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ABSTRACT

The paper discusses the results of a longitudinal study, conducted in Swedish public schools, of children in the sixth grade in 1979-80 (n=116) and children in the third grade in 1981-82 (n=123) with mild mental retardation who had not been labeled. The study replicates an earlier study on the incidence of mild mental retardation which was conducted to evaluate the ability of the Swedish educational system to provide everyone with equal opportunities for an equivalent education. The paper explains the eligibility of Swedish students who are not administratively classified as having mental retardation for needed services and for regular schools to provide these services with regular education resources. Results of the study found an incidence rate for mild mental retardation of 1.45 percent in the sixth grade sample and 1.56 percent in the third grade sample. Comparisons are made between the students with mild mental retardation and students without disabilities in the areas of grades, results on mathematics tests, remedial education services, and feelings about school. The effects of the children not being labeled as having mental retardation are assessed and the need for labeling and segregation of children with mild mental retardation is questioned. (Contains 22 references.) (CR)

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# MILDLY MENTALLY RETARDED PUPILS IN THE ORDINARY SWEDISH SCHOOL: PREVALENCE AND SCHOOL CAREER (IN TWO COHORT SAMPLES)

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## Background

The prevalence rate calculated for any condition will depend on how the condition is defined, the procedure for case identification and the demographics of the geographic area under study. The criterion of mental retardation rests on two kinds of criteria: psychometric and behavioural. The prevalence rate of mental retardation when only the psychometric criterion of IQ 70 is considered will be around 2 per cent of the population. When the behavioural criterion is considered as well, which is the case when a person is administratively classified as having mental retardation, the proportion of persons receiving services will be much smaller.

In Sweden, the prevalence rate across all age groups is 0.44 per cent (Grunewald, 1979). Compared to rates reported by professionals in other countries, for example, this is a small figure – e.g. 1-3% in the US are administratively classified (Cooke, 1981; Grossman, 1983; Zigler, Balla & Hodapp, 1984). As the figure has remained fairly stable since the 1970's, it probably reflects a long-standing tradition of not confining individuals with mental retardation to institutions or other special services if not absolutely necessary (Kebbon, 1987).

Further, Scandinavian prevalence studies have yielded inconclusive and even confusing results although the investigators claim to have used the same criterion, i.e. a measured test score of two standard deviations (SDs) below the mean of conventional intelligence tests. A review of studies on prevalence of mental retardation (Kebbon, 1987) showed that only occasionally were psychometric tests actually used in the collection of data. Moreover, the case-finding methods employed were different. Among the studies compared, higher prevalences were found in those studies in which investigators tested every individual in a population. In contrast, when suspected cases reported by school staff members or only administratively classified cases were considered, the prevalence rates yielded were smaller. Kebbon concluded that the method of ascertainment used could be one reason why prevalence rates in studies claiming to have employed a psychometric criterion varied from 0.67% to 2.2%.

Suggested alternative explanations of the different prevalence rates found in Scandinavian studies are improved standard of living, a higher level of education in the population at large and a secular trend making old test norms too lenient (Emanuelsson, 1987; Emanuelsson & Svensson, 1990; Flynn, 1985; Hagberg, 1987; Hagberg et al, 1981; McLaren & Bryson, 1987; Sonnander, 1990). However, to interpret the findings solely in terms of an increased level of mental ability on the left side of the IQ distribution, or a decline in numbers of individuals with mental retardation, would be to abandon the psychometric criterion. There are of course, pupils in the regular schools who could be psychometrically defined as having mental retardation if the whole population of pupils are tested. For reasons explained previously, they are not administratively classified because there is no need for a diagnosis or a label to be eligible for the services they might need and that regular schools can provide within the resources given for regular education. Regulations for resource allocation demands schools to give more resources and support to those pupils who are in need of different kinds of support.

Pupils who meet the psychometric criterion of mental retardation but are not administratively classified as mentally retarded is an important group to investigate. At school these children have not been recognised as having mental retardation, but they experience the effects of a comparable intellectual disability. The effects of labelling have not influenced their school situation. How do these pupils adjust to the demands of the schools and vice versa? Do they receive adequate remedial education support? How do they evaluate themselves and their academic skills? Or, expressed more broadly, what categorises their school situation and educational career as pupils in regular schools?

In an earlier study (Sonnander et al, 1993) a large representative sample of 13-year-old pupils in Swedish regular schools were tested and 1.45% (n=116) fulfilled the psychometric criterion of mental retardation. When the children in the same age group who were in special schools (0.74%) were added, the theoretically expected prevalence rate of mental retardation of slightly more than 2% was obtained. School data (i e grades, remedial education received and upper secondary school experience) further supported the identification of the pupils with test scores below the cut-off point in the distribution of scores as a low-achieving group because their test results were reflected in their poor school achievement and later school careers. Their own evaluations of their school situation also yielded a group with perceived difficulties. However, the reported evaluations were certainly not homogeneous. Even if the identified group of pupils with mild mental retardation on the average constituted a less self-sufficient group, the differences between them and their non-retarded peers were moderate.

The sample of 13-year old students studied is part of one of the age groups in a large ongoing longitudinal investigation of Swedish school children covering six representative samples from the same number of cohorts, the oldest born in 1948 and the youngest born in 1982 (Härnqvist et al, 1991).

The purpose of the present study was to replicate the study on mildly mentally retarded pupils very briefly summarised above and look for possible changing patterns in a cohort five years younger. The earlier study was using information from the 1967 born cohort, and this replicate study on the more or less same kind of information from the cohort born in 1972.

**Sample**

The purpose of the very big longitudinal investigation project, briefly described above, was to evaluate, through follow-up and investigations of development, the ability of the educational system to provide everyone with equal opportunities to equivalent education (Härnqvist et al, 1991; Emanuelsson, 1983). The present studies are based on two of the cohorts. The first cohort of pupils who was being studied was comprised of all children in the *sixth grade* of compulsory school in 1979-1980 in Sweden. The second cohort of pupils was comprised of all children in the *third grade* of compulsory school in 1981-1982. The sampling procedure involved two steps. First, 29 municipalities representative of Swedish municipalities were selected. Second, a systematic selection of school classes in these municipalities was made. The final study group comprised those pupils belonging to the selected classes in April 1980 and 1982 respectively. These pupils have then been followed up since, which means that the first sample has been followed from the year they had their 13th birthday and the second from their 10th and onwards (see Härnqvist et al, 1991 for further details).

Two main categories of data were compiled: information from school offices collected yearly ( e.g. grades, courses taken, remedial education received, moving between schools etc.), and information obtained directly from the individual pupils, teachers, and parents/guardians (through intelligence tests, standardised achievement tests, questionnaires). The pupils in the first sample were tested *once* at 13 years of age. The second sample (born 1972) were tested *twice* at 10 and 13 years of age. Standardised achievement tests were completed on several occasions as part of the regular school routines.

**Intelligence tests**

The intelligence tests used were developed at the Institute for Educational Research, Göteborg University, Sweden (Svensson, 1964, 1971) and have been used continuously in the longitudinal study investigation, which so far has involved comprisingly approximately 55,000 pupils from the different cohorts of school children under study. The tests constructed represent the verbal, spatial and reasoning factors of intelligence according to a Thurstonian classification of abilities, and are called *Opposites* (the student is asked to find the opposite of a given word among four choices), *Metal Folding* (the student is asked to find the three-dimensional object among four choices that can be made from a flat piece of metal with bending lines marked on the drawing), and *Number Series* (to complete a series, the student must add two numbers to the six numbers that are given).

**Inclusion Criteria for Pupils with Mental Retardation in Regular School – the MMR-group**

Pupils in the 1967 sample with a total test result two SDs below the mean total test score (comparable to IQ 70) in combination with test results two SDs below the mean score on at least two of the three subtests and no scores (missing case) on the third subtest comprised the study group (MMR). This latter criterion was set in order to minimise the number of low-scoring pupils among the missing cases.

Pupils in the 1972 sample were included in the study already from grade 3 (at the age of 10) and onwards. They were tested twice; in grade 3 and in grade 6. The tests used in grade 3 were of the same kind, and in grade 6 identical with the tests used on the 1967 born sample, i e Opposites, Metal Folding and Number Series. The test inclusion criterion used in the 1972 sample was test results in grade 6 falling below two SDs from the mean total score on all three or on at least two of the three tests in the same way as was the procedure in the earlier study.

**Test score check**

Test data for both samples were collected from group tests administered by teachers in the classrooms during school hours, which might have had negative effects on the quality of data. Therefore a test score check was done in order to minimise risks for having false identified MMR-group members included in the group under study. This check was done by using other variables known to be correlated with ability test scores.

In the 1972 sample test results from grade 3 were used to check possible false low results on the grade 6 tests, e.g. caused by pupils not doing their best in the latter testing procedures. Those pupils who had higher total points than M-1,25SD on the grade 3 tests were excluded even if they were qualified for inclusion in the MMR-group according to grade 6 test results. If the same cut off point (M-2SD) had been used also on grade 3 test results as a check criterion, the conditions would have been too strong for the intended control, as this procedure had been too much dependent on purely statistical regression effects related to two test occasions in the same group.

As a further check, in the same manner as was the case in the earlier study, grades in the school subjects Swedish, English as a foreign language, and Arithmetic were used as check up variables. Pupils who had scores below the cut-off point in the test score distributions, but still grades more than 3 (or more than 2 in advanced courses) on the 5-point grading scale were excluded from the MMR-group.

**Missing cases**

Test protocols in the 1967 sample grade 6 testing were received for 7 987 pupils (87.7% per cent of the total sample). From the 1972 sample test protocols were received for 8 006 pupils (85.5%) in grade 6 and for 8 836 pupils (94.3%) from grade 3 tests. Missing cases were due mainly to the following reasons: pupils' absence or teacher's, parent's or pupil's refusal to participate. There was a slight over-representation of low achieving pupils

according to school data (grades, type of courses attended, remedial education) among those not tested. In the 1972 sample there were 23 pupils identified as mentally retarded from test results in grade 6 who did not participate in the test session in grade 3.

The missing cases may have had some small effect on the prevalence results attained. Due to the over-representation of low achieving pupils among the missing cases, you may suspect a slight underestimated proportion of identified MMR-group pupils.

**Parental and Pupil questionnaires**

As part of the data collections in the longitudinal study questionnaires were given to the parents to all partaking pupils in grade three, and to the pupils themselves in grades 3 and 6 and also one year after completion of the compulsory school. In this paper only data from the pupil questionnaire in grade 6 are presented.

One main purpose of this questionnaire was to investigate the pupils' own evaluation of their school situation: how they viewed themselves in different school situations (the evaluative perspective on self), how they think others view them (the social perspective), and how they would like to appear to others in different situations (the idealised perspective). Second, the pupils were asked to compare their achievements with those of their peers. Third, each pupil was asked to asses his or her own abilities to master school tasks. Finally, there were questions regarding choice of courses, vocational plans, and ambitions and leisure activities. Only few out of the ca 50 items in the questionnaire are dealt with in this brief report, and we concentrate on some self evaluative and idealised perspective questions.

## RESULTS

**Prevalence**

The number of pupils in the 1967 and 1972 samples respectively identified as mentally retarded are presented in Table 1.

Table 1.
Number and proportions of pupils identified as mentally retarded according to psychometric criterion in the 1967 and the 1972 born samples.

| Cohort | Number of MMR-pupils | | | Proportion (%) of all tested | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| 1967 | 65 | 51 | 116 | 1.61 | 1.29 | 1.45 |
| 1972 | 77 | 48 | 125 | 1.84 | 1.25 | 1.56 |

The proportions of pupils in regular schools identified as mentally retarded – and included in the MMR-group – in the two cohort samples correspond rather well (1.45% and 1.56% respectively.). There are however a certain

gender distribution difference between the two samples. Among those identified as mentally retarded in the 1967 sample there were 56 per cent boys and 44 per cent girls, while in the 1972 sample the corresponding proportions were 62 per cent boys and 38 per cent girls. According to an analysis of data from the above mentioned check up routines, this gender difference mainly is a result already from using the first test result criterion, and not thereafter affected by the further check up procedures. The data analysis done so far, has not yielded any possible interpretation or grounded hypotheses about causes of the difference in gender proportions found.

The proportion of youngsters in the same – total – age group (born 1972) in all Sweden representing all levels of mental retardation and attending special schools (and therefore not included in the regular school cohort from which the sampling was done for the longitudinal study, presented above) was 0.79% according to available national statistics. A total prevalence of 2.35 (1. 56 + 0.79) per cent mentally retarded was then obtained for the total 13 year old cohort in Sweden in the year 1985. The corresponding proportion in the five year older cohort (born 1967 and tested in 1980) was 2.19 (1.45 + 0.74) per cent.

**School data**

*Marks given in grade 9 – last year of the compulsory school*

Even if the MMR-group as such is judged as a low achieving group in the schools there is like in the older cohort a rather great variation in marks in different school subjects. This can clearly be seen in table 2 in which marks in the subjects Swedish, English, and Mathematics in the last grade (9) of the compulsory school for the MMR students in the 1972 sample are compared to the rest of the cohort sample.

The main pattern of the mark distributions are similar in the two cohorts studied. Taken into account that the MMR-groups are defined as rather extreme low achievement groups in ability test results – the ca 1.5 per cent lowest – it could be suspected that almost all of them should be given the lowest mark 1, as this is supposed to be given to the weakest seven per cent of the students in the cohort. As is clearly seen in Table 2 it is not so.

Even if the MMR-group is a low achieving group with respect to marks given, there is still a rather great variation in the mark distributions presented in Table 2. There is, as a rule, less than one out of five MMR-students who has been given the lowest mark (1). The greatest difference between the MMR-group and the total cohort sample is of course in the proportions taking general course in English and Mathematics respectively. It is up to the students themselves to chose between the two alternative courses, general or advanced. Other studies have shown, that the freedom of choice is very restricted for low achieving students. It can therefore be assumed that this also has been the case for the majority of the MMR-group students in the present study. But, as can be seen in Table 2, this as well as the low marks given in the general courses is a situation they share with many other peer students in their classes.

In the subject Swedish there is no choice of alternative courses, and the marks are given relative to the whole cohort from a normal distribution pattern. This means, among other, that the amount of 1:s and 2:s are supposed to be the same as 4:s and 5:s respectively. A look at the mark distribution for the total cohort sample shows, that there is a kind of "mark inflation" resulting in higher frequencies than expected for the higher marks, and especially so for girls. This can be seen also, but to a lesser extent in the MMR-group, but on a lower level. It is anyhow an interesting high proportion of the students in this group that have been given the average (3) mark and especially so for girls in the subject Swedish.

Table 2.
Mark distributions in three school subjects for the MMR-group and Total 1972 cohort sample (in per cent)

| Marks/ | MMR | | Total cohort sample | |
|---|---|---|---|---|
| Subjects | Boys | Girls | Boys | Girls |
| | (N=77) | (N=48) | (N=4663) | (N=4380) |
| *English, Gen.* | | | | |
| No inf. | 12 | 6 | 61 | 75 |
| 1 | 13 | 21 | 2 | .9 |
| 2 | 38 | 52 | 11 | 4 |
| 3 | 38 | 21 | 17 | 11 |
| 4 or 5 | – | – | 9 | 9 |
| *Mathematics, Gen.* | | | | |
| No inf.[1] | 3 | – | 57 | 58 |
| 1 | 18 | 10 | 2 | 1 |
| 2 | 58 | 67 | 12 | 9 |
| 3 | 21 | 23 | 17 | 16 |
| 4 or 5 | – | – | 12 | 16 |
| *Swedish* | | | | |
| No inf. | 12 | 15 | 2 | 2 |
| 1 | 10 | – | 3 | .7 |
| 2 | 70 | 64 | 29 | 11 |
| 3 | 8 | 21 | 43 | 39 |
| 4 or 5 | – | – | 23 | 47 |

There is one difference between the groups shown in Table 2 which is clear and important to observe especially in the Swedish marks part. The proportions of students for whom no information was yielded were larger in the MMR-group than others. The most common reason for the loss of information is, that marks have not been given, even if the students officially belong to teaching groups where they should have been marked. Having no marks then, is an indicator of some kind of school problem and as a rule connected to high absence-frequency etc. More than every 10th

1 Among those are students taken advanced course, including *one boy from the MMR-group with mark=1*

MMR-student have that kind of "indicator" which is ca six times higher a proportion than for the whole cohort. This is especially interesting for the MMR-girls, where the 15 per cent without marks in Swedish, therefore may be one reason to the rather surprising fact, that no one has been given the lowest mark (1) in this group.

*Results on Mathematics tests in grades 3 and 6*
In grade 3 the students took a test in mathematics, 15 items constructed for the follow up study. The same 15 items were given to the sample also in grade 6, in this latter case together with some more added items. A comparison between the results from grades 3 and 6 for those students taking part at both occasions is presented in table 3.

Table 3
Differences between results from identical math. items in grades 6 and 3 for the MMR students (15 identical items)

| Grade 6 – 3 difference | Number of Boys | Number of Girls |
|---|---|---|
| Neg. | 5 | 5 |
| No diff.[2] | 20 | 16 |
| 1 | 5 | 2 |
| 2 | 7 | 4 |
| 3 | 7 | 4 |
| 4 | 8 | 8 |
| 5 | 8 | 6 |
| 6 | 8 | – |
| 7 | 7 | 2 |
| 8 | – | – |
| 9 | 2 | – |
| 10 | – | 1 |
| Total | 77 | 48 |

As can be seen in table 3, the majority of students in the MMR-group are improving there results on the identical mathematics items over the three years from grade 3 to 6. Of those students who have taken the test twice, there are five boys and five girls showing a negative difference, i e they did better on the test in grade three than three years later in grade six. These differences are for eight of the students one or two points and one girl showed a negative difference of six and one boy three points.

The average differences across the three years studied, amounts to + 3.15 , which means an increase of slightly more than 3 of the 15 identical math items correctly solved in grade six compared to number of items solved in grade three. This average increase is very close to that of the total cohort sample, even if results must be interpreted with caution, because of ceiling effects in the mathematics test in grade 6.

2 Including those ca 25 students not taking part in the grade 3 tests.

Similar results are found also in comparisons between the MMR-group and the rest of the cohort in a reading test also given in grades three and six. As this test was chosen in order to firstly identify poor readers, the comparisons must be interpreted with caution because of ceiling effects.

So, even if the MMR-group is a significant low achieving group, it is obvious that also the pupils belonging to this group usually develop their skills over the three school-years. The size of the development of skills is comparable, although the level of performance is lower.

In Table 4 the changes in individual results on the mathematics test from grade three to six are related to intra-group (MMR) variation in ability test results in grade six. In Table 5 the corresponding comparisons are made with the amount of remedial education in grades 3-9. As can be seen from the tables there are only moderate correlations to be found. At the same time it is obvious, that there is a rather great variability also in learning progression in mathematics as measured in the used test. It is to be observed, that some of the cases which showed No difference are due to not taking the test at one of the occasions. Even if there is slightly more negative or small positive changes among lowest achieving pupils and among those pupils who have received most remedial education (part of which can have been given after grade six), the figures in the Tables show, that there has been rather good learning conditions in the regular schools for most of the MMR-group members.

Table 4
Differences between results from identical math. items in grades 6 and 3 for the MMR students (15 identical items) related to results on inductive number-series tests in grade six and gender.

| Grade 6 – 3 math. difference | Test results Low (1-4) Boys | Girls | Medium (5-9) Boys | Girls | High (10- Boys | Girls |
|---|---|---|---|---|---|---|
| Neg. | 2 | 1 | 1 | 4 | 2 | – |
| No diff. | 8 | 3 | 8 | 5 | 4 | 6 |
| 1 | 1 | 1 | 3 | 1 | 1 | – |
| 2 | 3 | 3 | 2 | – | 2 | 1 |
| 3 | 1 | 1 | 3 | 1 | 3 | 2 |
| 4 | – | 3 | 2 | 4 | 5 | 1 |
| 5 | 1 | 2 | 5 | 3 | 1 | 1 |
| 6 | 1 | – | 4 | – | 3 | – |
| 7 | 1 | – | 3 | 2 | 3 | – |
| 8 | – | – | – | – | – | – |
| 9 | – | – | 1 | – | 1 | – |
| 10 | – | – | – | 1 | – | – |
| Total | 18 | 14 | 32 | 21 | 25 | 11 |

Table 5
Differences between results from identical math. items in grades 6 and 3 for the MMR students (15 identical items) related to number of years with remedial education and gender.

| Grade 6 – 3 math. difference | Number of years with remedial education 0 – 2 | | 3 – 4 | | 5 – 7 | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Boys | Girls | Boys | Girls |
| Neg. | 1 | 1 | – | – | 4 | 4 |
| No diff. | 5 | 3 | 3 | 4 | 12 | 9 |
| 1 | – | 1 | 2 | – | 3 | 1 |
| 2 | – | 1 | 1 | 2 | 6 | 1 |
| 3 | 1 | 2 | 1 | – | 5 | 2 |
| 4 | 3 | 1 | 2 | 1 | 3 | 6 |
| 5 | 1 | 1 | 1 | 3 | 6 | 2 |
| 6 | 1 | – | 5 | – | 2 | – |
| 7 | 2 | – | – | 1 | 5 | 1 |
| 8 | – | – | – | – | – | – |
| 9 | – | – | – | – | – | – |
| 10 | – | 1 | – | – | – | – |
| Total | 14 | 11 | 32 | 21 | 49 | 26 |

*Remedial education*
As in the 1967 cohort close to one third of all students in the total 1972 cohort sample have received some kind of remedial education support at least in one grade of their schooling period. As can be seen in Table 6, almost all – 96 per cent – pupils in the MMR-group have had that kind of support, at least for one year, during the seven years studied.

There is a very great variation in the amount of special education support in the group, though. Only every fifth of the boys and less than every eighth girl have had this kind of support all seven years. Within each grade there are between 44 and 88 per cent of the boys and 29 to 79 per cent of the girls who have taken part in such support programs. The proportion of students who have had special education support to some extent for five years or more is 62 per cent for the boys and 54 per cent for the girls. There is a clear trend for proportions to decrease in higher grades, which certainly has to do with other streaming possibilities available in the schools. It is especially so in grades seven to nine, for instance so called alternative courses (general and advanced) in English as a foreign language and Mathematics.
As can be seen in Table 2 the majority of students in the MMR-group have taken the general courses in these grades. But even so, taken into account that the group as such is a rather extreme low achieving group according to ability test results, the proportions having had special education must be seen as surprisingly low also in the 1972 cohort. The higher total proportion compared to the 1967 cohort is mainly explained by the fact, that we have information also from grades 3 – 5, in which grades the proportion are much higher. But among boys the proportion 88 per cent in grade 6 is higher in the 1972 cohort than it was in the 1967 one, too.

Table 6.
Remedial education among pupils with mild mental retardation (MMR) by Gender, Grade and number of years for the 1967 and 1972 samples

REMEDIAL EDUCATION, MMR-groups (in per cent)

| | 1967[3] | | 1972 | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| Grade | N=65 | N=51 | N=77 | N=48 |
| 3 | – | – | 64 | 29 |
| 4 | – | – | 78 | 35 |
| 5 | – | – | 68 | 79 |
| 6 | 57 | 57 | 88 | 67 |
| 7 | 58 | 47 | 62 | 48 |
| 8 | 40 | 43 | 49 | 44 |
| 9 | 40 | 33 | 44 | 42 |

| Number of | 1967[4] | | 1972 | |
|---|---|---|---|---|
| years in re- | Boys | Girls | Boys | Girls |
| medial ed. | N=65 | N=51 | N=77 | N=48 |
| 0 | 12 | 23 | 4 | 4 |
| 1 | 17 | 23 | 5 | 12 |
| 2 | 42 | 20 | 9 | 6 |
| 3 | 21 | 16 | 13 | 8 |
| 4 | 8 | 18 | 6 | 15 |
| 5 | – | – | 29 | 23 |
| 6 | – | – | 14 | 19 |
| 7 | – | – | 19 | 12 |
| Total | 100 | 100 | 99 | 99 |

**Pupil questionnaire grade 6 1985**
In Table 7 answers to self evaluation questions are presented for the two MMR-groups compared. In this paper only a restricted sample of questions are included, and they are taken as examples to give a hint of what kind of patterns that will be dealt with in more detail in later analyses.

3 For the 1967 sample there is information only from grade six and onwards.
4 For the 1967 sample there is information only from grade six and onwards. This means also that the maximum possible number of years is 4 in stead of 7 as for the 1972 sample.

Table 7
Distribution of Pupils' Questionnaire Answers in grade 6. Comparisons between MMR-group answers from the 1967 and 1972 cohorts resp. Only affirmative answers (% of total groups are listed).

| Question | 1967 Boys | 1967 Girls | 1972 Boys | 1972 Girls |
|---|---|---|---|---|
| Do you think you are good at school? | 41 | 35 | 54 | 52 |
| Do you think that your parents think that you are good at school? | 67 | 77 | 74 | 69 |
| Do you often wish that you were better at school? | 81 | 91 | 81 | 75 |
| Do you often wish to understand better when teacher explains? | 48 | 44 | 71 | 73 |

There is mainly a good correspondence between the answers from the two samples on most of the questions so far analysed. In the 1967 and the 1972 cohorts there are a slightly lower proportiona in the MMR-group compared to the total cohort samplea on positive evaluation of oneself in school situations. Likewise, the answers in the two MMR- groups on the ideal self questions are very similar. There are greater proportions of affirmative answers among the MMR pupils than in both total cohorts.

The greatest difference found in Table 7 between the two cohort samples is between the answers to the question about the wish to better understand teacher explanations. The proportion of affirmative answers is clearly higher in the 1972 sample. Further analyses ought to be done in order to understand what may be reasons for this difference, as it occurs at the same time as the proportions on the question about being good at school does not differ that much between the samples.

**Discussion**

In this paper some results from a replicate of an earlier study on pupils with mild mental retardation in regular Swedish schools (Sonnander et.al., 1993) are presented. We have given only some preliminary results from the still ongoing investigation work, which is going to be reported more complete in a later paper. This paper is based on comparisons between only two out of four available cohort samples within the framework of an ongoing longitudinal study at Göteborg university. Comparative studies also including samples from the cohorts born 1977 and 1982 will be done. This will give possibilities to study school careers for MMR pupils in regular schools over a fifteen year period 1980 – 1995, a period which is characterised by great changes in schools as well as in the Swedish society. For the three oldest cohorts the comparisons could be extended to include upper secondary schooling as well.

The results from the comparisons presented here confirm the main results from an earlier study from on the 1967 cohort (Sonnander et al., 1993). The psychometric definition of mental retardation is purely statistical and based

on the assumption that mental ability is normally distributed when culturally relevant test items of varying difficulty are administered to a large enough representative population.

When all individuals are tested, around 2 per cent would meet the psychometric criterion of mental retardation. Our study on representative samples from two Swedish cohorts tested at the age of 13 years confirm this, when the results from the studies of children in regular schools are combined with proportions known to belong to special schools for mentally retarded. The proportions of mentally retarded found are in both cohorts very close to what is to be expected when the psychometric criterion is used. Consequently, there is a strong reason to believe that the inconsistent prevalence rates obtained in Scandinavian epidemiological studies are influenced by selective case-finding methods. This is further commented on in Sonnander et.al. (1993).

The material presented in the present study might be considered unique in the sense that our groups was not labelled as having mental retardation. They were not identified by school staff members or teachers as meeting the psychometric criterion of mental retardation or otherwise recognised as having mental retardation. They could thus not be considered to be "individually integrated" pupils with mental retardation in the regular schools, but just regular pupils. Our results, then, yield a more optimistic picture of the never-labelled student with mental retardation in the regular schools than e.g. Zigler et.al. (1984) suggested. Even if they constitute a low achieving and in some respects a less able group in their schools, they shared this situation with several of their peers who did not psychometrically qualified for having mental retardation. The fact, that our as MMR defined group of pupils in regular schools tends to be rather heterogeneous in so many respects out of measured mental ability, give support to some scepticism to the explained need for screening in school populations for a necessary identification of pupils "at risk" according to not diagnosed mental retardation.

Attention should, as Zigler et.al. pointed out, most certainly be paid to this group as a whole (those with and without mental retardation) and to their needs. However, this must not involve official labelling and/or necessitate segregation. Diagnoses and labels should, of course, never serve their own purposes but should imply that services can be more efficiently assigned where they are best needed. A psychometric criterion, label or non-label, can never be the only guide to service delivery, as Barnet (1986) rightly noted, but should be utilised constructively in order to support each individual on his or her level of performance in regular schools. This may be relevant for many other so called disableness diagnoses of disability, psycho-medically defined, as well.

Whether the pupils with mild mental retardation in our study would have benefited from more special educational support at school than they received cannot be ascertained from our present results. It is possible that the entire mildly mentally retarded group was entitled to more remedial

education than they actually got compared to the rather great amount of such education resources used for as many as one third of the total school cohort. However, school authorities do not provide remedial educational or other educational support exclusively to pupils with intellectual difficulties (Emanuelsson & Persson, 1996). Large amounts are allocated to pupils with special needs related to other difficulties than those of mental retardation. What is more and more usual as reported reasons lately, are pupils causing disturbances in the planned teaching and so forth, and therefore being taken to different kinds of remedial education groups etc.

It seems important to continue to following up samples of the kind here studied also through secondary education and further on in their life, e.g. work and leisure perspectives. There ought to be comparative studies done also with other groups of more officially identified mentally retarded groups, often belonging to special school populations more or less "integrated" in regular schools. For instance to compare the situation on the labour market for groups as the ones in our study with that of their peers without mental retardation, and more importantly with their labelled peers, would yield valuable information. Preliminary results from such follow up studies on our 1967 cohort sample give hints of experiences more often more positive for those not labelled compared to the labelled mentally retarded in special schools (Emanuelsson & Sonnander, 1992). There is much analysing still to be done, in order to get a more reliable ground for this kind of conclusions.

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