

# **“Brain, learning & education’ and the development of a large program for research and implementation in the Netherlands<sup>1</sup>**

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At the end of 2002, the Dutch Science Council (NWO) in consultation with the ministry of Education, Culture and Science set up the Brain & Learning committee. The committee was to undertake initiatives to stimulate an active exchange between brain scientists, cognitive scientists and educational scientists and the practice of education. The initiative has led to two major activities which have been very influential.

The first activity was a so-called ‘Week of Brain and Learning’ which was organized in February 2004 with the title ‘Learning to Know the Brain’. The core activity was an invitational conference for 45 opinion leaders. There was also an international scientific symposium and a symposium for educational practitioners and the lay public. The purpose of the invitational conference was to identify difficulties, obstacles and concrete targets for innovation of education based upon insights from neuroscience and cognitive science. Participants from science, education, and societal institutions met in workshops and plenary discussions. They reached consensus about major routes to follow and an ‘agenda for the future’ and were unanimous with respect to the statement: ‘Yes: the time is ripe for an active exchange between the various disciplines and domains’.

The second activity was the production of a book entitled ‘Learning to know the brain’ (3 May 2005). This describes the consensus which was reached in the invitational conference on the major topics ‘Individual differences’, ‘Learning in adolescence’, ‘Mathematics’, ‘Motivational processes’, ‘Learning processes’ and ‘Adult learning’. In addition, recommendations were done for development of the theme in the form of twenty propositions<sup>4</sup>.

Both the book and the conference have had a major impact. By autumn 2006, concrete progress can be seen at three levels. With respect to the level of scientists and science institutions (NWO), a multidisciplinary and multidimensional ‘National Initiative’ on Brain & Cognition has been formed across scientific domains. The ambition is to become a so-called ‘National Research Initiative’ (NRI) with a total budget of €290 million. The domain of brain, learning and education – ‘The Learning Mind’ - is one of the three core themes of the NI next to ‘The Healthy Mind’ and ‘The Working Mind’.

With respect to the level of the ministry of Education and institutions involved in educational development, the ministry has organized a working conference on the theme in June 2006. Based upon the consensus which was reached, various institutions and

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organisations which have ‘development and innovation of education’ as their duty have become active on the field and now search for the best routes to follow.

With respect to the level of practitioners and school organizations, the topic appears ‘to be alive’: workshops, lectures, congresses are now organized over the country for various organizations for teachers and for school institutions. A start has been made with execution of evidence-based educational interventions in the school setting in collaborations between University and School.

In summary: the topic of ‘Brain, learning and education’ is recognized as a very important one in the Netherlands. Optimism exists with respect to the possibility to mobilize the financial resources needed, and ‘to bridge gaps’ between science and the educational field. It is regarded essential that the representatives of the various domains learn to listen to the language of the others. The progress in the Netherlands is directly related to the OECD-CERI initiative on ‘Learning sciences and the brain’.