# The World is Your Classroom

## Education Mobile Solutions

## 8 Requirements of an Education Mobile Solution

# Contents

# Introduction: Transforming Education with Digital

Technology is currently shaking up today's traditional lecture-style classroom format. Much of the current research shows that students tend to be more engaged when they use technologies that allow for real time information and ongoing, continuous feedback.

Digital technologies play an integral role in fostering richer interactive experiences. For that reason, more schools are integrating technology into their curriculum. Students using tablets and notebook computers both in and out of the classroom are better able to connect and collaborate with their instructors and peers. This makes for a more personalized learning experience. Networked computers allow teachers to monitor student progress, allowing for more timely, efficient and paperless feedback.

Together, mobile computing and modern communications are transforming education as we know it. As an educator, how can you successfully use these trends to enhance the learning in your classroom?

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# Mobility Checklist for Educators

Success with your education mobility deployment is not guaranteed. If you are a teacher or an IT employee in an educational environment, you might face the following challenges:

- Making sure a classroom full of computers works continuously and simultaneously, without technology interruptions

- Having technology help enhance the learning going on in classroom

- Having mobile devices that meet a wide array of educational needs

- Having reliable and resilient devices at price points schools and students can afford

- Receiving the appropriate training on the technology for teachers, adminstrators and students

- Being able to successfully integrate the technology into lesson plans and syllabuses

- Having technology used to reinforce key learning concepts for students, while also meeting course objectives for instructors

Mobile computing companies that address these issues will not only provide teachers with the best technology and support, but they will also aid in strengthening each student's learning development. When teachers are properly trained on how to use the technology, only then will their students achieve a successful classroom learning experience.

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# 8 Requirements of Education Mobility

4. Serviceability

5. Training

3. Connectivity

6. Compatibility

2. Reliability

7. Battery Life

1. Usability

8. Unified Solution

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# 1. Usability

Learning outcomes improve when the digital technology is flexible. The payoff can not only be seen through the quality of education the student receives, but also via the cost savings for the administration. This is demonstrated when devices are used for a variety of applications, and shared by different types of users, which can accommodate learners different study methods and habits.

Some applications will lend themselves to touch-screen technology, while others are better served with physical keyboards. Pen technologies that allow writing, annotating, and drawing make sense for collaborative types of work and for math and science applications that require written calculations. Screen size will make a difference depending on the lesson. Full-motion video, for example, can benefit from larger screens, while smaller ones often work well for one-on-one studies.

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Flexible devices accommodate the wide-ranging needs of different applications, age groups and lesson plans, while achieving technology standardization for the best capital cost. Devices that combine the power of a notebook with the flexibility of a tablet, for example, provide teachers and students with the benefits of precise handwriting recognition and multiple-touch data entry. Bi-directional, convertible displays also accommodate different classroom situations and make it easy for students and teachers to share information.

A recent study by TECHnalysis Research of 150 U.S. education buyers indicated an increasingly strong preference for tablets. The wider availability of tablet-friendly applications and growing interest in touch and pen-based usage are helping drive the shift, according to TECHnalysis.

LIFEBOOK® T726, 12.5"
Advanced Convertible
Tablet PC Slimbook

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# 2. Reliability

A short battery life can interrupt students from learning. In addition, devices should also be reliable and able to handle the wear and tear students will subject them too throughout their academic careers. Spills, bangs and drops that can sometimes make devices malfunction also can take away precious learning time.

Similarly, students who take their devices out of the classroom and encounter technical issues, may spend too much time troubleshooting, which again interrupts valuable learning time. These are among the likely reasons that reliability ranked first in priority when it comes to notebooks and second only to price in the case of tablets and 2-in-1 notebook/tablet devices in a recent TECHnalysis study of 150 U.S. education IT buyers. For instance, if sudden or jarring movement is detected, it's desirable to have a computer that moves the disk drive's read-write head to the safe zone to minimize the risk of head crash and loss of data. The same goes for computer interruptions caused by extreme temperatures, vibrations, humidity, altitude, dust and other environmental factors.

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Investing in a fleet of devices that can withstand all of the extreme conditions that can happen during a school year contributes to a more successful learning process. This can also be key for helping keep repair and replacement costs to a minimum.

LIFEBOOK® T936,
13.3" Premium Convertible
Tablet PC Ultrabook™

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# 3. Connectivity

A digital device's on-system processor, memory, programs, storage and display are all major contributing factors to the student's learning experience. Equally important is how the device can reach out and access a communications network.

The latest broadband Wi-Fi, cellular data and wired technology connections, for example, give teachers access to an endless number of informational resources at the simple touch of a button. The network encourages collaboration and interaction among students, both in and out of the physical classroom, so they can apply what they are learning in a real-world context.

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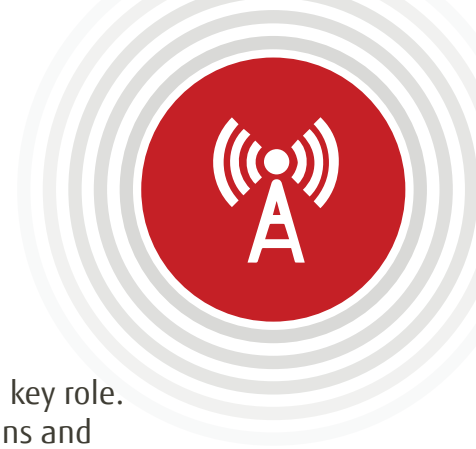
Short-range, low-power Bluetooth® connections also play a key role. They are an inexpensive way of pushing core content, lessons and tailored messages to individual students within a classroom by connecting directly with a mobile device application. Bluetooth connections are often location-aware, and they offload network traffic from the school or campus Wi-Fi network for in-classroom, custom usage.

Having this variety of fast wired and wireless connections on your school computer removes any restrictions about what can be studied and from where.

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# 4. Serviceability

It's important that teachers spend the majority of their classroom time doing what they do best: teaching. It's counterproductive for educators' time to be spent managing computing equipment.

As you investigate mobile solutions for your digital classroom, try and strike a balance of the following: premium product quality; low-maintenance technology; an affordable price point; and high support and serviceability levels from your supplier. For example, look for a comprehensive manufacturer's warranty available with products you are considering. Why? Because that's a clear sign the supplier is focused on device quality and uptime. The supplier should be willing and able to repair or replace any defective device by the next business day.

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You should use the following criteria to help you get the most from your investment:

- Extended warranty programs

- Leasing programs that allow for regular technology refreshes

- Accidental damage protection insurance

- Professional services for deployment and integration assistance

- Training and support for self-maintenance programs

Having flexible technical support with service and finance programs available to you from your supplier, ensures that you'll find the best solution to meet the needs of your institution.

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# 5. Training

Faculty training and ongoing product development support are critical for success. Integrating digital technology into the classroom, involves a lot of preparation on the part of the teacher that should be supported through ongoing trainings and professional development.

Technology companies need to work closely with schools using their products. They should provide instructors with ongoing trainings, highlighting how to effectively use all elements of a computer. Examples of this should include how to successfully integrate digital tools like: pen and touch technology, graphics, audio and videos to name a few, into their lesson plans.

For instructors to successfully integrate technology in the classroom, they must have the right amount of training and understanding, which they can get through ongoing trainings and professional development.

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# 6. Compatibility

Because of the interactive nature of the digital classroom, it's important that the mobile devices you procure are compatible with the key educational software your teachers and students use. It also helps if the devices easily integrate with your school's IT infrastructure to minimize any disruptions attributed to interoperability issues.

Whether your school is using a cloud-based solution, a learning management system, or just a projector, making sure the devices successfully integrate with your existing hardware and software infrastructure and support the applications you intend to use, is key.

In some cases, that might require professional services to perform integration tasks and create custom, standard interfaces for easy use. Check to see if your supplier offers such services.

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# 7. Battery Life

The classroom learning environment shouldn't be interrupted by technology glitches that pull attention away from the subject at hand. It can be a  huge advantage if the devices being used can run on a single battery charge for the entire school day. If that happens, students can keep studying, no matter where they are, without worrisome power interruptions that could potentially disrupt their learning.

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# 8. Unified Solution

Educational institutions at all levels are under constant pressure to reduce costs, but without compromising the learning taking place.

To achieve this desired balance, schools that can deploy a single-vendor solution is one of the best and most often-overlooked answers. A single-vendor solution addresses multiple requirements, including:

- Shortening the procurement process by signing and managing one contract

- Keeping your backup inventory lean

- Simplifying training and usage

- Minimizing compatibility issues

- Simple troubleshooting; if there's a problem, you know where to go

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## SUCCESS STORY: Athol Murray College of Notre Dame

NOTRE **ND** DAME

Athol Murray College of Notre Dame in central Canada has a reputation for a strong athletics program. The school decided that it also wanted to have the same notoriety for being a cutting edge technology leader. Doing this meant modernizing its approach to teaching by equipping every teacher and student with a flexible, robust device that would transform the educational experience.

The co-educational high school and boarding school looked at other similar educational institutions and became aware of one commonality: Fujitsu Mobile Solutions. Following an extensive research and review, Notre Dame equipped 24 faculty members and 300 students with the Fujitsu LIFEBOOK® T732 Tablet PC running Microsoft® OneNote® collaboration and information-sharing software.

The school outfitted their students and faculty with convertible tablets with keyboard and stylus interfaces for flexible usability. Hot-swappable batteries were used to help with an extended operation time – an important capability because the school is located in an older building with limited power outlets. Since going with Fujitsu, the school has reported an annual savings of almost $60,000 on its textbook budget and up to $1000 each month on paper costs. These savings have helped offset the initial investment in the Fujitsu tablets.

> " Our parents are extremely excited that their kids are involved in a true 21st Century learning environment "
>
> -- Patrick Vigneron
> IT Manager
> Athol Murray College of Notre Dame

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NOTRE **ND** DAME

The Fujitsu tablets meet a number of the education sector's mobility requirements:

- **Reliability:** Durability matched the school's extreme temperature requirements, as central Canada can sometimes reach -22 degrees Fahrenheit in the winter.

- **Usability:** The flexibility in switching from stylus input to typing is critical because subjects such as mathematics and the sciences demand the ability to draw graphs and equations easily.

- **Battery Life:** The tablet can run for a full school day on a single battery charge. Because Notre Dame is a boarding school, students often need their devices for use outside of the classroom. This was difficult because the school is located in an old building with few power outlets. Fujitsu made available hot-swappable batteries to ensure extended operation time through the day and evening.

- **Compatibility:** Fujitsu provided the school with its own engineer who custom designed an application to interface with the student database, creating a directory structure and permission-based information access. The school also received a finalized system image, which meant Fujitsu could pre-configure each device before shipment, so they were ready to use once taken out of the packaging.

> " We wanted to be at the cutting edge of educational technology so we spent time looking at how other schools were incorporating modern devices into the learning framework and the most successful examples had one thing in common: Fujitsu devices. "
>
> --Patrick Vigneron
> IT Manager
> Athol Murray College of Notre Dame

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# SUCCESS STORY:
# St. Louis College of Pharmacy

**ST. LOUIS COLLEGE of PHARMACY**

As one of the leaders in one-to-one learning programs in the U.S., St. Louis College of Pharmacy (STLCOP) routinely refreshes its devices on campus. The school is always looking to find the right devices that meet the ever changing needs of both students and faculty.

Founded in 1864, St. Louis College of Pharmacy is the third-oldest continually operating pharmacy program in North America. STLCOP is a pioneer in the use of digital devices in the classroom, introducing its first one-to-one program in 2002, long before the idea of equipping students with personal devices became popular. Since then, it has evaluated the technology on an annual three-year basis to ensure that it has the right devices to meet its institution's needs.

The evaluation process centers on a matrix of key criteria, including: TCO, reliability, battery life and robustness, as well as consistency of product design over a long life-cycle. "Fujitsu scored highly across the board and, equally important, it was happy to act as a partner rather than a vendor," said Chad Shepherd, CIO, St. Louis College of Pharmacy. "We were treated as a big fish and given the attention that a global blue chip company might expect."

In every incoming class, each student receives a brand new Fujitsu T-series convertible, which is replaced when they reach their fourth year of studies. Upon graduation, students are allowed to keep the device as they move on to the next steps in their careers. STLCOP purchases around 500 devices every year with a total of 1,800 on campus at any given time. Fujitsu LIFEBOOK T726 is one of the most commonly used tablets on campus.

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## ST. LOUIS COLLEGE of PHARMACY

The Fujitsu tablets are used to run standard office productivity tools and Microsoft OneNote as well as more specialized applications like: Camtasia®, Adobe® Creative Suite, IBM® SPSS, etc. Students and educators alike have embraced the interactive engagement that the devices provide. The ability to annotate, circle, underline and make notes with the precise pen input is also proving popular with students and faculty.

If there are any problems, STLCOP has established a fully authorized Fujitsu service center on campus where four certified technicians can solve the vast majority of day-to-day issues.

> "Ninety percent of the computer problems we experience are user-induced, but the build is of industrial quality so even dropping them rarely does lasting damage. Put simply, the Fujitsu LIFEBOOK can take a beating and keep working."
>
> -- Chad Shepherd
> CIO
> St. Louis College of Pharmacy

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# Fujitsu Mobility Education Solution
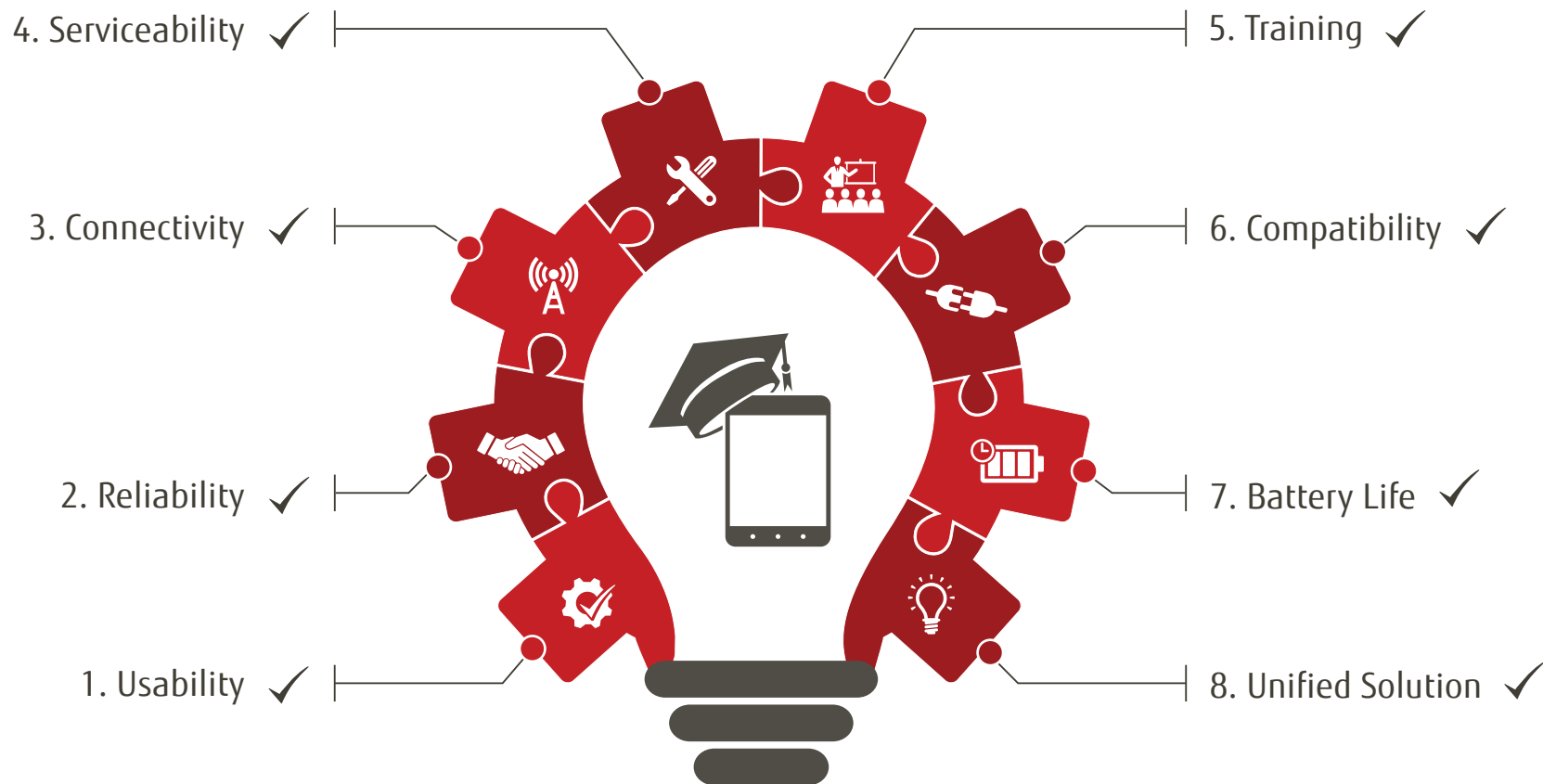


4. Serviceability ✓

3. Connectivity ✓

2. Reliability ✓

1. Usability ✓

5. Training ✓

6. Compatibility ✓

7. Battery Life ✓

8. Unified Solution ✓

" Fujitsu really understands the education sector and how students learn through technology. They are committed to delivering an enriched experience to our students, which for us, is paramount to our success. "

-- Linda Harivson
Principal
St. Joseph's Academy

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# Fujitsu Mobility Education Solution

Fujitsu has been designing mobile computing devices for more than 20(+) years, in some of the most challenging environments. Fujitsu offers the fastest ROI in the industry and the unique ability to team with institutions to create custom images for tablets and notebooks that can meet your school's personal needs right out of the gate.

- **Improved Retention.** Drawing concepts and capturing comments helps students retain information.

- **Teacher Delivery.** Digital submission of homework and tests, mark-up, and return electronically, makes for more efficient and faster communication between faculty and students.

- **Virtual Collaboration.** Peer reviews are more effective. Easily annotate electronic documents.

- **Environmentally Friendly.** Greatly reduces the need for paper. Digitized forms are easily saved and shared.

LIFEBOOK T726
Advanced Convertible
Tablet PC Slimbook

STYLISTIC Q736
Advanced Hybrid
Tablet PC

STYLISTIC Q616 Tablet PC

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**FUJITSU AMERICA, INC.**
Address: 1250 East Arques Avenue Sunnyvale, CA 94085-3470, U.S.A.
Telephone: 800 831 3183 or 408 746 6000
Website: http://solutions.us.fujitsu.com
Contact Form: http://solutions.us.fujitsu.com/contact
Have a question? Email us at: AskFujitsu@us.fujitsu.com

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