

Arthur Phillip High School Dives Deeper into Digital Learning with Chromebooks



At a Glance

What they wanted to do

- Manage growing amounts of data
- Better support student learning with innovative technology

What they did

- Began a program to provide Chromebooks to every student and move their digital learning platform to the cloud

What they accomplished

- Visibly increased student engagement
- Improved language skills of non-native English speaking students

Background

Arthur Phillip High School is a public secondary school in Parramatta, Australia serving 1,500 students in grades 7-12. Students at Arthur Phillip hail from 65 different countries and 90% speak a language other than English at home. Five years ago, Arthur Phillip made a bold decision to embrace digital education. At the time, the Australian Government's Digital Education Revolution (DER) provided all high school students in Year 9 - 12 with a laptop. The staff at Arthur Phillip built upon this initiative by creating an online, interactive digital learning environment for their teachers and students. In 2014, Arthur Phillip partnered with Google to provide Chromebooks and Apps to every student, moving its entire digital learning platform to the cloud.

Challenge

Arthur Phillip High School has long been recognized for its commitment to digital learning. Five years ago, the teachers began to design an online educational framework, made up of interactive wikis hosted on school servers. On these wikis, students could access learning content, complete online simulations and interactives, submit assignments, use study aids and discuss their project work with teachers and other students. The DER (which has now been discontinued), provided all students in grades 9-12 with Lenovo laptops, while children in lower grades used Macs in classrooms and the computer lab.

In late 2013, Lynne Goodwin, the Principal of Arthur Phillip, and Deputy Principal Brad Main decided to take digital learning one step further and move the school's digital learning environment to Google Apps and introduce Chromebooks.

"Chromebooks and Google Apps help students with lower literacy skills to build confidence. Advanced students have easy access to enrichment and extension tasks. Our digital curriculum was designed by the teachers to provide customized learning to each child."

— Brad Main, Deputy Principal, Arthur Phillip High School

"Two things happened that encouraged us to 'go Google' – our students were no longer going to get laptops from the government, and our wiki environment had grown exponentially. We were struggling to manage so much data on our servers," said Main. The school initially looked at software-based laptops and increasing the size of their server farm, but saw very quickly that those options were far too costly.

Solution

A year ago, the school purchased a few Chromebooks as a test, and then later rolled out 100 to a pilot group of students and teachers. The students loved

“Google Drive is like a personalized learning portfolio for each child. Teachers can see at a glance where each child needs more help and where they’re excelling.”

—Dr. Nerida McCredie, digital learning consultant

how easy the Chromebooks were to use and the teachers liked how simple it was to create interactive lessons in Drive. The pilot was such a success that the school decided to introduce a one to one Chromebook program for its students in Grade 7, 8 and 9. Chromebooks were one-third the cost of laptops and required no additional software purchases or maintenance fees.

“Our students had already achieved so much through digital learning and we didn’t want to lose that momentum,” said Main. “Google Apps and Chromebooks provided an educationally and technologically sound solution.”

In late 2013, Arthur Phillip hosted a special event for parents and students entering Grade 7, 8 and 9 in 2014. They approached them with a strategic proposition: buy a Chromebook for your child to support digital learning at school and at home. “We showed parents the depth of our online curriculum and asked for their support to continue our efforts,” said Main. “Almost all parents agreed to partner with us because they saw that by providing their child with a Chromebook, they could enter into the digital learning environment alongside their child.”

Arthur Phillip offered incentives, such as a \$200 discount on school fees if parents paid \$300 AUS in full, as well as flexible payment plans. Over 80% of the families purchased Chromebooks, with those who couldn’t pay having access to school-owned devices during class. Today, over 600 children in Grades 7-9 have Chromebooks, with students in Grades 10-12 still using the Lenovo laptops. Within three years, the entire school will be on Chromebooks as the program extends.

“Google offered us a cost-effective, scalable solution to host all of our digital units on Sites and our learning content in Drive, so students and teachers can easily collaborate within our own virtual school,” said Dr. Nerida McCredie, a consultant who worked closely with Arthur Phillip to implement its digital curriculum.

Teachers at Arthur Phillip use Google Apps to design and host their entire digital curriculum. Teachers within a faculty collaborate to create each topic of work as a Google Site. This Site contains topical content, links to educational videos and activities, discussion questions, assignments and Web2 design tasks. A corresponding Google Doc is created and placed in each student’s Drive. This is where students capture and record their class activities. Teachers can review and leave comments in this Google Doc regarding a student’s progress as they complete the topic tasks.

“Google Drive is at the center of our digital learning design,” said McCredie. “It enables teachers to plan collaboratively, sharing their ideas and resources. They work together to create a high quality unit that is then shared across all classes in the grade. Teaching and learning has become continuous and fluid.”

Students use their Chromebooks and Google Apps in lessons throughout the day. For example, students in a Grade 7 History class can start up their Chromebook in just eight seconds, compared to up to the eight minute boot up on their old laptops, and navigate to the Ancient Egypt site their teachers have created. Together the class can watch and discuss a YouTube video outlining the culture of Ancient Egypt, open Google Maps to annotate a map, and complete a mind mapping challenge in their Google Doc. With such a range of activities to engage the students’ attention, teachers have the opportunity to focus on supporting particular students’ learning needs. Children who need extra support can complete supplementary lessons, while students who grasp concepts quickly can move ahead and complete extension activities.

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Even when class time ends, the learning continues. Students visit the Google Sites at home for homework and revision. “Teachers are often online,” said McCredie. “That has really increased student engagement in homework. They see their teachers right there ready to help.”

Benefits

Chromebooks have helped Arthur Phillip dramatically increase student engagement. Students are excited about owning their own computers and learning in a digital environment. Suspensions have dropped by 50% compared to the days before the school adopted digital learning, while attendance has also risen significantly. Chromebooks and Google Apps have also helped students who are learning English as their second language. “When students who struggle with English see their teachers commenting, encouraging, and asking questions right in the document as they work, they make more progress on sentence structure, vocabulary, and literacy skills,” said McCredie.

Learning in a digital environment where they can work at their own pace while receiving prompt feedback from teachers – instead of waiting a week to get back a paper with written comments – has boosted overall student confidence and performance.

“It’s early days, so we can’t say yet that learning with Chromebooks has improved student exams outcomes, but I’m convinced they will,” said Main. “However, the school definitely has a calmer vibe; I walk by classrooms and see students working on lessons and contributing to discussions, instead of fidgeting and chatting.”