Preface

Director
The Norwegian Directorate
for Education and Training

Utdanningsspeilet (the Education Mirror)

Utdanningsspeilet (the Education Mirror) is an annual publication offering important information about primary and secondary education in Norway, and providing a picture of the status of this education when it comes to resources, outcomes of learning, the learning environment, implementation and quality development.

In addition to six regular chapters, *Utdanningsspeilet* has a seventh chapter which presents a special theme each year. This year this chapter deals with teacher competence.

This English version is a summary of the most important themes found in *Utdanningsspeilet 2005*. It gives readers a brief introduction to some of the most important aspects of Norwegian primary and secondary education. *Utdanningsspeilet* uses statistics, research and other documentation available to the public.

Chapter 1 briefly describes some of the important facts about primary and secondary education in Norway. Chapter 2 gives a picture of the resources used in Norwegian primary and secondary education, while Chapter 3 discusses the learning outcomes of pupils and apprentices. Chapter 4 is based on the compulsory questionnaire on the learning environment for pupils in the 7th and 10th grades in primary and lower secondary school and in the first year of upper secondary education. Chapter 5 looks at the degree to which the competence goals in upper secondary education are reached. Chapter 6, on the development of quality, looks at the important roles the school administrations and the local authorities play in the development of quality in the Norwegian school, while Chapter 7, the theme chapter, discusses teacher competence.

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1 Facts about primary and secondary education

1.1 The education level in Norway

In 2004, 24 per cent of the Norwegian population 16 years of age or older had an education on the university or college level. This is almost twice as many as 20 years ago, and figures from Statistics Norway show that the education level in Norway continues to rise.

Since 1970, the proportion of the population with compulsory school as their highest level of education has declined steeply, while more than half now have upper secondary education as their highest level of education.

1.2 The number of pupils and apprentices

In the autumn of 2005 there were 619 640 pupils in regular compulsory (grades 1–10) school. Of these, 1609 attended separate groups for special education, and 968 attended separate teaching groups for linguistic minorities.

An additional 2054 pupils were registered in the autumn of 2005 as pupils at special schools. The proportion of pupils attending special schools has been relatively constant from 1997 to 2005, sitting between 0.3 and 0.4 per cent of the pupil body. The majority of pupils receiving special tuition are given this as part of their teaching in regular compulsory school. In 2005 this applied to approximately six per cent of the pupils. The proportion of pupils with immigrant backgrounds is around seven to eight per cent of the total number of pupils in primary and secondary school.

A total of 14 450 pupils, i.e. 2.3 per cent, attended independent or private[1] primary and lower secondary schools in 2005.

In the autumn of 2005 a total of 10 938 adults[2] were taking a primary or lower secondary school education. Thirty-two per cent of these were from language minorities. The number of women and men attending primary and lower secondary education was approximately the same. In addition to the adults attending primary and lower secondary education, many refugees, asylum seekers and immigrants above the age of regular primary school education are attending classes in the Norwegian language and social studies. More than 24 000 persons were enrolled in the Norwegian language and social studies subject in the autumn of 2005. The Norwegian and social studies subject is not part of primary and lower secondary education, but around five per cent of those taking this course are also attending primary and lower secondary education.

Preliminary figures from Statistics Norway show that in the autumn of 2005 there were 213 683 pupils in upper secondary education under the Norwegian Education Act; 182 926 pupils receiving their education in school, and 30 757 apprentices training with companies. After several years with a declining number of apprentice contracts there has been an increase since the autumn of 2003.

The general and business/administration area of study for pupils in upper secondary education is the most popular course of studies. Forty-four per cent of pupils attended this area of study in 2005–2006. Other popular areas of study are health and social studies with almost 19 000 pupils (10 per cent), art and design and engineering with respectively 13 000 and 12 400 pupils (around 7 per cent each). The most popular trades for apprentices in upper secondary education are construction, engineering and electrical engineering. Each of these had over 5000 apprentices in the autumn of 2005.

A total of 16 161 pupils in upper secondary education in the autumn of 2005 had immigrant backgrounds, corresponding to around nine per cent of the pupils.

1.3 Teachers in primary and secondary education

Teachers trained in the general studies subjects comprised the largest group of teachers in primary school in 2004 (64 per cent). A total of 6142 teachers, around 10 per cent, had university or college educations, while the rest were subject teachers, pre-school teachers, special-needs teachers or had other pedagogical education. 73 per cent of the teachers in primary school in 2004 were women. A total of 4241 persons were registered as school administrators in primary school in 2004, 49 per cent of these were women.

The largest group of teachers in upper secondary educa-

[1] Independent primary and lower secondary schools are schools that are approved pursuant to the Act relating to Independent Schools, that receive public subsidies and that cannot operate commercial school activities. Private primary and lower secondary schools are schools that must be approved by the Ministry pursuant to section 2-12 of the Norwegian Education Act.

[2] Pursuant to the Norwegian Education Act, adults are defined as «Persons above compulsory school age who require primary and lower secondary education». The compulsory school age is six to 16 years of age.

tion in 2005 were teachers with lower university or college degrees (33 per cent). Eighteen per cent of the teachers had higher university or college degrees. The rest were subject teachers with pedagogical education, special-needs teachers or teachers with other pedagogical education. Forty-six per cent of the teachers in upper secondary education in 2004 were women. A total of 2433 persons were registered as school administrators in upper secondary education in 2004. Forty-three per cent of these were women.

1.4 Schools

There are a total of 3162 primary and lower secondary schools in Norway. One hundred and fifty of these are independent. Norwegian schools vary in size, from only one or two pupils to more than 800 in some schools. A small school is defined as having less than 100 pupils, a medium-sized school has between 100 and 299 pupils and a large school has 300 pupils or more. Since 1997 the proportion of small schools has declined from 40 to 35 per cent of the total number of schools, while the proportion of large schools has increased by seven percentage points during the same period, today amounting to 26 per cent. Nine per cent of pupils attended small schools in 2005, while 53 per cent of the pupils attended large schools.

In the autumn of 2005, 476 upper secondary schools were registered in Norway. Eighteen per cent of these schools were independent.

2 Resources

2.1 Stable resource situation

Statistics from the OECD (Education at a Glance 2005) show that Norway is one of the countries that spend most on schools. Adjusted for purchasing power, Norway uses 42 per cent more per pupil in primary school than the OECD average. Resource allocation in primary and secondary school in Norway is relatively stable both when it comes to total resources and resources per pupil. The changes that have taken place in recent years are generally due to the number of pupils, particularly in lower secondary school and upper secondary education.

Figures from the total public expenditures on primary and secondary education stated in percentages of the gross national product (GNP) are taken from the national accounts. The indicator shows the proportion of public expenditures in the GNP, thus giving a picture of the priority assigned to primary and secondary education by a society. A total of 5.2 per cent of the GNP for mainland Norway was allocated to primary and secondary education in 2005, approximately the same as in 2004.

Table 2.1 shows that corrected gross operating expenses per pupil in compulsory school in 2004 amounted to NOK 64 949. At the time of printing the final figures for 2005 were incomplete, thus the figures in the table are preliminary.

Expenses per pupil in general studies areas of study in upper secondary education amount to NOK 85 212 per pupil, while the amount per pupil in vocational education is NOK 107 456.

2.2. Local variations in use of resources

There is significant municipal and county variation in the use of resources. This is generally due to the fact that municipalities and counties have different school structures. For example, municipalities where the inhabitants are more spread out than in urban areas often have higher expenses per pupil. Differences in the education programmes offered in upper secondary education may also explain variations in the use of resources in counties.

On assignment from the Directorate for Education and Training, SØF (the Centre for Economic Research) has analyzed the distribution of resource use between municipalities (Borge, L.E and Naper, L.R: 2006).

SØF has measured the resource allocation per pupil when it comes to gross operating expenses, the number of teaching periods and the number of man-years worked. SØF documents that relatively few local authorities deviate to any significant degree from the average. Most local authorities have corrected gross expenses[3] close to the average of around NOK 65 000 per pupil.

In upper secondary education SØF finds that the differences in resource allocation between the counties may be explained by the variation in the educational programmes pupils are offered, as some programmes in upper secondary education are more expensive than others. Other causes might include differences in school structure due to such things as sparse or spread out populations. Counties with large schools have lower expense levels than those with smaller schools.

Table 2.1: Corrected gross operating expenses in compulsory school by type of expenditure 2003–2005. Current prices.

	2003	2004	2005
Corrected gross operating expenses per pupil (expenditure type 202 and 222)	63 469	64 949	64 691
Of this wage expenses per pupil	49 119	49 901	51 042
Operating expenses for fixtures and equipment per pupil	588	623	660
Operating expenses for teaching materials per pupil	1 279	1 158	1 077
Miscellaneous other operating expenses per pupil	12 483	13 267	11 912

Source: KOSTRA.

[3] Corrected gross operating expenses are used as the measurement of expenses per pupil. Corrected gross operating expenses are the expenses that are incurred from teaching pupils in the schools of the county or municipality in question. The correction means that payment for pupils in schools outside the home county or municipality is excluded.

2.3 Teacher density in compulsory school

The indicator used to measure average teacher density is based on the relation between teaching periods given to pupils and the number of periods taught by teachers (found by dividing the sum of pupil teaching periods by the number of periods teachers teach, minus teaching periods for instruction in native languages and Finnish).

The average number of pupils per teacher is 14.0, a small rise from 2004 (13.9 per cent). In recent years there has been a small increase in primary school, the intermediate level and lower secondary school[4]. The increase in primary school is due to an increase in the number of teaching periods, and that the requirement for two qualified educators in large classes of six-year olds has been removed. In lower secondary school in recent years there has been a small increase in the number of pupils, while the number of teaching periods has not increased correspondingly. The general reason for this is that the local authorities have been able to absorb the increased number of pupils without establishing new groups.

The Norwegian Education Act states that each pupil shall have a contact teacher with particular responsibility for practical, administrative and social educational matters concerning the pupil, including contact with the pupil's parents or guardians. In the 2005-2006 school year there were on average 15.4 pupils per contact teacher.

2.4 Resources for special teaching

For a number of years Norway has aimed to reduce the number of pupils receiving special teaching pursuant to individual decisions, by improving and bolstering adapted teaching within the regular education programmes. Resources allocated to special teaching are measured by the number of individual decisions and teaching periods for pupils with another native language than Norwegian or Sami.

Table 2.2 shows that the proportion of special-education pupils has remained stable from 2002 to 2005. The proportion of pupils with special education in Norwegian has increased due to an increase in the number of pupils with immigrant backgrounds.

Table 2.2: The proportion of pupils with special education and with special teaching in Norwegian by percentage.

School year	2002-2003	2003-2004	2004-2005	2005-2006
Proportion of pupils with special teaching	5,5	5,5	5,4	5,5
Proportion of pupils with special teaching in Norwegian	5,5	5,7	5,8	6,1

Source: The information system for compulsory school.

[4] Primary school = grades 1 – 4, the intermediate stage = grades 5 – 7 and lower secondary school = grades 8 – 10. Starting in the autumn of 2006 the distinction between primary school and the intermediate stage has been removed.

3 Learning outcomes

Over the last five years there has been a relatively large amount of data and analyses on what pupils learn. The aim of final assessments in the form of grades is to inform society, working life and relevant education institutions about the competence the individual has attained, while tests evaluated with grades show what pupils have learned in central subject areas. This is then used to determine what might be done to help pupils master a subject better.

3.1 Grades in the ten-year compulsory school

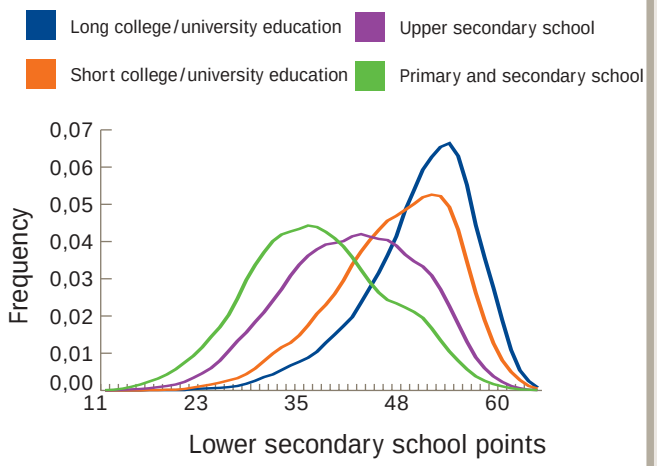
At the completion of ten years of primary and lower secondary school overall achievement grades are given in 11 subjects. Furthermore, all pupils in lower secondary school must sit for a written and an oral final examination. Pupils are assessed on a scale from 1 to 6, where 6 is the best grade.

Table 3.1 shows little change in pupil grades from 2002 to 2005. Analyses of final examination grades compared to overall achievement grades show a close relation between the overall achievement grades and the final examination grades. For the subjects English, Norwegian (first-choice language) and mathematics, between 40 and 60 per cent of the pupils receive the same grade.

There are clear differences between the grades boys and girls attain. Girls do better than boys in all subjects but physical education. This also applies to final examinations.

The parents' education level is the variable that explains most of the differences between pupils' grades. This is illustrated in Figure 3.1, which shows how the parents' education levels impact differences in the pupils' compulsory school points. Compulsory school points are calculated as the total of pupil grades in 11 subjects.

Figure 3.1: Distribution of pupils´lower secondary school points 2005 by parental education level



Source: Hægeland et al. (2006a).

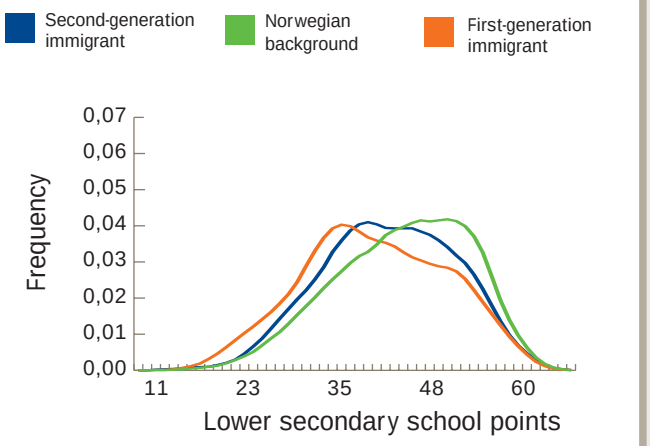
Table 3.1 Average overall achievement grades for pupils leaving compulsory school 2002 – 2005.

Subject	2002	2003	2004	2005
Norwegian and first language, written	3,8	3,8	3,8	3,9
Norwegian first and second choice language and first and second language, spoken	4,0	4,0	4,0	4,1
Norwegian second choice language and second language, written	3,6	3,6	3,7	3,7
English spoken	4,0	4,0	4,0	4,0
English written	3,7	3,7	3,7	3,8
Mathematics	3,4	3,5	3,4	3,5
Christianity, religion and ethics	3,9	4,0	4,0	4,0
Natural and environmental science	3,9	3,9	3,9	3,9
Social studies	4,0	4,0	4,0	4,1
Physical education	4,3	4,3	4,4	4,4
Music	4,1	4,2	4,2	4,2
Home economics	4,3	4,3	4,3	4,4
Arts and crafts	4,2	4,2	4,2	4,2

Source: The Directorate for Education and Training

There are also differences between Norwegian pupils and pupils with immigrant backgrounds. Pupils with Norwegian backgrounds attain more primary and secondary school points than pupils with immigrant backgrounds. There are also differences between first- and second-generation immigrants[5], see figure 3.2.

Figure 3.2: Distribution of pupils´ lower secondary school points 2005 by background: Norwegian or first- or secondary generation immigrants



Source: Hægeland et al. (2006a).

3.2 Grades in upper secondary education

Pupils in upper secondary education receive overall assessment grades on completing each school year, and examination grades if selected for examinations. The assessment scale is from 0 to 6, with 6 as the best grade. Grade 2 or better is a passing grade.

Utdanningsspeilet presents statistics on the national level in some central subjects in upper secondary education.

Table 3.2 shows average grades in some selected vocational subjects in the spring of 2004 and 2005, and shows large grade differences between the various subjects. The grade level in media subjects is higher than in the other subjects. These are popular subjects with high admission requirements.

The relation between pupils' grades and their social background is more tenuous in upper secondary school than in lower secondary school, in part because pupils with different backgrounds choose different areas of study and subjects in upper secondary education. Gender differences in achievement are also less pronounced than in compulsory school.

There is a significant relation between the pupils' grades in the tenth grade in lower secondary school and their choice of area of study in upper secondary school. Boys and girls who received the same grades in lower secondary school show no grade differences in foundation courses in upper secondary education.

Table 3.2 Average grades for overall assessment grades in selected foundation courses in vocational subjects 2004-2005. Total, girls and boys.

Foundation course subject	Overall assessment grade					
	Total		Girls		Boys	
	2004	2005	2004	2005	2004	2005
English	3,4	3,4	3,6	3,5	3,3	3,3
Mathematics 1M	3,2	3,1	3,2	3,2	3,2	3,1
Written Norwegian	3,5	3,4	3,7	3,7	3,3	3,2
Electrical engineering	3,4	3,2	3,7	3,4	3,4	3,3
Electronics	3,3	3,2	3,6	3,2	3,3	3,2
Health subjects	3,6	3,6	3,6	3,7	3,1	3,1
Social subjects	3,6	3,6	3,7	3,7	3,1	3,1
Product and preservation studies	3,7	3,6	3,8	3,8	3,5	3,4
Food and nutrition	3,3	3,3	3,5	3,5	3,1	3,1
Media design	4,3	4,3	4,6	4,4	4,1	4,1
Media production	4,4	4,3	4,5	4,4	4,3	4,2
Wood constructions	3,7	3,7	3,7	3,5	3,7	3,7
Bricklaying, stone, concrete	3,8	3,7	4,0	3,6	3,7	3,7
Assembly and repair	3,4	3,4	3,4	3,4	3,4	3,4

Source: Hægeland et al. (2006).

[5] The definition of a first-generation immigrant is a person born abroad of two foreign-national parents, while a second-generation immigrant is defined as a person born in Norway of two foreign-national parents.

When sitting for vocational examinations pupils may achieve the grades «passed with excellence», «passed» or «failed». More than 92 per cent of those sitting for a craftsman's or journeyman's examination in 2005 passed. An equal proportion of girls and boys passed.

3.3 Survey tests and national tests

From 2000 to 2004 compulsory testing has been undertaken of reading skills in the second grade in primary school. These tests were developed to help identify pupils needing extra follow-up to get a good start in their reading development. The results of these studies have shown a positive development. The proportion of pupils who score 100 per cent has increased substantially, while the proportion of pupils on or below the borderline for concern has been reduced.

National tests were carried out in the fourth and tenth grades in 2004 and the fourth, seventh and tenth grades in compulsory school and the foundation course in upper secondary school in 2005. No grades were given for the national tests, but feedback was provided on the mastery of various skills, such as the ability to resolve problems and the use of symbols in mathematics. Results from the national tests have been published on the website www.skoleporten.no. In *Utdanningsspeilet* aggregate results from the same tests are discussed in relation to gender, immigrant backgrounds and parents' education levels. The results from the national tests in 2004 and 2005 show the same picture as other statistics of pupil grades. Girls score higher than boys on all tests, pupils with parents with high education score better than others, and pupils who are first-generation or second-generation immigrants score lower than the average.

In the autumn of 2007 national tests in mathematics and reading in the Norwegian and English languages will be given to the fifth and eighth grades.

4 The learning environment

Chapter 4 in general is based on results from the questionnaire called *Elevinspektørene* (Pupil Inspectors) from 2005[6]. This is a compulsory internet-based questionnaire about the learning environment for pupils in seventh and tenth grades in primary and lower secondary school and in the foundation course in upper secondary school. The questionnaire may also be given to pupils in the other grades.

4.1 Well-being and motivation

The study shows that most Norwegian pupils enjoy attending school. More than 70 per cent enjoy being at school with their co-pupils and during breaks. Most pupils also feel socially included. However, there is also a small group of pupils who have no friends at school. Pupils who are bullied and the pupils with the poorest grades are over-represented in this group.

Motivation is a requirement for learning. *Elevinspektørene* shows that more than half the pupils state that they are interested in learning in many subjects. The study nevertheless does not give any indication as to how strong this motivation is. Motivation is an important factor for a pupil's satisfaction in a subject. The study shows that the pupils' social well-being is higher than subject satisfaction. It appears that the higher in the school system pupils rise, the weaker subject satisfaction becomes.

Pupils in the Norwegian schools feel that they have little influence on the activities in their subjects. The study shows that half feel they have no opportunity to influence their work plans in any subject.

4.2 The psychosocial environment

Chapter 9a of the Education Act lays down that all pupils have the right not to be subjected to offensive or insulting words or acts, such as bullying, discrimination, violence or racism. In 2002–2004 there was particular focus on combating bullying in school through the *Manifest mot mobbing* campaign (Manifesto against bullying). During the campaign period all schools were invited to participate in programmes against bullying. Evaluations of anti-bullying programmes initiated during the period show that bullying of Norwegian pupils was reduced during the 2002 to 2004 period. The findings of *Elevinspektørene* in 2005 correspond well to the results of these evaluations. In *Elevinspektørene*, 4.2 per cent of the pupils state that they are bullied once or several times a week.

Even if most pupils function well socially and academically in school, a small proportion of the pupils display problem behaviour. An overview of programmes for pupils in lower secondary school who do not like school and/or have problematic behaviour shows what measures have been initiated for these pupils. The report reveals that approximately 2400 pupils come under special programmes based on their lack of well-being, lack of motivation and/or aggressive behaviour. Such programmes may be given internally in a lower secondary school, may be externally given (administered by a lower secondary school but located elsewhere), or may be independently administered and given outside the school. More than half of the pupils offered such programmes in the autumn of 2005 were given these as part-time programmes. The majority of the pupils were boys (73 per cent). The programme normally consists of a combination of teaching in the regular group, but some combine teaching with visits in working life. Normally the pupil and his/her parents apply for admission to such groups. It is also quite common that several agencies join in applying for such programmes, for example pupils and their parents/guardians, the head of school and the pedagogical-psychological service, child welfare services and so on.

4.3 The physical learning environment

Section 9a-2 of the Norwegian Education Act states that schools must be planned, constructed, facilitated and operated with pupil safety, health, well-being and learning in mind. In *Elevinspektørene* pupils assess various aspects of the physical learning environment, such as school rooms, teaching material, toilets and showers, air quality, cleaning and outdoors areas/facilities. Pupil responses to these questions vary according to what the question is asking about. Two aspects stand out where pupils are not satisfied, sanitary conditions (showers and toilets) and the quality of the air (ventilation).

4.4 The working environment

Both national and international studies have shown that there is little peace and quiet in the Norwegian classrooms. The results of *Elevinspektørene 2005* confirm this alarming tendency. More than 80 per cent of the pupils who responded state that pupils often or occasionally do not listen when the teacher speaks. Around 70 per cent of the pupils report that there often or occasionally is a distressing amount of noise or unrest during lessons. A large majority of the pupils report that the lack

[6] *Elevinspektørene* (the Pupil Inspectors) changed its name to *Elevundersøkelsen* (The Pupil Study) on 1 January 2006.

of quiet and discipline is so large as to make it bothersome. In spite of this feedback, pupils nevertheless enjoy school and give a generally good assessment of their school.

4.5 ICT in teaching in schools

Since the middle of the 1990s there has been a continuous focus on ICT in the Norwegian school. It is a political objective to increase the digital competence of pupils and teachers. The new syllabus from August 2006 makes the use of digital tools part of all subjects for all grades.

A study of Norwegian schools reveals that computers are not used that much in Norwegian schools and that ICT is not used that much in learning. Around 70 per cent of pupils in the seventh and ninth grades use a computer less than one hour per week. Hence much remains to be done before digital competence is an integral part of the day-to-day activities in school for everyone.

Results from *Elevundersøkelsen* 2005 suggest that the use of ICT varies from one subject to the next. Around 30 per cent of the pupils in lower secondary school and upper secondary education state that they use ICT in many or most subjects.

5 Completion of upper secondary education

5.1 The number of pupils and apprentices

In the autumn of 2005 more than 213 000 pupils were taking upper secondary education. This figure includes pupils who receive their teaching in schools and apprentices in companies.

In 2005 there were approximately 77 000 applicants to the foundation course in upper secondary education. Forty-eight per cent of the applicants were girls. Of the total number of applicants to foundation courses, most applied for the general and business/administrative area of study; approximately 22 500 applicants. The proportion of girls applying for this area of study was 54 per cent. More boys than girls applied for vocational lines of study, and only 28 per cent of persons applying for an apprenticeship with a company were girls. The highest number of applicants was for mechanical/engineering subjects, and here the proportion of girls was four per cent.

The aim is that the highest number of pupils possible should complete upper secondary education. The normal progression in upper secondary education is three years in general studies areas or four years in vocational programmes for those who follow the main model (two years in school and two years with a company).

The proportion of pupils who complete upper secondary education increased substantially after Reform 94, which, for example, streamlined the structure of upper secondary education. Studies of the classes that started upper secondary education in 1997, 1998 and 1999[7] showed that around 70 per cent of the pupils completed their studies in five years, and around 24 per cent had dropped out. The remaining pupils were still in upper secondary education five years after starting.

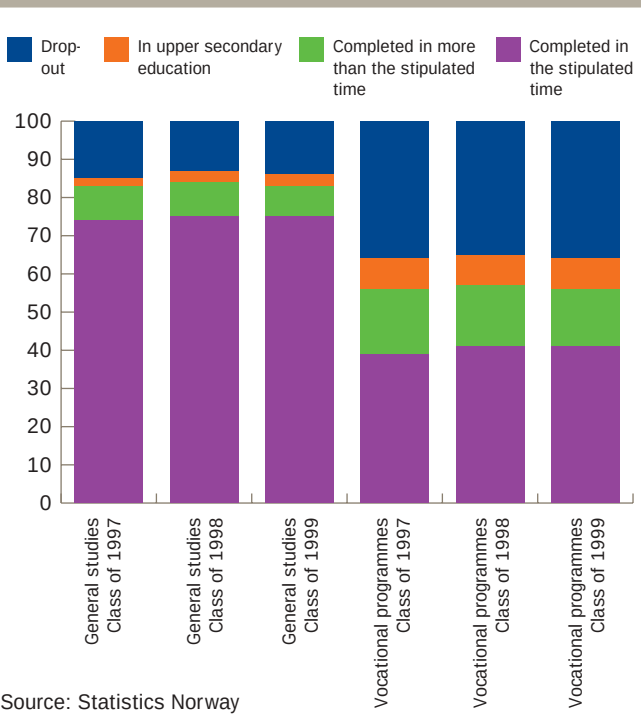
5.2 Differences between vocational and general studies

There are significant differences between vocational and general studies areas when it comes to the degree of completion (see Figure 5.1). Around 75 per cent of pupils in general studies areas completed their studies within the stipulated time, while this only applied to approximately 40 per cent of pupils in vocational areas of study. Around 35 per cent of pupils starting vocational programmes quit without attaining complete vocational competence. Only around 14 per cent of those who started in general studies areas dropped out without completing.

Studies show that the parents' education levels influence whether pupils complete secondary education. Thus pupils with parents who have higher education attain better grades. Pupils with poor grades from a foundation course and the second year of upper secondary education (advanced course I) need more time to complete their studies and fewer complete their studies than pupils with good grades.

Boys with non-Western backgrounds have poorer grades and less progress than other pupils. The education levels of parents can also here help to explain these performances. It is also clear that these boys find it more difficult than other boys to obtain an apprenticeship, even when comparing pupils with the same grades.

Figure 5.1: Status five years after start of school for pupils in general studies and vocational programmes for the classes of 1997, 1998 and 1999.



Source: Statistics Norway

[7] Statistics Norway

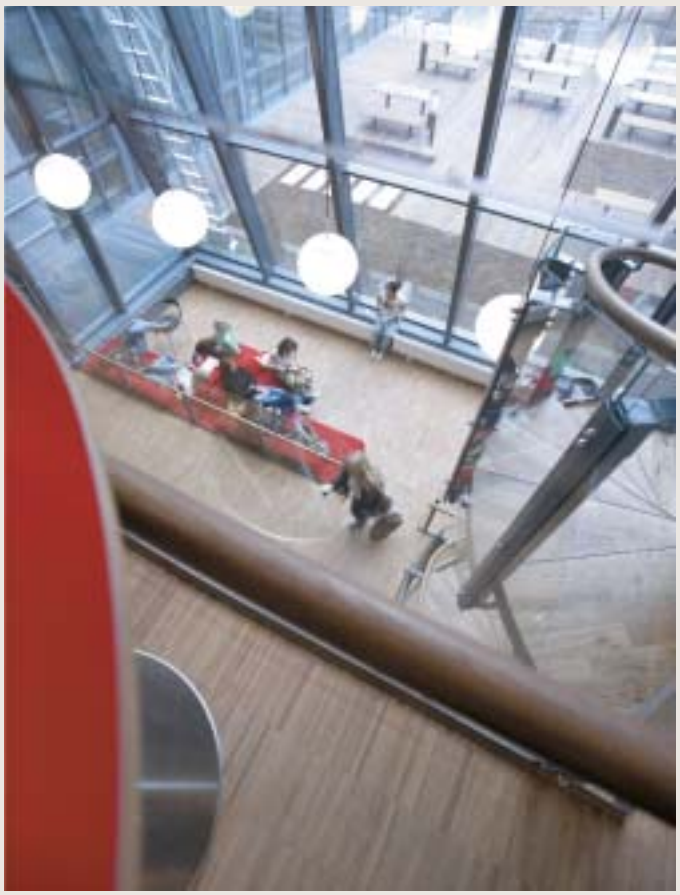
Recent studies nevertheless show that progress for pupils with non-Western backgrounds has improved from 1994 to the beginning of the 2000s.

5.3 Follow-up service

When Reform 94 was introduced, the overriding aim was to improve the completion rate in upper secondary education. All young persons between 16 and 19 years of age were given the right to an upper secondary education on introduction of the reform. Additionally, the Follow-up Service (Norwegian acronym OT) was established in connection with the reform. OT maintains an overview of and keeps in contact with young persons entitled to upper secondary education, providing them as far as possible with a programme leading to formal competence.

The principal challenge for OT is to obtain an overview of who needs the service, and to establish additional measures for the target group. The availability of programmes and alternative places for teaching and training is limited, and it has also been documented that cooperation between various agencies such as the pedagogical-psychological service, school, employment service and others should be strengthened.

In 2005–2006, a total of 45 214 young persons were registered by OT. This is an increase from the previous year, which might be explained by the larger number of young persons in the particular year. The number of registered young persons varies from one county to the next, from 42 percent in one county to around seven per cent in another.



6 Quality development

After the millennium major international comparative studies have dominated the Norwegian debate on quality in education. The recommendation from the Søgnen committee, NOU 2002:10 *Førsteklasses fra første klasse* (First-class from the first grade) defines three types of quality in education for children and young persons: structural quality, process quality and result quality, where structural quality defines the external framework of the education, process quality is the measure for the internal processes in school, and result quality explains the competence attained by the pupils. Result quality thus comprises the total effect of learning.

National and international research has paid special attention to the role of school owners and the school administration as key factors for the three quality areas. Report to Parliament no. 30 (2003–2004) *Kultur for læring* (Culture for learning), which formed the basis for the reform *Kunnskapsløftet* (Knowledge Promotion – to be introduced from August 2006), emphasized local freedom and local responsibility for developing quality in school.

6.1 The role of school owners

It has been claimed that the school owners have been reluctant to get involved in development activities in school. Special focus has been given to how the political level in the municipalities has paid little attention to the organization and content of school. Recent research indicates that this is changing. Increased emphasis on local freedom and local responsibility has led school owners to initiate new measures to contribute to organizational and content development in schools. It has also been documented that the school owner's follow-up of schools greatly impacts the development of schools.

When working with quality development, school owners focus on competence development and managerial development. Special attention has apparently been paid to human resources management, educational management and teaching, while less attention has been given to financial planning and control (Dahl 2004).

A study conducted by the University of Oslo (Møller et al. 2006) – *Skolelederundersøkelsen 2005* (The School Administrator Study 2005) – has examined how heads of schools perceive the school owners' control and management. The study shows that it has become more common that heads of school have administrator agreements with the school owner. From 2001 there has been an increase of 11 per cent in those who have signed an administrator agreement. A majority of those asked responded that the administrator agreements include finances, budgetary responsibility and academic goals for the schools. Most administrator agreements were in primary school and lower secondary school (around 50 per cent), while there were slightly fewer in upper secondary education (39 per cent). The study confirms previous findings showing a positive development in school owner involvement in the development of schools.

6.2 The school administration's importance for development in school

It has been claimed that the school administration is the guarantor for good institutions of learning. This idea is supported by national and international research. Report to Parliament no. 30 (2003–2004) *Kultur for læring* (Culture for learning) points out three factors that appear to be impediments to development in schools, and all three concern the administration: organization forms that do not adequately facilitate for learning and development, the absence of tradition for learning through the day-to-day work and lenient administrators.

Increased local responsibility for school development has given school administrations new requirements to deal with when it comes to human resources management and organization and new ways of working. A development measure such as colleague mentors has been tested at many schools. The study undertaken by Møller et al. *(Skolelederundersøkelsen 2005)* shows that more than half of the heads of school in the study confirm that colleague mentoring has been implemented in the school. This is particularly common in primary school (68 per cent confirm this). The study does not provide any grounds to believe that heads of school play a central role when it comes to following up the practices of teachers through classroom observations. There have nevertheless been clear developments after 2001 relating to follow-up of recently hired teachers. A majority of schools in the study have established such procedures. This positive development does not appear to apply to follow-up of teachers who function less than adequately.

Coordination between teachers teaching the same subject is good. More than half of the heads of school in the study respond that teachers cooperate on planning in

[8] Local authorities own the public primary and secondary schools, while the county authorities are the school owners in upper secondary education (public schools)

subjects, assessment criteria, tests and mock exams, teaching material and instruction methods. When it comes to what they cooperate most on, this varies from one grade to the next. In lower secondary school and in upper secondary education, tests and mock exams are the most common cooperation areas, while teaching plans, teaching materials and methodologies are cooperation areas in primary school.

Cooperation between schools has also increased. The study *Skolelederundersøkelsen* 2005 finds that more than 60 per cent of heads of school respond that they facilitate for visits to other schools. This suggests that there is interest in exchanging experiences and building networks, even if the study does not ascertain how binding this cooperation is.

7 Thematic Chapter: Teachers, competence development and good schools

Written by Anna Hagen, researcher at Fafo

There are many ideas as to what characterizes a good school, but there is broad agreement that it is difficult to create a good school without good teachers. A characteristic of Norwegian schools compared to other countries is that there are relatively minor differences in the effect of learning from one school to the next, but that there are major differences internally between groups at each school. Thus, when the aim is to develop good schools, it is, needless to say, an idea to consider what good teachers do (Haug 2005). The theme of this chapter is the competence of teachers, with emphasis on the competence acquired after completion of their teacher training.

7.1 Formal competence – further education

In Norway legal provisions determine the type of formal qualifications required for employment in public schools. The Education Act states that a person employed as a teacher must have relevant academic and educational competence. This is more precisely defined in the regulations to the act. Persons who do not satisfy the formal requirements are not given permanent contracts, but may be employed on a temporary basis. Sweden has a similar provision in its legislation, while Denmark and Finland do not have this type of legal regulation (Seip 2005).

In a study from 2003, six per cent of teachers in primary school stated that they needed formal further education (Hagen et al. 2004). The need for further education has declined slightly since 1998, perhaps because many teachers received further education in connection with the reform that introduced school for six-year olds in 1997. In upper secondary education, one of four vocational teachers participated in formal further education in 2003, a substantially higher proportion than teachers in general studies programmes. The reason here may be that many vocational teachers lacked educational or vocational theory training.

7.2 Courses, seminars and other training – further education

Even if formal further education is in demand among teachers, the greatest interest is in short courses among both teachers and school administrators. Around 85 per cent of teachers participated in some type of course, seminar or similar training in 2003. The total time spent on courses, seminars and other training amounted to 40 hours per teacher on average. This represents an increase of 10 per cent compared to 1998. Forty-four per cent participated in ICT training, while just as many were updated in their subjects or developments in their own subject field.

Compared to other professional groups in higher education teachers in primary school clearly participate more in courses and seminars. Teachers in upper secondary education place on the same levels as other highly educated groups.

There may be several reasons for the preference for short courses or seminars. Short courses are less expensive and may be given to a higher number of people, and require less organization. Short courses might also allow teachers to take them during normal working hours.

7.3 Learning through day-to-day activities

Just as is the case with other highly educated groups, teachers and school administrators find that they must continuously learn something new. An interesting claim by teachers, particularly in primary school, is that they have less opportunity than other groups to learn through their day-to-day activities. As these teachers feel that they need to learn new things that they do not have the opportunity to learn about in their day-to-day activities, short courses and seminars may be even more important to them.

It is important to mention that there are large differences between schools when it comes to the degree of learning in day-to-day activities. Studies have shown that schools that are collectively oriented develop more rapidly and more positively than other schools. They have more success in adapting the teaching to their pupils, and they have more satisfied teachers, pupils and parents (Dahl et al. 2004, the Ministry of Education and Research 2005, Haug 2005).

A Danish study aimed at identifying characteristics of «good teachers» emphasized the importance of relationships to colleagues for the development of good teachers. Many of the teachers in the study pointed precisely to good colleagues as an important requirement for learning and developing professionally (Laursen 2004).

A Norwegian programme making this type of learning systematic is the so-called demonstration school programme, where some schools that have stood out as development oriented in one or more fields receive state financial support and thereby undertake to pass on competence and experience to other schools. Evaluation of

the demonstration school programme shows that many schools have had contact with one or more demonstration schools, and that many schools have used time and resources on visiting the demonstration schools. The evaluation also shows that the programme has led to changes in the practices of the schools that have visited demonstration schools.

Questions have been raised as to whether it is possible to transfer good models from one school to another. Swedish school researchers have asked whether school development is not primarily about creating good conditions for schools so that they can develop solutions that are adapted to local requirements and needs. Norwegian researchers also warn against believing in miracle cures or general solutions to different challenges (Haug 2005). It is suggested that what functions for a teacher in one group may not yield good results for others. One consequence of this is that individual teachers must be given space to develop their personal style in school.

It must also be emphasized that a good school must have goals, principles and ideals that are fundamental and common to the school as an organization. One of the major dilemmas relating to quality, development and change in school is thus the balance between consideration of individuals and the collective and school as an organization and community.

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