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WHITEPAPER

Getting Started with BYOD

Family Zone Education Solutions work with schools globally who are rolling out Bring Your Own Device (BYOD) programs.

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Introduction

This White Paper shares Family Zone Educations Solutions expertise of what makes a BYOD program succeed. We have pinpointed the common features of schools with thriving BYOD programs, and identified the key discussion points for a school to contemplate to ensure that your 1:1 program is a success.

What is BYOD?

Bring your own device (BYOD) programs involve allowing pupils/students to bring their own devices, especially tablets and other suitable personal devices, into classrooms to support improving student learning outcomes. Rather than the school owning the computing devices, the devices are student owned though many schools recommend a particular device to parents.

BYOD can be used both as an alternative to, or as an additional level of support to computers owned and provided by the school, such as a set of tablets that are being shared between classrooms at different times. Often, BYOD devices may be more capable and up-to-date than some school computers. Schools are beginning to see the potential of BYOD to support a more student-centered, active learning approach, with students taking more responsibility for their own learning. This also presents potential opportunities for differentiation for learning within classrooms.

Considered BYOD

Schools operating successful BYOD programs invariably have a very clear understanding of why they want to introduce BYOD into teaching and learning. Schools that establish effective programs never approach BYOD as a technology initiative, but as a learning initiative.

Every school will have a slightly different reason for introducing BYOD. It is important that these reasons are identified and clearly articulated before the introduction of BYOD. Having a shared understanding of why BYOD is being adopted will inform every other decision, from the design of the accompanying professional development, to the types(s) of devices, the level of safety and security required, and to how the success of the program will be evaluated.

Motivations can include:

- **Gains in academic achievement**, with schools identifying exactly where they see improvements being possible. Many schools focus on literacy and numeracy or language skills, some are looking to update teaching of STEM subjects (Science, Technology, Engineering and Mathematics) or to introduce digital literacy and ICT skills. Other schools take a broader approach, and focus on the development of critical thinking, problem solving, communication and collaboration skills across the school and all curricula areas.

- **A shift in the pedagogical approach**, with a greater focus on differentiated teaching to meet the needs of individual learners and groups of learners (including students with disabilities or special educational needs). Whichever the approach, schools see the BYOD program as a means to introduce learning activities tailored to students' preferred learning styles or preferences, utilising personalised learning resources and tools that meet the unique needs of individual learners. Schools frequently adopt BYOD to encourage student-directed learning, empowering the students to identify their own needs and take advantage of digital learning resources and tools themselves. BYOD programs allows students to easily set their own pace and respond to tasks using media that engages them.

- **Collaboration** can be another key driver, with groups of students able to work with one another or students at other schools, plus remote experts or resources. This is often linked to a desire for improved student preparation for employment as social skills and the ability to work in a team are increasingly sought by employers.

- **Student engagement** is often cited as a reason to introduce a BYOB Program, but this needs to be clearly defined. A broad sweeping statement about motivating students will not inform ongoing decisions as much as a specific goal. For example, a school could focus on improving the achievement in literacy, particularly in written work through the use of mobile learning. School leaders and teachers working towards this goal would be able to identify the appropriate tools and resources to use, the professional development programs to attend, and the means of data collection required to evaluate the implementation of the BYOD program.

For most schools it is some combination of the above and the program will have indirect benefits too that are often not a driving factor. These include saving money on printing, photocopying, textbooks, technical repairs and reducing spend on school owned desktops and laptops. Dedicated computer rooms can also be repurposed into general classrooms or for exciting new experiences such as 'maker spaces' to support STEM initiatives. For many school communities the BYOD program can have a wider reach than the school, empowering the local neighbourhood by providing internet access, improving ICT skills and by eradicating the digital divide in lower socioeconomic areas.

Discussion Point 1:
What is our pedagogical reasoning for introducing BYOD?

Informed BYOD

Many schools benefit from visiting other schools that are further along on their BYOD journey. Including school leadership, governors or trustees, IT personnel, teaching staff and even students on the visits ensures that every perspective is addressed and creates an environment for informed discussion on the return to school.

Conferences, academic papers, online courses or professional development programs provided by national or regional ministries or agencies, industry magazines and journals or online forums can all provide insights. Tap into your own staff who may already have some expertise. Suppliers should also not be overlooked. Many businesses work with large numbers of schools and will be happy to share their experiences. Educational consultants can sometimes be hired to work with schools to facilitate the transition to the new teaching and learning approaches and the integration of digital resources.

Schools who have successfully integrated BYOD have often made explicit links to research or models of teaching. Puentedura's SAMR model (2006) is oft-cited, or schools can create their own frameworks to use or adapt. It is helpful to have a 'readiness review', to self-assess your school's status and identify any areas to address.

Sustainable BYOD

A BYOD program that is embedded in a pedagogical shift must be sustainable financially. Potential sources of funding can include:

- **Funding by parents / caregivers / guardians:** this can be controversial, especially where there is a lack of consultation. On the one hand, stakeholders can argue that parents in many cases already provide stationery and other equipment. On the other side, parents may feel that it is simply unaffordable. Concerns can be addressed by setting up leasing schemes or discounts to assist with purchase. Thorough consultation with parents prior to implementing BYOD is critical.

- **Funding by the school:** the school may use its operational budget or have access to a BYOD initiative funded by the school district, government, non-governmental organisation, charity or trust. Leasing is often considered to allow the school to plan for the longer term, with devices being rolled over every two or three years. Where schools do purchase the devices, the school may stipulate that the devices can only be used at school. This can negate the impact of a BYOD scheme, particularly where benefits to the community, personalized learning or learning at home were key drivers.

Digital inequality can be a challenge, and your school may need to provide a pool of shared devices or find a means of supporting families who may struggle to lease or purchase a device to retain equal opportunities for all.

What do we REALLY know about introducing BYOD?

Communicated BYOD

Schools should keep all stakeholders informed from the outset, and provide opportunities for involvement:

- **Parents:** some schools hold information sessions, workshops or set up online discussion forums. Newsletters, a webpage or a school blog can provide ongoing updates as the school progresses towards the roll out of the BYOD program and subsequent milestones. Successful schools often highlight the positives but also openly discuss any issues and explain how these will be addressed going forward. Key to successful consultation is the ability to remain focused on the end goal – the teaching and learning objective.

- **Learning-led:** the consultation should not be technology-led. Schools should place the BYOD program within the context of a shift in teaching and learning. This will provide parents and other stakeholders with a far greater understanding of how the devices will be utilized and the reasons behind any required financial commitment. Parents will also be able to support their son or daughter with transitioning learning towards the school's new goal(s).

- **But don't forget the administrative:** there are often many changes to the administrative side of school life when BYOD is introduced. There may be new management learning systems, network management systems, assessment procedures and even a change in communication tools from paper-based newsletters to school apps. It is imperative for parents to be kept informed, as negativity created around the administrative side of things could reduce support for the key teaching and learning objectives. In the process of the above conversations, the school will need to be prepared to address parental concerns. These are often focused on cost, theft, ethics, bullying, health (screen time, posture, or exposure to electromagnetic fields used by mobile phones and Wi-Fi) and fear of a new pedagogical approach failing their children.

Discussion Point 3:

How can we ensure that BYOD is financially sustainable?

IT Staff

BYOD is a cultural change and where IT support is not outsourced, technical staff should be involved from the outset. They are less likely to see the BYOD initiative as a threat if they are part of the planning process. Their concerns may relate to their job security if students are to be responsible for their own devices, the shift in the locus of control, increased demand on the network and bandwidth plus additional workload if the new system requires pre-registration of all devices and IP addresses. Many express apprehensions about safety and security too. Visiting other schools and the opportunity to attend relevant conferences can dissipate their unease and encourage their buy-in.

A good network management system can relieve pressure on IT Staff by:

- Avoiding the extra workload required by pre-registration of devices.

- Providing complete visibility over what is happening on the network, negating safety and security concerns.

- Allowing them to easily control network and bandwidth usage.

- Giving them tools to easily filter websites, or pass that responsibility on to department teams or individual teachers.

- Automating reporting and alerting responsibilities.

Discussion Point 4:
How are we going to communicate our progress towards and beyond BYOD with key stakeholders?

Primed BYOD

Be ready. BYOD roll outs succeed where the systems and processes are already in place. After so much time and effort spent investigating BYOD, reaching and communicating a decision, it is imperative that the roll out is not undermined by flaws in the system.

- Technical support: the number one reason often cited for the failure of a BYOD program relate to technical issues and infrastructure support, including bandwidth. Schools that have successfully rolled out BYOD minimise staff and student frustration by endeavoring to ensure that the infrastructure is in place before there is any attempt to support a BYOD program. They are also realistic and acknowledge that there will be some teething problems. They safeguard the BYOD program by making certain that staff and students know what procedures to follow if there is an issue – and by providing resources to troubleshoot any problems. They also provide clarity on what the school is responsible for, and what the students or parents need to oversee.

- System Security: be 100% sure that you have the systems in place to manage secure access to school data, and to protect students' personal data.

- Appropriate Student Behaviour: there are different models for achieving appropriate online behavior by students. At one end of the spectrum, schools may block many websites such as YouTube and social media platforms. Alternatively, schools may block obscene content but rely on students themselves to adhere to the school's internet Acceptable Use Policy (AUP), which should be signed by parents and/or students. The AUP is often supplemented by a Digital Citizenship program to provide students with the skills to navigate the online world.

- Theft and Breakages: decisions need to be made regarding who is responsible for, and how to arrange: device insurance, device tracking, remote wiping of lost or stolen devices and replacement of lost, stolen or damaged devices. This can all be covered in the AUP. Implementing BYOD across the whole school simultaneously can be high risk. Many schools phase in BYOD, providing an opportunity for issues to be addressed. Some schools begin with one pilot class, move onto a few classes then to a year group.

Discussion Point 5:

How are we going to ensure that we have got all the systems and processes in place before we implement BYOD across the school?

Embraced BYOD

Teachers who are not comfortable with students using their own devices, and do not know how to make best use of these to enhance teaching and learning, are likely to oppose the introduction of BYOD or not allow or discourage use of the devices when they become available. Schools that have successfully introduced BYOD have used some or all of the following strategies:

- Practitioner-led action research projects. Sometimes there is government funding and academic support for such programs. Selecting and supporting 'Champions' whom other staff can observe and learn from. In some cases, these lead teachers have reduced classroom responsibilities in order that they can work in other teacher's classrooms.

- Establishing 'student gurus' who support teachers to use their mobile devices. All the schools who succeeded with BYOD had a whole school approach to training and staff development that looked to improve digital literacy and the pedagogical skills of teachers.

Discussion Point 6:

How will we recognise and measure success?

Reflective BYOD

How will you recognise and measure success? Schools with thriving BYOD programs don't stop at the point of roll out. They encourage on-going feedback from all stakeholders. They look at and analyse the appropriate achievement data. They use their network management software to gauge time spent on task, the return on investment of different apps, compare how different devices are used or how different student cohorts engage with resources. They continually review the BYOD implementation plan and make changes and improvements where necessary.

Summary

In our experience schools that succeed with BYOD:

• Have considered why they are integrating BYOD and identified what they want to achieve.

• Are informed about how they can achieve it.

• Are sure that the scheme is sustainable.

• Have communicated with stakeholders and have mechanisms for continued communication.

• Were 'primed' at the point of lift off.

• Had staff and students in a position to embrace the program.

• Consistently reflected on their original vision – the teaching and learning goals.

All the best with your BYOD rollout!

About us

Linewize is a Family Zone company, with a shared vision of keeping students safe online on any device, any time.

Learn more

Visit us www linewize com, email us at info@linewize com, or call us +64 (0) 3 668 1218

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www.familyzone.com

ABOUT US

Family Zone is passionate about making student internet management easy. We help school teachers ensure that student internet use is constructive and education focussed. Our tools work with existing networks to create an online environment that respects student agency whilst highlighting inappropriate use.

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