

2013 臺灣國際科學展覽會
優勝作品專輯(國外作品)

作品編號	110022
參展科別	電腦科學科
作品名稱	On Course Line Management
得獎獎項	四等獎

國 家	New Zealand
就讀學校	Bumside high school
作者姓名	George Moon

ABSTRACT OF EXHIBIT

TAIWAN INTERNATIONAL SCIENCE FAIR

The Online Course Management system was developed in 2012 by George Moon to address the issue of creating course books at Burnside High School in Christchurch, New Zealand. The course books are designed to inform students, staff and parents of the many courses that are available for students to choose for their next year of study. In the past, the system that the school used consisted of large amounts of paperwork and duplication. Not only did this system require a lot of effort from staff, but the course book cost the school thousands of dollars to produce, as it had to be sent off to be published into a large book that would be read by students for a week, then likely thrown out.

This year the school decided to digitise the course book, so that students would look at their courses online. Earlier this year, the school believed that the new School Management System (SMS) 'KAMAR' would be able to handle all of the necessary information, however this was not the case. Because of this, they needed a simple solution that would collate all of the course data, and then output it as a course book.

I developed my project to do this. It is a web based program that is accessible by staff on their computers which enables them to enter in all of the course and assessment data for their departments. As it is all securely stored on a central database, it reduces duplication and staff workload, as well as the added environmental bonus of less paper being used. The program also outputs data in a number of ways including as a coursebook PDF (digital document which can be uploaded or printed), an Excel spreadsheet and a webpage for easy viewing. It can be sorted or printed by different categories (such as level, faculty, department), which proved to be a very useful feature.

Following some research on areas such as design principles, browser compatibility and screen resolution (computer screen size), the program was designed to make best use of this this information. For example, most of the computers that staff would access the website on were of a similar size screen, so I made sure that my website worked well for them. I also used my research on design principles to try and create a simple, clean interface that users with limited computer skills would easily be able to navigate around.

The outcome was real, as it was used by the school to generate their coursebook this year. Following a 95% student completion rate of course selection many months earlier than previous years, the system (although it had some issues) was pronounced a success, and the school is looking to use it in the years to come. There are a number of steps I am looking to take in the future with this program including the potential sale to other schools, so they can take advantage of the features it has to offer.

評語

1. A very well done project, complements the existing L.M.S.
2. Please show the complete teacher survey & their feedback to support the conclusion that the system met its original goals.