Understanding the brain is a hot topic, as neuroscience comes up with new and surprising findings. The annual Australian Council for Educational Research conference - 2013 (ACER) was held in Melbourne earlier this year and made important links between this new knowledge and how people of any age can learn more effectively.

Questions addressed included –

• What can educators expect from neuroscience?
• Are computers frying our brains?
• What is neuroplasticity and what does it mean for educating and learning?
• How can we help people with dyslexia, dyscalculia, dyspraxia and ADHD?

Educators and neuroscientists are now working together to understand how learning and the brain are related, and how this interconnectedness will better inform our educational policies and school systems. Our SiMERR director, Professor John Pegg, presented a keynote address on “Building the Realities of Working Memory and Neural Functioning into Planning Instruction and Teaching”.

Following is an abstract taken from the ACER website with reference to the keynote addresses given by John Pegg, Bruno della Chiesa and John Hattie.

John Pegg What are important take-home messages of a learning brain for teachers? This session considered this question, initially, by briefly focusing on the current theory constructs of working memory, long-term memory, neural connections and why evolution may have presented us with the type of brain we use today. When planning
for teaching and learning the implications of these constructs need to be taken into account. But the activity of the brain does not happen in isolation of the personal, social or cultural context of the learning environment or of limitations within the brain associated with issues of cognitive load. Significantly, for optimal learning to occur, the teaching agenda should represent the reality of working memory and neural functioning. This means it is important for teachers to understand the implications of automaticity, a special kind of rehearsal referred to as deliberate practice, and the valuing of errors and the use of these errors as a source of building expertise. Alongside of this is the equally important emphasis on the role that consistent and sustained effort plays in learners achieving needed skills, knowledge and understandings.

Bruno della Chiesa, a visiting lecturer at HGSE and a senior analyst at the Organization for Economic Co-Operation and Development (OECD), has been a pioneer in the development of this field. Della Chiesa conducts educational neuroscience research, collaborates with researchers worldwide, and writes books and papers that synthesise the research that has been done to give us insight into why educational neuroscience is important to the future of learning and where future directions might lie for the field.

John Hattie’s presentation outlined the five major messages from Visible Learning, outlined a notion of ‘learning’, then developed seven fundamental principles of learning: learning involves time, energy, deliberate teaching and effort; the structure and relations of learning; there are major limitations of the mind; the student as social animal; confidence as a multiplier; the need for maintenance and feedback; and identifying the major learning strategies. The new Science of Learning Research Centre is promoted as an opportunity for developing a ‘heat map’ of learning, for assessing, developing and enhancing learning – and for creating a powerful new narrative relating brain research to learning and teaching.

Educators and neuroscientists are now working together to understand how learning and the brain are related, and how this interconnectedness will better inform our educational policies and school systems.

DATA UPLOAD REMINDER

Don’t forget to allow yourself enough time to test your QuickSmart and comparison students at the end of the QuickSmart program. Upload your data to the QuickSmart website via the data upload tool and request a school report from SiMERR. At the end of year QuickSmart presentation and celebration make sure you take some photos and send them to us at SiMERR.

QuickSmart Year 2 Workshops
The SiMERR staff is currently putting together the Year 2 Workshop calendar. If your school is planning on continuing with either QuickSmart Literacy or Numeracy Year 2 training please contact Sophie Westermarck at UNE on (02) 6773 4288 or sophie.westermarck@une.edu.au to discuss the arrangements.
Rose Cowan has been involved in the instruction of QuickSmart at Hunters Hill High School for the past three years. She is a very hardworking and diligent instructor and the students enjoy attending QuickSmart lessons in a very welcoming QuickSmart room in the library.

Rose is a very innovative QuickSmart instructor and has devised new games using playing cards and board games. She also makes use of the QuickSmart resources for the students to enjoy during the lesson. She spends hours of her own time preparing games, worksheets, resources and timetables for the QuickSmart students.

The students work in pairs and have embraced the teamwork in class. On the wall in the classroom, Rose has erected a board where the students can monitor their progress and the students enjoy being able to see how they are progressing.

Rose has organised a game including all 18 students where the students have to answer a quick-fire, random multiplication question during the half hour. Points are then counted at the end of the term and the winning team gets a choice of reward.

At our school we have parents and students asking to be involved in the QuickSmart program. Three days of the week are spent training 18 students in QuickSmart and the attendance at QuickSmart lessons is very good. Rose has a good rapport with all the students. Rose works very well in the framework of our school and gets on very well with all the staff members. She is an asset to our school and to the QuickSmart program.

Is there a staff member at your school (or organisation) whose efforts in supporting QuickSmart over time go above and beyond the call of duty? Tell us about them! We want to be able to acknowledge the efforts of these QuickSmart champions.

Go to:
http://goo.gl/WAo2T
to submit your application.
QuickSmart Annual Numeracy Report 2012

The 2012 Annual Numeracy Report has now been compiled by the SiMERR statistician, Stefan Horarik, and Executive Assistant, June Billings.

“In 2012, the QuickSmart team received data from 5880 students who participated in QuickSmart Numeracy lessons and 1767 average-achieving comparison peers. These students were drawn from schools from nineteen regions around Australia. Further data were also submitted for independent analysis to the Northern Territory (NT) Department of Education and Training by NT schools. The data collected to date from thousands of QuickSmart students indicate that the narrowing of the achievement gap between QuickSmart and Comparison students results in low achieving students proceeding with their studies more successfully by learning to “trust their head” in the same ways that effective learners do. Analyses have consistently identified impressive statistically significant end-of-program and longitudinal gains in terms of probability measures and effect sizes that mirror the qualitative improvements reported by teachers, paraprofessionals, parents and QuickSmart students”.

Thank you to all our QuickSmart School Coordinators who have sent us their data for the 2012 QuickSmart year.

The annual QuickSmart Numeracy report for 2012 can be downloaded from the SiMERR site.  

Retiring QuickSmart Staff

Jenny Thomas
Jenny joined the SiMERR team in 2003 when John, Lorraine and Mike Royer from the University of Massachusetts won an ARC Discovery grant. Jenny instructed the students who participated in the key research underpinning QuickSmart from 2003 to 2005. She has also led a number of other investigations into aspects and extensions of our program. Jenny has enhanced the lives of everyone she has worked with in our team and is the ‘brains trust’ of just about everything to do with QuickSmart.

Shirley Cooke
Shirley joined the SiMERR team in 2009 after already having a notable career as a Mathematics teacher, head teacher and senior administrator. Shirley has worked on both the Numeracy and Literacy QuickSmart projects and has worked with instructors and teachers around Australia on implementing the QuickSmart program in their schools and communities. She has been driving the force to document the roles and contributions of QuickSmart coordinators and instructors.

SiMERR will greatly miss these talented practitioners’ expertise but the lasting legacy of their work will carry on within the QuickSmart program. A million expressions of thanks are not enough for both Jenny and Shirley!!
Cunnamulla is a small country town in South West Queensland. Cunnamulla is home to about 1000 residents and is situated on the Warrego River.

Cunnamulla P-12 State School has 132 students and 93% of these are indigenous students. There are 8 full-time teachers, 3 part-time teachers, 9 Teachers Assistants, Head of Department, Deputy Principal and a Principal. Teaching staff is often transient which impacts greatly on our students’ learning. The school has access to visiting educational specialists and works in partnership with local agencies for other services. Cunnamulla State School is a National Partnership School.

In 2013 8 students have been involved in the QuickSmart Program. These students are in Years 4, 5 or 6. These students were selected to participate in the University of New England Basic numeracy program because of their work ethic, positive attitude to learning and regular attendance pattern.

Since their involvement in the QuickSmart Program students have been making positive progress with their basic numeracy skills across all operations. Their response times and accuracy have both improved and teachers have been reporting that students enjoy their lessons. Students are encouraged to use strategies when working back in the classroom and teachers all want to know how the strategies can benefit the whole class. As we know QuickSmart works best when it is implemented as a whole school program and so this will be our aim in the coming months.

At the recent Workshop 2 held in Dubbo Valerie Doyle and Margaret McLaren reported to the cluster group that their aim for the coming months will be to incorporate strategies into the classroom so all students can benefit, to increase their knowledge and skills about implementing the QuickSmart Program and to “journey where the QuickSmart road takes them.”
The following student attitudes were presented at Workshop 2 in Horsham earlier this year. Ss Michael and John's School have been involved in the QuickSmart Numeracy Program since the beginning of Term 1, 2013 successfully implementing the QuickSmart program with their students. Congratulations to the instructors and teachers who have already seen such enthusiasm and positive change in their students.

The next issue of the QuickSmart newsletter will feature some comments from our teachers and instructors in relation to the change in student attitudes and skills.
The QuickSmart team would like to thank the QuickSmart Co-ordinators, Teachers and Instructors in all the QuickSmart School Clusters. The value of these people to the ongoing strength and success of the QuickSmart programs in schools is immeasurable.
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For more information on QuickSmart please visit:
FaceBook, Twitter, YouTube, Google+ and the Blog site.