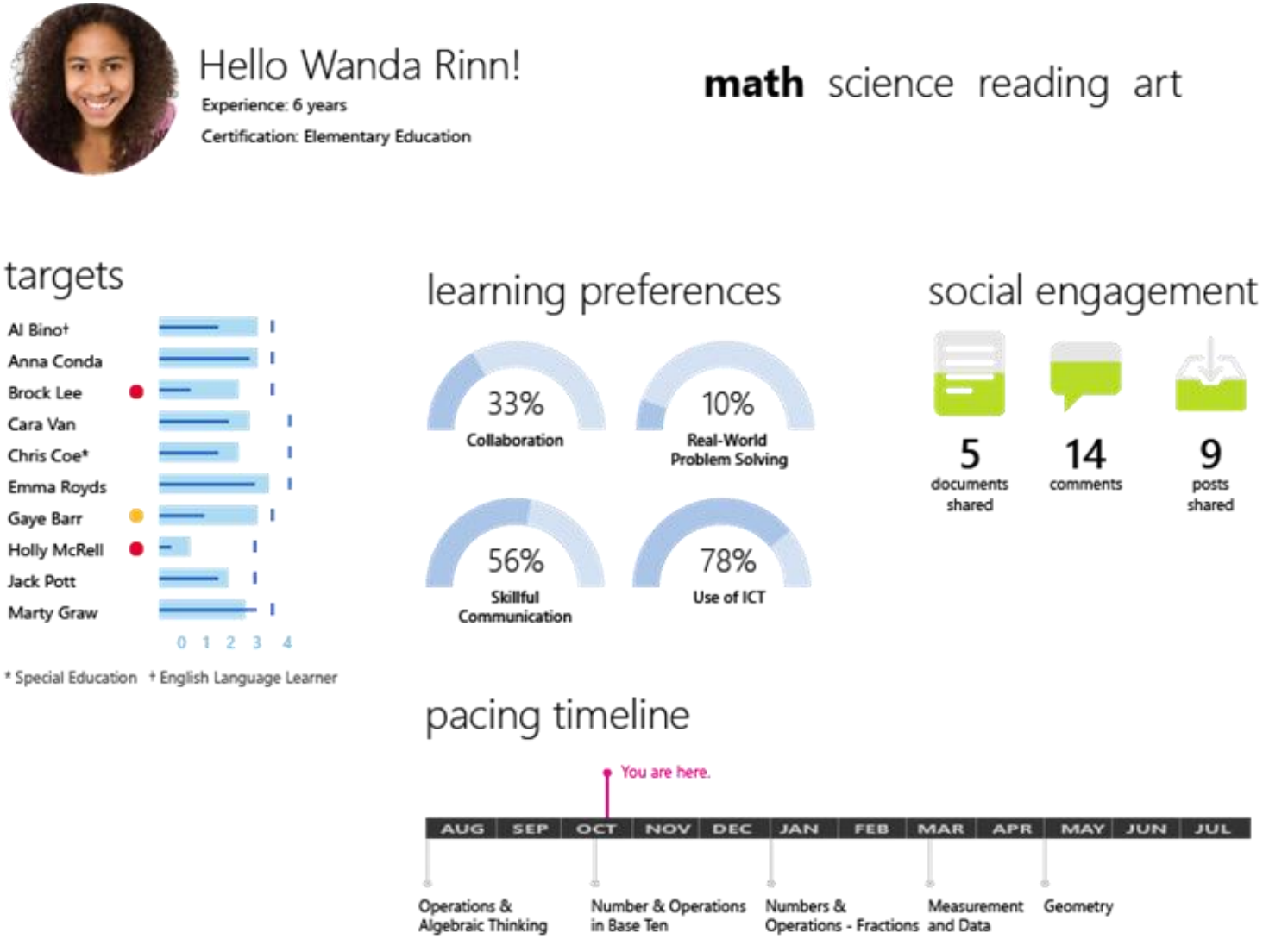
2.17.15 - Al successfully completed his English level 1 assessment.

2.12.15 - Al was absent from school today due to a doctor's appointment.

Profile - A marker highlights if the student is on-target (green), on-the-way-to-target (orange), or off-target (red).
Standards – A student's standards show as an accordion menu.
Learning Progression – When the teacher selects a standard (or sub-standard), it dynamically shows the correct learning progression graph (the line graph) showing the learning progression in detail for that standard for that student. The last mark is the summative score.
Social Engagement – These include comments posted to peers/teachers, documents published/created/shared, and number of posts.
Commentary – Comments provide any information/feedback that informs the teacher of what is happening with the student.

Identify at-risk students

Track current performance	Predict dropout probability	Aggregate and act

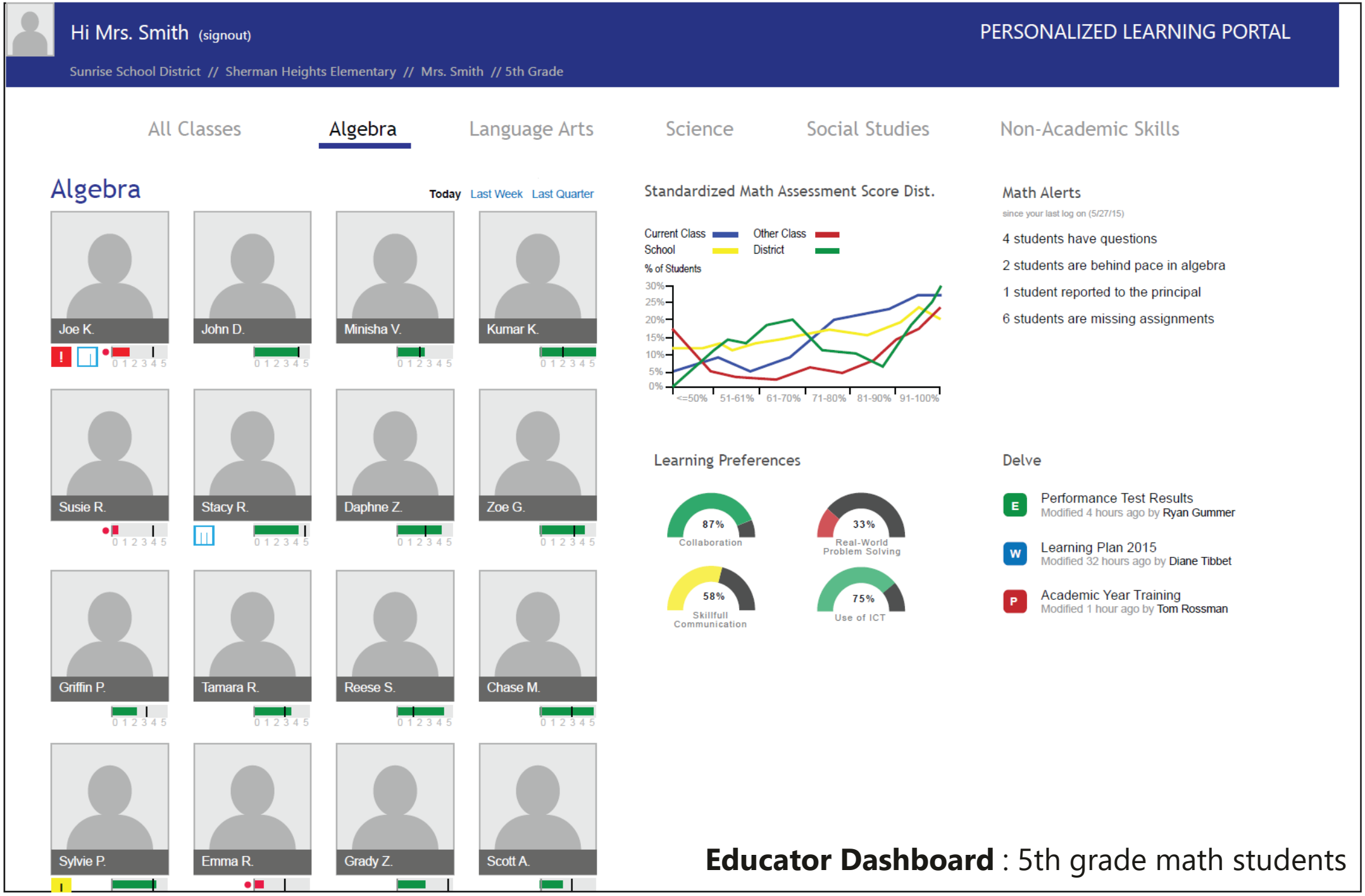


Targets – This section has the teacher's list of students (scrolling menu). The teacher can quickly identify students (using two-color system) that are below target (red dot) or in-danger-zone (orange dot). The visual shows multiple data sets: target reached previous year (light-blue bar), current progress level (dark-blue line), and target level (blue hash).

Learning Preferences – Deep Learning skills most targeted by students

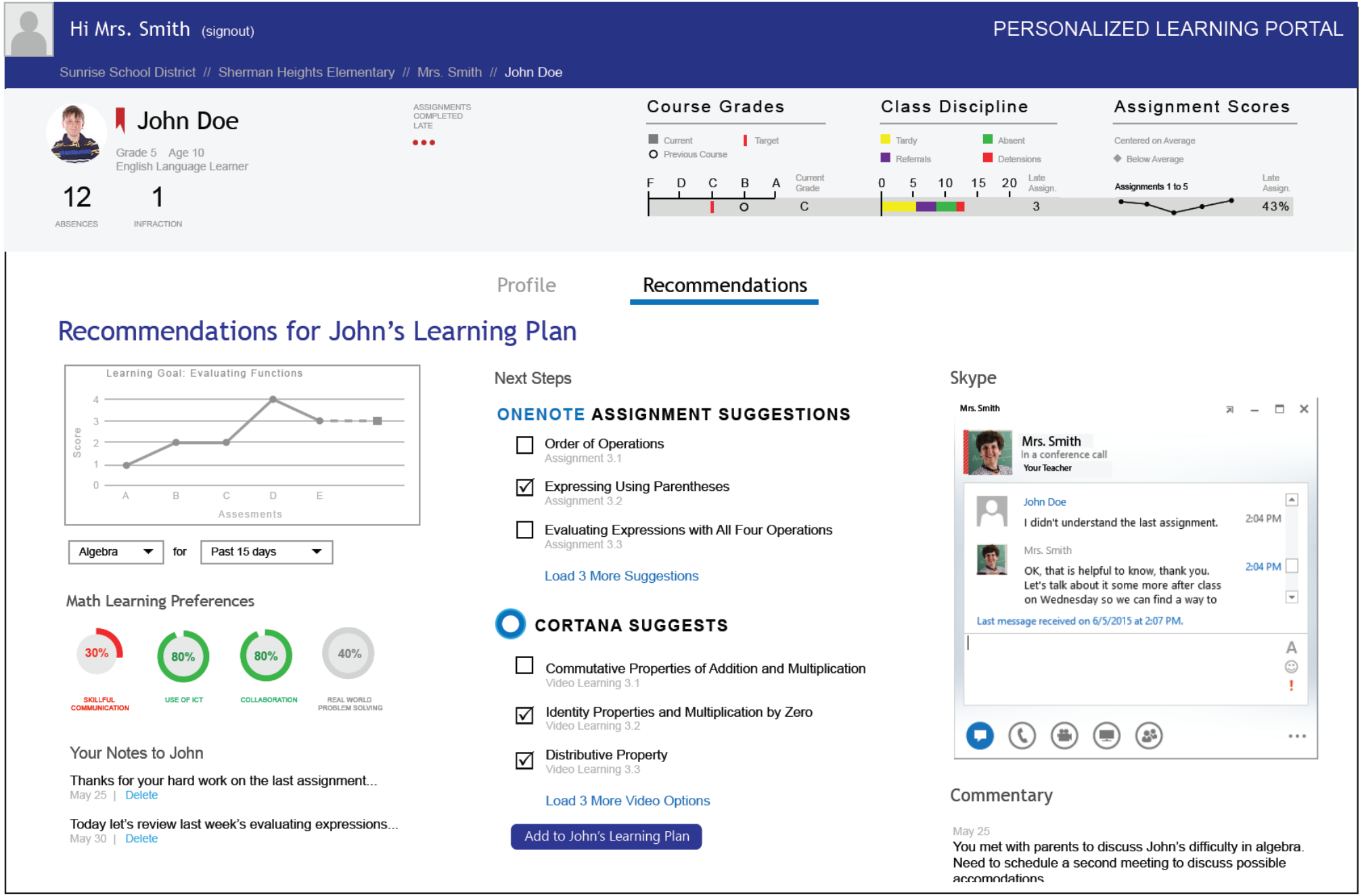
Social Engagement – Including comments posted to peers/teachers, documents published/created/shared, and number of posts.

Pace Timeline –Markers show the five main standard areas for Grade 5 -Mathematics tied to the pacing guide. It also contains a red marker to help the teacher visualize where they are in relation to the pacing guide. The timeline changes with different standards and times depending on the specific pacing guide for each subject area.



Educator Dashboard : 5th grade math students

4.1 Educator View of John: Recommendations



Big conversations drive big impact

Big conversations drive transformation

*Dots on the map indicate major global engagements.

Finland	USA	Mexico
Board of Education	Manteca Unified School District	Ministry of Education
Chile	**France**	**Indonesia**
Ministry of Education	Ministry of Education	Ministry of Education

GLOBAL DIGITAL LEARNING STRATEGY TEAM

We partner with leaders engaged in holistic education transformation through anytime anywhere learning to enable students to achieve more.

SKILL SETS

- Education Policy
- Academic Research
- Curriculum Design and Instruction
- STEM
- Change Management
- Adult Learning
- Online/Blended Education
- Large 1:1 Implementation
- Education Leadership

ACTIVITIES

- Top-Large Customer Engagements
- MOE Engagements
- Whitepapers
- Executive Briefings
- Policy Reports
- Professional Development Plans
- Leadership events

TEAM MEMBERS

★ **Aidan McCarthy**

Zhao Min Cheng

Pranshu Singhal

Mei Ling Tan

Sean Tierney

Cathy Cavanaugh

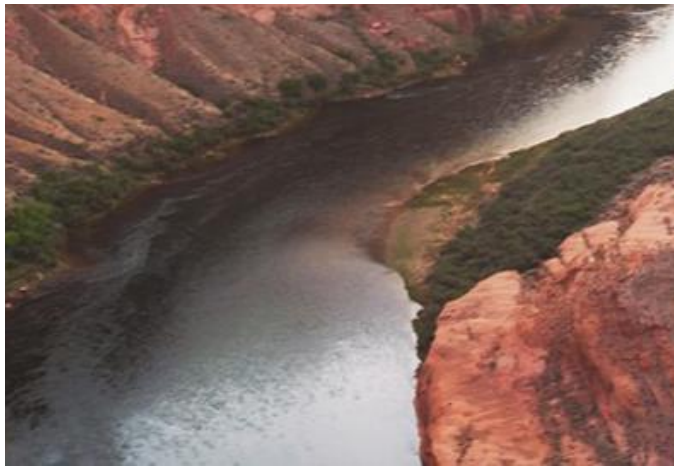
Alexa Joyce

Kati Tiainen

Ginno Kelley



THINK BIGGER



PRODUCTIVITY
FUTURE VISION
PLAY

Video URL:
https://youtu.be/w-tFdreZB94

WHAT REALLY

MATTERS?

WHAT'S WORTH

DOING?

Microsoft

SHOWCASE SCHOOLS

IDEAS FROM INNOVATIVE SCHOOLS

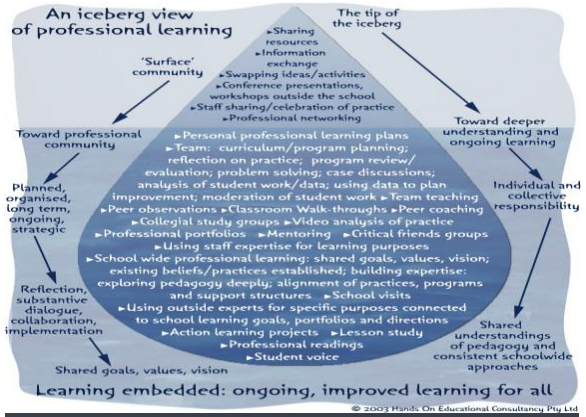
They decide what to measure before they start

They understand that more is NOT better.

(only BETTER is better)

They never confuse people projects for technology projects

They have a plan for what learning will look like



They invest in Professional Development they can track, measure and prove

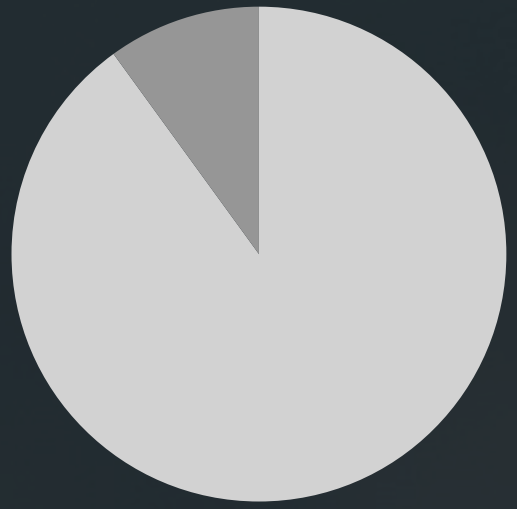
They realize the economies of partnerships

They understand when technology helps, and when it hinders

They avoid redundancy of effort, research or capital

THE REAL CHALLENGE IS

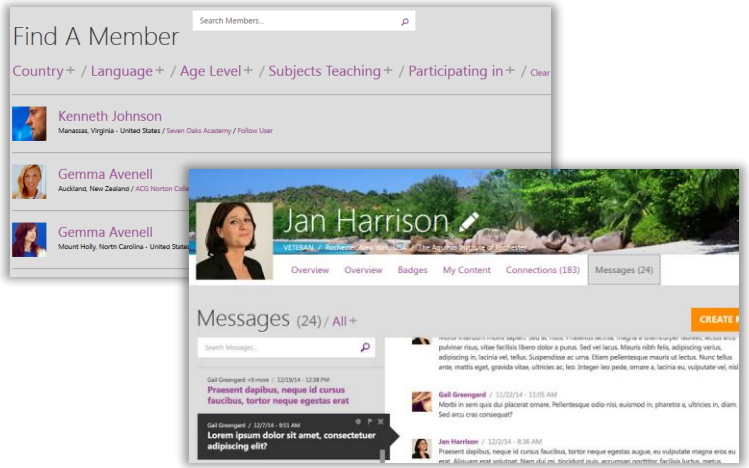
CHANGE



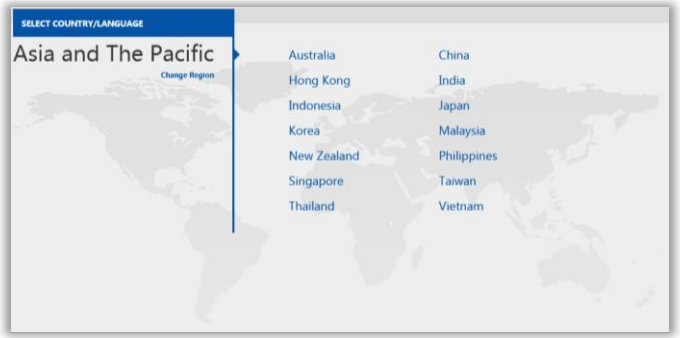
WW EDU

Why EDU Zone?

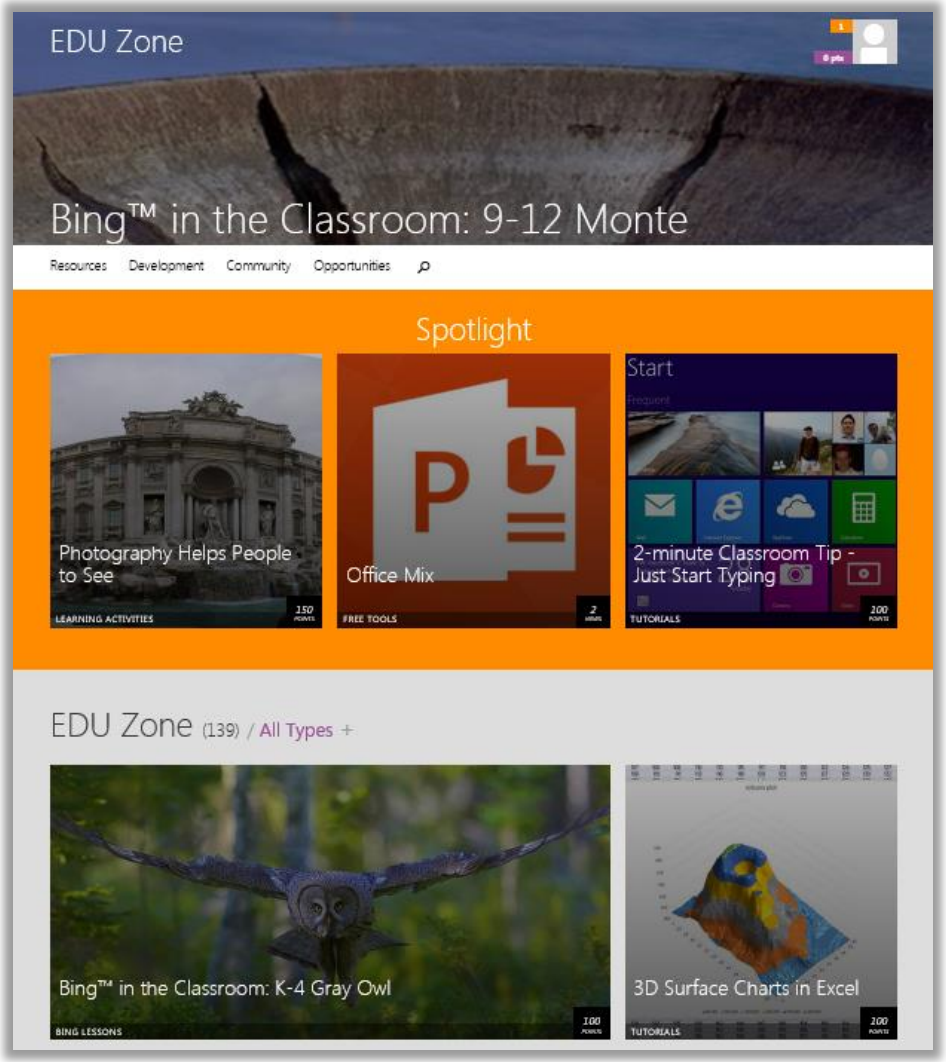
Connect and Communicate with Like-Minded Colleagues



Locally Managed Tenants

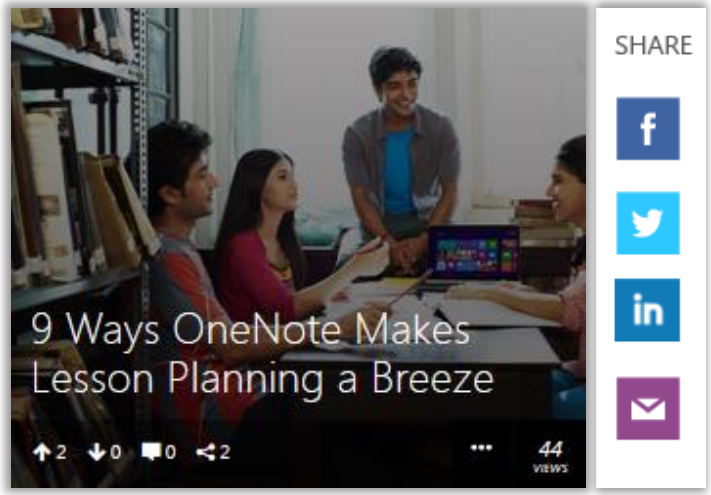


Content (Microsoft and User Created) Dynamically Loaded Based on User



Gamification and Documentation

Enhanced Creation, Sharing, and Collaboration



Customized for Universities

Universities Implementing EZ for Schools will have their own learning environment specifically designed for their school.

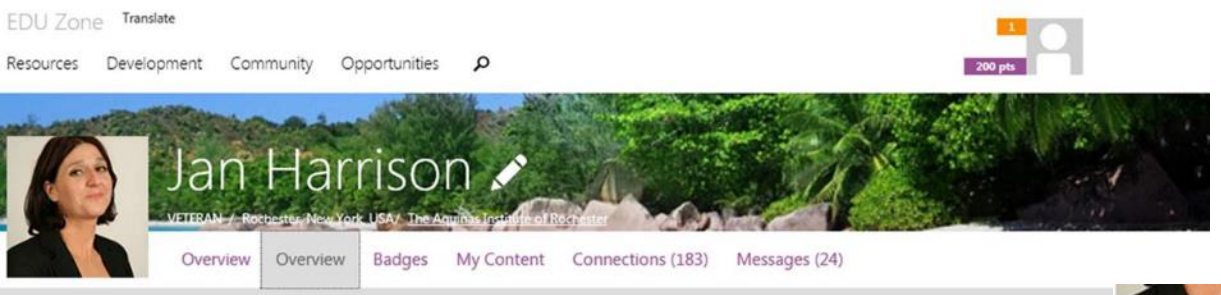
Pre-packaged MS content

EZ for Schools will be pre-populated with courses and ideas to help make the most of all MS technology, and to create awareness of new tools.

University Created and Curated Content

Schools can easily create their own content and courses not limited to technology.

Managing training online will assist with staff inductions, compliance readiness, Campus change etc.



Recent Activity

Member Level	Veteran
Member Since	4/18/2011
Referrals	12 / +2
Available Points	6,635
Lifetime Points Earned	20,694
Recently Earned	See All

Development Progress / 38%

View your development process in each certification. Select view courses for more details and to continue your development.

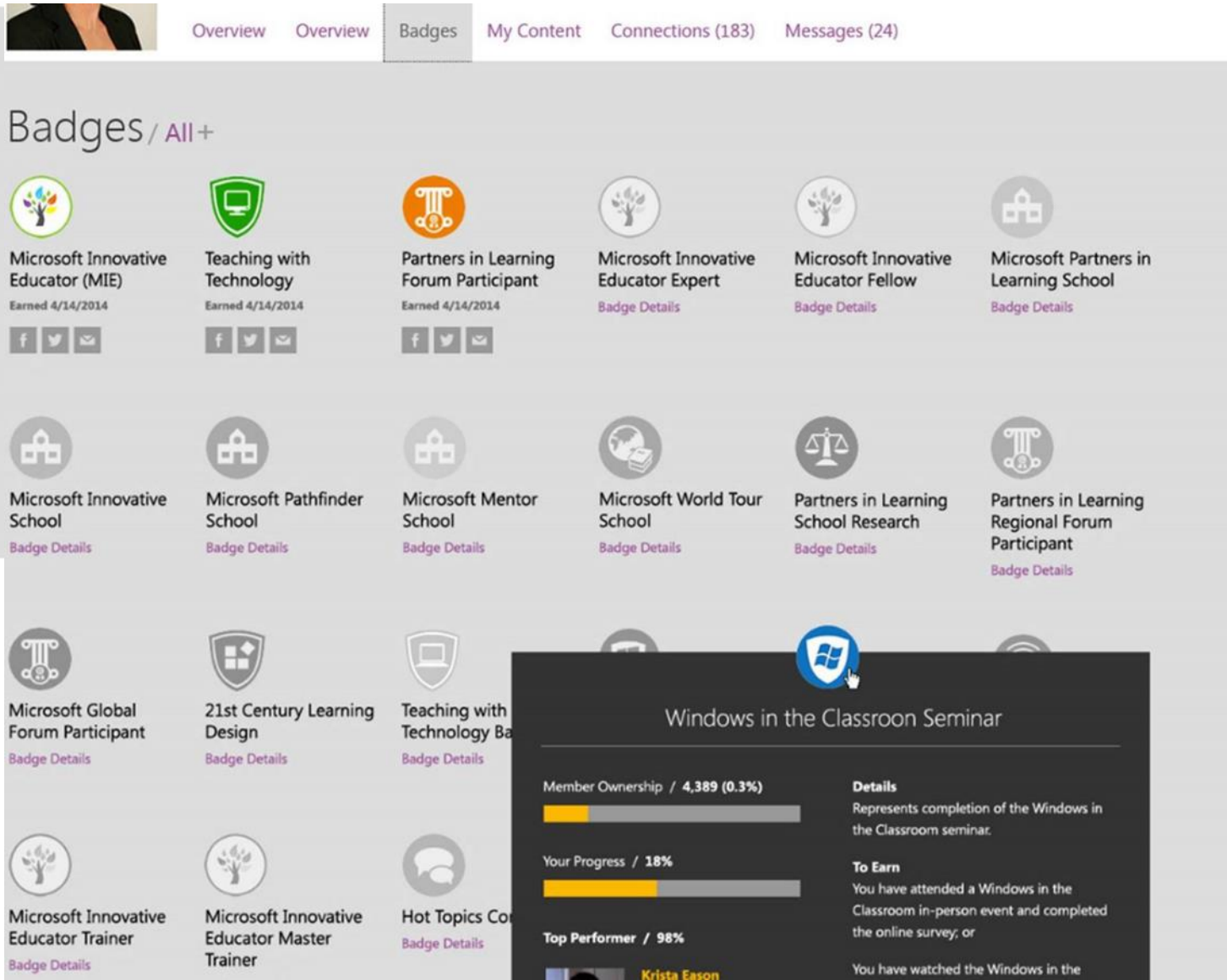
- **Teaching with Technology** / View Courses
- **Teaching with Technology Basics** / View Courses
- **21st Century Learning Design** / View Courses
- **Digital Literacy** / View Courses
- **Windows 8 in the Classroom** / View Courses
- **Windows in teh Classroom** / View Courses

Bio

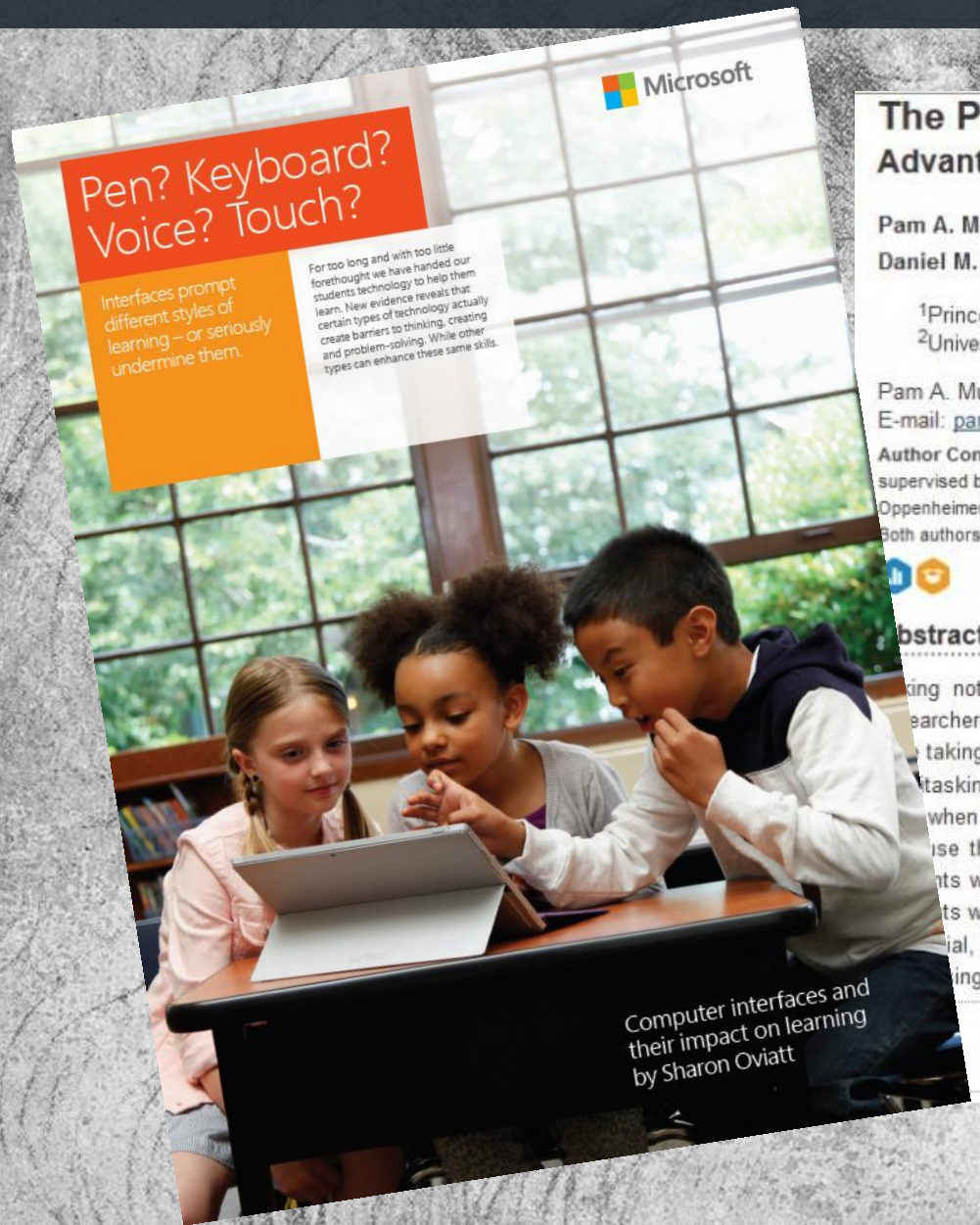
Professional Summary

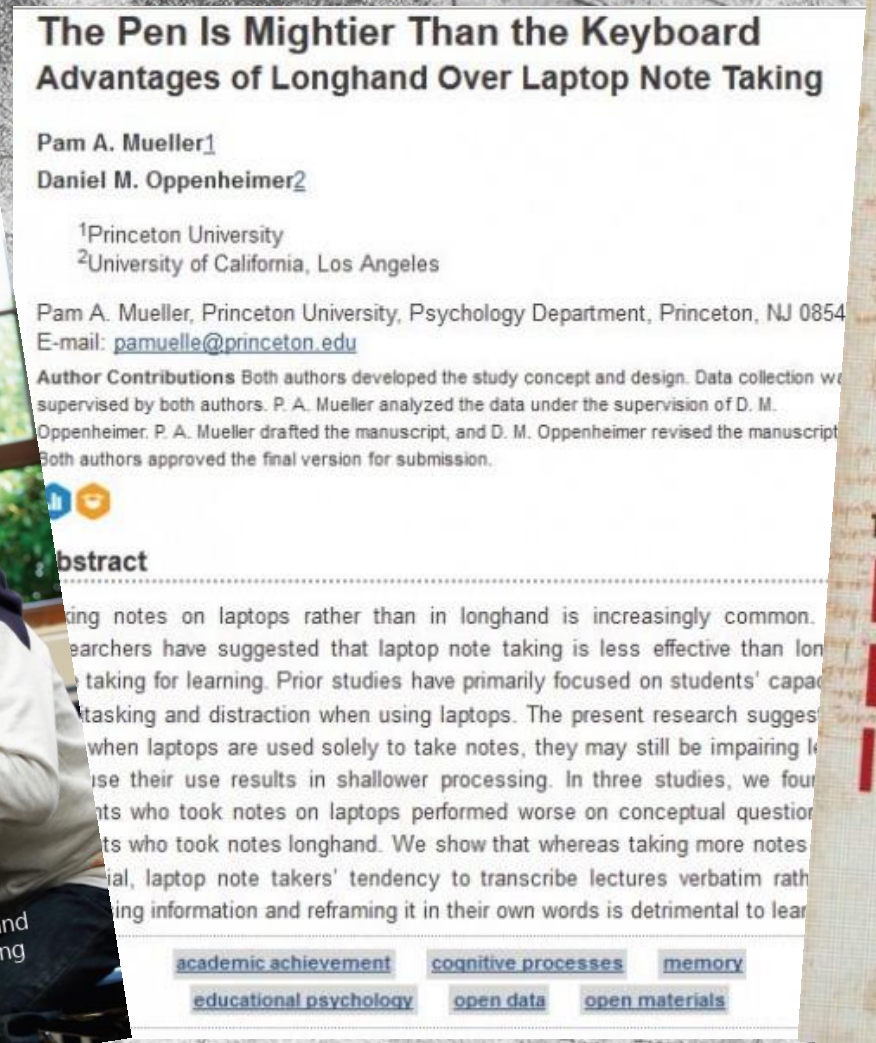
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc eu tempus neque. Curabitur ac sollicitudin urna. In non massa eget nibh faucibus dictum. Quisque vulputate scelerisque

https://stage-msen.gage.com/Home.aspx



THE IMPORTANCE OF INTERFACES





The Pen Is Mightier Than the Keyboard

Advantages of Longhand Over Laptop Note Taking

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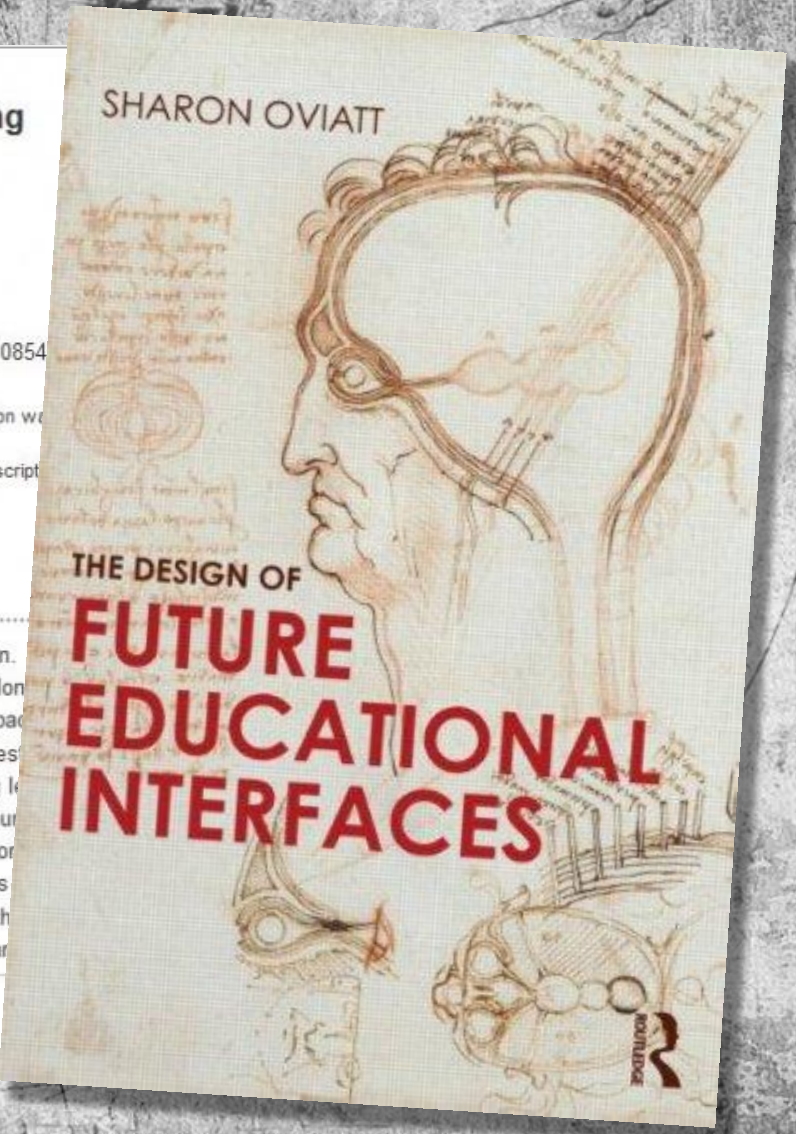
Author Contributions Both authors developed the study concept and design. Data collection w
supervised by both authors. P. A. Mueller analyzed the data under the supervision of D. M.
Oppenheimer. P. A. Mueller drafted the manuscript, and D. M. Oppenheimer revised the manuscript
Both authors approved the final version for submission.

bstract

ing notes on laptops rather than in longhand is increasingly common.
earchers have suggested that laptop note taking is less effective than lon
taking for learning. Prior studies have primarily focused on students' capac
tasking and distraction when using laptops. The present research sugges
when laptops are used solely to take notes, they may still be impairing l
se their use results in shallower processing. In three studies, we fou
nts who took notes on laptops performed worse on conceptual questio
ts who took notes longhand. We show that whereas taking more notes
ial, laptop note takers' tendency to transcribe lectures verbatim rath
ing information and reframing it in their own words is detrimental to lea

academic achievement | cognitive processes | memory | educational psychology | open data | open materials



DO YOU AGREE?

1. If we have great teachers and curriculum, computer input tools won't make that much difference to how well a learner will perform on a task

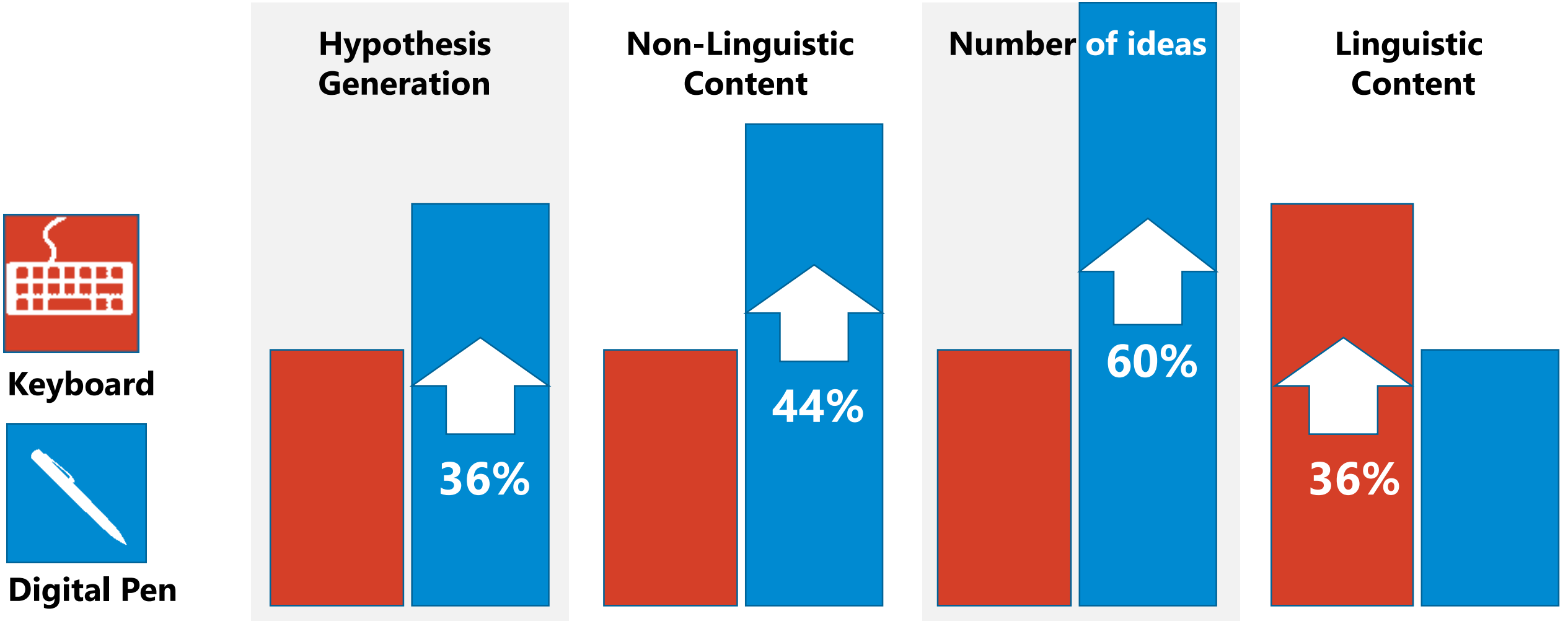
2. High and low performing students benefit equally from technology

3. Most people (students, teachers, parents) DO know when to choose the right computer tool to support their best performance

4. Learners perform the same when using digital pen and non-digital pen, provided they have technology available in some form. (e.g. BYOD)

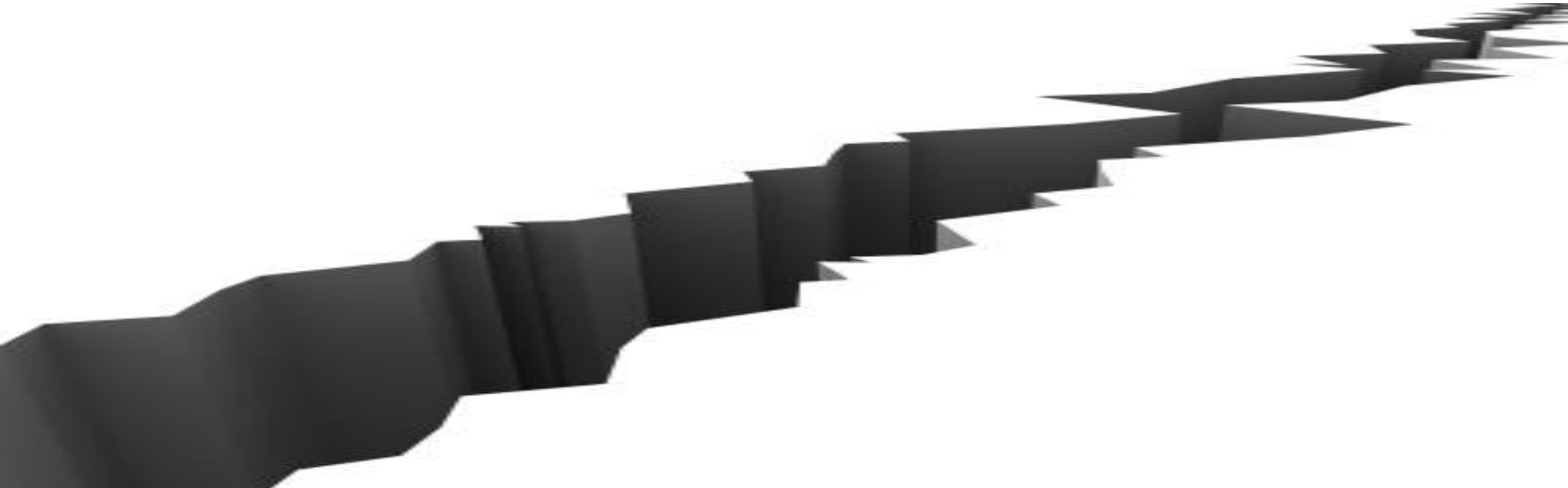
1. If we have great teachers and curriculum, computer input tools won't make that much difference to how well a learner will perform on a task.

Interfaces matter far more than we ever thought.



2. High and low performing students benefit equally from technology.

Computer Input Tools Will Expand or Reduce the Performance Gap!



3. Most people (students, teachers, parents) DO KNOW know when to choose the right computer tool to support their best performance

Learning experts MUST drive device decisions.

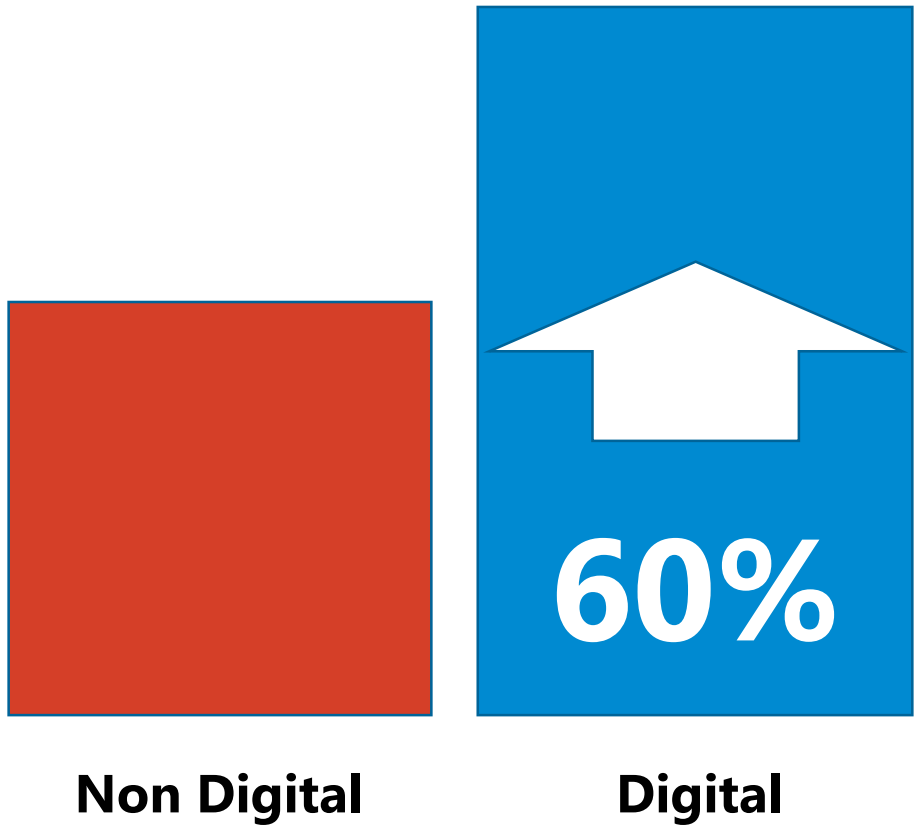
WHEN STUDENTS WERE ASKED:

"Which tool would you prefer to use if you had to perform your absolute best for your high stakes science exam?"

91% chose interfaces they didn't realize had already been shown to decrease their performance by at least **one full grade level**

4. Learners perform the same when using digital pen and non-digital pen, provided they have technology available in some form

Digital pen greatly improves learning compared with traditional pen and paper!



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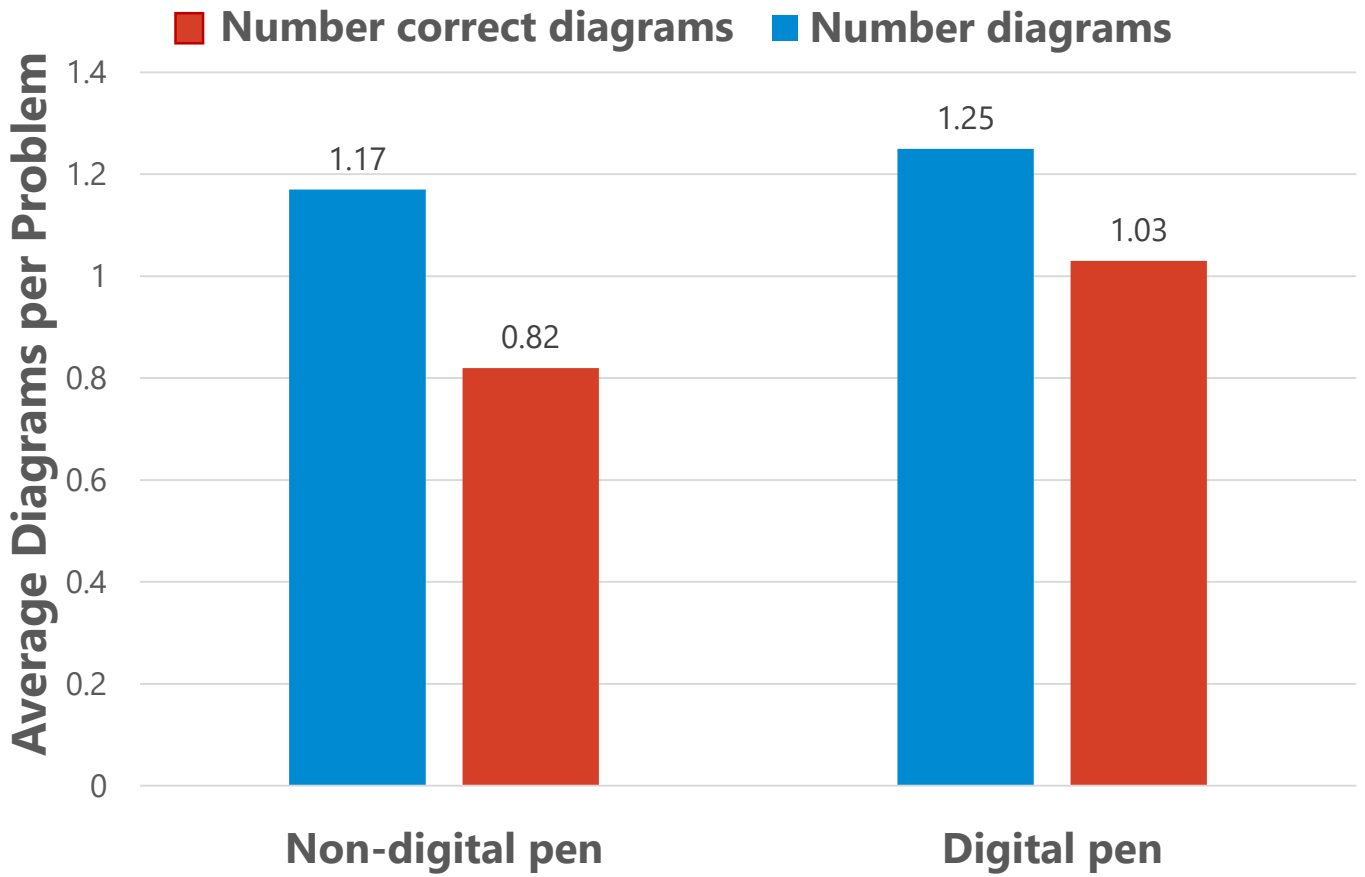
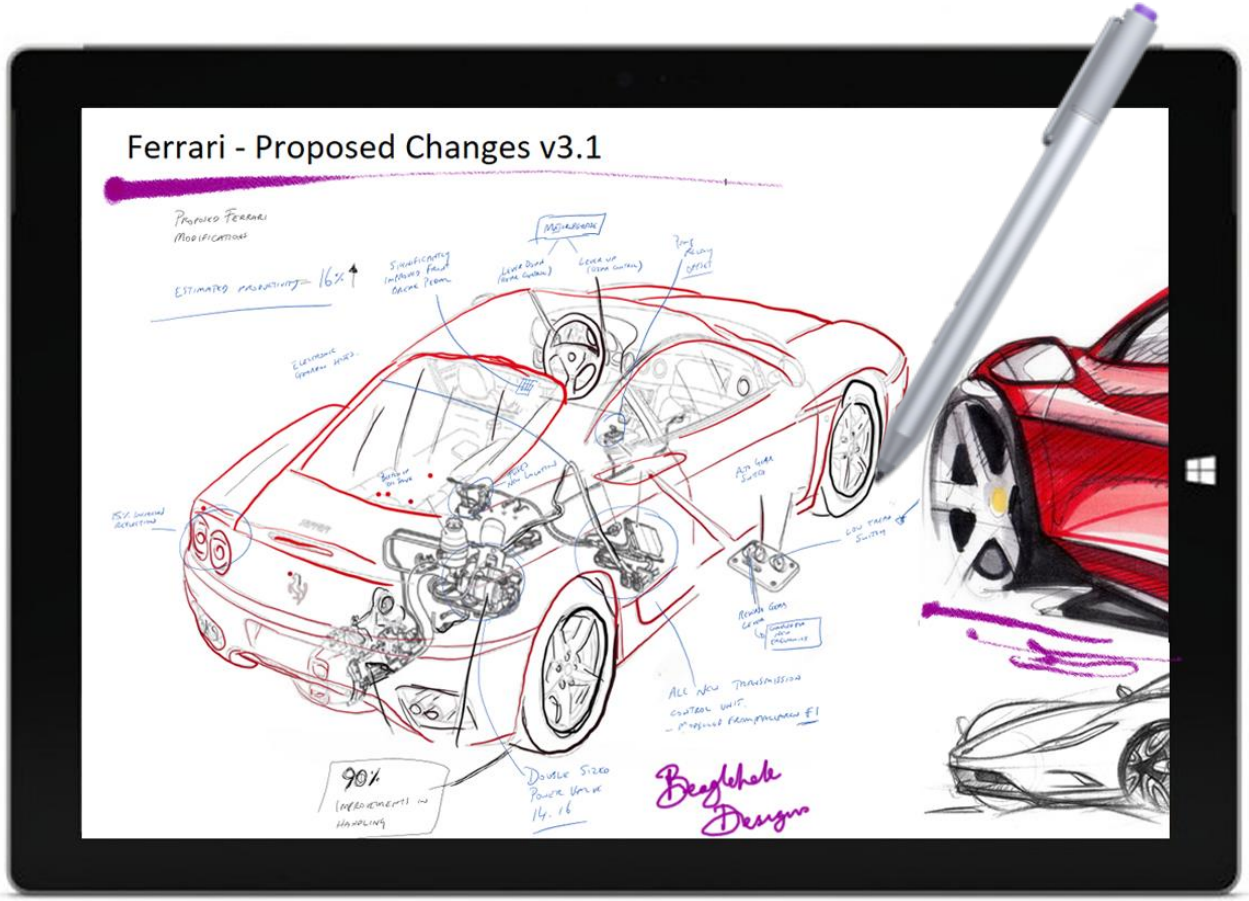


Remember, comparing a digital pen to a stylus is like comparing a skateboard to a Ferrari.

Stylus - mimics finger painting



Digital pen – mimics real pen - precise, pressure sensitive, palm cancelling, smart ink.

GOOD EDUCATIONAL INTERFACES

- Increase students' expressive power (ability to create & refine rich content)
- Reduce students' cognitive load (simplicity, lack of distraction)
- Increase students' total activity (physical and/or communicative)
- Include input capabilities (e.g., representations, modalities) well matched with students' learning activity or content domain
- Include input capabilities well matched with students' native language
- Increase input capabilities well matched with students' ability level

What we can bring to enhance every engagement

Sharing best practice and ideas in your context

Facts and guidance	Research to support	Workshops & Forums	RFP Support and advice	Proven resources	Connections
Summarised, clear research and recommendations	Evidence is critical in influencing the customer around "Why Microsoft"	High impact workshops from 1 hour to 2 days designed to ensure customer success	Expert consultation and partnerships to support success in responding to RFPs, Tenders or competitive opportunities	Templates, documentation and scaffolds to help you reach your goals Technology blueprints and support to make it easy to get it right	Access to the best ideas, examples, case studies, or people to help you succeed in your context (Internal and External)

Critical Conversations to support Transformation

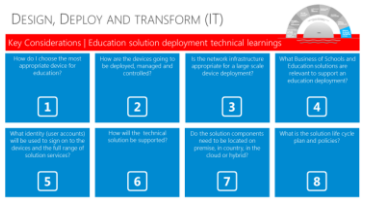
Transformation Framework

Full day (or part day) workshop outlining the key components for transformation success

(Ministerial Level)

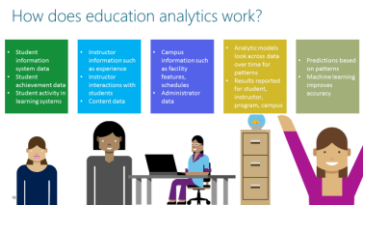
Design, Deploy & Transform

1 or 2 day workshops to share a model for how to succeed in 1-to-1 using global examples, evidence, and resources



Design, Deploy & Transform IT

1 or 2 day workshops to deep dive into the technical architecture, design and implementation required for success



Machine Learning / BI

Up to 1/2 day session exploring benefits of analytics for system, school, and students to improve learning and organizational decisions

School Transformation Process

Templates, documentation and scaffolds to help you reach your goals

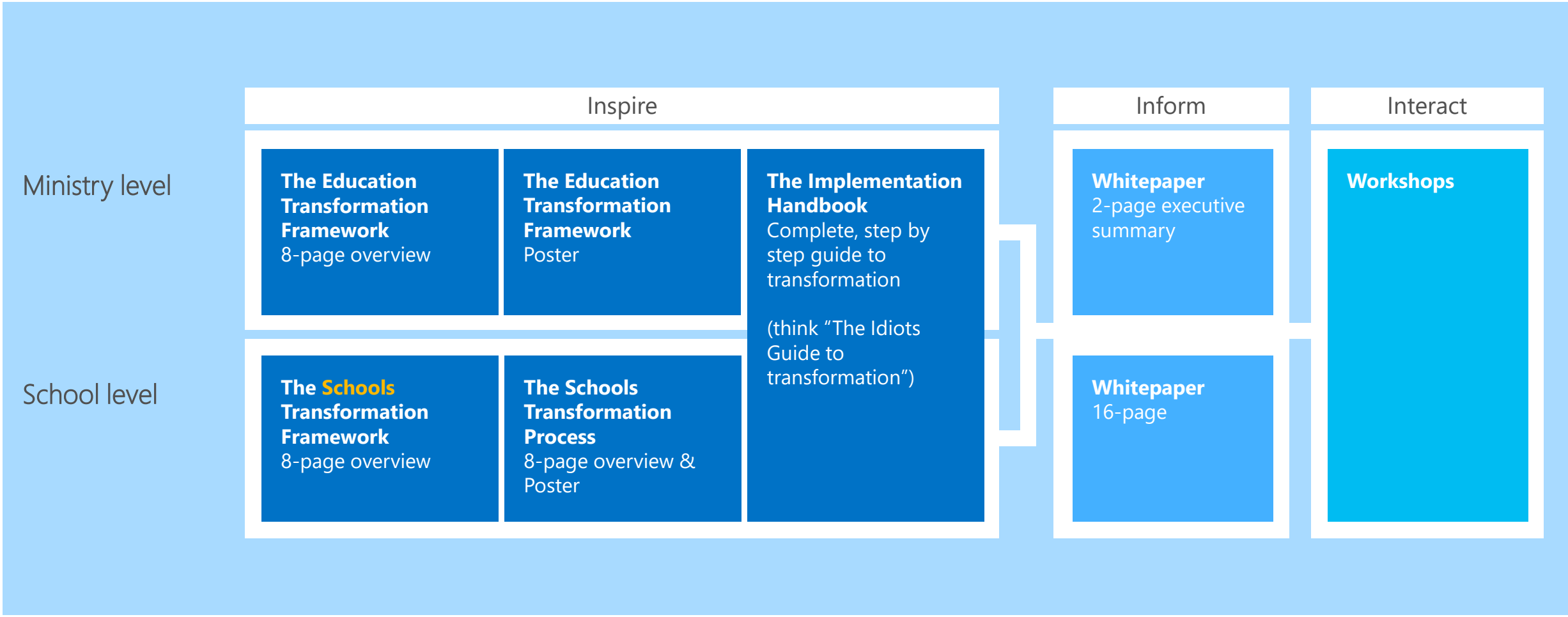
Technology blueprints and support to make it easy to get it right

EZ Learn

Change

An overview of the process for changing culture, increasing workforce capacity, and ensuring people are on board the transformation

Our collateral is simple and powerful



Overview

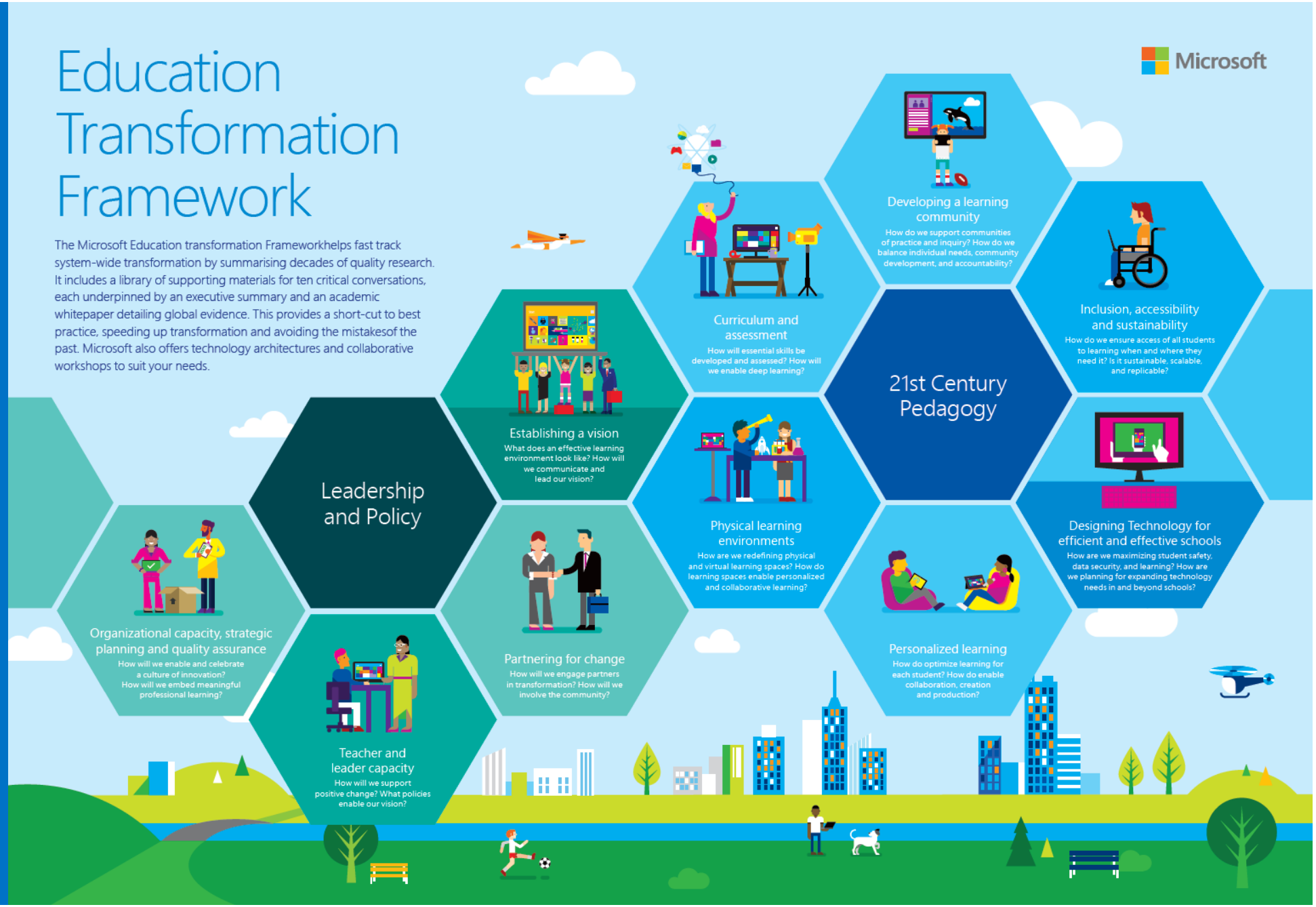
Created in partnership with :

- leading policy makers
- academics
- Researchers
- Schools & school districts

Tested with over 130 policy makers globally

Education Transformation Framework

The Microsoft Education transformation Frameworkhelps fast track system-wide transformation by summarising decades of quality research. It includes a library of supporting materials for ten critical conversations, each underpinned by an executive summary and an academic whitepaper detailing global evidence. This provides a short-cut to best practice, speeding up transformation and avoiding the mistakesof the past. Microsoft also offers technology architectures and collaborative workshops to suit your needs.



Overview

School Transformation Process

The School Transformation Process is a tool that helps school systems or schools systematically reflect on, plan and implement reform.

It does this by providing six lenses through which to examine important issues and steps. The six phases can be undertaken in any order or simultaneously. However, the entire process is cyclical with insights gained from continuous improvement initiating new cycles of the process.

This process was adapted from work on school leadership by Knapp, Copland and Talbert (2003).