

THE EFFECT OF CLASS SIZE ON THE DEVELOPMENT OF THINKING SKILLS OF STUDENTS WITH SUPPORT NEEDS

Mari-Pauliina Vainikainen, Risto Hotulainen
University of Helsinki, Centre for Educational Assessment

Keywords: class size; development of thinking skills; support needs

Enhancing thinking skills has been seen as one of the most important goals of education for decades. In Finland, thinking skills are expected to develop as a measurable outcome of education even though no specific methods for training them are specified in the core curriculum. Earlier cross-sectional research has shown that just as with academic achievement, the level of thinking skills correlates positively with class size, as class size is also used as a means of support by placing pupils with support needs in smaller classes. The aim of the present study was to examine the relationships between support needs, class size and the development of thinking skills from basic analogical reasoning towards Piagetian formal thinking from the end of the third grade to the end of the sixth grade. The whole age cohort (N=2,000) of a municipality in Southern Finland participated in the three-year follow-up. The pupils participated in the learning to learn assessments including tests for analogical reasoning and formal thinking in both grades and information about support needs and class sizes were obtained from schools' registers. Multilevel structural equation modelling was applied to test the hypotheses that the positive class size effect is not produced by the classes but it simply reflects the original class composition which depends partially on pupils' support needs. The results confirmed these hypotheses and revealed additionally that thinking skills of pupils who have been identified as having support needs develop on average slightly slower than other pupils' thinking skills. Neither pupils with support needs nor the others benefitted or were harmed by studying in classes of any size in this municipality where the class size varied from 16 to 29. It was concluded that this gives support to the idea of inclusion and that the current trend of investing extra resources for diminishing class sizes needs to be reconsidered as long as the class size is below 30 pupils.