

## **Dr Sacha DeVelle (ACER) at the Laboratory for Neuroscience and Cognition, University of Chile April, 2015**

The Centre for Advanced Research in Education (CIAE) was founded in December 2008 and is a joint initiative with 3 major universities in Chile: Universidad de Chile, Universidad de Concepción, and Pontificia Universidad Católica de Valparaíso.

The key focus for the CIAE is on the improvement of education in Chile via high quality research across the above streams. The purpose of the present visit was to meet with principal researchers from the Neuroscience and Cognition stream, provide a background to the SLRC's research objectives, present on ACER research that sits within the CSL@ACER, and encourage collaboration on future projects between Chile and Australia.

Professor Pablo Dartnell (Director of the Laboratory for Neuroscience and Cognition) led the workshop format. The opening presentation from Cristina Lazo (International Relations) set out the CIAE's key objectives, research seminars, conferences, publications and student numbers from 2008-2014. The consolidation of the Neuroscience and Cognition laboratory is a key milestone for the centre. My presentation, entitled 'Towards a Science of Learning: A View from Australia' provided an overview of the SLRC, principal collaborators, the 3 key streams and a description of the classroom laboratories situated at UQ and the University of Melbourne. I also discussed preliminary work on the Maths Anxiety project led by ACER researchers (Dr Sue Thompson, Dr Kate Reid and Dr Sarah Buckley) in conjunction with Professor Merrillyn Goos (UQ) and Professor Ottmar Lipp (Curtin University). This followed with an overview of Dr Mike Timms' project (Dr Sacha DeVelle, Dr Ursula Schwanter, Dulce Lay) focusing on Learner processing of feedback in Intelligent Learning Environments (ILE's), the main findings of our pilot study run in October 2014, and directions forward with that project. Those directions emphasised changes to the ILE system to allow for a more systematic approach when using eye-tracking and EEG methodologies.

Professor Dartnell and Paulo Barraza then presented their behavioural and EEG findings from ongoing studies on the processing and learning of fractions. Of particular interest from that work is how one task can trigger many different cognitive processes.

Anita Tobar then stepped in for Dr Carolina Holtheuer Beausire and Dr David Gomez to present their continuing work on the processing of the verbs *ser* and *estar* in 0-6 year olds. The focus of this project uses eye tracking (via listening tasks) to further understand language acquisition in early childhood development.

There was a very lively discussion in Spanish and English after each presentation. Through that exchange it became apparent how the CIAE, and related neuroscience stream, has a very similar approach to the SLRC. It is an interdisciplinary centre that studies the neural basis and cognitive development of learning under different conditions relevant to education in Chile.

Dr David Gómez will be in Australia in July, 2015 and is presenting at ACER Melbourne on Monday 20<sup>th</sup> July, 2015.