Microsoft

Microsoft Education Design and Deployment Guide

A framework for change

Introduction

Sparking the natural curiosity of young people and enabling them to be successful both in school and in their future work environments remains an essential mission for educational institutions. But as the world moves into the second decade of the twenty-first century, there is an urgent need to realign, rethink, and reinvent educational practices to meet the needs of modern learners. The challenge is to find an approach that is agile, adaptable, and in tune with young people's lives outside of the classroom.

Welcome to the world of 1:1 learning

As part of our commitment to education transformation, Microsoft Educator Network partnered with the Anytime Anywhere Learning Foundation (AALF) to develop this design and deployment guide for regional/district leaders and school principals who are considering or ready to begin deploying technology to improve student outcomes. This guide will help you ensure that you implement a successful 1:1 program. We define 1:1 as a learning initiative in which each student has her or his own personal, portable, fully functional digital device, such as a laptop or tablet computer. (See 1:1 Learning for more details.)

> *"AALF is focused on developing 21st century schools. The global awareness, contacts, and expertise of the organization's resources can help any district, school, or state successfully understand and take effective steps to make the best use of technology in support of teaching and learning."*
>
> Bette Manchester, President
> Maine International Center for Digital Learning

Since the first 1:1 programs began more than 20 years ago, tens of thousands of schools across the globe have piloted or fully deployed 1:1 programs in their schools and school districts. Much has been written about the benefits of 1:1 education and its potential to create a revolution in student learning.

At Microsoft, we believe that technology can help improve teaching and learning—but only when used as one piece of a larger solution. Simply giving each child a computer will not typically produce superior learning unless you also address teaching, learning, and assessment; cultivate leadership and a culture of innovation; build capacity; and alter the learning environment.

Microsoft Educator Network also initiated the Innovative Teaching and Learning (ITL) Research project to contribute information and policy insights on where and how effective education transformation is taking place around the world. Our research has revealed that the most successful 1:1 initiatives have one main characteristic in common: they are first and foremost concerned with *learning*, not laptops. These successful initiatives also followed a similar set of processes, whereas the schools that reported the most problems did not. The key aspects of their system-wide approach form the core of this guide, created to help you envision, plan, implement, evaluate, and expand 1:1 learning in your schools.

Phase 1: The Compelling Case for Change

Understand the context

We hear it from nearly every quarter, and it's true—the world *is* changing. Fluctuating global conditions, new economic realities, and shifting cultural norms all influence the expectations placed on today's educational institutions.

Many young people are awash in technology outside of school, using powerful tools to interact with information and each other on a daily basis; they anticipate access to rich content and frequent collaboration within the learning environment (*The Case for Computing*). Others have no such access to technology but could substantially improve their futures if introduced to new skills, perspectives, and knowledge-based work that they can draw on to succeed in the new global economy (*Learning from the Extremes*).

> ***The Compelling Case for Change: What Is Possible***
>
> This video focuses on four sites (three schools, one district) whose long-term 1:1 initiatives exemplify how 1:1 can be used to transform learning and teaching practices.

Schools and districts are implementing 1:1 programs at a rapid rate because they recognize the impact these changes are having on how young people learn, the ways in which today's students interact with the world, and the positive outcomes achievable with 1:1 learning (Shape the Future).

As you consider its potential fit for your institution, explore what others have to say about the 1:1 movement. Reports such as *Benefits and Challenges of Using Laptops in Primary and Secondary School* and *Powerful Tools for Schooling: Second Year Study of the Laptop Program* may prove valuable, along with school leader discussions about 1:1 technology deployment in schools.

Redefine your vision

Without a clearly articulated vision, 1:1 initiatives invariably end up as hardware provision programs, with idiosyncratic examples of teachers doing innovative work in random classes across a school or district.

It may be difficult, but creating a formal vision pays long-term dividends. It will enable everyone involved to understand the ultimate educational objectives, lay the foundation for better decision making, and keep your effort focused as you move through implementation and beyond. A good vision statement:

> ***Learn from the Leaders***
>
> Seven school and district leaders describe their visions for learning, specifically in technology-rich environments, in this video.

- Describes how the 1:1 initiative will transform the learning environment and improve student outcomes.
- Provides the best opportunities for students as functioning members of the broader society.
- Represents your collective beliefs about the role of school in the twenty-first century.
- Informs the initiative's direction for the next five to seven years for all those involved.
- Clearly scopes the potential offered by a technology-rich learning environment.
- Provides both a platform and permission for teachers to take risks, innovate, and reimagine their teaching in the context of the modern learner.

Microsoft Educator Network offers two online workshops to help you develop your vision. *Workshop 2: Creating a Shared Vision* describes how to ensure that your vision and core aims are "alive" in all aspects of school life. *Workshop 3: Exploring Possibilities* includes further information about the vision process from a range of worldwide schools. The Microsoft Educator Network Self Reflection Tool gives you the means to reflect on where you are today and where you need to go to make transformative change within your institution.

A Vision for Learning

In this video, Esme Capp, principal at Princes Hill Primary School in Australia describes her school's vision and how the school defined goals and outcomes based on this vision.

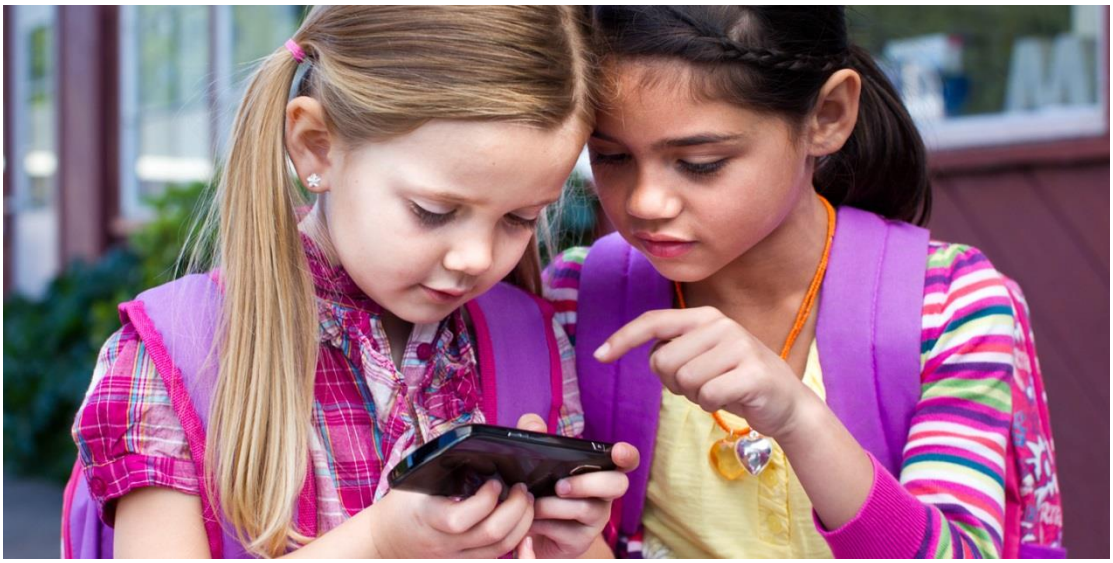
Clarify goals, expectations, and policy priorities

As a leader, you're no doubt familiar with the necessity and benefits of goal setting. That applies to implementing a 1:1 learning initiative, too. If an institution defines an actionable vision along with unambiguous, measurable goals and clear strategies around its vision and goals, the teams handling the implementation will have an easier path to follow.

Well-designed goals and their expected outcomes can help you develop everything from district and school policies to classroom routines, ensuring system-wide alignment of learning and teaching practices with your pedagogical vision. Achieving that vision will take time. By breaking down the process and setting incremental goals, you make it possible to effectively measure progress and help all those involved in the initiative stay in sync. Learn how the Government of Singapore took its vision for education and created clear goals and measurable outcomes in *The ICT Connection: Harnessing ICT, Transforming Learners–Singapore*.

Shifting to 1:1 learning and teaching opens up new opportunities for students and, consequently, will have an impact on infrastructure, support services, data collection, and administrative functions. When putting in place your information communication technology (ICT) policies, try to develop those that:

- Are based on a long-term vision and have clearly articulated goals.
- Remain focused on learning.
- Can be aligned over time and reflect the work of all stakeholders.
- Go beyond politics.



Phase 2: Redesign Learning and Teaching

Explore contemporary learning

A 1:1 technology initiative gives you the opportunity to redesign all aspects of learning, from resource and teaching assessment to physical and virtual learning spaces. With ubiquitous technology access, you can change when, where, what, and how students learn. Research shows that today's students are curious, self-directed, and connected/social learners. Consider how you can redefine curriculum to give them a more meaningful voice in their education and a strategy and environment that supports deeper learning.

You may find it helpful to review Innovative Teaching and Learning Research Findings from ITL Research, which offers insights into how best to prepare young people to become contributors to tomorrow's society and economy.

Twenty-First-Century Learning in Action

This video particularly emphasizes the dimension of self-directed learning, including a meaningful student voice, which can significantly shift the learning environment.

Embrace new roles for 21st-century educators

Obviously, as learning takes place in new ways and in new spaces, how teachers work will also change. Initiating a 1:1 program can free them up from their primary role as content providers and instead let them serve as mentors, learning strategists, advisors, coaches, and researchers exploring new, innovative teaching practices. By shifting from teacher- to student–directed learning, you can begin to develop a contemporary curriculum strategy. Innovative teachers from around the world have incorporated personalized learning and technology in their learning activities.

Research shows that working in partnership like this with students, where both the educator and the student share responsibility for learning, produces positive outcomes. However, this is only when young people's participation can be real and substantive, not merely tokenistic—something to keep in mind as you re-examine your teachers' roles to determine how best to support your educational objectives.

New Roles for Twenty-First-Century Educators

In this video, education leaders from around the world describe their new roles as educators in the twenty-first century and their experiences developing 1:1 teaching practices.

Many of your contemporaries have already put in place innovative teaching practices. School leader Dan Buckley from Salthash.net Community School in the U.K. enabled his educators to place the student at the center with a personalized learning initiative (video and case study). In Colombia, the Colegio Fontan School eliminated classrooms and succeeded in competency-based learning (video and case study). School leader Larry Rosenstock from High Tech High in the United States embraced project-based learning with great success (video and case study).

Phase 3: Lead the Shift

Initiate change

If you've ever tried to induce any kind of shift in your district's culture, you know just how difficult it can be to change beliefs, attitudes, and practices. Take heart—education leaders around the globe have been able to successfully promote and sustain innovation in learning and teaching practices across their institutions.

Their advice? Identify the key people throughout the system who can understand your vision, take ownership of its goals, and help drive change. They also recommend developing clear strategies for change management and providing ongoing system-wide support, professional development, and collaboration opportunities. (Read various school leaders' blog posts about driving culture change in their institutions.)

Lead the Shift

This video features education leaders from four countries describing some of the strategies they used to help bring about a shift in learning and teaching, such as establishing a culture that supports risk-taking (and allows teachers to fail).

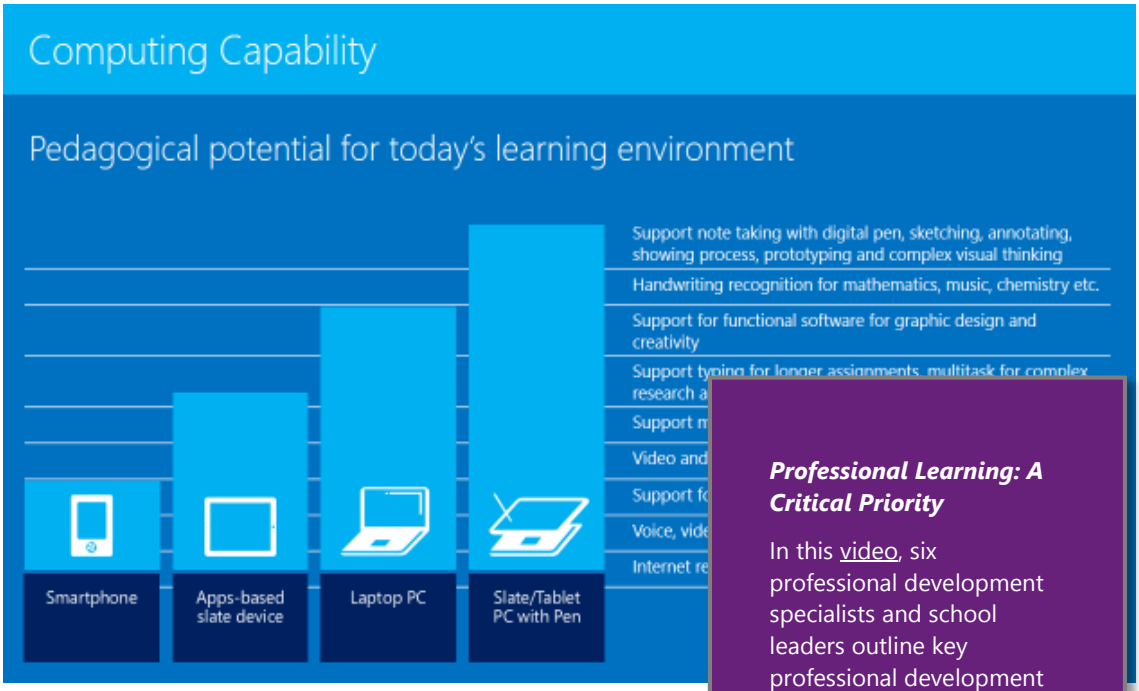
Before going too far down the planning road, it's important to know where you are. We've created a free *Microsoft Educator Network* school research–based survey that you can send to all your educators. It compiles their responses into a report that provides you with measures of all the dimensions of innovative teaching currently practiced in your institution. Conducting this survey at both the beginning and end of each school year lets you see if the goals you set prompted real innovations in teaching and learning.

Use smart funding strategies to help ensure equity and sustainability

In establishing your 1:1 learning program, consider the practical as well as the pedagogical. You need to design a funding mix that ensures ubiquitous technology access for *all* students, program scalability, and, most importantly, sustainability beyond initial funding opportunities.

That said, your pedagogical goals shouldn't be compromised when planning a financial strategy. With the variety of computing devices available on the market, you can determine the blend of learning-related capabilities that best meets your overall requirements. (See Figure 1.)

Figure 1. Learning-related capabilities available with various types of computing devices



Professional Learning: A Critical Priority

In this video, six professional development specialists and school leaders outline key professional development strategies, including breakout sessions, observing other teachers, action research, and coaching.

A bring-your-own-device (BYOD) strategy may appeal, but carefully evaluate whether it truly makes sense. BYOD raises a number of difficult, and potentially costly, issues around equity, infrastructure and support, impact on pedagogical choices, and finances. You might consider a shared-cost model, in which everyone who will benefit from your program makes some financial contribution.

Clearly communicate to build understanding and support

A carefully designed communication plan both informs people and fosters solid support from students, teachers, parents, and district leaders. Communication helps give your stakeholders common, consistent language to use in discussing your future program among themselves and with the outside world. We worked with leading experts to create a self-directed workshop on planning and stakeholder engagement that might be helpful as you build momentum and craft your communication approach.

Implement professional learning strategies

Too often, the logistics of ICT integration take center stage in an institution's move toward innovative teaching practices. But those who make it a *critical priority* to conduct ongoing professional development for their educators and leaders achieve more comprehensive, lasting change. In keeping with our emphasis on the people involved in a 1:1 initiative, not just the technologies, Microsoft Educator Network collaborated with educational experts around the world to create the Microsoft Teaching with Technology curriculum for educators, in addition to our other free education tools and tutorials.

Adopting a professional development component keeps everyone focused on the intersection between pedagogy and technology—ICT for *education's* sake, not its own. 21st Century Learning Design helps teachers redesign their existing lessons and learning activities to build students' twenty-first-century skills. Based on rubrics developed and tested internationally for the ITL Research project, the program can be linked to your national or local curriculum standards. Additionally, the Windows in the Classroom Seminar videos show real-world examples of how software and devices can be used to enhance the learning experience.

To promote individual professional development, encourage all your educators to:

- Have your educators register to become Microsoft Innovative Educators and apply to become Microsoft Expert Educators. They get a variety of benefits, resources, and the chance to attend the Microsoft in Education Global Forum.
- Ask questions and engage in peer learning communities with educators worldwide.
- Learn about professional learning communities from experts and get their questions answered.

Phase 4: Manage Implementation

Conduct a readiness assessment

Similar to using the educator survey to gauge your current levels of innovative teaching, you need to evaluate your institution's existing technology resources, personnel, and facilities. Assessing their preparedness, along with your teachers' readiness for a technology-rich environment, will help you identify your institution's strengths and any areas that may need attention.

As part of your assessment, complete a technology audit in which you review all ICT and infrastructure, make recommendations with regard to the relative preparedness of the various components, and determine which of your existing components will fit your future needs. The Microsoft Assessment and Planning Toolkit offers a powerful inventory, assessment, and reporting tool that you can download for free to help guide your efforts.

Plan your infrastructure for scale

Your success at building an infrastructure that can sustain your program's vision and goals depends largely on your ability to anticipate both current and future needs.

The good news is that you don't have to go it alone. Microsoft is a leader in education technologies; we frequently partner with schools and districts to help them meet their specific software and hardware needs, and we can do the same for you. You also can take advantage of the ongoing experiences, tools, and knowledge shared through our online resource sites, such as Microsoft Educator Network, Innovative Schools Program, and Microsoft in Education.

Infrastructure: A Strategic Asset

This video explains not only the main components of infrastructure, but the strategic importance of ensuring that the infrastructure is well designed, with well-planned processes.

Your infrastructure should have enough flexibility to support the program as it expands and as new, innovative learning opportunities and teaching practices evolve. Additional aspects to consider when designing your infrastructure to support 1:1 learning objectives include power sources (electricity, solar, other alternatives); Internet grid options; LAN/WAN design; server infrastructure; security; data protection and recovery; and identity and access management.

Select devices, applications, services, and core tools

Next you need to choose the online tools, services, applications, and other hardware and software that best support your pedagogical goals. With the diverse range of hardware and software available, determining what both students and teachers need can be daunting. Before purchasing anything, you must be clear as to how each tool will directly support your learning objectives. Choose hardware and software that are accessible to all students and meet your institution's requirements around security, data protection, access management, and database services.

These short videos highlight Microsoft technologies such as Windows 8—in use within the classroom—to give you an idea of the many ways you can put our software and hardware to work for your institution:

- Choosing the right device
- Features and customization
- Apps
- Search
- Collaboration
- Internet Explorer
- Microsoft Office 365 in the Classroom

When identifying your priorities, carefully define which device features are crucial and which peripherals are required versus merely preferred or optional. For a real-world perspective on device selection, watch this video of IT Director Rob Baker at Cincinnati Country Day School in the United States. The students there use Windows 8 tablet PCs as essential learning tools that are bringing learning to life, boosting educational outcomes, and building twenty-first-century skills.

Choose services and tools that are consistent across a variety of device forms to create a more cohesive and comprehensive experience for students and teachers. Look for those that support modern learners by enabling collaboration along with self-directed and inquiry-based learning. You can also provide an easy pathway for teachers to add software they think will be of value for their 1:1 learning objectives.

Web resources such as Web 2.0 Cool Tools for Schools and Built for Education offer education-specific information to help you in your decision making. Be sure to investigate the range of free technologies and applications we offer; each is tailored for the school environment and therefore easy to incorporate into the learning process. Check out Microsoft Office 365 Education, Skydrive, Lync in Education, and OneNote. Schools such as Cincinnati Country Day School and Whitfield School in the United States and Varsity College in Australia have used almost no paper since adopting OneNote. (Read their case studies for more details.)

Create a 21st-century learning environment

Research confirms that physical as well as virtual spaces influence students and learning. Effective twenty-first-century learning spaces are not limited to the traditional teacher-centered model. To support 1:1 "anywhere, anytime" learning, consider creating spaces that:

- Enable a new, more complete learning experience.
- Are flexible, interesting, and inspirational.
- Cater to a range of learning styles and modalities.
- Reflect your institution's vision and beliefs about learning.
- Complement your virtual learning spaces and tools.

For inspiration, read the Virtual Learning Environments and Physical Learning Environments blogs and watch Tony Bryant discuss the physical learning environments he implemented at Silverton Primary School, Australia.

Prepare a timetable and implementation plan

Most school leaders undertaking a 1:1 initiative assemble a project team that will oversee a range of specific tasks, from recording serial and asset numbers to organizing device maintenance and repair. This team usually also tackles more complex issues, such as gaining parent and community consensus, ensuring that plans for integrating devices into the curriculum align with your learning goals, working with teachers to create professional development opportunities, and raising funds.

Your team should include vision owners, action takers who can ensure that all tasks get completed, and those who can sustain support for the initiative. As its first task, your team needs to draw up an implementation plan that maps out your deployment strategies, scopes its phases, identifies which students and teachers receive devices and when, estimates how long the project will take, and determines what is needed when and where. A typical implementation timeline allots 6 to 12 months for planning and projects three years into the future. Be sure to include measurable milestones and remember that many tasks can be accomplished simultaneously. If you're initially launching your 1:1 program in only one school, it's wise to lay out how you will extend it to other schools as students progress through grade levels.

Manage the budget

Every school leader knows how crucial it is to set and follow a budget. To prepare your 1:1 program budget, review your readiness assessment results, implementation plan, and financial strategy along with your current technology-related expenditures (such as system maintenance and upgrades, communications costs, and infrastructure improvements).

Smart leaders create a multiyear budget and build in flexibility to cover changes due to new options for infrastructure, hardware, software, and shifts in pricing. They also leave room for innovative teaching practices that may require different devices. In accounting for all aspects of implementation, don't forget to include adequate time and opportunities for professional development. The Deploying ICT tool, a practical budgeting tool based on total cost of ownership, may come in handy as you develop your budget.

Establish critical partnerships

Partnerships enable you to build capacity beyond your immediate resources. Look for opportunities to support your institution's use of technology. This means engaging suppliers that have a vested interest in ensuring that your program works, your devices are maintained, and your students have a reliable 1:1 experience. You may find partners in areas such as infrastructure and support, professional learning,

student learning, and telecommunications.

Explore communities that offer valuable resources and support not only for educators, but for school leaders and students as well, such as Microsoft Educator Network and Microsoft Youth Spark, which provides strong networking, technology, and communication opportunities for your students. We also offer technology certification programs through IT Academy.

If you are looking to engage an Education Solutions partner, your evaluation of potential suppliers should take into account not only price, but also their level of interest and commitment to the program's success. You also can get assistance from a Microsoft Education Reseller Partner to cost-effectively purchase Windows and Microsoft Office licenses for your school.

Manage support services

Students can certainly thrive in a 1:1 learning environment…but only as long as the technology assets involved continue to work. You've got to provide adequate onsite technical support and service to be sure that students and teachers always have the tools they need, when they need them. Using data collected from 1:1 schools around the world, it is possible to predict the level of support a 1:1 initiative will require.

Experienced 1:1 school leaders recommend that you:

- Clearly outline the services provided in your school(s) that are covered by warranty. Communicate your support services policies to your students, teachers, and parents, and define expectations of what constitutes normal wear and tear.
- Establish key performance indicators (KPIs) for any supplier partnership and review them regularly. Suppliers must be able to offer suitable guaranteed turnaround times for repair and replacement of any components.
- Create a process for logging repairs, for providing support for re-imaging, and for other services that will be required.
- Plan ahead. Students are power users, so be prepared for a percentage of devices to be away for service at any given time. Keep a pool of available devices along with swappable batteries, cables, and other components that are easy to stock and replace.
- Look into student-assisted support services, which not only reduce support costs, but also offer powerful learning and leadership opportunities. Organizations such as GenYes provide information on the value of these programs.

Manage Support Services

This video discusses what happens when a student's device is damaged, the potential impact a non-working device may have on the classroom, and why it's important to have a carefully considered technical support plan.

Clarify essential policies for effective use

Of course, most students and educators won't want to wait to get their hands on your program's new technology tools, but certain policy decisions around use need to be made first. Questions about how program participants will respond to working in a technology-rich learning environment may best be answered with input from relevant members of your staff and school community. This advice may sound familiar by now, but keeping your pedagogical goals in mind as you establish your policies will help ensure that they support your vision for student learning.

Start by focusing on three major aspects: effective implementation, equity and scalability, and sustainability across all dimensions. AALF provides 1:1 Policy Decision Areas for you to think through. Don't forget to determine how policies will be enforced and how often they'll be reviewed and updated.

Liaise with parents and community

Now that you've set and fully documented your policies, you're ready to officially launch your 1:1 initiative. Try to anticipate the range of possible questions and concerns from parents, students, and the media, and provide your staff and faculty with guidelines for answering them. (Frequently Asked Questions About 1:1 lists some examples.) Parents, in particular, need to understand your goals, so invest time in developing a plan for regularly reaching out to parents and the wider school community to communicate the value of your 1:1 initiative and its lasting benefits. Ongoing communication about planning, implementation, and successes—with information targeted to each stakeholder group—ensures consistency, helps avoid confusion, and builds support.

Foster student orientation and action research

Life in the classroom is about to move in some interesting new directions… Taking a few key steps right now will improve both the initial experience and eventual outcomes for teachers and students alike:

- Closely manage the deployment to ensure that students receive the correct devices as per the agreements signed by their parents or guardians.
- Provide a clear set of classroom and learning routines for using the new devices to help harness the excitement generated by their dissemination and make those first few weeks more successful.
- Use action research questions to determine which 1:1 program practices you'll be examining and evaluating over time. Start by sending your educators the Microsoft Educator Network survey to capture a clear picture of your institution's current teaching practices and give you grounds for comparison.
- Help your educators establish a process they can use for reflecting on how the shifts in their teaching practices are affecting learning in their classrooms.
- Promote ongoing collaboration with other teachers, including observing each other's classrooms, to encourage the development of new teaching and learning practices.

Resources from the AALF, including its collection of 1:1 pedagogy statements, offer strategies and insights from schools around the globe, throughout the various stages of their initiatives.

Phase 5: Evaluate Continuously

Review and evaluate

Having successfully launched your 1:1 initiative, take a moment to congratulate yourself and your team for embracing change and seeking to make the most of twenty-first-century learning opportunities. But don't get too comfortable! A review group needs to be formed to oversee progress, resolve problems, and conduct regular reviews and evaluations as your initiative matures. The review scope and parameters should be based on the goals, subgoals, and outcomes you outlined at the start of your 1:1 initiative. In addition, put mechanisms in place to ensure that results get shared with faculty members throughout your institution. (*Microsoft PiL Workshop 8: Continuous Improvement* can help your review group with analysis, evaluation, and reflection.)

Formal, continuous evaluation gives schools:

- Useful input for noting the successful program elements, identifying any missteps that may have occurred during the initial implementation, and taking corrective actions.
- Credible feedback to provide to program sponsors, supporters, critics, parents, and the greater community. Transparency is key.
- Convincing evidence to support the continuation and expansion of your 1:1 program.

Next Steps

- ✓ Sign up to the Microsoft Educator Network.
- ✓ Become a Microsoft Innovative School.
- ✓ Download Microsoft Office 365 Education for free.
- ✓ See what sorts of devices, applications, services, and core tools are benefitting your peers.
- ✓ Learn why educators love Windows 8 for education.

Conclusion

When every student has his or her own mobile device, enormous possibilities open up. Not only does a 1:1 program extend learning beyond the school day and the classroom, it also enables that learning to be personalized and continual. The 1:1 relationship empowers students to be natural inquirers, connect with others, and learn socially.

Anytime Anywhere Learning Foundation

The goal of the Anytime Anywhere Learning Foundation (AALF) is to ***transform learning through universal access to technology.*** AALF supports visionary educators who are ready to explore and implement 1:1 learning and continues to support these educators throughout their 1:1 journey. It recognizes that the way to guarantee the success of existing and newly implemented 1:1 initiatives is not simply to put devices in the hands of schoolchildren but to guide the deployment and use of the technology provided in a considered, well-planned manner and to structure education so that it provides students with meaningful experiences that require them to think about, construct, and share ideas in a connected world. This led to the development of the *21 Steps to 21st Century Learning* framework, made possible with the support of Microsoft and Microsoft Educator Network. For more information, visit www.AALF.org.

Microsoft Educator Network

At Microsoft, we believe that education is the single most important investment in the future of individuals, communities, nations, and the world—that it is vital to sustainable social and economic success—and that every child deserves a great education. It is also a fundamental human right. But the reality is that education globally faces a crisis; a crisis of resources, time, and support. Microsoft Educator Network is a 10-year, $500 million global initiative aimed at improving teaching and learning. Since 2003, ***we've led the way in partnering with education, helping nearly 11 million educators and reaching more than 190 million students in 119 countries in our first 10 years alone.*** We help educators and school leaders connect, collaborate, create, and share so that students can realize their greatest potential. We also believe in recognizing the best classroom innovators and seek to highlight, recognize, and reward those educators using technology in amazing ways. For more information, visit www.pil-network.com.

Contributors

Microsoft and AALF would like to thank the following education leaders, teachers, and students from the following schools and school districts who participated in the development of this document and all the 21 Steps materials. They shared their beliefs and practices around learning, the role of school, and the opportunities made possible by technology.

- Carrollton School of the Sacred Heart, FL, United States
- Cincinnati Country Day School, OH, United States
- Cornwallis Academy, UK
- Frankston High School, VIC, Australia
- Hellerup School, Denmark
- Kent School District, WA, United States
- McGehee School for Girls, LA, United States
- Methodist Ladies' College, VIC, Australia
- Ron Canuel, CEO, Canadian Education Association
- Esme Capp, Principal, Princes Hill Primary School, VIC, Australia
- Wayne Craig, Schools Adviser at Department of Education and Early Childhood Development, VIC, Australia
- Konstantinos Doukas, CEO, Doukas School, Greece
- Chris Gerry, Founder, The Skills Lab, UK
- Jenny Little, Deputy Principal, Korowa Anglican Girls' School, VIC, Australia
- Richard Olsen, Assistant Director, ideasLAB, Australia

Additional resources

1. The Compelling Case for Change

The *21 Steps to 21st Century Learning* Workshop is an intensive two-day program that incorporates a variety of AALF and Microsoft Educator Network resources. Participants work together in a small-discussion format to assess the readiness of their districts or schools, use financial modeling to address affordability and sustainability, and discover the resources available to a 1:1 leader. Participants leave with a clear understanding of where to start and how to develop a successful 1:1 program.

You also may want to read or watch:

- Microsoft Education Network Hot Topic Blog: Leadership and Strategic Innovation
- Will Richardson on Technology in Schools
- John Seely Brown on the Entrepreneurial Learner in the 21st Century and Learning in the Digital Age
- Michael Fullan on Leadership in Education and Eight Forces for Leaders of Change

2. Redesign Learning and Teaching

- Read Microsoft Educator Network Hot Topics around rethinking teaching and learning, such as Game Based Learning, Project Based Learning, and Personalized Learning.
- Watch the first of the Windows in the Classroom videos, *The Case for Technology in Schools*.

3. Lead the Shift

- Learning to Lead Change: Building System Capacity contains case studies, workshop material, and other content useful for developing effective leadership for change.
- Microsoft has worked with leading experts to create a series of self-directed workshops that provide guidance for engaging everyone in planning how to handle change management (Microsoft PiL Workshop 4: Culture of Innovation).

4. Manage Implementation

- Accessibility for all students
- Microsoft Assistive Technology Products
- Microsoft Accessibility Information in 41 languages
- Bringing a 1-to-1 Program to Life: a handbook for primary school teachers
- Windows 8 and Microsoft Office demo by Anthony Salcito

www.microsoft.com/education/

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