RESEARCH ON CONCENTRATION ABILITY AND ATTENTIONAL PROCESSES OF STUDENTS IN REGULAR AND SPECIAL EDUCATION

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Concentration ability of students is an important determinant (internal condition) for the process and outcome of learning. In addition to the importance of selective and sustained attention to the relevant aspects of the learning situation, the ability to divide the attention over several, equally important, aspects of the situation is crucial for establishing firm knowledge.

The vulnerability of students regarding distraction is another important aspect of attention. Situations within the school or at home offer many sources of distraction; auditory or visual distractors are abundant. Besides that, distraction from inside (worry, daydreaming, etc.) may be directing the attention away from the relevant aspects of the situation.

Evidence is now becoming increasingly available, that students are becoming less able to sustain, divide and direct attention and that they are becoming increasingly prone to distraction. From a study that was conducted in our Department in the Netherlands, it appeared that - according to experienced teachers - restless and impulsive behaviour has increased, whereas the ability to concentrate has decreased amongst primary school pupils over the past ten years. Children seem to be more easily distracted and show less perseverance than before. Their interest, however, has broadened and they are better able to work independently, according to their teachers. Other studies support this view. The findings are further underpinned by the rapidly growing percentage of primary school students needing special education.

The afore-mentioned observations led a team of psychologists and educators from different sub-disciplines to start a research programme in the Netherlands at the Free University in Amsterdam. Experts from the field of Cognitive Psychology, Psychometrics, Special Education, Developmental Psychology, Neuropsychology and Physiological Psychology have undertaken a "joint venture" to study this phenomenon and to devise means to improve the situation.

The programme consists of three stages. In the first phase, a battery of tests has been developed, with which different types of attentional problems will be assessed. The tests have been developed as paper-and-pencil tests, so that they can be administered to whole school classes. This epidemiologically oriented research part of the programme is aimed at rendering insight into the degree to which primary school students, in different parts of the country (urban, rural, etc.) and of schools of different socio-economic levels, are able to concentrate and pay attention. In order to assure ecological validity, the tasks reflect, to the furthest extent, real school subject matter. The tests will be administered in October/November of this year (1988).

Another research project has been started to study some phenomena in depth. For example, to study the impulsive/reflexive behaviour phenomenon more thoroughly than has been done thus far, a computer-based battery of tasks, reflecting impulsive/reflexive behaviour, will be constructed to study the phenomenon from an information processing perspective.

The second phase of the programme implies further research on the determinants of attention and concentration ability. In addition to the present
situation at home and at school, and society in a broader sense, other relevant determinants might be found in pre- and perinatal circumstances and present ecological factors, such as pollution. This phase of the project has recently started.

The third and final phase of the project, which will start shortly, is aimed at the development of intervention and training programmes to foster the concentration ability of students. Besides the development and evaluation of classroom-management techniques, computer-based training programs will be developed to teach students to behave in an attentive way.

Researchers from abroad, who are doing work within the same field (or closely related ones) are invited to write to the address mentioned below. Please send us a description of your work in this field and relevant publications. One goal of this invitation is to provide an overview of the research in this area that is going on (or has been performed, or is being planned). Research projects on attention that have no (potential) connections to education are not our primary focus of attention. A second goal is to establish contacts with groups of researchers and to exchange expertise. On this basis, a joint research project at a European level might be set up, making use of European research funds. Cross-cultural research questions might, in this respect, also be relevant. Finally, it is conceivable that this initiative will lead to the organisation of a symposium at the international conference on this theme in the near future (possibly at the next EARLI Conference in Madrid).

Based on the reactions to this invitation, an overview of the work in this field throughout Europe will be published in another EARLI Newsletter.

RESEARCH IN INDIVIDUAL INSTITUTIONS

RESEARCH ON LEARNING AND INSTRUCTION IN THE DEPARTMENT OF EDUCATION, UNIVERSITY OF TWENTE, THE NETHERLANDS

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Department of Education
The Department of Education at the University of Twente is the first department of a Dutch University where education technology is explicitly the main feature in the curriculum. The Department is divided into four divisions:

Curriculum Technology - (Prof. Tjeerd Plomp, Prof. Wim Nijhof, and Prof. Jaap Scheerens). This division is concerned with the description of, analysis of, and approach to, problems connected with developing, implementing, and evaluating curricula. This division includes the Educational Administration group (Prof. Jaap Scheerens), which deals with problems concerning policy, organisation, management, and innovation in educational organisations.

Instructional Technology (Prof. Sanne Dijkstra and Prof. Egbert Warrics). This division deals with problems in the design and implementation of training situations and with instructional methods, and materials.

Educational Instrumentation (Prof. Jef Moonen). This division is concerned with designing and developing software for computers and other media. The influence of the material environment on teaching and learning processes is also studied.

Educational Measurement and Data Analysis (Prof. Wim van der Linden). This division looks into