



European Association for Research on Learning and Instruction



EARLI Advanced Study Colloquium on

Cognitive Neuroscience meets mathematics education

Dear colleague,

We are very pleased to invite you to participate in the EARLI Advanced Study Colloquium (ASC) on “Cognitive Neuroscience meets mathematics education”, co-sponsored by the Fund for Scientific Research-Flanders, which will take place from Wednesday March 25, 2009 until Saturday March 29, 2009 in Brugge, Belgium.

Aims and Scope

There is a growing awareness to reflect upon the place of cognitive neuroscience within research on learning and instruction. As advocated by several leading scholars in the field, if we want to integrate cognitive neuroscience fruitfully in education, there is a need of a new colony of interdisciplinary researchers trained in both cognitive neuroscience and education.

In an effort to facilitate this process, the aim of this ASC is to bring together a small number of research teams, consisting of junior and senior researchers with a manifest interest and demonstrable expertise in bridging cognitive neuroscience and mathematics education. In addition to a more general discussion of the theoretical and methodological issues pertinent to the building of bridges between cognitive neuroscience and math education, the ASC specifically targets an in-depth discussion of ongoing research projects in this emerging field, thereby starting from presentations of neuroscientific data with (potential) relevance for mathematics education

collected by the participating teams. Participating teams are therefore invited to present one study, with a focus on a specific conceptual or methodological challenge.

Next to in-depth discussions of these research papers, there will be three keynote lectures covering the most recent advances in methods for data collection and analysis as well as the latest findings in the neuroscience of mathematical cognition. These lectures will also cover the promises and pitfalls of these methods for future research that bridges both disciplines. These keynote speakers are Prof. Dr. Stanislas Dehaene (Cognitive Neuroimaging Unit, INSERM, Paris), Prof. Dr. Denes Szucs (Centre for Educational Neuroscience, University of Cambridge) and Prof. Dr. Daniel Ansari (Numerical Cognition Laboratory, University of Western Ontario).

Finally, the aim of this workshop is to provide an avenue for future collaborative studies and research programs and to explore the suitability of an application for a new EARLI special interest group around the workshop theme.

Taking into account the philosophy of the EARLI ASC, it is our explicit intention to allow junior researchers (i.e. PhD-students or post-docs who have received their PhD within the last three years) to participate in this workshop.

To guarantee intensive and high-quality exchange and discussion, the number of participants will be limited to about 25 people. Preference will be given to proposals from teams consisting of one junior and one senior researcher, and to EARLI members. The final program will, of course, only be available once the programming committee has evaluated all the proposals for contributions from the interested teams, and made its selection. The aim is to have maximum 10 research paper presentations of about 50 minutes each (including 20 minutes for discussion).

Proposal Submission

This call for proposals cordially invites interested teams to submit a proposal to contribute to the ASC.

Participating teams are requested to complete the attached Proposal Submission Form (only one form per team), which should include:

- 1) Name, Title, Affiliation of the senior researcher of the participating team

- 2) Name and title of the accompanying junior member of the team
- 3) EARLI membership number (in case of EARLI membership)
- 3) Short description of expertise directly relevant to the workshop theme
- 4) Paper proposal including:
 - 1) Name of the authors
 - 2) Presenting author
 - 3) Title of the presentation
 - 4) An abstract of the presentation of maximum 500 words, including a detailed specification of the research question, methodology, (preliminary) findings, a specific methodological or conceptual issue that one especially wants to be discussed.

Please send your proposals to Bert.DeSmedt@ped.kuleuven.be before October 15, 2008.

The primary criteria for selection will be demonstrated past expertise in the topic of the ASC and quality of the proposal. (In case of equal expertise and quality, the date of submission might be taken into account). Candidate participants will be informed about the results of the reviewing process by November, 15 2008.

Conference Fees

Registration is only possible upon proposal acceptance. Registration is free of charge and includes workshop participation, coffee/refreshments during the breaks, and lunches. Participants have to take care of their own travel and accommodation costs. However, upon registration participants will receive a 40% discount (resulting in a price of 88 euro per night for a Single room and breakfast) when staying at the four-star [Novotel Brugge Centrum](#) hotel, which is located in the heart of Brugge at walking distance from the workshop venue.

Venue

The workshop will start in the late afternoon of Wednesday March 25, 2009 and will end in the early afternoon of Saturday March 29, 2009. The meeting will be held take in the '[Hof van Watervliet](#)', Oude Burg 27, Brugge, which is in the historical heart of the town.

Important Dates

Deadline for paper proposal submission: 15 October 2008

Proposals confirmed: 15 November 2008

Deadline for registration: 1 December 2008

We are looking forward to seeing you in Brugge.

International Organizing Committee

Bert De Smedt (Conference Manager)

Lieven Verschaffel (Conference Chair)

Goele Nickmans (EARLI project Manager)

Erik Lenaerts (Conference Secretary)

Daniel Ansari, Pol Ghesquière, Roland Grabner

Minna Hannula, Erno Lehtinen, Erik Lenaerts

Michael Schneider, Elsbeth Stern

International Programming Committee

Bert De Smedt (Chair)

Daniel Ansari, Lieven Verschaffel, Minna Hannula

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