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Tyndale teachers engage students by up-skilling and collaborating with them to develop an improved ICT system

Background

Tyndale Christian School is a co-educational school, providing a caring and comprehensive education for more than 950 students. Tyndale is located in Blacktown in Sydney's western suburbs, set on 5.2 hectares, and caters for students from preschool to Year 12.

Tyndale conducted and managed a successful 12-month school-funded pilot project in 2017 implementing additional Chromebooks to achieve a 1:1 strategy for the entire Year 5 cohort, as per the request of the Year 5 teachers and Junior School Coordinator. The goal is to extend the program up to Year 9 by 2021.

Challenge

The school had a computer laboratory, but the devices the students and staff were using, along with the need to move to the lab and subsequent start-up time, were all detrimental to the students' learning.

Due to financial restraints, the school had to find a cost-effective way to bring its ICT into a new era, with limited interruption to teaching and learning.

What they wanted to do

- Introduce a new time- and cost-efficient system for students and staff
- Introduce improved technology to enhance and extend student learning
- Challenge staff and students to a new way of working and learning

What they did

- Introduced Chromebooks and Google Workspace for Education to all students
- Trained teachers in the tools and turned them into experts
- Innovated by improving the way NAPLAN is approached in the school

What they achieved

- Saved time and money by introducing Google Workspace for Education and Chromebooks
- Teachers feel empowered to use the products, teach students and train other staff
- ICT support staff spent 30 percent less time training teachers in technology use
- Saved money in the development of a new building due to the change in technology

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"Students would walk from the classroom to the lab, which would take 10 minutes, and then starting up the computers would take another 15 minutes," said ICT Manager Nathan Sooriyakumar.

Since switching over to Chromebooks, access and boot-up time are faster, leaving more time for learning.

"Now, when they need a computer, they pick one up from the charging trolley and it takes less than 10 seconds to boot up. This means teachers can spend more time teaching rather than addressing technical issues," said Nathan.

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Solution

With statistics from the World Economic Forum predicting that by 2030 65% of today's students will be employed in jobs that don't exist yet, Nathan – through consultation with the school and learning leaders – decided it was Tyndale's responsibility to equip students with skills in collaborative learning – something he predicts will be vital for future careers.

After the success of a pilot program trialling Chromebooks with the junior school in 2017, Tyndale is now gradually rolling out Chromebooks and Google Workspace for Education applications to the rest of the school. Completion is projected for 2021.

"We have been using insights from the Chrome admin portal that is within the Chrome Education Upgrade throughout the pilot project to track usage of Chromebooks as a learning tool, as well as student engagement and student-teacher interaction," said Nathan.

"In order to move forward, we are using Chromebooks as a tool for Year 6 starting in 2019. By 2021, middle school will be using Chromebook as a learning tool too."

In order to engage teachers in the introduction of the roll-out, Nathan organised school community mornings to educate them so they could in turn teach students and each other how to get the most out of the new Chromebooks.

Nathan identified 'Tech Coaches' who could champion the products and pass the knowledge on to other teachers and staff.

"As teachers are fully engaged with their students and classroom duties throughout the school day, it is understandably difficult for them to visit other classrooms and schools and witness how they are implementing their classroom technology to deliver their goals. Empowering and equipping the teachers is essential," he said.

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On Tuesdays, Nathan runs a 'Techie Brekky' from 7.45am to 8.20am, where teachers can learn tips about using the Google tools in class.

I'm a Google Certified Educator so my job is to support our teachers as they incorporate new technologies into the classrooms."

Some of the teachers were initially reluctant to come on board, but through the engaging techniques Nathan and his team introduced, they feel safer and more capable of using a new system and learning new skills.

"They realise it is about learning, and if they feel engaged in their learning it is a real value for them. If they can provide practicalities for the students, they can move on."

> By using the Chromebooks, the risk of technology failure was minimised, and **students and teachers felt more confident** in completing the test without interruption."

Benefits

The biggest benefit so far resulting from the rollout of the Google Chromebook and Google Workspace program at Tyndale has been the streamlining of NAPLAN. Outside of the 1:1 pilot program, Tyndale also used the Chromebooks to facilitate the 2018 Online NAPLAN testing for years 3, 5 and 7 over two weeks in May.

"Each morning we would remove the Chromebooks from the charging trolley, setting one up on each table loaded and ready for the student to sit down and start the NAPLAN test when instructed by the NAPLAN coordinator," Nathan said.

"The NAPLAN tests were scheduled in the mornings so that after lunch the Chromebooks could be redistributed to the usual classes for their regular usage and then placed back in the charging trolleys ready for the next day of testing."

The switching between regular usage and the NAPLAN testing mode is all managed by the Chrome Education Upgrade, taking just a few minutes to switch. By using the Chromebooks, the risk of technology failure was minimised, and students and teachers felt more confident in completing the test without interruption.

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Saving time and money through efficiency

Students and teachers previously used a range of devices from iPads and Macbook Airs to desktop PCs and various laptops. By switching to Chromebooks, the training and support requirements are reduced, thus giving support staff more time to focus on other tasks and giving teachers and students uninterrupted access to teaching and learning.

Taking feedback from teachers that the previous system wasn't working – and drawing motivation from the success of the pilot program with the Chromebooks – Nathan drew up a proposal to extend and roll out the new technology initiative.

"Currently we have 315 Chromebooks in the Tyndale Christian School at a 1:1 ratio from Year 2 to Year 6. "We are now phasing out iPads in middle school and by 2021 both junior and middle schools will be using Chromebooks."

Since introducing Chromebooks, the school was also able to free up the time of support staff who were constantly troubleshooting computer issues.

With the fast boot-up times and more efficient software, staff can now work on other projects and the school is running more efficiently, with students are on track for better results.

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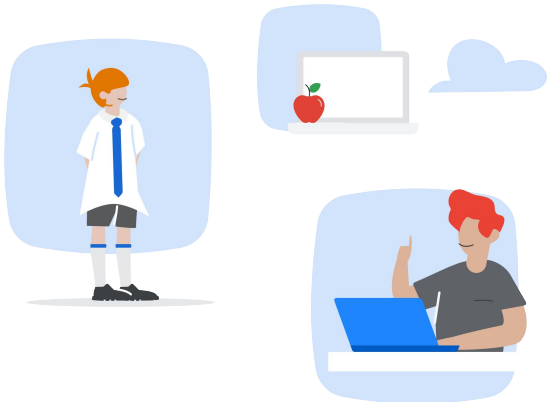
Results

Tyndale Christian School has extended a pilot program with Chromebooks to cut the downtime problem they were having with other hardware. The Chromebooks have improved learning efficiency and, with Nathan and the school leadership's approach to teacher training and creating 'champions' for the program, the teachers feel more empowered to work with IT and Google tools.

Chromebooks are being used from Year 2 to Year 6 with a total of 325 Chromebooks rolled out across the school. In years 2-4, they have a shared trolley set up and from years 4 to 6 the ratio is 1:1. The school is planning to extend the Chromebook rollout to middle school this year.

Tyndale is using Google Workspace for Education tools for teaching, learning and school administration, such as Gmail, Google Drive and file share for students and teachers, Google Workspace apps for collaboration (Google Docs, Google Slides, Google Sheets), and Google Forms for receiving feedback from students and staff, as well as quizzes and classroom activities.



Google Classroom is helping teachers extend learning beyond the classroom. School departments use the Google Sites, part of Google Workspace for Education, as an intranet while Google Chromebox is used for meetings. "We have even used the video conference capability to help students learn Japanese in real-time with students from Japan," Nathan said.

Tyndale also uses Google Chrome devices for digital signage, with eleven digital signs on display across the school.