

Best Practices for Bring Your Own Device (BYOD) Implementation

Introduction:

The following is an introductory guide to implementing a Bring Your Own Device (*BYOD*) project in K-12 schools. The information in the table serves as a guideline to aid administrators and teachers in planning for their BYOD initiative. The contributors have a minimum of three years experience implementing technology as a tool for learning within their work context.

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Best Practices	Recommendations to Implement Best Practices These best practices should be in alignment with your individual School Success Plan.		
	<u>Admin Level</u>	<u>School Level</u>	<u>Teacher Level</u>
Prep for going BYOD-consistent adoption of GAFE (if that is your board-wide platform)	<ul style="list-style-type: none"> ● Video (We're trying to do "the wrong thing right in schools") ● Become the early adopters ● Understand the benefits of being on one common platform to improve workflow and communication. (Ex: Everyone on Google Drive) ● Develop a clear understanding of what technology as a tool for learning means (what does it look like within the classroom environment) <ul style="list-style-type: none"> ○ Engage in professional development through ESD ● Develop a clear understanding of the impact of technology as a means to bridge the learning gaps in student learning. ● Visit established BYOD schools and meet with admin and teacher <ul style="list-style-type: none"> ○ Establish, or review, their Acceptable Use Guidelines 	<ul style="list-style-type: none"> ● Carry out a survey of teachers' current skills and needs focused on technology - professional development opportunities should be planned in accordance ● Dedicate the year <i>before</i> going BYOD to developing digital practices ● Introduce teachers to LBPSB DCP site ● Bring in other tech-savvy teachers to train own teachers ● Ensure infrastructure is robust (ie WiFi) ● Secretarial staff and department liaisons must be the early adopters ● Develop a school-wide Acceptable Use Policy (Common Sense Media Resource) with students. Review on a yearly basis. ● Hold a workshop evening for parents to introduce them to GAFE learning tools and Acceptable Use Policy. ● Establish a plan for distributing wifi passwords to students and connecting to the internet for the first time. 	<ul style="list-style-type: none"> ● Begin transforming lessons into digital format, focussing on Substitution level of SAMR model. ● Attend conferences and workshops with technology as a tool for learning focus ● Begin using GAFE tools ● Build capacity by sharing the learning from conferences and workshops ● Develop a PLN (Personal Learning Network) <ul style="list-style-type: none"> ○ Join Twitter and follow edtech and/or subject-specific educators (Ex: Math, ELA, French) ○ Develop a board-wide, school-wide weekly Twitter chat with educators, (Ex: #cdnedchat) ● Professional Development - create teaching and learning opportunities for students to demonstrate their learning using the tools of technology
Maximize professional development days	<ul style="list-style-type: none"> ● Out of a total 19 professional development days, use a minimum of five days for professional development designed to support the technology initiative 	<ul style="list-style-type: none"> ● Dedicate <u>at least five days</u> for ongoing professional development for ALL staff, with a focus on technology as a tool for learning. ● Establish planned small group meetings throughout the year ● Example of tech-based Professional Development: <ul style="list-style-type: none"> ○ Hold a mini GAFE summit in-house ○ Encourage department meetings to include an element of edtech pedagogy 	<ul style="list-style-type: none"> ● Professional Development - create teaching and learning opportunities for students to demonstrate their learning using the tools of technology <ul style="list-style-type: none"> ○ (4 C's: create, consume, connect, and curate) ○ Lesson plan ○ Team lesson plans <ul style="list-style-type: none"> ■ Subject ■ Interdisciplinary ■ Program

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Best Practices	Recommendations to Implement Best Practices <i>(continued)</i> These best practices should be in alignment with your individual School Success Plan.		
	<u>Admin Level</u>	<u>School Level</u>	<u>Teacher Level</u>
Ongoing Professional Development (Training)	<ul style="list-style-type: none"> ● Allow time for admin-level meeting of senior management, board departments and administrators to discuss individual school's success stories on technology integration in the classroom (See "Maximize professional development days") 	<ul style="list-style-type: none"> ● Allow time for school-level and district-level meeting of teachers to discuss <i>their</i> particular subject (See "Maximize professional development days") ● Organize a school-level or district-level edtech unconference 	<ul style="list-style-type: none"> ● Allow for time in departmental meetings to discuss tech tools and pedagogy ● Join Twitter and follow edtech and/or subject-specific educators (Ex: Math, ELA, French)
Establish School/Classroom Success Strategies	<ul style="list-style-type: none"> ● Establish school success plans/Growth plans that focus on utilizing technology in the classrooms for the purpose of student success. ● Develop school budgets that will focus on the utilization of technology as a tool for learning (Ex going paperless) ● Devote scheduling time for collaboration (administrators are highly encouraged to participate with their teachers in this collaborative process) ● Establish a team of teacher specialists (diffused/shared leadership for the purpose of building capacity within the school community) ● Create an assessment tool with specific success indicators as a means to evaluate the implementation of technology integration in the school 	<ul style="list-style-type: none"> ● Discuss and implement classroom management strategies which are universal throughout the school, e.g., "Laptops to 20 degrees, please" ● Have a visual protocol as a reminder for all (i.e. Poster of do's and don'ts) ● Establish a technology committee with different branches, i.e., 1) DCP and 2) implementation of GAPE tools in subject-specific areas. ● Establish proper organizational tools for mobile technologies (i.e. Chromebook carts, sign up/out digital forms, etc.) 	<ul style="list-style-type: none"> ● Develop and review, on an annual basis, Acceptable Use Guidelines with your students at the beginning of the school year and prior to using your devices. ● Explore the benefits of Hapara for one to one initiatives. Consider using Workspace to redefine assignments. ● If you want the students' full attention, ask them to close their screens to 20 degrees ● Have students helpers properly store devices away in carts (i.e. store Chromebooks in slots, plug them in, etc.) ● Have key student helpers who can help with technical issues (i.e. mini-geek squad) ● Create a "Club Academia" (Club Academia) where students teach other students

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Hardware Management

District Level

School Level

Teacher & Student Level

** This section only addresses **district-owned devices**. If devices are BYOD, we do not recommend managing or repairing student owned devices **

- Workflow management
 - Ticketing system (Issue Reporting)
 - Consider customised solution
- Train IS/IT technicians to work with students and [‘Tech-Sherpas’](#) to repair and troubleshoot issues.
- Encourage technicians to be flexible and to go to prioritise schools to visit based on severity of issues and the number of issues. Ensuring that each school is visited at least once per week.
- Provide technicians with the tools and facilities required to expedite device repair and secondary/tertiary level troubleshooting.
- Provide training for the ‘tech-sherpas’ from different schools and centres to be able to manage
- Provide a facility for self serve passwords reset

- Establish a dedicated position (EX. Coordinator of devices)
- Build a bank of basic and robust loaner devices which can be used and loaned when devices are broken or incapacitated
- Provide time for [‘Tech-Sherpas’](#) to work with the technician during the school day.
- Provide a workspace for ‘tech sherpas’ and technicians to work in.

- Utilise workflow tools to submit technology issues both for staff and students. Allowing students to self report issues via [Google Forms](#) set up by teachers/admin.
- A teacher leader supports the ‘tech sherpas’ and is provided with an annual budget to allow this to take place (we suggest a minimum of \$2000 per year)*
- Students are able to reset their own [strong passwords](#) use a self-serve password reset tool.

*The annual budget for the ‘Tech Sherpas’ assumes that there is no space initially dedicated to the repair and maintenance of computer equipment in the school or centre. The budget would be spent on purchasing basic tools, such as screwdrivers, multimeters, extra chargers, cables and dongles. Depending on the complexity of the program and the knowledge of the teacher leader, you may also want to consider purchasing soldering irons and materials for repairing small electronics such as dongles and cables.

Implementation Guidance

The implementation of BYOD and 1:1 programs within a district and/or school/centre can be a huge challenge. This implementation guidance is designed to provide a starting point to help you start on the journey of implementing BYOD and/or 1:1 programs. This guidance is based on our experiences of implementing these programs and should be modified and adapted to meet the expectations, needs and requirements of your program.

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Definitions & Terminology

- Admin Level:** Admin level is designed to be addressed by school and district level Administrators such as *Principals, Vice Principals, Superintendents & Consultants*. These people are decision makers and have the influence to control and define professional development across a district, region or school board.
- School Level:** School level is designed to be addressed by school level *Principals, Vice Principals & Subject Leaders*. These people are decision makers within an individual school or centre. This level may also include other stakeholders who make school level recommendations or decisions.
- Teacher Level:** Teacher level is designed to be implemented by individual subject leaders or subject teams. The teacher level may be supported by the people involved in the School level.
- Teacher & Student:** The teacher and student level is designed to be implemented by teachers and students to work collaboratively within the individual school/centre environment.

Training Model

This training model is designed as a template to be used as a start point when planning professional development. We suggest that you take this content and adapt it for your individual needs and requirements within your district, school or centre. Each day is designed to be a full day's professional development, however it could be split into ten half day sessions should that prove beneficial.

Designated full staff days.	
Day 1	<p>AM: Intro to philosophy of edtech. Perhaps a guest speaker. Digital Citizenship Training Potential Topics: Why technology as a tool for learning? How will technology help our students learn?</p> <p>PM: You could do any of the following to help you see technology integration in action.</p> <ul style="list-style-type: none"> ● School visits ● Teacher sharing ● Student exemplars ● Student presentations <p>Needs assessment: In a small group, teachers generate a list of questions that they need support on, (for example how to use suggested edits in a Google Doc).</p>
Day 2	<p>AM: Teachers have the opportunity to explore different tools and strategies to respond to the questions that they generated during the needs assessment (see day 1) PM: "Appy" Hour</p>
Day 3	<p>AM: Subject-specific integrated learning PM: Whole-staff sharing of morning session</p>
Day 4	<p>AM: Integrated learning at grade level PM: Whole staff sharing of morning session</p>
Day 5	<p>AM: Integrated learning in specific programs PM: Whole staff sharing of morning session wrap up</p>

Links

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Resource	Description	URL (As of 05/04/16)
Digital Citizenship Curriculum	Lester B Pearson School Board Digital Citizenship Program website and curriculum for K-11.	Link
EdTechTeam	Professional development opportunities	Link
Tech Training for Teachers	Planning better tech training for teachers	Link
AmplifiedIT	Consultancy for K-12 implementation of Google Apps for Education	Link
EdTechTeacher	Educational Technology Professional Development	Link
Adobe Education Exchange	Free courses, workshops, and live events	Link
Best Practices	"We're Trying To Do "The Wrong Thing Right in Schools"	Link
Changing Education Paradigms	Sir Ken Robinson	Link
10 Expectations	Student's Perspective	Link
Toward a New Learning Ecology	Teaching and Learning in 1:1 Environments	Link
Digital VS Digitized	Digital -vs- Digitized Learning	Link

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