



Creating Independent Learners in Senior Mathematics

Rossmoyne Senior High School, Western Australia

Pearson Lightbook Applications and
Pearson Lightbook Mathematics Methods

Demographics

- › Large independent government school located in Rossmoyne, 10kms south of Perth CBD
- › Years 7–12
- › Approx 2200 students
- › 22 teachers in the Mathematics Faculty
- › 1 IT Manager
- › 105 students studying Mathematics Application
- › 250 students studying Mathematics Methods

Rossmoyne Senior High School is a very high achieving school. They have achieved ‘substantially above average’ in all bands of NAPLAN for the past five years running. They are also listed in the top 15 schools for Western Australian Certificate of Education (WACE) outcomes in Mathematics: Specialist 3CD.

Students at Rossmoyne Senior High School use Macbook Air laptops running Mavericks OSX. The school network has recently been upgraded. There are four computer labs and there are class sets of Macbooks available for student use. The Mathematics department at Rossmoyne Senior High School is looking to expand their use of technology and lead the way in integrating Mathematics and Technology among Western Australian schools.

Challenge

In 2014, with the implementation of the WACE ATAR 2015–16 Syllabus approaching, the mathematics department at Rossmoyne Senior High School required a new resource for their Year 11 Mathematics Applications and Mathematics Methods students that exactly matched the new curriculum and also engaged their students.

The department, led by Mark White the Head of Mathematics, had also made the commitment that all of their resources should be in a digital format within five years. The education department requires that schools implement environmental strategies and Rossmoyne Senior High School had a vision of a paperless future as part of their strategy. This, along with the teams desire to further embrace e-learning and eventually implement it in all year levels, meant that they needed a strong digital resource which engaged their students and matched the new curriculum. “We were looking to revamp our resources, and Pearson Lightbook was a great opportunity to do so” said Mr White.

Implementation

In 2015, the mathematics department at Rossmoyne Senior High School chose **Pearson Lightbook Mathematics Applications Western Australia 11** as their resource for all Year 11 Applications classes. They also chose **Pearson Lightbook Mathematics Methods Western Australia 11** as their resources for the Year 11 Methods extension classes.



Pearson Lightbook combines traditional classroom products into one next generation digital resource. The textbook, study guide, exam preparation material, homework, calculator companion and worked solutions have all been rolled in to a single platform. Feature development is based on John Hattie's research into effect sizes. It embeds the best features to show student improvement and a best practice user experience on the web.

Prior to using **Pearson Lightbook**, students at Rossmoyne Senior High School were using a more traditional textbook style resource. Teacher Lynette Kovacic remembers, "I wasted about one period a week looking at the exercises, marking and seeing which students completed their work". Once **Pearson Lightbook** had been fully integrated into the classroom, Ms Kovacic was able to use the Progress Tracker to free up time and motivate her students.

The Progress Tracker is a dashboard for students and teachers to review progress at a glance on all auto-correcting exercises. Teachers are able to give written or verbal feedback to the student. "It keeps students motivated. I can show the progress tracker to students and show parents their student's results during conferences" said Ms Kovacic. Teacher Mr Isaac Kigodi also values the Progress Tracker as it aids with differentiation in the classroom. "I can quickly see where everyone is on one screen. I know who I need to talk to" said Mr Kigodi.

The students at Rossmoyne Senior High School have adjusted quickly to the digital only format of **Pearson Lightbook**. They have started to set their own pace for learning with students able to extend themselves. "I like that it's self-paced, but I can track their progress and I can see what they're answering to see how they're going" said Mr Kigodi.

Results

Student engagement can be challenging and the staff at Rossmoyne Senior High School are constantly looking at new ways to engage, motivate and extend their students. "Engagement and allowing students to work independently have improved since using Lightbook" said Mr White. "The instant feedback means they don't need to wait for marks. That makes a big difference."

“ After transitioning from PDFs to Lightbook my class has the highest average of marks than any other Applications class. ”

With a history of academic excellence at Rossmoyne Senior High School, the staff and students have high expectations from a resource. It needs to help deliver their aim of excellent grades and results. "Now after transitioning from PDFs to Lightbook my class has the highest average of marks than any other Applications class. Student averages were higher as a result of using Lightbook." said Ms Kovacic.

The students have become more independent learners through using **Pearson Lightbook** and the teachers are able to identify and attend to struggling learners more efficiently. "It shows students what they get incorrect. I don't have to show them where they've gone wrong, so I can work with the students who need it more. It allows me to get a better idea of a student's ability" said Ms Kovacic.