NEUROLANG – ELC

Report regarding the activities of the Special Interest Group.

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0. Introduction

The Board meeting in Brussels held on December 7th 2008 decided to start with a special interest group devoted to the relationship between language learning and the brain. The chair of this group is Piet Van de Craen. This report describes the rationale behind this initiative as well as the preliminary activities undertaken since December 2008 regarding this group -of which the acronym is NEUROLANG-ELC- as well as actions to be undertaken in the near future

1. Rationale

Special interest groups are working groups within the ELC aiming at discussing and examining possibilities regarding promotion, facilitating research and/or funding projects at different European levels in order to, at a later stage, undertake research and/or policies in favour of a particular activity or a proposal related to important European matters. The rationale behind this particular group is the following.

In recent years language research on learning and teaching has shown to have an important neuroscientific component indicating an intricate relationship between the brain, learning and/or languages and multilingualism. Three examples will illustrate this point.

1. The seminal work by S. Blakemore & U. Frith. *The Learning Brain. Lessons for Education*. Oxford: Blackwell. 2005, in which a plea is held for the inclusion of knowledge about the brain in education.

2. The *International Mind Brain and Education Society* (www.imbes.org) and its new journal *Mind, Brain and Education* are discussing aspects that are of extreme interest to all those interested in the language area. No less than 18 subjects of interest are singled out and this list is far from exhaustive.

1. Connecting Cognitive Neuroscience to Education
2. Brain-Based Myths in Education
3. Behavior Genetics and Education
4. Connecting Research to Practice in Schools
5. Affective Neuroscience and Education
6. Neuroimaging- Literacy- Spelling
7. Models and Metaphors in Research and Practice
8. Pedagogy
9. Assessing Learning and Curricula Together
10. Teaching Students about Mind, Brain, & Education
11. Diurnal Rhythms as Connected to School, Teaching and Learning
12. Building Mathematics Curricula Based on Cognitive Science Research
13. Ethical Issues in Mind, Brain, & Education
14. Using Neural Network Models to Analyze Learning
15. Historical Changes in Concepts of Person in Relation to Brain Science
16. Assessing Teachers' Attitudes Toward Teaching Neuroscience

17. Implications of the Limits of Knowledge for Opening Minds to New Learning
18, Using Computers to Promote Learning in Schools.

3. Research by Ellen Bialystok (Toronto), Jubin Abutalebi (Milano) and Katrien Mondt (Brussels) has shown that the study of the relationship between the brain and multilingualism is a very promising field indeed. Spectacular results include that

(i) in multilingual brains the onset of Alzheimer disease may be postponed by four years,
(ii) multilingual brains process language differently,
(iii) multilingual brains are different with respects to the way individuals have become bilingual.

It is clear that these issues are important and that the ELC has a role to play here, be it as a facilitator, a promoter and/or information giver. Moreover, the previous is in line with European language and educational policies. The ELC's role is even more important if we realize that, in 2009, for instance it is impossible to propose an interdisciplinary European research project under the Framework acions in the humanities (or in science for that matter) linking disciplines from science and the humanities together. The ELC can play a role in trying to change this state of affairs.

3. Activities

3.1. The following activities have been undertaken and are to be undertaken.

-In line with the previous my colleague Katrien Mondt has drawn up a proposal for a COST Action from the European Science Foundation entitled *Neurolang. Towards Multilingualism in Europe: Adopting a Neuroscience-Based Approach to Language Learning*. This action passed two rounds of screening including an oral defence on March 12th 2009. Whether or not the grant will be awarded will be known in June 2009. The experts participating include neurologists, linguists, educationalists and specialists in cognition.

-Despite the uncertainty of formal recognition of the above mentioned network this group will convene April 17th in Consenza, Calabria, Italy hosted by Teresa Ting on April 17th 2009.

-Since this network share the same ideas as expressed above regarding the Special Interest Group and since I am also a member of this network it would be foolish not to join forces. I propose to send out to ELC members an invitation to come to Consenza and –if time is too short- to invite them later at a the first meeting of the special interest group NEUROLANG-ELC to
(i) inform them about the action,
(ii) to discuss the ELC role, the members' role and a work plan,
(iii) to prepare a document for the ELC board eventually destined to DG Education and DG Research.

4. Conclusion

The area of language and the brain needs to be explored. The ELC has a role to play. This Special Interest Group is a unique opportunity to start doing so. It will join forces and collaborate with a European task force set up by my colleague. My feeling is that we are on right track and I hope to align everyone in the near future.