Teacher Training and School Development

by Jonas Orring, Director General, National Board of Education, Sweden

Since the Second World War, practically all parts of the world have had one common problem: teachers have been too few in number, and the teachers there have been have been inadequately trained. Thus the problem of teachers has had two main aspects, one quantitative and the other qualitative: how can a sufficiently large staff of teachers be obtained? and how are these teachers to be trained?

The main cause of the teacher problem is that the educational systems have altered rapidly and radically. I shall take Sweden as an example, where compulsory school attendance has been extended from seven to nine years, and part of the former secondary (subject-teacher) stage has become compulsory and included in a new comprehensive school. Schools at gymnasium level have been in a period of rapid quantitative expansion, and they will from now on be coordinated into an integrated upper secondary school, our "gymnasieskola".

Trends of this kind can be found in most European countries. The obvious starting-point for better teacher training is that such training must be in the service of society and the school, and its objectives should be the goals of the new school—the optimum development of the individual pupil. The training of both class and subject teachers have been found inadequate in important respects, although the shortcomings in the training of these two categories differ somewhat.

Let me first give a short historical back-
certain reduction in the previously almost insurmountable barrier between the teachers in the two types of school. Thus, teachers in the compulsory elementary school are now concerned also with other things besides elementary instruction in reading, writing and arithmetic. Science and foreign languages as well as aesthetic and practical subjects have become part of the work of the schools, in both primary and secondary education. Traditionally the class-teachers have had a comprehensive but comparatively shallow education, with the stress laid on practical teacher training problems. The education of the subject teachers has been more restricted and deep, and the practical teacher training shorter. Nor has the content of the training always been chosen out of consideration for the changed conditions of the school today. There were many reasons why in the 1950's and 1960's the new comprehensive school in Sweden was not regarded, to the extent desired, as one school with uninterrupted continuity. One of these was that teachers trained according to different systems and with different aims in view.

The extension of compulsory education has meant at least three important changes for the teachers. The first is that new groups of pupils attend the school. The training of teachers for the "higher" school has not yet been able to take into account the fact that every class or group of pupils contains some who are not theoretically gifted or interested. The second is that new subjects have been introduced for which teacher training has not been systematically organized. So-called practical subjects and vocational subjects have usually not been included in traditional academic studies, and these subjects have therefore been somewhat neglected in the school, too. The objective of the new school, the all-round development of the individual, refers to the whole personality, in which isolation of what were formerly regarded as purely intellectual subjects is not only out-of-date, but is actually based on erroneous psychological premises. Aesthetic, practical and physical education cannot be isolated from intellectual education. Nor is it possible, in the age of automation, to separate manual and theoretical work as formerly. It is therefore wrong to regard theoretical and vocational subjects as quite distinct from each other. Third, and much as a consequence of the earlier two, is that new means and methods of instruction have become necessary. The transition in Sweden from a "parallel school" system to a comprehensive school system caused a long debate and finally, in 1968, a change of the total structure of the teacher training. I will not describe here all the details of this reform. I will only give some comments to three broad problem areas: (1) the division of teachers into categories, (2) the role of the class teacher and (3) the role of the subject teacher. Finally I will state some of the general principles we accepted in Sweden for the new teacher training.

The Division of Teachers into Categories

When we try to define the duties of teachers and the basis for a division of teachers into categories, we are unfortunately too much bound by our traditions. The new school demands that the conditions for a categorization of teachers be carefully analysed. Three conditions are significant: The teacher function must be centred around the individual pupil and his development, not primarily around the class, the group or the grade. This is the first fundamental condition of a teacher's function. The second condition is that teachers must pay attention to the whole pupil, not restrict themselves to certain subjects. This implies that no subject is, in general, more important than another one. The present division, in which theoretical subjects are on an unequal footing with practical subjects, thus has no logical justification in the objectives of the new school. Fundamental is also the third condition, saying that a pupil's development is continuous: it does not progress in leaps and bounds with stages or grades as artificial resting places at fixed levels. This
condition implies that no phase is more important than another from the aspect of the pupil. When this is borne in mind, the sharp division between teachers in the different departments of the school cannot be justified.

If these three conditions are accepted as guidelines, the consequence will be that the task of a teacher is in fact indivisible, and that teachers cannot be assigned to categories. Even though this conclusion cannot be drawn, the rule must be that the specialization and categorization, which, for practical reasons, are unavoidable, must be made so that deviations from the principles mentioned will be as small as possible.

It is obvious that such deviations must be made. The same teacher cannot be master of all subjects and all forms of work at all levels. The higher the level in school, the greater will be the demand on subject specialization, and, at the same time, the demand for teacher cooperation, teamwork and role differentiation.

Specialization may be achieved in different ways. It may be according to subject, grade, stage, pupil category and so on. Different countries follow different patterns. Organizational and other practical factors may be decisive. Generally speaking, however, starting from the above mentioned views on indivisibility and specialization, it may be said that there has been too sharp a boundary between teachers of traditional academic and non-academic subjects. Insofar as this division is a problem of teacher training, certain steps have been taken. First of all the old conception of the class teacher was revised.

The present demands on the teacher's skill, knowledge and subject orientation make it practically impossible for one teacher to teach all subjects, even in primary school. As a matter of fact there have never been many teachers who could manage all that. The idea of the class teacher is, naturally, to stress the importance of the total view, and weaknesses in certain subjects have therefore been accepted. The situation has gradually changed, however. It is possible now to provide the class teacher level with specialists, and demands on teachers are much greater now than previously. This is true perhaps mainly of such subjects as music, art, gymnastics and handicrafts. In addition, foreign languages have become regular subjects at the class teacher level.

Teachers and prospective teachers have stressed how necessary it is to reduce the number of subjects taught by class teachers in favour of greater depth in fewer subjects. A Swedish investigation (Berlin 1965), concerned with all class teacher trainees at training colleges and schools of education, showed that two-thirds of the prospective class teachers wanted at least one of the practical subjects to be made voluntary. In another Swedish study (Fägerlind, 1965), a national sample of active class teachers was asked which of the following two alternatives it preferred to teach, (1) a restricted number of subjects in several classes or (2) all subjects in one class. A majority of the class teachers with some supplementary training favoured the specialized model. This seems to prove that class teachers—especially when given an opportunity to specialize—prefer a more restricted area of teaching subjects and therefore also need some kind of specialized training. In Sweden and many other countries such a specialization has not been given in class teacher education. The time has been equally spread over all subjects for all students.

It is common knowledge that class teachers trained to teach all subjects in a class seldom do so. By exchanging subjects with colleagues, and by the employment of teachers specially trained for certain subjects, a modified class teacher system has arisen, due partly to teachers' demands for a limitation of subjects, and partly to organizational problems. Formerly, the number of teaching periods in a class was the same for both teachers and pupils, and it was natural for a teacher to devote all his teaching hours to one class. During recent years, in grades 4, 5 and 6, at least, the number of lessons for the pupils has become
greater than the number of lessons a teacher must give. If the teacher will not work overtime, the extra lessons must be given by other teachers, and so the pupils must have more than one teacher.

The establishment of posts for teachers specially trained to teach music, gymnastics and handicrafts has become more common at the class teacher level, too. Nowadays specially trained teachers teach handicrafts in practically all schools, both rural and urban.

In 1962, the Swedish Teacher Training Committee made a nationwide study of the whole middle department (grades 4, 5 and 6) with reference to the application of the class teacher system. According to this study an average of 76.8 per cent of the total instruction time was given by the class teacher in charge of the class. Other teachers, both class teachers and subject teachers, were responsible for the other 23.2 per cent.

This meant that pupils at the class teacher level have already had long acquaintance with subject teachers, even though the class teacher had most lessons, and thereby was responsible for the unity of the class. According to an investigation in 1963 only 3.8 per cent of the classes applied the pure class teacher system.

No fewer than 20 per cent of the classes at the primary level had more than five teachers. The situation differed somewhat according to grade; the higher the grade the more teachers there were in each class.

Even though the modification of the class teacher system progressed furthest in urban areas, it was clear that a restriction of subjects had occurred also in rural areas.

The trend towards such a restriction by means of exchange of subjects and lessons between teachers is clear. In the single-grade classes the percentage of class teachers not teaching in their own classes in certain subjects in 1963 was as follows:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handicrafts</td>
<td>79 per cent</td>
</tr>
<tr>
<td>English</td>
<td>35 per cent</td>
</tr>
<tr>
<td>Music</td>
<td>30 per cent</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>22 per cent</td>
</tr>
</tbody>
</table>

Art: 12 per cent
Religion: 12 per cent

One reason often given for this specialization is that many of the older class teachers have not, in their teacher training, been given the qualifications required to teach English, and that this subject was introduced rapidly at the primary level throughout the country. If this is correct, lack of qualifications to teach English would be decisive for the specialization in teaching, and new training providing these qualifications in the teacher’s certificate should have implied a return to the class teacher system. The investigation mentioned above showed that this reasoning is not quite correct. The reasons given for exchange of subjects were:

- 16 per cent lack of qualifications to teach English
- 30 per cent teachers' wishes to limit the number of subjects
- 54 per cent other, undefined reasons.

Thus only every sixth exchange of subjects was due to the teachers' lack of qualification to teach English. Other wishes expressed by the teachers themselves were almost twice as numerous.

Teachers' wishes for a restriction in the number of subjects may be even greater than the frequency of exchanges suggests. In Fagerlind's investigation, about every third class teacher did not teach music, art and gymnastics. Another third taught them but did not want to. The last third neither wanted to nor taught these subjects.

Subject Teachers

If we now consider the subject teacher stage, we find that the problem there emanates from a diametrically opposite view of the teacher; far too great a concentration on the individual subject, lack of a total view of the pupil and problems of pupil welfare. It is not astonishing, therefore, that at this level the class conference, i.e. institutionalized co-operation between all the teachers engaged in one and the same class,
has become very important. The subject teachers’ experience of the upper department of the Swedish comprehensive school (grades 7, 8 and 9) has been unanimous; the teachers should be allowed to see their pupils in different activities, in more situations and more subjects. It is therefore important to allow subject teachers to teach more than one or two subjects, and to give them wider subject and pedagogical orientation in their teacher training.

Such an extension of subjects in the upper classes combined with the above-mentioned sub-specialization in the lower classes was intended to reduce the earlier unjustifiably sharp division between the two departments and their teachers.

As school curricula in Sweden have been almost completely revised during recent years, it has also been necessary to adapt the curricula of teacher training. Comprehensive studies were made of what was called the “demand for congruence”: the prospective teacher should learn what he must later teach. In order to gain a clearer idea of the type and extent of this problem the organizational and pedagogical conditions of the teacher training at the universities were systematically analysed and described in terms of how courses were structured, how students were grouped in different types of teaching, how teaching was distributed between professors, lecturers, assistants, etc., how periods were used for discussion, small group studies, etc., amount of literature, type of examinations and so on. Such data were collected for 24 university subjects up to masters level in four universities. Quite necessarily, these analyses had to be brief. Nevertheless, they supplied valuable information. Although the overall picture was very complex certain common trends could be observed, valuable not only for teacher training but also for a rational planning of university studies in general.

Since this survey was made, it has been possible to make so-called “diagnoses of congruence”. These were made by groups of experts, in which people who had taken an active part in the drawing up of the new school curricula were employed. A great number of “incongruences” were found and described, some of them previously well known. In all types of teacher training there were areas that the prospective teacher would have to teach his own pupils later on but in which he himself underwent no training. Some examples of incongruence will be given. The school subject Swedish, formerly the “mother tongue” was equivalent at university degree level to the subjects “Scandinavian languages” and “History of literature with poetry”. The experts indicated that there was also a need for instruction in voice training and elocution. Extra tuition was also desired in speech, reading and writing. In university courses in modern foreign languages, greater ability in fluent, colloquial speech was required; the parts of the subject dealing with history of language were deemed less urgent. In mathematics, wishes were expressed by the school experts for more practical application in the university teacher training courses, e.g. the interpretation of statistics, diagrams and tables. What is called physics at school consisted of three examination subjects at university level, namely Physics, Mechanics and Astronomy. The school’s chemistry required, at university level, a course in Mineralogy in addition to Chemistry. Biology as a school subject, represented in the university by Zoology and Botany, missed, according to the experts, parts of Genetics, Medicine and Hygiene. No marked incongruences occurred in geography, history and religion, apart from the fact that the school subjects were equivalent to several subjects at university level. Thus a number of cultural geographical and geo-science subjects, forming examination subjects at university level, had to be involved in teacher training to give a sufficient congruence with corresponding school subjects. Religion corresponded to a number of university examination subjects in both the theological and philosophical faculties. The teacher training for the school subject Civics, which at university level has been Economics and Politics, necessarily had to be extended with