Education Transformation Framework

Best-practice guidance for successful school system change
Inspiring and implementing change

School systems are faced with both a challenge and an extraordinary opportunity. The chance to rethink and reinvent education to support our most valuable asset: youth.

Why do some countries succeed?

Over the past few years, countries like Hong Kong and Singapore have lifted performance dramatically through system-wide education transformation. Their schools have fostered authentic competency-based learning supported by technology to engage and inspire their students.

These successful education systems start with vision for equipping students with the creativity, collaboration and communication and STEM skills they need to succeed in today’s global economy.

Translating this vision into reality requires new strategies for education. For many it is a chance to rethink their curriculum, assessment, teaching practice, as well as the nature of physical classrooms including where, how and when students learn best.

How can we learn from their experiences?

To understand which strategies underpin success, Microsoft worked with leading policy makers and academics to evaluate studies of those schools, school districts and countries where learning transformation initiatives have made dramatic improvements. And we consulted with 130 different policy makers to validate our findings.

The result is a Transformation Framework. Grounded in the latest research into effective policy, leadership and pedagogy transformation, it is open and non-prescriptive, making it a flexible starting point for schools or systems. It is underpinned by a suite of whitepapers with evidence and questions to stimulate conversations, and guidance for managing different aspects of change.

How can you adapt approaches from successful Education Systems?

The Microsoft Education Transformation Framework helps fast track system-wide transformation by summarizing decades of quality research. You can quickly see what global leaders are recommending and tap into their best practice and experiences, with links to go deeper if required. Examples of what has worked and what hasn’t help you to avoid repeating the same mistakes.

The organizations on the page opposite all used the Microsoft Education Transformation Framework to evaluate and improve their programs.

Partnersing with Countries – Finland

Widely recognized as world leaders in learning, the Finnish National Board of Education developed a Learning and Competence 2020 strategy. This nationwide initiative sets a vision for broad-based education excellence to provide a sustainable future, well-being and economic competitiveness. To support this vision, Microsoft has engineered a secure IT architecture empowering schools to support anytime, anywhere access to classmate, support, resources, digital tools and innovative technologies that support future ways of learning.

Partnersing with School Districts – Manteca

It was simple: Manteca Unified School District recognized that they did not have a system in place to support 21st-century learning initiatives, including the Common Core State Standards, which require a digital curriculum for all grades K–12. So they developed a Going Digital 2015 vision. Their yardstick of success? Students and teachers accessing rich, dynamic digital resources for the majority of their instructional day. Microsoft is collaborating with Manteca Unified School District to provide the underlying technology that will transform teaching and learning across 24,000 students and bring their vision to life.

Partnersing with Counties – Miami-Dade

It was inspired: in 2014 Miami-Dade Schools recognized that 1-to-1 learning was the best way to support their vision for personalized learning. “Technology, by itself, is not going to close the achievement gap between the rich and the poor, a gap that threatens so many of our minority students,” said Superintendent Alberto M. Carvalho. “But when technology is used correctly, we have seen powerful results.” Partnering with Microsoft the school has deployed Surface Tablets to students with powerful cloud-based tools like Office 365 Education and OneNote that free them up to learn intuitively across distance and device.

Schools themselves need to be changed, to foster the creativity that humans will need to set them apart from computers. The Economist, 2014
Use these ten components of transformation to plan and implement change at systemic level. Start by identifying your readiness stage – developing leadership and policy, or implementing 21st century pedagogy – and then select objectives that fall within your vision. Each objective is underpinned by an executive summary and an academic whitepaper detailing global evidence, so you can use best practice to speed up effective transformation.
10 components of transformation

The Microsoft Education Framework provides a comprehensive reference library of research findings, case studies and best practice to assist governments and ministries planning systemic change. To start your discussions, we’ve summarized the ten components of transformation here, however, we recommend downloading the executive summaries and whitepapers from our website.

We can also support you with collaborative workshops – talk to your Microsoft contact for details.

microsoft.com/education/leaders

Leadership and Policy

To scaffold the transformation model, Microsoft has worked with leading academics to develop four leadership and policy whitepapers. They provide evidence and examples of successful transformation and show how technology can enable progress. The summaries of these papers can help you define your scope and open discussion with stakeholders. Complete versions are available at microsoft.com/education/leaders

Leadership and Policy

Before school systems can embark on change they need a clear vision. Defining one is complex because it touches on the perceptions, attitudes and everyday work of multiple stakeholders; involves the reallocation of fiscal and cultural resources; and disturbs the status quo. This focus area helps policy leaders with examples from successful systems, and best practice to develop a cycle that includes defining a vision, strategic planning, implementation, and reflections on progress.

Resources and support
• Executive summary
• Whitepaper: Vision for Anywhere, Anytime Learning for All
• Workshop: Why Transform?

Partnerships and Capacity Building for change

A public-private education partnership has the potential to be a significant catalyst for systemic change – increasing enrolment, student outcomes and cost efficiencies. In order to find the right partner and deliver the greatest possible alliance, work and success, both organizations must commit to mutual understanding and the power of education to transform lives, communities, institutions, and nations.

Resources and support
• Executive summary
• Whitepaper: Public, Private, and Community Partnerships for Employability
• Workshop: Implementation Plan for Education Transformation

Organizational Capacity, Strategic Planning and Quality Assurance

Evidence increasingly points to the requirement of a change strategy that includes professional development, feedback and support for teachers. Critical to swift transformation is the deployment of a well-researched monitoring and evaluation system.

Resources and support
• Executive summary
• Whitepaper: Enabling Transformation with Strategic Planning, Organizational Capacity and Sustainability
• Workshop: How to Build a Strategic Plan

Inclusion, Accessibility and Sustainability

A commitment to personalized learning includes providing technology solutions that empower all students, including those with learning difficulties, physical disabilities or other learning impairments. Accessibility is a crucial consideration in transformation, and early planning for inclusive learning environments benefits students and schools.

Resources and support
• Executive summary
• Whitepaper: Enabling Transformation with Strategic Planning, Organizational Capacity and Sustainability
• Workshop: Deep Dive on Monitoring and Evaluation
• Microsoft Enable website www.microsoft.com/enable
With the right technology in place, personalized learning is becoming practical and easy to implement throughout schools. This has the potential to overcome socio-economic, time and space limitations and maximize educational opportunities through motivated, engaging and relevant learning. Clear guidelines from UNESCO present a roadmap towards individualized education.

Resources and support
• Executive summary
• Whitepaper: Personalized learning for Global Citizens
• Workshop: Quality Enhancement and Personalized Learning with Analytics
• Workshop: School Leadership Academies

Building teacher and leader capacity is vital to successful transformation. In addition to equipping leaders with the skills and incentives to continually assess and apply new ways of working, top-performing schools place an intensive focus on training, mentoring and collaborative groups that promote discussions on student learning, and offer regular feedback and peer learning.

Resources and support
• Executive summary
• Whitepaper: Building Leader and Educator Capacity for Transformation
• Workshop: 21st Century Learning Design

Responsive and creative use of technology is powerful in improving curriculum and assessment outcomes for students. With access to personalized, connected and collaborative learning, students in blended learning exceed students in traditional classroom environments. This can improve engagement in key areas, like STEM. However, care must be taken to ensure technology meets the needs of the student and the strategies of the teacher.

Resources and support
• Executive summary
• Whitepaper: Curriculum, Content and Assessment for the Real World
• Workshop: Deep Learning with Collaborative Assessment
• Workshop: School Leadership Academies

A community of practice can provide a structure that is capable of fostering growth and development amongst peers to enhance learning goals. Learning communities go through a series of stages as they grow and develop, however technology makes it easier to create and sustain a peer network and gives learning communities the ability to communicate and collaborate in a virtual hub that can deliver support to members at any time.

Resources and support
• Executive summary
• Whitepaper: Transforming Learning Environments for Anytime, Anywhere Learning for All
• Workshop: How to Create a Project Implementation Plan
• Workshop: Design, Deploy and Transform for CIO’s and IT Leaders

Combining cloud solutions that manage infrastructure, services and learning allows schools to operate more effectively. Not only does the technology support the running of the school, it also maximizes the potential of all students. By unlocking and understanding student data educators can solve critical teaching challenges, improving learning outcomes and graduation rates.

Resources and support
• Executive summary
• Workshop: 21st Century Pedagogy

To help schools plan changes to pedagogy, Microsoft has worked with experts in the field to develop guiding whitepapers. They provide evidence and examples of aspects of pedagogy and how technology can support them. The summaries of these papers can help open discussion with teachers and provide useful evidence to support your approach.

Complete versions are available at microsoft.com/education/leaders

21st Century Pedagogy

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5 Personalized Learning
6 Teacher and Leader Capacity
7 Curriculum and Assessment
8 Developing a Learning Community
9 Physical Learning Environments
10 Designing Technology for Efficient and Effective Schools
Where could education transformation take you?

The Microsoft Education Transformation Framework can help school leaders envision, plan, implement and measure their program. Every school is different and change can be ‘whole school’ or ‘incremental’. Here are some typical outcomes:

Classrooms inspire and empower learning
Classrooms are flexible spaces with mobile seating and reconfigurable furniture. While teachers guide from the side, students learn comfortably in the way that suits the activity – from noisy group brainstorming to quiet study.

- Wireless connectivity
- 1-to-1 learning – individual student devices
- Secure online workspaces for sharing powerful tools for collaboration, communication and creativity – Office 365 Education, Sway and Sharepoint.

Education is not limited by time or place
Students study core course material as homework using online resources prepared by teachers. This supports ‘flipped learning’, where students use class time for questions and discussion. Sick, home-schooled and distance learners can study courseware and join classes via videoconference.

- Wireless connectivity, Skype, 1-to-1 learning
- Office Mix – creating engaging interactive content
- OneNote Class Notebooks – students view and annotate sections of video lessons they don’t understand. The teacher can see all notebooks.

Students engage in deep learning
Students use connected devices to gain knowledge and skills by investigating and responding to a complex question, problem or challenge. They can reach out to affiliated companies for input and guidance.

- Research knowledge and opinions – Bing
- Collate and compare resources – OneNote
- Brainstorm and sketch ideas with a digital pen
- Canvass opinions on safe social media – Yammer
- Get feedback on drafts from teacher or industry mentor – OneNote
- Upload assignment as a podcast – Office 365 Education.

Learning is personalized and enjoyable
Education is more effective when students can collaborate with teachers to set their own learning goals and measures of success within the context of the curriculum.

- 1-to-1 learning – individual student devices
- Create personal learning framework – OneNote
- Build e-portfolio for assessment – OneNote or SharePoint
- Share work and use powerful tools for collaboration, communication and creativity – Office 365 Education and Sway.

Teachers are skilled and equipped to succeed
Teachers are supported with ongoing professional development that is flexible and easily accessible. Their achievements are recognized and rewarded. There are mechanisms in place for team teaching, peer review and feedback.

- IT skillng for teachers – IT Academy
- Skilling teachers and connecting them to resources and lesson plans – Microsoft Education Community

Performance can be efficiently monitored
From government level down to individual students, all involved in or impacted by education transformation projects know how they’re progressing, with secure online access to real-time performance data.

- Education analytics – Microsoft SQL Server, Office 365 Education, OneNote, Mix and Power BI
- E-portfolios for assessment – SharePoint, Sway and OneNote.

STEM teaching is vibrant and engaging
There is a coordinated, systemic approach to STEM and an engaging school curriculum and pedagogy that attract students to this priority area.

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- Skilling teachers and connecting them to resources and lesson plans – Microsoft Education Community

We care enormously about supporting digital literacy in the classroom, so our students learn the skills they need to be successful in the workplace.

Colby Clark, Director of IT, Manteca Unified School District
Interested in taking the next step on your transformation journey?
Visit microsoft.com/education/leaders