NSW Department of Education and Training Article
The following report is an independent article published by journalist Kim Cotton in the NSW DET publication *Side by Side*, Issue 6, November 2006, Page 5. The article is titled: *Students hardwired for future success* and reports the effect of a large number of Year 7 students (more than 65) who were enrolled in *QuickSmart* at Orara State Secondary school in 2005.

*Students hardwired for future success*
By Kim Cotton

It’s not often that a school records a meteoric rise in student performance over a single year. So when Orara High School recorded the highest growth in its history for Year 8 literacy and numeracy, the principal, Graham Mosey, summed it up in three words: “We were thrilled!”

Last year almost half of the school’s Year 7 cohort was under the national benchmark for literacy and numeracy. But in 2006, all of the students, now in Year 8, performed above the benchmarks – almost doubling the state average growth in their English Language and Literacy Assessment results, and more than doubling the state average growth in writing. Similar results were brought home for the Secondary Numeracy Assessment Program.

“Anecdotally, we’d been told things were really improving, but it was good to get some data that confirmed that was the case”, Mr Mosey said.

Rod Jones, one of the school’s deputy principals, attributed the strong growth to Orara High’s participation in a trial of an intervention program, *QuickSmart*, coupled with a TAFE-accredited in-school peer tutoring program and an intensive writing initiative.

Mr Jones said the Coffs Harbour school participated in the *QuickSmart* trial last year due to the large number of students who could potentially benefit from it. This year, 67 students are undertaking the program in numeracy and 29 students are enrolled in the literacy strand. This was supported in part by funding from the Australian Government Quality Teacher Program. *QuickSmart* aims to improve the literacy and numeracy development of students who are experiencing learning problems.

It was developed by Professor John Pegg and Dr Lorraine Graham from the National Centre of Science, ICT, Mathematics Education for Rural and Regional Australia at the University of New England.

Professor Pegg said students who had difficulties with learning use “effortful strategies” (inefficient strategies that are hard to use and taxing on students’ cognitive resources) to complete basic tasks such as elementary multiplication.
This impedes their ability to take on the more complex tasks required in secondary education.

Over time children become “hardwired” to the practices they have learnt and neural pathways are formed, Professor Pegg said. Research shows that once a neural pathway is established it stays that way. The only way to change the child’s behaviour is to create new neural pathways.

“We’ve identified the basic skills and we’ve put children in highly motivational environments to help them automate those skills” Professor Pegg said.

“There’s a focus on accuracy and also a focus on doing it [basic skills tasks] quickly. If the focus is on speed as well as accuracy then the kids have to let go of these effortful strategies. They key is working closely with kids in pairs in a motivational environment and helping them develop new neural pathways … to let go of old strategies.”

The program operates by withdrawing the students from class three times a week for 30 minutes over a 30-week period. The students work in pairs with a support teacher learning assistant and teachers aides in a highly structured environment.

“Students are coming back into class a lot more enthusiastic and willing to take risks with their classroom activities” Mr Jones said. “They’re showing a lot more confidence within themselves, sharing ideas with other students in the class, enjoying their learning and have a lot of success.”

Mr Jones said that incorporating the peer tutoring program, which involves Year 11 students taking some of the Year 7 students for the QuickSmart sessions, enabled the school to target large numbers of students. Year 10 students also peer tutor the Year 7 students during the daily Drop Everything And Read sessions and roll call.

Mr Jones said QuickSmart, along with the other initiatives, had been interwoven into the Quality Teaching framework with the assistance of co-deputy principal Michael Bleakley.

“Michael and I have been very conscious that we’ve had to integrate all these things into the framework to make sure they’re successful and sustainable” Mr Jones said.