

**European Conference
on
Educational Research**

**BOOK OF
SUMMARIES**

Volume 1

**University of Twente
The Netherlands
June 22 - 25, 1992**

COLOFON

Editors:

Tjeerd Plomp
Jules Pieters
Andries Feteris

Editorial assistance:

Harmen Abma
Jeroen Breman
Conny de Koning
Olivia Kramers
Renate Schraa

Cover:

Hanna Snijder

Print:

Duoprint

University of Twente
Department of Education
P.O. Box 217
7500 AE Enschede

ISBN 90-365-0534-8

Copyright © 1992 by Department of Education, University of Twente

INTERNATIONAL STUDIES ON SCHOOL EFFECTIVENESS *B.P.M. Creemers, Rion, Institute for Educational Research, University of Groningen, Groningen, The Netherlands*

School effectiveness research in the USA resulted in the so-called factor models for school effectiveness. The most famous one was the so-called five-factor model by Ron Edmonds, but there are others with seven, eight and eleven factors. Research in other countries could not provide evidence for all the factors, partly because of methodological problems and the conceptual framework and partly because of contextual differences between the different countries. In this symposium we will look at the results of some international studies in which information is gathered about factors that can contribute to school effectiveness. The problem of the earlier studies like IEA is that they are not specifically directed towards questions about school effectiveness, so in comparative research proxy variables for school effectiveness have to be developed. The results of two of these secondary analyses of IEA data will be presented. Studies like the OECD indicator study and the International School Effectiveness Research Program are in a stage of development. A progress report of the planning will be presented. Furthermore, a study comparing the differences between educational systems which can explain the results of education will be discussed.

EFFECTS OF SCHOOL SIZE IN SWEDEN, THE NETHERLANDS AND THE USA

*Hans Luyten, Department of Education, University of Twente,
Enschede, the Netherlands*

Presently school size is a topic of governmental concern in the Netherlands. This is mainly because it is widely believed that the creation of larger schools offers possibilities for cost reduction. In this paper the results of an investigation into the relation between the size of a school and the achievements of its pupils are reported from an international perspective. The datafiles which were used relate to Dutch, Swedish and American pupils. The data originate from two international studies: The Second International Mathematics Study (SIMS) and the Second International Science Study (SISS). The SIMS-files which were analysed contain Dutch, Swedish and American data. The SISS-files contained only Dutch data. The SIMS-data were collected in 1980 (Sweden), 1981 (Netherlands and the USA) and 1982 (USA). The mean age of the pupils in these surveys is about 14 years. The

SISS-data were collected in 1984 and relate to pupils with a mean age of 15 years and six months. In SIMS achievement was measured by means of a multiple choice mathematics test. The multiple choice test used in SISS consists of items about physics, chemistry, biology and earth science.

In the analyses the following variables served as covariates:

- Sex;
- Social economic status;
- Achievement motivation;
- Cognitive aptitude;
- Type of education;

It was also investigated if interaction-effects could be discerned between school size and one of these first four covariates. If interaction-effect would be revealed this would imply that the effects of school size on student achievement differ for certain groups of pupils. In the analyses school size was operationalised as a categorical variable. Thus it would also be possible to reveal non-linear relations between school size and pupil achievement.

None of the analyses revealed a statistically significant effect of school size on pupil achievement. Of the several dozens of interaction-terms which were examined only one showed a statistically significant effect on pupil achievement: In the Netherlands the girls in schools with at least 360 but less than 500 pupils got better results on the mathematics test than their male classmates.

STANDARDIZED ACHIEVEMENT TESTING IN DIFFERENT CURRICULAR SETTINGS

W.J. Pelgrum, Department of Education, University of Twente, Enschede, The Netherlands; D.M. de Haan, Open University, OTIC, Heerlen, The Netherlands

Introduction

Although the past decade has shown in many countries an increased interest in monitoring educational progress by comparing achievement measures over time and between nations, methodological sophistication has lagged behind to warrant conclusions commonly based on these comparisons. Especially the interpretation of scores on standardized achievement tests in terms of educational effectiveness does not take into account curricular variation that may lead to differences in overlap of the test and curriculum for groups of students which are compared. This paper examines empirical evidence related to this problem, the nature and validity of measures for registering test-curriculum overlap, and it discusses results from a study for improving these measures.

Analyses of "old" measures

It has been argued that a number of basic conditions are essential for adequate educational assessment. Educational assessment is almost by definition a large-scale enterprise, involving large samples of schools, teachers and students. Given