Medienpaedagogisches Modellprojekt mit Jugendlichen im laendlichen Raum. (Media-pedagogical pilot project with adolescents in rural areas.).....see no. 7478

Tytöt ja pojat koulutuksessa. (Girls and boys in education.).....see no. 7485

Erfolgreiche Adoption? Katamnestische Untersuchungen zur Effizienz von Adoptionen. (Successful adoption? Catamnestic investigations into the effectiveness of adoptions.)..... see no. 7488

## 20 COGNITIVE PROCESS - PROCESSUS COGNITIF - KOGNITIVER PROZESS

7444 De relatie tussen kennisontwikkeling en probleemoplossen in het medisch domein. (The relationship between the development of medical knowledge and the solving of problems.)
NLD O 1986-1989

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knowledge; problem solving; medicine

connaissance; résolution de problème; médecine

An attempt is being made in two ways to find out about the role of the structure and the nature of medical knowledge in solving problems in medicine. One approach gives priority to free recall protocols, while another concentrates on thinking aloud protocols during a diagnostic assignment. The aim of this study is (a) to improve assignments and methods of analysis so that differences in performance between experts and novices can be demonstrated in a stable way; (b) to carry out further research into the differences between experts and novices in respect of the structure of their knowledge and the way in which this plays a role both in the recall assignments and in the diagnostic assignments and to find reasons for these differences. The key problem is the extent of influence that the structure and the nature of medical knowledge gained from study and from practical experience have on solving medical problems. Six hypotheses are formulated which assume a variety of relationships. These relationships are expected irrespective of the way in which the patients' data are studied: thinking aloud, with fixed amount of time for studying them or with any amount of time.

The study will also attempt to answer the following questions: (1) what knowledge is activated when studying a case history? (2) is an expertise effect apparent? (3) how do novices and experts formulate their answers when asked what they know of the syndrome which is thought to be the cause of the symptoms encountered in the patient in question and what knowledge do they manifest? (4) is there a relationship between differences in performance in terms of the recall of medical data and the quality of the diagnosis made and the differences in competence emerging from the differences in the nature and organization of the knowledge of novices and experts? (5) to what extent does the posited knowledge structure which emerges from the interviews and the thinking aloud protocols correspond with the structure in the manuals?

The different relationships are examined in three experimental settings: (1) Four groups of 16 persons (1 group of experts, 2 groups of intermediates and 1 group of novices) will be set the assignment of thinking aloud about two cases and arriving at a diagnosis for the patient. (2) Two groups of 16 persons (1 group of experts, 1 group of novices) are given the assignment of working out as best they can from a typical case history what is the matter with the patient and arriving at a diagnosis. (3) The same as in 2 but using a computer-controlled presentation.

Background knowledge is investigated by means of an interview. Analyses will be carried out of the free recall protocols, thinking aloud protocols, interviews and texts from manuals.

Publ: Hobus, P.P.M.; Boshuizen, H.P.A. & Schmidt, H.G. Clinical reasoning: factors that exert an influence on first hypotheses. Paper presented at the WOMCA conference, London, 1986. Maastricht, 1986.

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7445 Kritisch TV kijken. (Watching television critically.)

NLD C 1982-1984

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critical sense; television programme; film; violence sens critique; programme de télévision; film; violence

The study involves the development and testing of a curriculum which teaches children to look more critically at violent films on television. The curriculum comprises nine lessons and is intended for children aged 10 to 12 years. The idea is that after the lessons children should take a more serious view of violent acts on television, should be less ready to assent to violent acts in films and should be more aware of the rather unrealistic picture that violent films usually present of reality.

The learning processes and the ultimate effects were examined in an experimental field study, and it was ascertained how many children acquired a more adult view and what kind of children benefitted most from the series of lessons. A non-equivalent control group design with pre- and post measurement was used to study the effects. Altogether 18 classes took part in the study, 9 in the experimental group (N=221) and 9 in the control group (N=216). The following five variables were measured: the gravity of TV violence, approval of TV violence, perception of reality, attitude towards aggression and knowledge. Eight pupil characteristics were used in the study: socioeconomic status, age, sex, viewing frequency, preference for violent films, identification with characters on television, aggression, and level of educational attainment.

The process evaluation revealed that the individual lessons did produce the new insights aimed at. Examination of the ultimate effects of the lessons demonstrated that all the intended effects were actually achieved. Violent acts in films were taken more seriously and were approved of less readily and the children were considerably more adept at differentiating between what happened in films and what happened in real life. Comparison of the effects with the judgements of adults showed that the views of children who had followed the curriculum came close to the 'adult view'. Children were even found to be more aware of the differences between films and reality than adults. But the lessons did not only change children's views of violence in films, they also led them to be more critical of violence in real life. Finally, almost no correlation was found between the effects of the series of lessons and characteristic variables of children examined in the study. Thus in general all the children, whatever their background or personality, benefitted to approximately the same extent from the series of lessons. If a child characteristic did interact with the effect of a lesson, then it was usually the case that the children who learnt most from the lessons were the ones who had been most uncritical beforehand. (see also EUDISED ref.no. 3185).

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