Effects of computerized training for reading disabled children in grade 2

The study compared the effects of three educational interventions aimed at improving the reading skills of children with reading difficulties in grades 2-3. The interventions were computer-based and utilized the possibilities of the computer to offer interactive tasks where sounds, letters, spoken and written words and pictures were connected.

In total there were 130 participants. 100 had reading difficulties and 30 constituted a control group with typical readers. Children with reading difficulties were randomly assigned to one of four groups with 25 children in each: phonological training, comprehension training, combined phonological and comprehension training and ordinary special instruction (an active control group). Five different test sessions were administered for all participants, two before the intervention (baseline) and three after the intervention, in order to be able to assess both short- and long-term effects.

The result showed positive effects of all three interventions and that combined training was most effective both short-term, directly after the intervention (Gustafson, Fälth, Svensson, Tjus, & Heimann, 2011) and long-term, some months after the intervention (Fälth, Gustafson, Tjus, Heimann, & Svensson, 2013). Combined training showed significantly higher improvements in reading skills than ordinary special instruction (Gustafson et al., 2011) and some months after the intervention some children who had received combined training no longer needed special instruction (Fälth et al., 2013). Preliminary findings of questionnaires and interviews with participating pupils and special education teachers revealed generally positive experiences using the interventions and that variation between exercises were appreciated (manuscript in preparation). The self-concept of the pupils has also been assessed and the relationship between self-concept and the development of reading related abilities will be analyzed in a separate manuscript.

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