

English summaries

Allan Svensson, 2001: Does the uneven social recruitment remain? Students' choice of high school programme autumn 1998 /Består den sociala snedrekryteringen? Elevernas val av gymnasieprogram hösten 1998/. Pedagogisk Forskning i Sverige, Vol 6, No 3, pp 161–172. Stockholm. ISSN 1401-6788.

The aim of this study is to investigate if there are still differences between students from different social groups in choosing upper secondary programmes. The investigation is based on data collected from a sample of pupils who were in Grade 3 of the Swedish compulsory school in spring 1992. The sample of 9 000 individuals constitutes a nationally representative sample of all pupils in Grade 3, most of them born in 1982. Their educational careers have been followed up to 1998 when the majority had started upper secondary school. Among other things scores on intelligence tests and information on social background have been collected.

The social background has been classified on the basis of information about the education and occupation of the parents. Three groups are distinguished:

Group I. Academic professions. Persons with management positions in civil service and industry.

Group II. Civil servants and white-collar workers in lower management positions.

Group III. Skilled and unskilled manual workers.

The results show that there still exist large differences between students from the three social groups.

Children from Group I are strongly overrepresented and children from Group III are definitely underrepresented within the natural science and the social science programme, the two programmes that offer the best qualifications for higher education. Students from Group 3 very seldom choose especially the natural science programme. That this is the case is a threat against equality in Swedish society because the programme in question gives the knowledge required to enter higher technical and science education programmes at university level. These programmes open the possibilities for many interesting and well-paid positions. It ought to be mentioned too, that the differences between the social groups are much bigger than the difference between the sexes. Thus, within Group I, 47 per cent of the males and 36 per cent of the females have entered the natural science programme. Corresponding figures in Group III are 15 and 12 per cent respectively.

One reason for the unequal recruitment may be that students from group I are more qualified, more able, for this kind of upper secondary education. However, this is only a part of the explanation. After controlling for differences in intelligence test scores, there still remain large social differences. It is particularly unsatisfactory that these differences are found also among students of high ability. Among those belonging to the top quartile in measured intelligence, two thirds of Group I have chosen the science programme against only one third of Group III. This is unfair from the perspective of the individual as many able students from working class homes do not get the possibilities to reach attractive and well-paid occupations. It is also negative from the perspective of society, as there is a shortage of people in Sweden with qualified science education.

It is beyond the frames of this investigation to explain why so few students from group III enter the natural science programme. However, previous research has shown that many students from lower socio-economic groups have difficulties in mathematics and this is true even for students scoring high on intelligence tests. In order to increase the recruitment to the natural science programme in upper secondary school from the working class it will be necessary to change and strengthen the teaching of mathematics in compulsory school.

In conclusion it should be observed that it is only the choices to upper secondary school, which have been studied. We do not know how the students succeed. If they complete the programmes they have entered, if they get good grades, if there are any differences in these respects between male and females and between students from different social groups. However, these questions may soon be answered, as we will get the necessary data in the near future.

Sven-Eric Reuterberg, 2001: Treatment of missing data in longitudinal studies: An example /Hantering av bortfall i longitudinella studier: Ett exempel/. Pedagogisk Forskning i Sverige, Vol 6, No 3, pp 173–194. Stockholm. ISSN 1401-6788.

Missing data is a great problem in a lot of empirical educational research. This is because it concerns an unresolvable dilemma brought about by the way missing data is understood and normally dealt with in empirical research. The most common way of handling the missing data problem is that persons with missing data are excluded from analyses, which these then being based only on the restricted group of persons with complete data. The main consequences of this are biased estimates, loss of information and loss of power in statistical analyses. Furthermore, standard statistical methods assume complete data matrices. Although there are several other procedures available for handling missing data they are seldom applied in actual research.

In this article several procedures for handling missing data are presented and discussed. Some of them are applied on a very large longitudinal data base concerning leaving certificates from compulsory school. Out of more than 842 000 persons there is no one who has complete data! The reason for this is that there is a great structural missingness. In Mathematics and in English, for instance, the students have to make a choice between a more advanced course and an easier course and the grades obtained on these alternative courses are not comparable. Furthermore, in Sweden, the schools are allowed to give separate grades in the social science subjects of History, Geography, Civics and Religion, or one comprehensive grade for all these subjects. The same is true also for the natural science subjects of Biology, Physics, Chemistry and Technology. Besides this structural missingness there is also some accidental missingness, such as those where for different reasons, persons are missing grades in individual subjects.

In order to obtain a more complete data set, missing data have been handled in three steps. In the first step a correction factor has been computed for making the grades from the advanced courses in Mathematics and in English comparable to those from the easier courses. In the second step the comprehensive grades in the social science subjects and the comprehensive grades in the natural science subjects are translated to individual grades in each subject. In the last step individual grades are provided for those subjects that had the largest accidental missingness, Swedish, Physical education and Technology.

By these three steps the proportion of persons with complete data increased from 0 percent to about 94 per cent. Three per cent of all persons were missing all the subject grades, so these persons had to remain missing. In principle, it had been possible to provide the total means for these persons, but that procedure would damage the data structure to such an extent that it was regarded as inappropriate. The remaining three per cent could be given complete data by regression imputation, for instance, but that procedure would require so much work that it was not regarded as worthwhile.

At the same time as the proportion of persons with complete data increased enormously, the number of separate subject grades decreased from 27 to 17, and these 17 subject grades were common to all persons.

In order to get information on the consequences of the missing data procedures on the data structure, if any, the factor structure of the leaving certificates were analysed on the original and the new data sets. The result of this comparison was that the data had been changed in only one respect. The loadings of Mathematics and English on the general school achievement factor had been increased, and this is a change that was expected. The uncorrected grades in these two subjects are biased due to the fact that there are higher demands for a given grade on the advanced courses. When the correction factor was introduced the grades were made more comparable, and, therefore, the factor loadings were increased. On the other hand, changing the comprehensive grades in the natural science subjects and in the social science subjects into separate subject grades had no effect on the factor

loadings. Nor did the imputation of grades in Swedish, Physical education and Technology change the factor loadings of these subjects.

Means and standard deviations remained largely unchanged with the exceptions of Mathematics and English. In both these cases the means and standard deviation were increased, and this is the natural consequence of increasing the range by one grade step.

Erik Wallin, 2001: The task of educational researcher in commission work / Pedagogikforskarens uppgift i statliga utredningar/. Pedagogisk Forskning i Sverige, Vol 6, No 3, pp 195–205. Stockholm. ISSN 1401-6788.

In Sweden, since the second world war, there has been common that educational researchers take part in work of state initiated commissions aimed at laying the ground for reform work within the field of education and training. In a certain perspective this is establishing a meeting place for researchers and politicians that has come to be increasingly more controversial and debated as a result of the increased importance of research outside the research community itself. This article is a contribution to the debate of the relation between educational research/researchers and the politicians in commission work. At the same time it is a contribution to a more general debate on the relation between policy making and research.

The present interest for this is triggered by a report from a state initiated commission with the main aim to study the Swedish national curriculum guides as instruments for the governing of the school and to analyse reasons for the weak impact of the curriculum guides on work in schools. According to my reading, the commission has not been able to fulfill its aims because of a not enough elaborated conception of its task and choice of conceptual framework and perspective. Instead the commission has made a number of proposals that are not sufficiently argued for. This might be worth noting in itself but more so as a starting point for a discussion of the general problem of what should be the task and function of the educational researcher in the work of state commissions.

Initially I note, referring to different other researchers, that the tasks and directives given to state commissions within the field of education has changed over the years. During the fifties the commissions were given a question, more or less clearly stated, to be answered often in terms of when or where, yes or no, good or bad. These were questions related to organisational matters and issues. Successively the very school work («schools' inner work») came into focus and the questions changed into more or less vaguely stated problems that the commissions had to analyse and restate in terms that were enlightening for the commissions, or rather for the political members of the commissions.

This change of aims and directives to the commissions has successively developed along the same lines as the problems set to the commissions are more than before stated in educational policy terms and has to be contextualised. As Lundgren (1996) has expressed it, the place of meeting between politicians and researchers are no more the round table with a fixed agenda but the seminar room. The task of the educational researcher, as an expert in his/her field, is more than ever to help the politicians »to see school and school life as a problem» and not only as a solution.

This change of aims and directives fits well with what the present commission was set to achieve. To discuss and analyse the meaning of the national curriculum guide and why its impact on the governing of the school is not as strong as expected is not a simple question to be answered in simple or instrumental terms. It is a statement of a problem that needs to be further problematised and discussed in different perspectives of values and contexts.

Contrary to this, the commission has chosen too narrow an approach on its task. Its main perspective has been a strongly psychology oriented perspective that marginalises a structural view on the problem at hand that would have been of importance, at least as a complementary perspective, for a diversified analysis and development of the problem.

I argue that the expertise of the educational researcher as a member of a state commission should express itself in these terms, i.e. in terms of skill and experience of discussing different ways of conceiving a problem, of identifying theoretical perspectives and their implications. These are also the characteristics that we use to connect with a scientific attitude.

It should be clear that a researcher as a member of a state commission of the kind referred to is not only there as an expert. He or she is also, and at the end maybe primarily, as a member with the same responsibility for the common outcome, often as a compromise, of the commission's work as the other members. This outcome is also dependent on the conditions given the commission in terms of support, time etc. Together, this make restrictions to what is possible to achieve. I am aware of all of this but my criticism of the commissions work remains and that it raises questions as to what have been and should be the tasks and functions of the researchers as experts of the commission. At the same time the report discussed gives a good reason for discussing the relation between researchers and politicians.

Paula Berntsson, 2001: Possibilities with restrictions: The new teacher education and pre-school teachers /Möjligheter med förhinder: Den nya lärarutbildningen och förskollärarna/. Pedagogisk Forskning i Sverige, Vol 6, No 3, pp 206–217. Stockholm. ISSN 1401-6788.

Teacher training has a new structure and an increased connection to research. The aim is partly to elaborate and improve teachers' activities, as well as to enhance the status of the teaching profession. In this article, I argue that the new structure of teacher training and the increased connection to research create good opportunities to achieve these goals. In addition, I argue that the new teacher training is of great significance for the professionalization of teachers. There are, however, some problems concerning preschool teachers.

The new structure within teacher training involves, among other things, a universal educational program mandatory for different categories of teachers working with children and pupils from the preschool level to upper secondary schools. This implies that different categories of teachers partially share common training, this intended to create good opportunities for co-operation. However, preschool teachers working in preschools, formerly known as day-care centers, co-operate with nursery nurses who are not included in this new teacher training. The overall purpose to create better opportunities for co-operation among teachers is thereby not valid for those working in preschools.

The increased research connection means that teaching professions now monopolize an academic discipline; the Science of Education (utbildningsvetenskap), as well as greater opportunities for doing research. Both of these are important for the professionalization of teaching. To control an academic discipline is very important for the status of a profession. The government also has the opinion that the teachers' lack of, and control over, an academic discipline of their own largely explains their relatively low professional status.

Some teachers and students have criticized teacher training for not being sufficiently relevant to teachers' activities. It has been argued that there is a gap between theory and practice. An increased connection to research, however, does not have to increase the gap between theory and practice. In addition, an increased connection to research can elaborate and improve the teachers' theoretical knowledge, as well as their practical experiences. In addition, it can be advantageous to their working conditions as well as their teaching activities. Consequently, there is no contradiction between the intentions of improving the teachers' activities and increasing their status.

Because most teacher groups included in this new teacher training are female dominated, increased status will also have a positive impact on gender equality. There are, however, some additional problems concerning the new teacher training at the preschool level.

Earlier actions by the government, concerning the pedagogical function of preschools, pose obstacles to the achievement of the goals within the new teacher training. Skolverket, the Swedish National Agency for Education, has decided to make preschool teachers, as well as nursery nurses, responsible for the pedagogical tasks at the preschool level. Preschool teachers, but not nursery nurses, receive pedagogical training and only the training of preschool

teachers and not the training of nursery nurses is included in the new teacher training. This means that working teams in preschools do not share the same pedagogical training. This may also mean that preschool teachers experience an increased gap between theory and practice.

The decision of Skolverket also poses obstacles to the professionalization of preschool teachers. In my opinion, the decision of Skolverket implies that the training of preschool teachers may be considered as underestimated by the government. The increased connection to research facilitates opportunities for preschool teachers to do research within their career field, control an academic discipline and elaborate on their practical and theoretical knowledge. But the decision of Skolverket also counteracts the new teacher training regarding the intent to increase the professional status of among others, preschool teachers.