

ABSTRACT

Knowledge of Mathematics
Curriculum 62 Curriculum 69

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The background of this investigation is the changes in teaching of mathematics which were made in connection with the revision of the 196-1 curriculum of the nine-year compulsory comprehensive school in Sweden. Through this revision the new math was introduced in the new curriculum of 1969.

The main aim of this investigation was to compare the results of teaching mathematics according to curriculum 62 (old math) with those of curriculum 69 (new math). This investigation was carried out in form 3 and form 6. The selection of pupils was made within three different strata. Stratum 1 was a city, stratum 2 places with comprehensive schools and senior higher schools and stratum 3 places with only comprehensive schools. The comparisons were made both between the total E(62) and the total E(69) and between E(62) and E(69) within each stratum. Comparisons between different strata within E(62) and within E(69) were also made.

Three tests containing items of mental arithmetic, rough calculation, arithmetic and problem solving were used in this investigation. In addition there were two questionnaires, one to the pupils about interest in mathematics and one to the teachers.

The main results were: In the comparisons between E(62) and E(69) pupils in form 3 have about the same result. But in form 6 the total result shows significant differences to the advantage of pupils in 6(62). The results of comparisons of different types of items shows that E(62) in both forms are superior to E(69) in arithmetic. But there are no differences in problem solving.

The comparisons between each stratum varies somewhat. In stratum 3 "countryside", there are no significant differences at all. In the comparisons between different strata within E(62) and within E(69) there were about as great variations in E(62) as in E(69).

Independent of any curriculums mathematics is a popular subject in both forms.

The varying results of this investigation points out that the deciding factor for the outcome of the teaching of mathematics is not the content of the curriculum as such but depends to a high degree on how the teaching is carried on. What is more important for the future teaching of mathematics is to discuss why we got this results and what can be done to improve the teaching. The dissertation concludes with discussion of problems in the teaching of mathematics.

Key words: Mathematics, primary school, new math, evaluation of curriculum

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