



Education

Education Transformation



Intel's Vision

This decade we will create and extend computing technology to connect and enrich the lives of every person on earth





Advance
excellence in
education
worldwide



This decade we will create and extend computing technology to connect and enrich the lives of every student on earth.

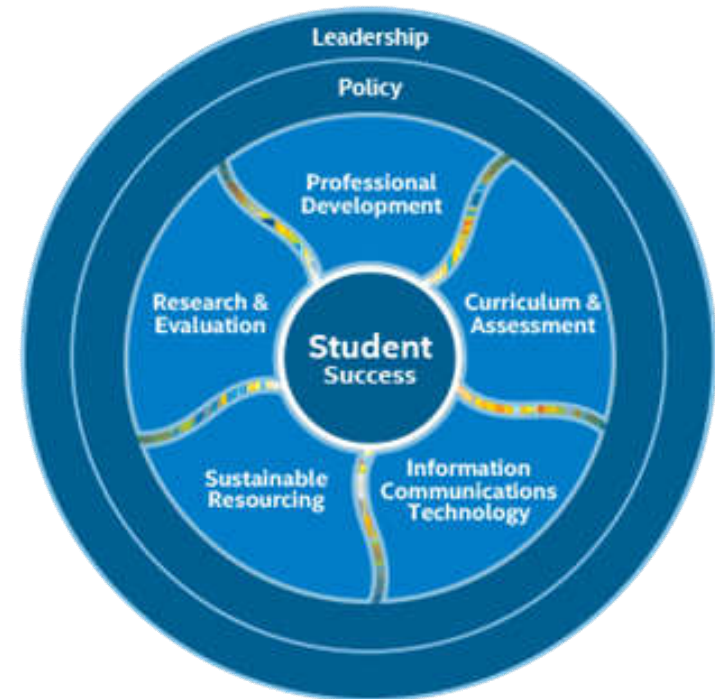
AGENDA: Transforming K12 Education

The Need for Transformation

The Model for Transformation

Intel Role in Transformation

Transformation in Action



Achieving **YOUR VISION** of Student Success

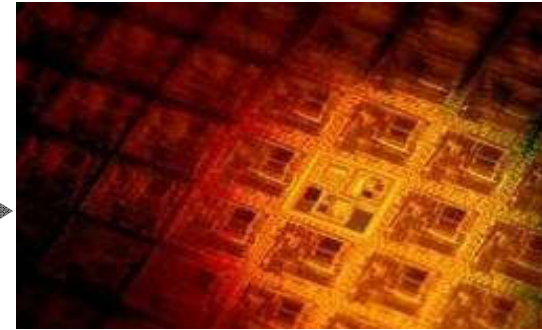
Le monde a changé...

Basée sur les Ressources Naturelles . .



Economie Différente

Basée sur le Savoir . . .



*Compétences
Différentes*

Enseignement Différent

Le volume croissant des connaissances disponibles et le rythme des changements exigent des nouvelles approches pour acquérir et développer le Savoir

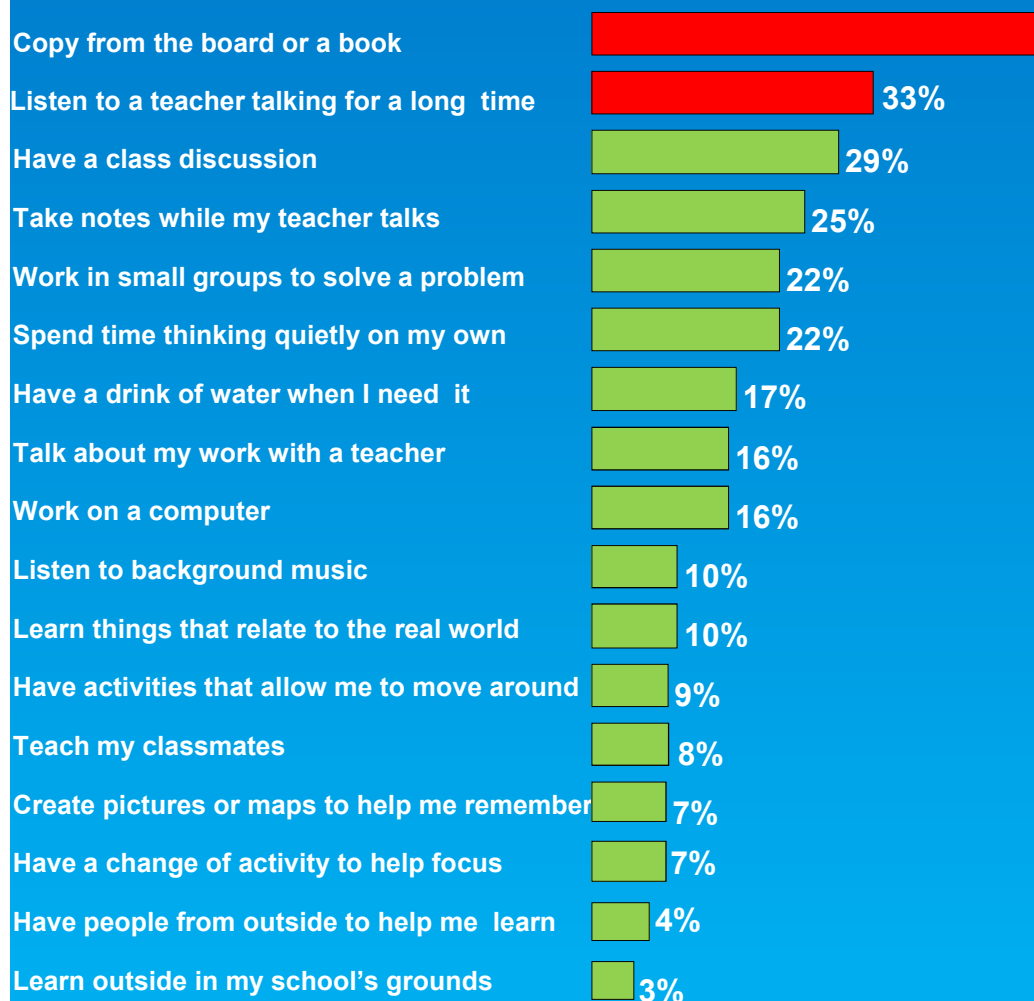
Evolution des systèmes éducatifs: Pourquoi ?

- Les emplois actuels et futurs requièrent de nouvelles compétences.
- Exigences croissantes pour maximiser les résultats.
- De nouvelles technologies sont disponibles et accessibles aujourd'hui.

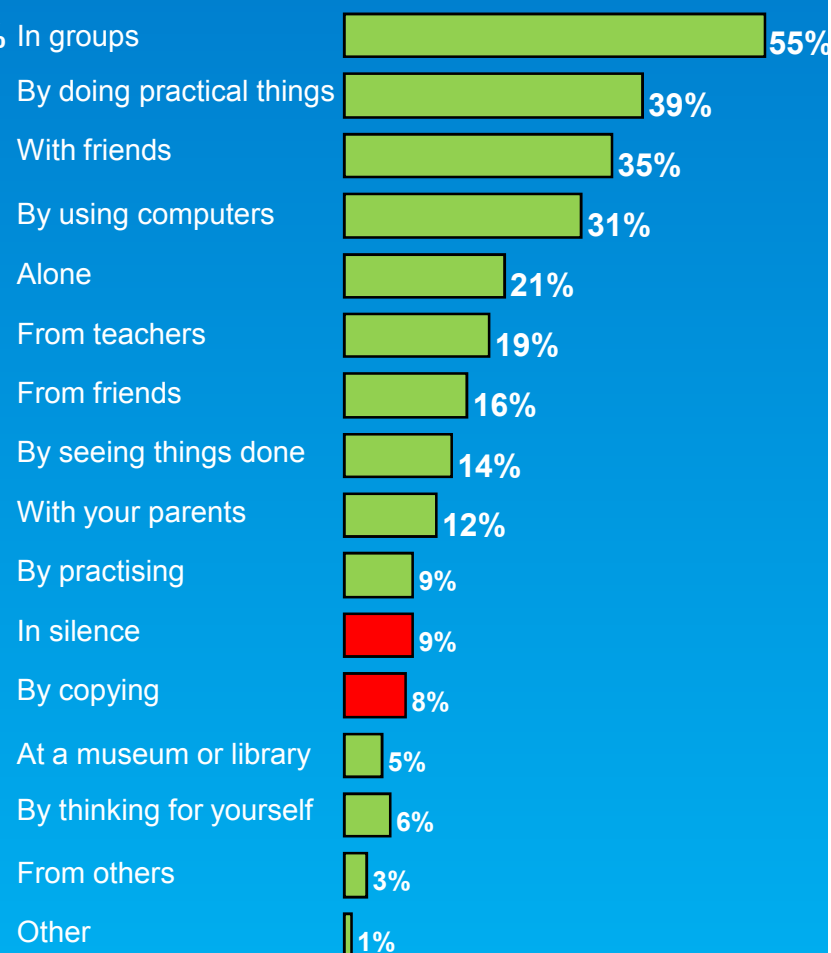
Activités communes en classe

Etude OCDE

Which three of the following do you do most often in class?

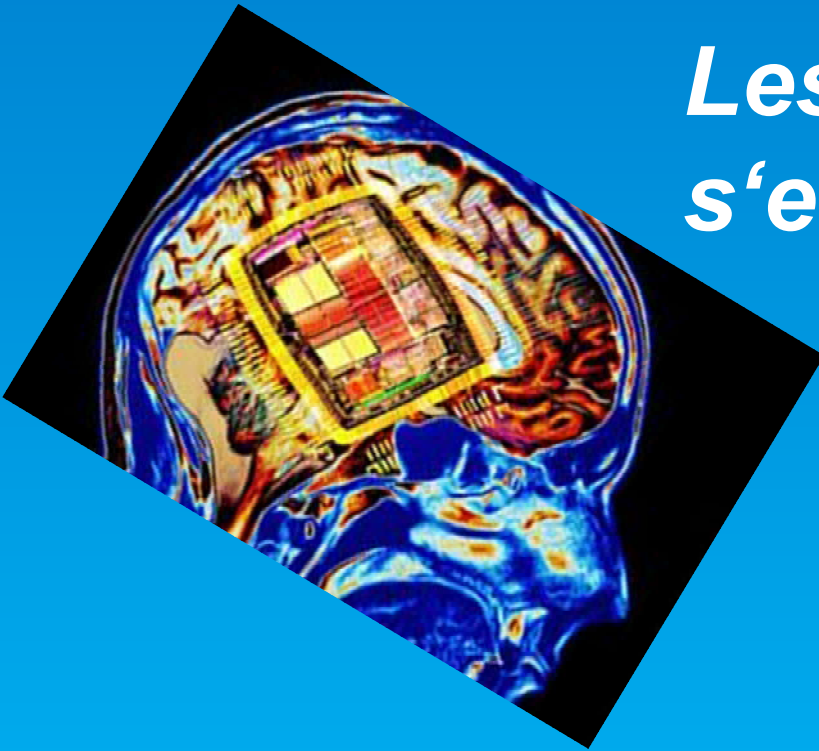


In which three of the following ways do you prefer to learn?

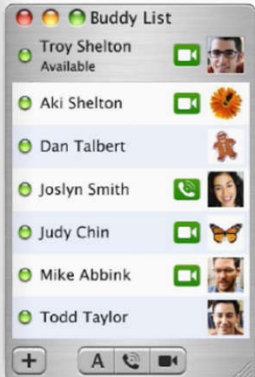
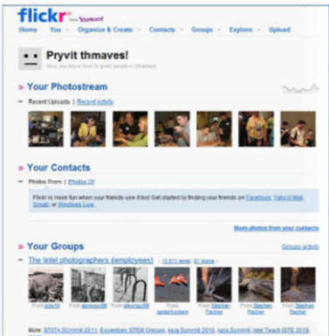


Comment pouvons-nous rendre l'apprentissage pertinent, rigoureux et significatif, aussi bien à l'intérieur des écoles comme à l'extérieur ?

Les 'Digital Natives' s'empressent...

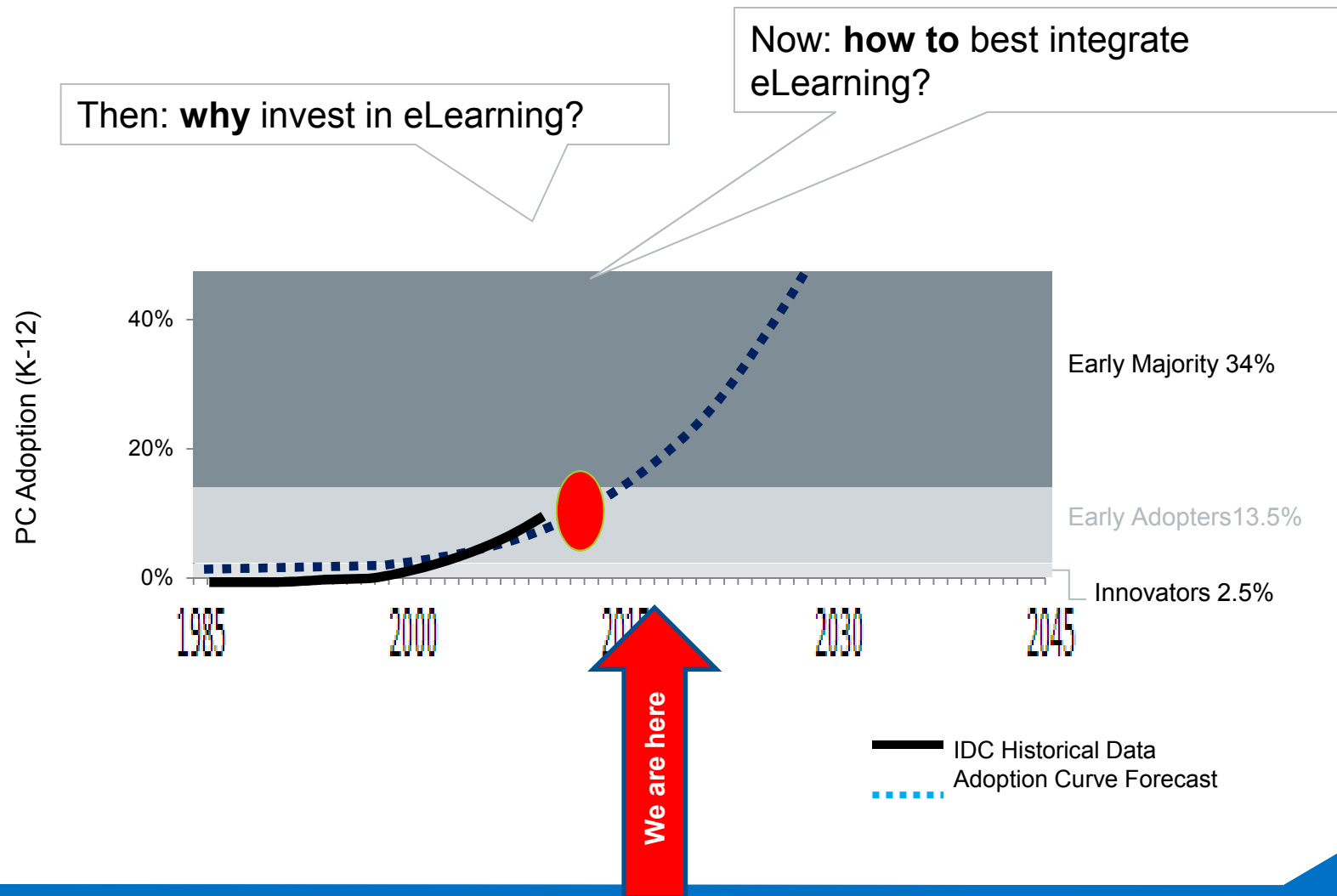


What Kids do Outside of School

Individually	In Virtual Communities	Sharing Content
		

Current Research Context

End users questions are shifting,



Benefits of Education Transformation

Employment and Economic Development

- Build 21st century workforce
- Reduce unemployment

Competitiveness

- Equip every student for success
- Increase academic rigor and achievement

Citizenship and Social Equity

- Unlock student potential
- Prepare students for social leadership and citizenship



“Job losses and earnings losses have been concentrated in low-skilled, low-income households. ...Many workers remain trapped in low-paid, insecure jobs with little social protection...Young people continue to face record unemployment levels.”

— OECD

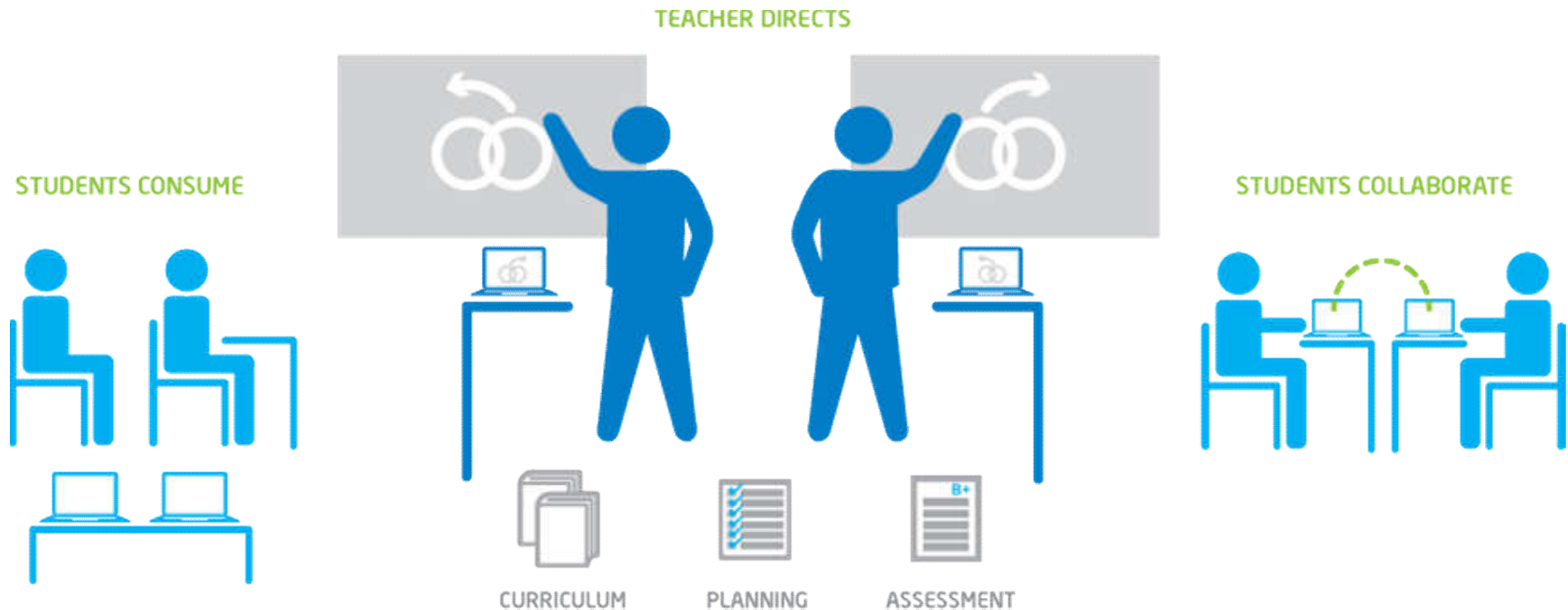
Shifting the Learning Paradigm

Traditional Teacher-Centered Classroom

Lecture-based knowledge dissemination. Limited use of technology.

Transitional Teacher-Centered Classroom

Lecture-based knowledge dissemination. Technology used for collaboration.

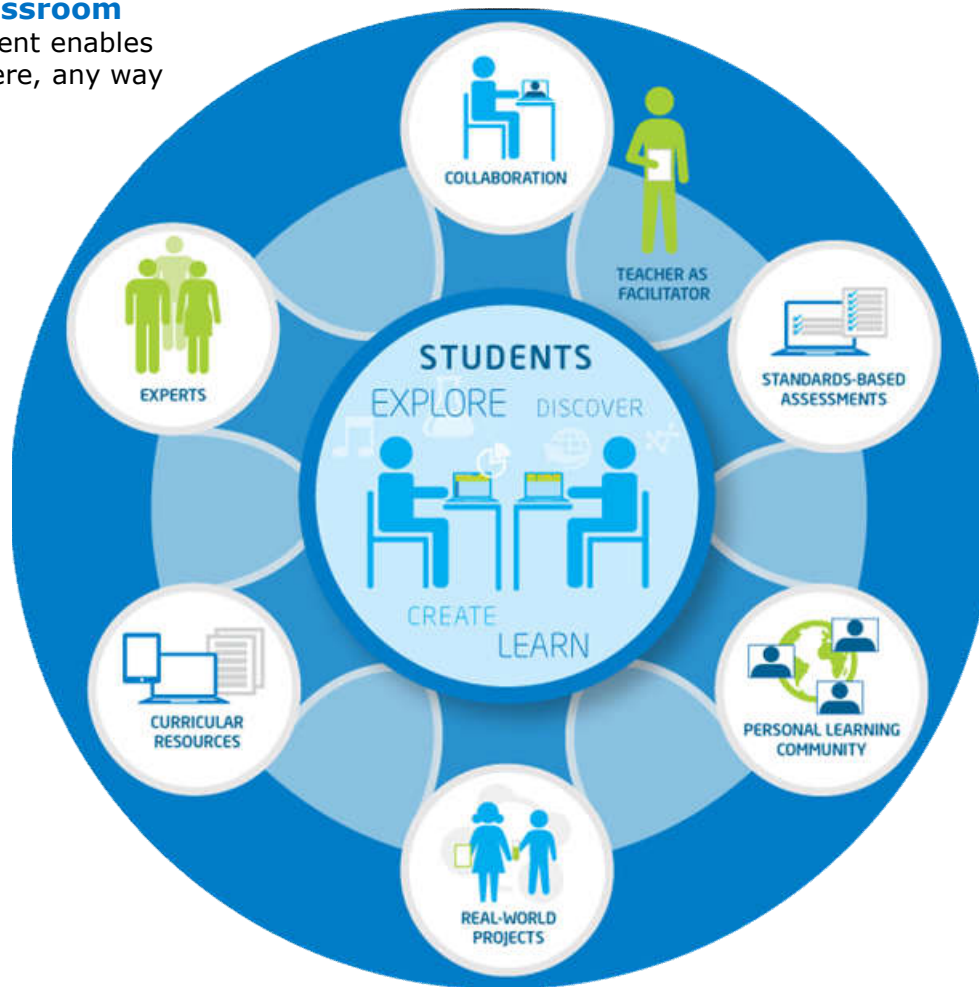


Evolving toward **STUDENT CENTERED CLASSROOM**

Shifting the Learning Paradigm

Student-Centered Classroom

Technology-rich environment enables learning any time, anywhere, any way



TECHNOLOGY has changed the way we **LIVE AND LEARN**

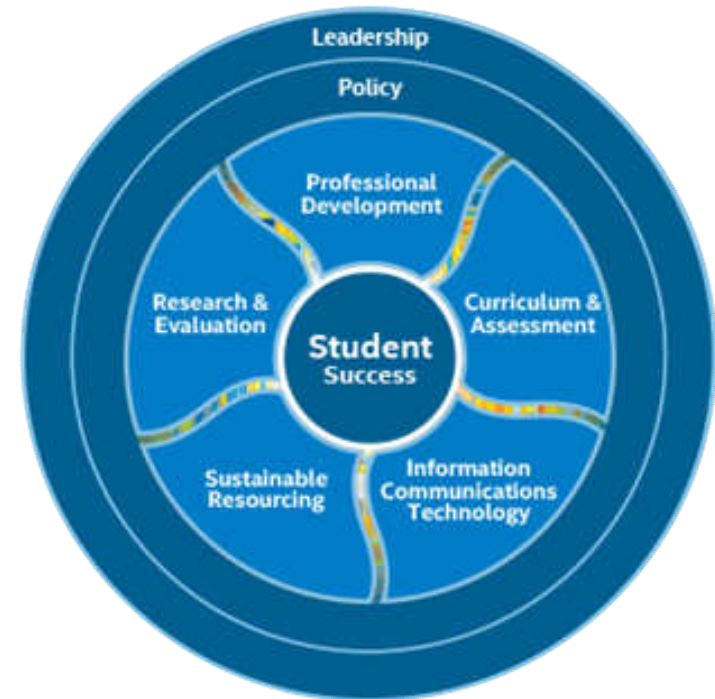
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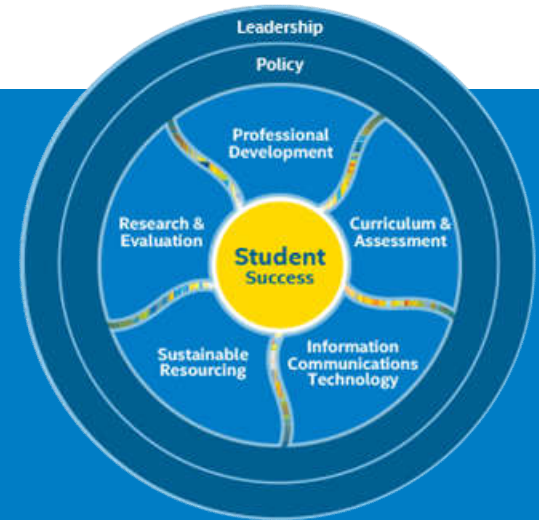
Transformation in Action



A COMPREHENSIVE APPROACH to enhance **ACHIEVEMENT**, INCREASE **INNOVATION**, and expand opportunities for **GROWTH**

Research-Based Model for Transformation

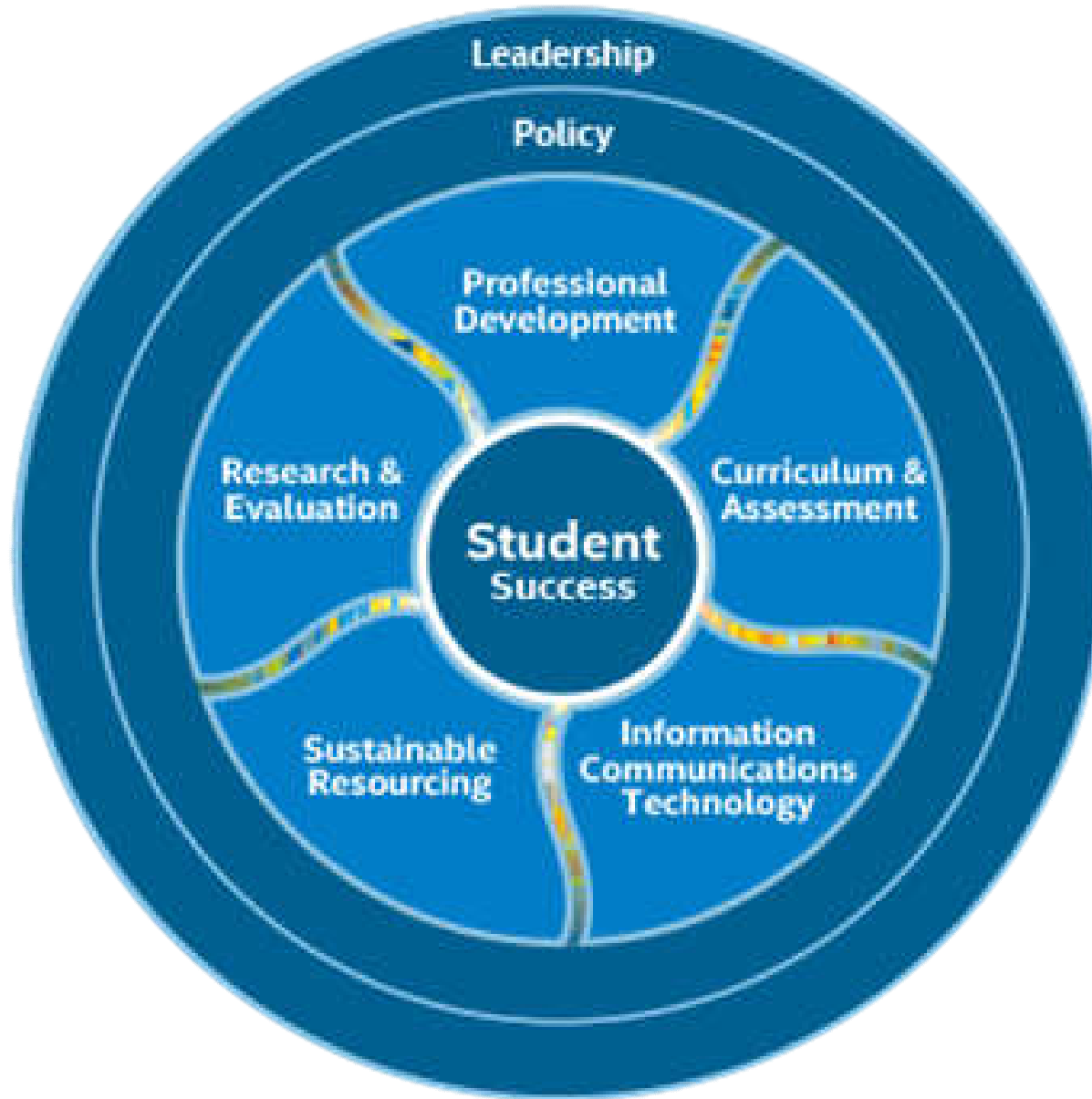
- Strategic, comprehensive, based on global research
- Provides student-centered, personalized learning
- Emphasizes 21st century skills and rigorous academic standards
- Supports government objectives: equality, job skills, school participation, others
- Aligns strategic planning and ICT integration in classrooms based on best practices



EXPANDING OPPORTUNITIES
for students, economies,
and societies



Education Transformation Model



Key Education Trends

1

Proliferation of Access

2

Low Cost Devices

3

Digital Publishing and Delivery

4

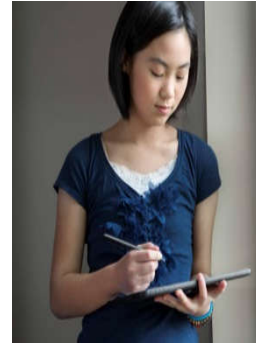
Personalized Learning and Assessment



Challenges Facing Educators



Digital
Inclusion



Student
Achievement



Locally
Relevant
Content



Skilled
Workforce



Economic
Empowerment



New Expectations, Changing Work



Students

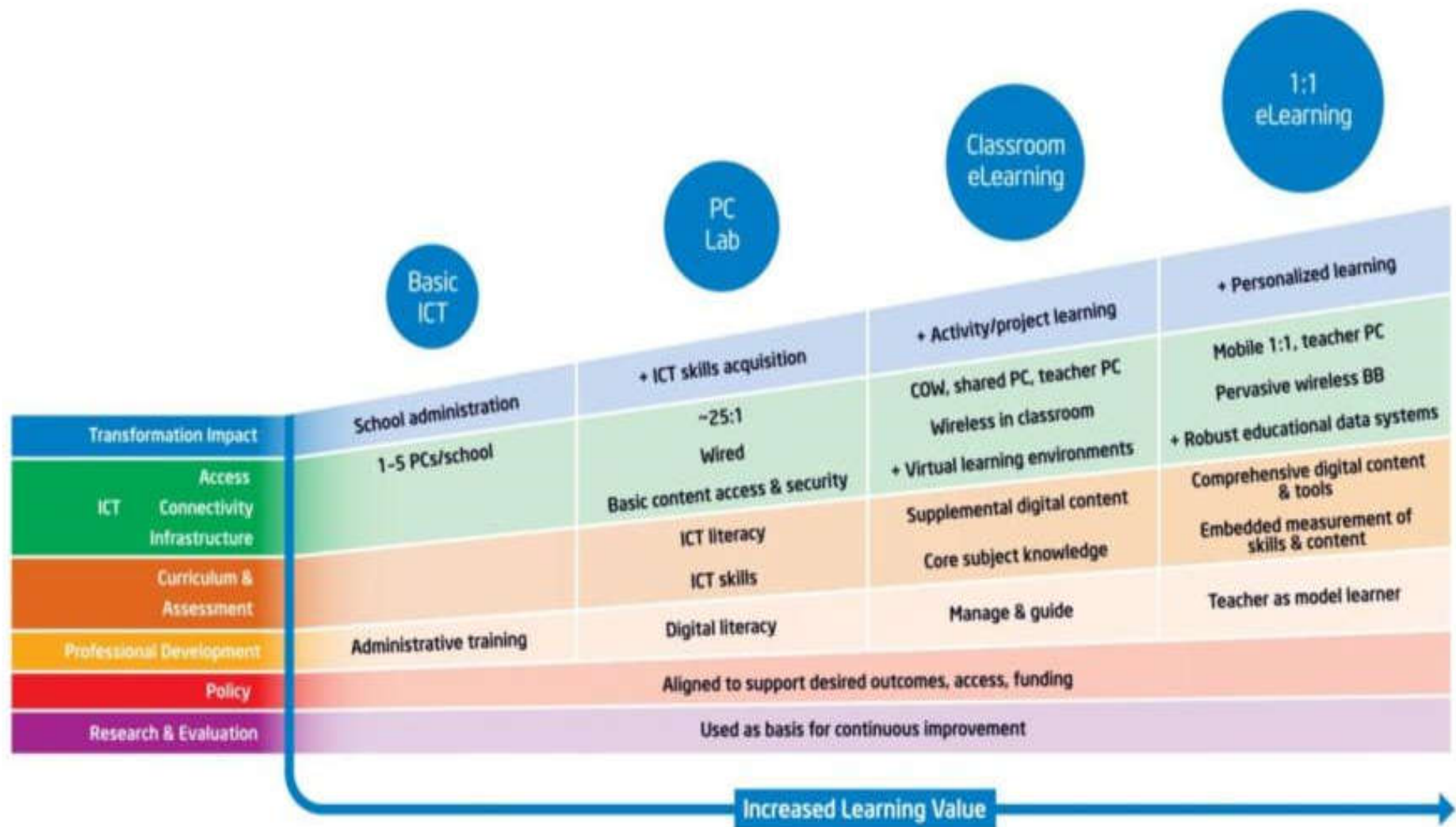
- Shift from information consumers to creative problem solvers
- Read complex texts and write extensively
- Collaborate and present their work
- Become self-directed, lifelong learners



Teachers

- Use technology to personalize learning
- Shift from “sage on stage” to “guide on the side”
- Meet higher expectations for student outcomes
- Increase focus on professional learning & growth

ICT Learning Environments



Intel® Education Solutions

User Experience

HARDWARE



MNC Products



Intel® Education Reference Designs

SOFTWARE & SERVICES



Intel® Education Software



Infrastructure Services

CONTENT ECOSYSTEM



IMPLEMENTATION SUPPORT

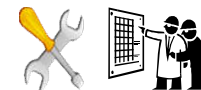


Blueprints, Consultancy

Intel® Teach & Transforming Learning



Teacher Professional Development

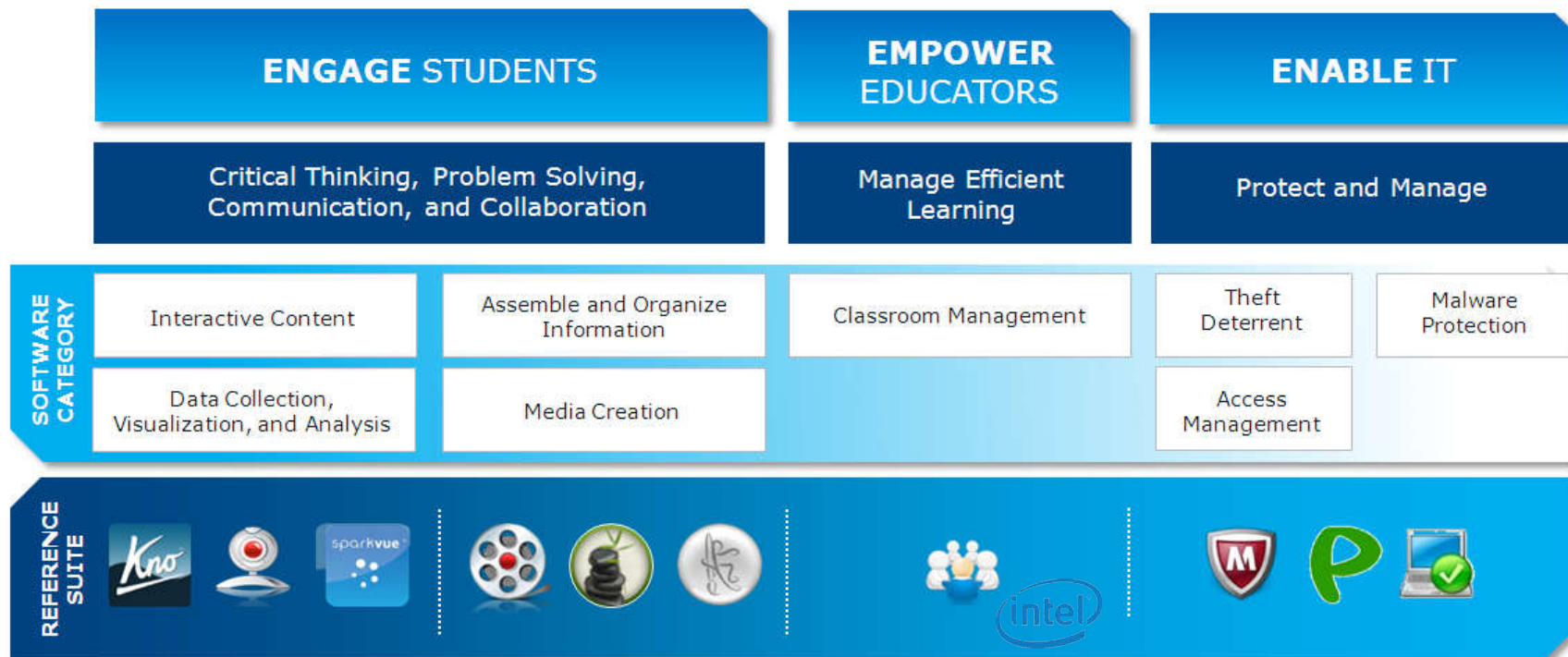


Go-to-Market & Deployment Support

Flexible, holistic education technology solution

Intel® Education Software

POUR LE RENFORCEMENT DES COMPÉTENCES DU 21^E SIÈCLE



Key software components to create a 21st century learning environment

Intel® education software

SUITE LOGICIEL

ENGAGE STUDENTS IN 21ST CENTURY LEARNING



Kno* Interactive eReader built specifically for education.



Lab Camera Built in camera based tools that enhance STEM curriculum.



SPARKvue* Science application that collects and analyzes data from sensors.



My Notes Capture notes and organize information from multiple sources.



Media Camera Multimedia creation and editing for project-based learning.



ArtRage* Painting and drawing app that lets students create digital artwork.



Intel® Education Resources Content from Khan Academy, British Council, and skool.

EMPOWER EDUCATORS



Classroom Management Tools to manage efficient classrooms and collaboration.

ENABLE IT



Parents Carefree* Monitor online access and protect from undesirable online content.



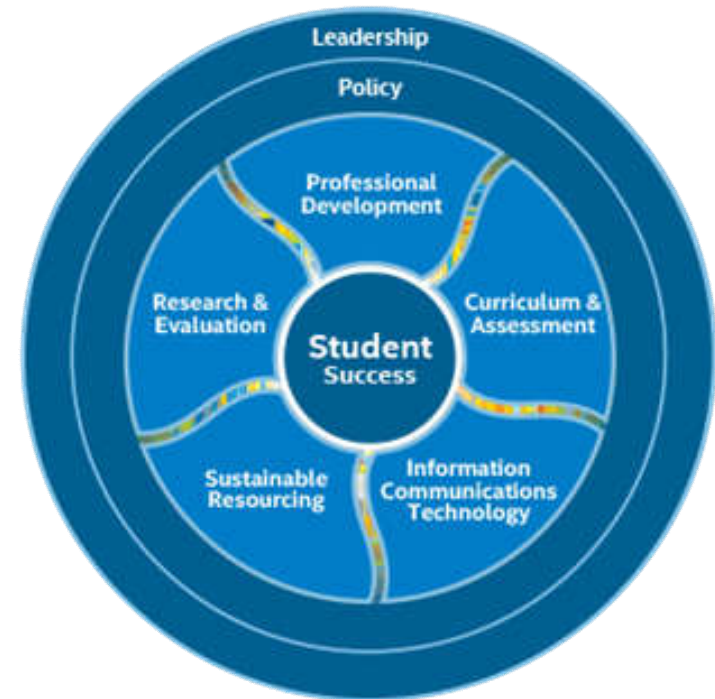
Theft Deterrent Protect IT investment by disabling devices in the event of loss.



McAfee* AntiVirus Plus Protects devices from exposure to malware.

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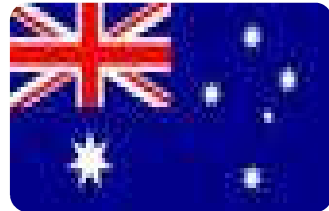
Advancing **EDUCATION TRANSFORMATION** around the world

Education Transformation in Action

Global Momentum



ARGENTINA



AUSTRALIA
DIGITAL ED



BRAZIL
UCA PROGRAM,
PERNAMBUCO



INDIA



MACEDONIA



MALAYSIA
TERENGGANU STATE



PORTUGAL
MAGELLAN PROGRAM



SPAIN
ESCUELA 2.0



TURKEY
KOCAELI STATE



USA - MANY
STATES AND DISTRICTS



VENEZUELA
CANAIMA PROJECT

CASE STUDY RESULTS SUMMARY

	STUDENT ACHIEVEMENT	DIGITAL INCLUSION	NEAR TERM ECONOMIC DEVELOPMENT	GRADUATION RATES
PORTUGAL	⊙	⊙	⊙	
SAN LUIS, ARGENTINA	⊙	⊙		
TERENGGANU, MALAYSIA		⊙	⊙	
SUNNYSIDE, ARIZONA, U.S.	⊙	⊙		⊙
KLEIN, TEXAS, U.S.	⊙	⊙		
ALE, SWEDEN	⊙			

Portugal: Improves PISA Scores, Especially Among Low Achievers

RESULTS



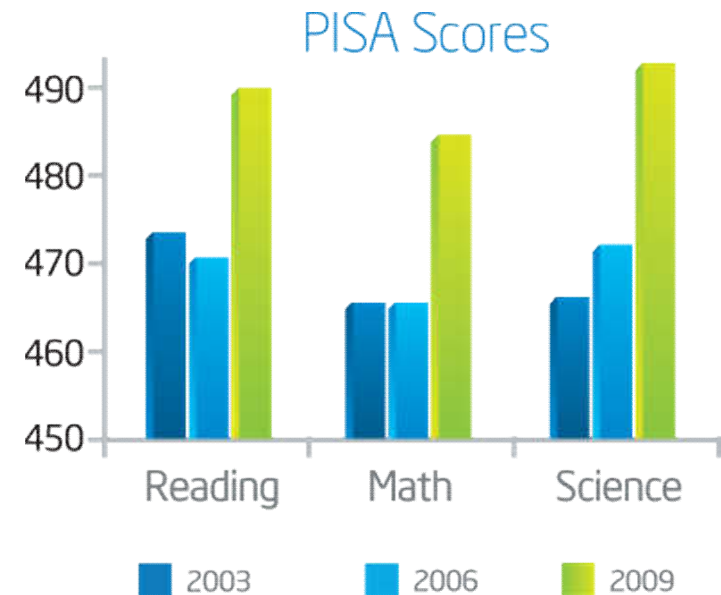
Improved in **all three PISA** assessment areas



Improvement among the **lowest-achieving students**



Ed-tech ecosystem **added 1,500 jobs**



CHALLENGE: Improve educational performance, create digital inclusion, support economic development

SOLUTION: Implement 1:1 eLearning, provide professional development for teachers, create local infrastructure for building PCs and educational content

Terengganu, Malaysia: Achieve Big Jump In Student Achievement, Job Creation

RESULTS



15.4% **of students**
received all As



Social inclusion broadens



500 ICT, 360 public-
sector jobs added



CHALLENGE: Bridge digital divide, build ICT infrastructure in schools, improve learning outcomes

SOLUTION: Provide Intel® classmate PCs so all students have access to technology, deliver professional development for teachers to use technology effectively, build local PC factory, and create jobs

Sunnyside, AZ, U.S.: Transform “Dropout Factories” To Model Schools

RESULTS

FROM 505 TO 873 Increased **graduation numbers**



In-demand model schools



Increased college readiness

Graduation Numbers: 2007 – 2011



CHALLENGE: Boost high school graduation rate, increase college preparedness

SOLUTION: Comprehensive plan including awarding laptops to students who achieve attendance, academic, activities, and attitude goals; site-based graduation plans, intervention, advisors, and attendance monitoring

Ale, Sweden: Improve Near-Term Academic Performance, Long-Term Success

RESULTS



Third-grade **language arts scores improved** by 20%



Third-grade **math scores improved** by 17%

LONG-TERM GOALS



EDUCATED POOL CONTRIBUTING TO COMMUNITY



CHALLENGE: Improve early reading and writing to boost performance in all subjects

SOLUTION: Integrate Intel® classmate PCs with digital lesson content for reading/writing, provide professional development for teachers

Klein, TX, U.S.: Boost Student Achievement In All Subjects

RESULTS

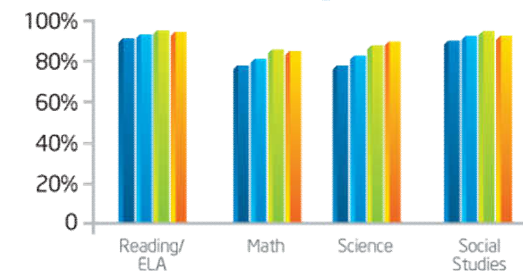


Student achievement **increased** across all subjects



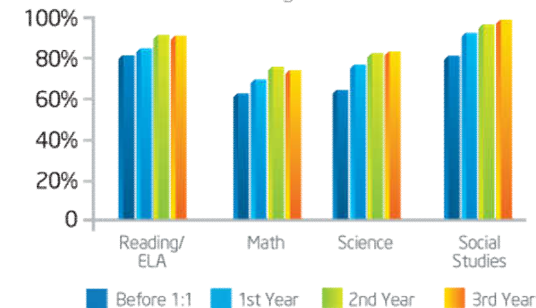
More significant gains for **economically disadvantaged students**

% Students Meeting the Standards



Disadvantaged Students

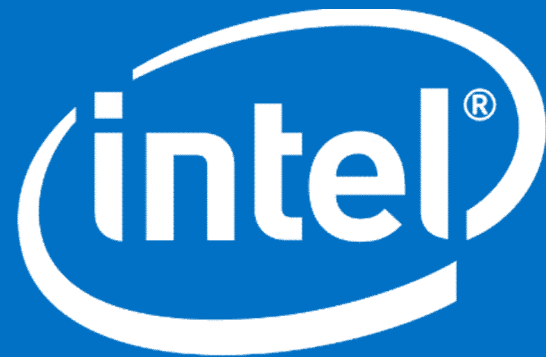
% Meeting the Standards



CHALLENGE: Embrace technology to better engage students

SOLUTION: Provide 1:1 PCs in high schools, provide infrastructure and tech support in schools, provide professional development and learning communities for teachers

Merci



Education