RESEAU EUROPEEN DES RESPONSABLES DES POLITIQUES D'EVALUATION DES SYSTEMES EDUCATIFS

EUROPEAN NETWORK OF POLICY MAKERS FOR THE EVALUATION OF EDUCATION SYSTEMS

NETWORK STUDY

Reporting evaluation findings to policy makers (March 2004)

At the June 2003 Network meeting in Athens it was decided to develop a framework for reporting international evaluation findings to policy makers in order to prepare short national case studies on this topic. The framework consists of the 9 questions, given below, based on the publication of the TIMSS and/or PISA 2000 results.

Network members for the following 12 countries submitted their answers: Austria (A), Belgium, FL (B), England (E), France (F), Germany (G), Ireland (IR), Luxemburg (L), Netherlands (NL), Norway (NO), Scotland (SC), Sweden (SW) and Spain (SP).

Following a full discussion among all the Network members at the December 2003 Rome meeting of the Network the conclusions were summarised and are presented in this report. In the appendix the case studies prepared by the 12 countries are given. It should be stressed that the answers provided describe the views of experts working in that professional field but are not official national statements.

The initial questionnaire framework and the summary of the answers were prepared by the Network members for Germany (Hans HAENISH) and for the Netherlands (Paul Van OIJEN).

QUESTIONNAIRE FRAMEWORK

- *Reception by the media*

  1. In what way were the results presented in the media (TV, mass and quality newspaper)?

  2. What topics were publicly reported and discussed beyond the international rankings?

- *Reception by policy makers*

  3. How do you inform ministers?

  4.
  a) What was the reaction of the main political forces?

  b) What were the main lines and topics of the political discussion?

  5. Were there any concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum, etc.)?

- *Influence on schools*

  6. How were schools and teachers informed of the results of the international studies?

  7. How did the results of international studies influence schools and instruction? What was the reaction of teachers?

- *Results and explanation per country*

  8. Give a summary of your country's PISA results.

  9. What possible explanations are there for the overall score and for the scores in each of the three domains?

SUMMARY OF THE ANSWERS

Reception by the media

In all countries PISA results have been presented in the main newspapers and on TV. While in some countries media interest was moderate (SW, NL, F) other countries report a very high media interest (G, E, A, B). It seems that the press prefers reporting bad news over good: One month after the publication of the results statisticians counted 687 pages in Germany – a relatively low performer - whereas in Finland - the top performer – only 8 pages have been published. Yet in countries with results above average PISA was an important topic. In England for example PISA generated nine prominent national newspaper lead stories. It is worth mentioning that in some countries professional journals or quality newspapers were very engaged in the discussion. In Sweden for example professional journals showed more interest than the media, in Austria quality newspapers came to interpretations of the results different from the ministry and in Germany quality newspapers presented supplements with interviews and interpretations. Especially in countries which were ranked as average or below, there was a great amount of debate (SP, NO) with a lot of round table discussions on TV (G).

The topics discussed beyond the international ranking are very diverse. In some countries overall results or aspects dominated the discussion, for example

- the overall low achievement scores (L)
- "school is far more fun in Scotland" (SC)
- "teenagers are world-beaters when it comes to math, science.." (E)
- "average results at high costs" (A)
- testing pupils in the language of instruction which is not their mother tongue (L)
- call for a better utilisation of a very good resource situation (NO)

In some countries specific PISA topics were at the top of the discussion, for example

- the correlation between socio economic status and performance (L, IR, G)
- the big differences within a country (B)
- gender and performance (IR)
- the performance of the children of migrants (G)
- association between engagement in reading and performance (IR)
- pupils attitude to tests (F, L)

It is of special interest that in some countries not only topics directly linked to the performance of the pupils were discussed but other topics were also considered important, for example:

- high absenteeism from school (SP)
- discipline problems (SW, NO)
- early selection of pupils (G)

Even in countries which ranked above average, the media found negative aspects. For example, in Sweden the media wrote a lot of articles about the lack of discipline in Swedish schools. On the other hand, negative elements (for example the gap between the performance of pupils from well-off and deprived backgrounds) were given a backseat by the media (E).

Reception by policy makers

The answers to the question 'How do you inform ministers?' are very similar in the 12 countries. Mostly ministers or their advisers were informed a few days before the official report was published. They were informed by more or less comprehensive briefing packs which were prepared by their staff and/or researchers in the institutes involved in the study. In some countries ministers had personal meetings with researchers in order to be informed in more detail. Ministers received information about the key findings and their implications, a summary of the background of the report and in some cases additional information about potentially embarrassing points which the press might take up.

In countries ranking above average, the reaction of the main political forces was positive. These countries report satisfaction with the results (E) and said that most parties expressed satisfaction at the strong overall performance (IR). The opposition in those countries was silent (E) but sometimes not uncritical (IR). In other countries there was no special reaction because the results were consistent with the results of the national tests (e.g. F). But there are also countries, in which the educational authorities have been shocked by the PISA results (L, G). In those countries the opposition sometimes used the results in order to criticise the governmental policy (e.g. L).

Initiatives for reform and development

Especially in countries which were ranked as average or below, there was an agreement to take the results seriously. In those countries initiatives for reform and development as a consequence of the PISA results were drawn up very quickly. Extensive initiatives can be found, especially in Luxemburg, Germany and Norway. There are measures:

- to improve reading comprehension (L, G)
- to develop a comprehensive strategy for better teaching and learning maths and science (NO, G)
- to improve the competencies of pupils with an immigration background (LX, G)
- to develop a comprehensive strategy for the stimulation of pupils enthusiasm for reading (NO)
- to increase the lessons in primary education (NO)
- to improve the recruitment of teachers in post-primary (L)
- to focus more on output in relation to input (NO,G) and to develop standards that describe what competencies pupils should have at the end of secondary education (G)
- to develop a national system of evaluation (NO) and to develop national tests of learning outcomes in basic subjects (NO, G)
- to establish programs of whole day education in primary education (G)
- to establish national centres for competencies for the teaching and learning of basic subjects (NO)
- to foster the research activities in education and didactics (G)

Other countries had already started with reforms, so the PISA results backup the ongoing educational programs and reforms (e.g. SP).
In most countries which ranked above average, PISA did not directly result in initiatives for national reforms but the outcomes have reinforced current policies (e.g. addressing

educational disadvantage and underachievement in reading, addressing early school learning, implementing new syllabi in the areas of mathematics and science, increasing uptake of science subjects in post-primary schools in Ireland). In addition there are often indirect consequences, for example:

- the studies caused an increased awareness for the necessity of reform and an continuous monitoring of the output (A)
- considering reforms of the curriculum and of testing (SC)
- in-depth analyses on the results of immigrant children to offer better insights (SW)
- the insight that the evaluation system is not sufficiently used by policy makers (F)

Influence on schools

The strategies to inform schools about the PISA results are very similar in the countries for which case studies have been prepared. Ministries and/or state-institutes produced booklets, website information and power-point presentations for schools summarizing the main findings. Teaching unions held joint conferences on the PISA findings. Sometimes researchers have been active informants for schools. In one country, the minister wrote a personal letter to every school, requesting that they take notice of the national and local results. In some countries, schools received the national reports. Schools which participated in the study got their results in comparison to the national average or to similar schools.

On the whole, there are no indications about, if, or how PISA has influenced what is going on in schools. In some answers it is assumed that the impact is negligible (F) or that immediate influence of international evaluation is very limited because there are no developed feedback strategies for schools (A). Few answers give report of impact. For example:

- a feeling of resignation at the very beginning (L)
- the reaction of schools that the media, etc., painted a picture of the school which was too negative (NO)
- the high acceptance of the outcome responsibility of schools (A)

In order to increase teachers' awareness of the outcomes of PISA 2003 the Educational Research Centre in Ireland published a report entitled 'A Teachers Guide to the Reading Literacy of Irish 15 Year Olds'.

Explanations of the results

The experts were asked how they explain the results of their country. In the following summary we distinguish between explanations for results which were above average and for poor results.

Explanations for above average results

Overall

- when pupils took the PISA test they had prepared intensively for their GCSE-exams (E)

- content and style of the PISA test (real life situations, part-credit for part-answers) corresponds well to GCSE exams (E)
- a competitive school system (NL)
- a central examination at the end of secondary education (NL)
- a nationwide test at the end of primary education (NL)
- teachers know what pupils have to learn (NL)
- pupils have more experience in testing (NL)
- we realize that well educated and dedicated teachers also mean a lot (SW)

Domain specific

- we have a tradition of good reading skills (SW, Reading)
- a fairly high proportion of the citizens read daily newspaper (SW, Reading)
- for many years we have had good public and school libraries (SW, Reading)
- we don't have dubbed films or TV programs (SW, Reading)
- literacy and literary experienced students get into the habit of studying the syllabus for Junior Certificate examinations in English, where they are required to use many of the processes assessed by PISA (IR, Reading)
- PISA focuses on aspects which form a significant part of the reading requirements of the National Curriculum (E, Reading)
- results are very dependent on the question format (pupils more at ease with multiple choice questions) (F, Reading)
- the 1992 IEA test, where NL scored low, has led to reforms: more attention on reading instead of grammar (NL, Reading)
- founding of a national language instruction expert centre at university (NL, Reading)
- the application oriented items (NL, Math)
- results are dependent on syllabus and familiarity with types of exercises (F, Math)
- science is one of the core subjects of the National Curriculum and is taught from age 5. National curriculum tests in science are taken at age 11 and 14 (E, Science)
- mostly a reading exercise with similar results as the reading test (F, Science)

Explanations for average or below average results

Overall

- the test was conducted in a foreign language for all (L)
- the motivation of the pupils to participate was low (L)
- teachers and pupils were not well enough informed about the goals of the study (L)
- test conditions were not always in favour of the pupils (large classrooms, halls) (L)
- no strong culture and experience in the field of international assessment (L)
- teaching programmes are very different from the framework of the PISA-tests (L)
- a school culture exists that is too process oriented, too focused on meeting the needs of the average pupil and not focused enough on learning strategies and learning outcomes (NO)
- lack of sufficient qualifications among teachers especially in Math and Science (NO)
- the system has problems of integrating and adequately promoting the learning of migrant children (A)
- teachers focus their instructional activities more on the whole class than on individual students (G)

- the diagnostic competences are less developed than those in other countries (G)
- teachers have problems mastering the heterogeneous structure of a classroom (G)
- pupils have less experience in testing than pupils in most of the other countries (G)

Domain specific

- the test was not conducted in the pupils' mother tongue (L, Reading)
- (explanation or the poor results of the immigrant children): a much larger proportion of refugee immigrants with poor education (in comparison to work force immigrants) (SW, Reading)
- pupils are taught other topics than those tested (L, Math)
- there is no focus on how to apply acquired knowledge to other learning contexts (L, Math)
- pupils learn other topics than those tested in the PISA curriculum (e.g. weak application-orientation in math instruction; pupils learn chemistry, biology and physics instead of science) (G, Math, Science)
- pupils start learning science in grade 10 (L, Science)
- the fact that science is not a compulsory subject in post-primary schools (IR, Science)

The explanations for the results cover a lot of aspects. Yet, most statements focus on the correspondence between test results on the one hand and characteristics of the curriculum on the other. In some countries there seems to be a stronger link between content and format of the tests and the content of exams, syllabi and exercises in the classroom. What is more, pupils' own experience with tests and their motivation to participate seems very important. In addition, cultural traditions (e.g. in Reading) and traditions of output orientation with strong standards for competencies are put forward as important explanations. Finally, in some cases, the qualifications of teachers are emphasized as responsible for the test results.

APPENDIX: NATIONAL CASE STUDIES

Austria

1. Media

The attention of the media to the results of PISA 2000 was relatively high (as it had been already to TIMSS III). Especially the two or three quality newspapers reported balanced, in some differentiation and not purely in line with the published position of the ministry ("Austria's schools belong to the best in Europe").

However, the main topics discussed in the media related to the international ranking – with special emphasis on the fact that Austrian pupils did better than their German counterparts - a fact that is up to today frequently addressed as the "Cordoba of Education" (relating to last important victory of the Austrian football team over Germany at the world championships in Cordoba/Argentina, 1978).

In some time distance to the original publication of the PISA Report, the public discussion became more differentiated. Especially the economic indicators of the latest version of "Education at a glance" lead to a somewhat more sober assessment of the PISA-findings. "Average results at high costs" can be seen as the substance of the current state of the discussion.

2. Reception by policy makers

The National PISA centre organised had conferences and releases for the press, for the ministers, for the staff of the ministers and for educational interest groups. Ministers also have been informed by papers of their staff. These papers included the most important result and background information.

The overall reaction of the educational authorities to the PISA results was positive (see above). The ministry tried to influence the public opinion by taking over opinion leadership in conferences and the official website (www.bmbwk.at) which was, however, only partly successful.

Despite the tendency to emphasize the positive aspects of the PISA results, the international achievement studies also caused an increased awareness on the side of politics for the necessity of reform and a continuous monitoring of the output of the education system

- The poor results in TIMSS III gave way to a costly national initiative for improvement and innovation in mathematics and science teaching, lead by the University of Klagenfurt.
- Following PISA 2000, several initiatives to promote reading competence, especially in primary school children, were started.
- The new awareness of the need for reform resulted in the appointment of a commission of educational scientists to work out a proposal for a comprehensive reform initiative, which was published a few weeks ago and submitted to the public for a broad discussion.

- In the centre of this expert paper, the need for a continuous monitoring and evaluation of the results of education at the class-, school- and system level is stressed.

Influence on schools

The information of schools and teachers was mainly through the media. Besides this, schools became acquainted of the notion of “PISA”, in that until today almost every political argument in the educational field starts with the phrase “as PISA has shown …”

The immediate influence of the international evaluation and achievement studies on schools is nevertheless very limited, as there are no developed feedback strategies to schools. However, the current stress on output-related evaluations strategies is gradually leading to a higher acceptance of the notion of “outcome-responsibility” of schools and teachers. More and more, schools and teachers also become accustomed to the possibility to have outcome evaluations not only at the system level but also in schools and classes, which has been a somewhat strange thought until recently.

Results and explanation

The main results, which are in the focus of the political discussion, can be summarized as follows:

- overall, the Austrian school systems yields satisfactory results. However
- we have too poor competences in mathematics and science, especially in upper secondary education, and with regard to higher-order abilities;
- there is a too big proportion of pupils in secondary school, whose poor reading competencies leads to the danger of exclusion from life long learning and the labour market;
- we find a too tight connection between social status and school achievement which challenges the postulate of equality of educational opportunities;
- the system has problems of integration and adequately promote the learning migrant children.

Flemish Community of Belgium

Reception of PISA 2000 results by the media

PISA 2000 was an important topic when the initial report was released. TV, national radio stations and newspapers reported on the Flemish PISA results. The media focussed on the big differences between the Flemish and the French Communities of Belgium. Flanders performed at the level of the top education systems for reading and mathematical literacy and among the sub-top for scientific literacy, while the French Community performed below the international country mean.

Later on (e.g. when the UNICEF report was published), the media drew the attention to the big differences within Flanders.

Reception by policy makers

We informed our Minister just before the international data release in December 2001 in order to ensure confidentiality of the results. We are thinking of changing this procedure a little for the PISA 2003 release. We would like to inform our Minister a bit earlier, in order for him/her[1] to be able to understand the results better and in order to prepare better for possible policy actions.

The main reaction of the political forces was happiness with the results. In Flanders we do not have many output data for our schools, especially not in secondary education, and surveys such as PISA and TIMSS give us an idea about the effectiveness of the Flemish schools, also in an international context. The main topic for discussion was the difference with the French Community results and later on the differences within our own education system.

No concrete initiative for reform has been taken. At the Education Department we think that good results risk to put asleep instead of keeping awake.

Influence on schools

The schools that participated in PISA 2000 each received their own school report, comparing their pupils' results with the results of pupils from similar schools (i.e. similar education programmes offered). The University of Ghent, that also implemented PISA 2000 in Flanders, prepared these school reports. The schools were very happy with the feedback they received. In fact they received two school reports in two phases: the first one only included the raw results of their own pupils; the second one consisted of the controlled data and the comparison with similar schools.

After that, all Flemish secondary schools received a publication containing the brochure with the PISA results of Flanders compared to the other participating countries; an explanation of the PISA 2000 framework; and the released items on reading literacy, mathematical literacy, scientific literacy and problem-solving. These items were put in a ring binder, so that teachers could use them in class.

The Education Department, the researchers of Ghent University, a panel of experts and an OECD representative also presented the PISA 2000 results in a seminar in Brussels, in which all secondary schools could participate.

[1] By the time of the PISA 2003 release the Flemish Government will have changed. There will be elections for Flemish Parliament in the Spring of 2004.

We also informed our teachers and school heads through ‘Klasse’, a magazine of the Education Department sent to all teachers and school heads.

We have no idea about how all this influenced instruction.

Results and explanation per country

See the following web-site for the brochure (here in English) which has been sent to all secondary schools and to many other people:
http://www.ond.vlaanderen.be/onderwijsstatistieken/2001-2002/pdfs/wereldwijdleren_engels.pdf

England

Reception by the media

1. In what way were the PISA 2000 results presented in the media (TV, mass and quality newspaper)?

Response

PISA had very wide coverage in England across the full range of media. An interesting comparison to make is the amount of press coverage across some of the PISA countries as at mid-January 2002, one month after the publication of the results. Note especially the difference in coverage between Germany, a relatively low performer, and Finland, the top performer – proof, if it were needed, that the Press prefer reporting bad news over good!

	No of pages
Germany	687
Switzerland	149
Canada	93
UK	**88**
Japan	84
Australia	54
Spain	53
USA	36
Belgium	32
NZ	25
Korea	21
Italy	16
Finland	8

In England, on the day of publication, PISA generated nine prominent national newspaper lead stories, and ran positively on both the BBC Six O'clock and Ten O'clock news. It also sparked the most favourable Daily Mail editorial (not known for its pro-New Labour stance) on education policy since the election, extensive two page spreads in the Times Educational Supplement two weeks running, and positive editorials in the Yorkshire Post and Eastern Daily Press. Commentators in the nationals continued to react positively to the findings, ensuring coverage right up until the end of the week after publication.

2. What topics were publicly reported and discussed beyond the international rankings?

Response

The key messages – that the UK's teenagers are world-beaters when it comes to English, maths and science skills – were carried strongly and all reports showed how the UK was outperforming other G8 nations. Negative elements of the findings, for example the UK's gap between the performance of pupils from well-off and deprived backgrounds,

were given a backseat by the media.

Reception by polity makers
3. How do you inform your minister?

Response

We prepared a comprehensive briefing pack for our Secretary of State which included full briefing on the PISA results (both positive and negative findings and lines to take); a shorter briefing for the Prime Minister; a speaking note for the Secretary of State (remember, OECD's International Press Briefing was held in London and our Secretary of State attended and spoke); and the OECD's briefing note for the UK with appropriate lines to take on the content.

4. a)What was the reaction of the main political forces? b)What were the main lines and topics of the political discussion?

Response

The Government response was thoroughly positive and can be summed up by the following reference to PISA in the House of Commons by Tony Blair on the day of publication:

"The country should be very proud of the OECD survey, which is a tribute to the hard work of pupils, heads, teachers, governors and parents across the country. We said **education** was the number one priority and this shows real progress, but we need to build on that as we put the public services at the heart of the second term agenda. The combination of investment and reform, money and fresh ideas is going to transform public services and make them fit for the 21st century, after decades of under-investment. There is still much to do in every area and we recognise that. We will not stand still but build on the progress we have made to deliver schools and hospitals and other public services that people want."

The Opposition (Conservative Party) was completely silent on PISA and it was not until early 2002 that a sole Conservative Member of Parliament started questioning the methodology of PISA and the composition of the English sample in an attempt to prove that the high performance of students in England in PISA could not possibly be a true reflection of the state of education in England.

5. Are there concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum)?

Response
The absence of any concrete initiatives for reform as a result of international studies has been a cause for concern in certain quarters in England. It could be argued that PISA, for example, provided further evidence on areas of performance which we already guessed at intuitively or were aware of through other research and that the policies to tackle the issues highlighted by PISA were already in place. Certainly, England's mediocre performance in the last two TIMSS studies in 1995 and 1999 had some part to play in the establishment of the National Numeracy Strategy for primary age children in England.

Influence on schools

6. How have schools and teachers been informed about the results of the international studies?

Response

In the case of the PISA and PIRLS studies, the Department for Education and Skills produced booklets summarising the findings for teachers and headteachers. Electronic versions of the booklets were put on Teachernet, the Department's website for teachers and they were advertised in Spectrum, a monthly communication from the Department to schools. Copies of the booklets were also distributed amongst the teacher and headteacher unions who alerted their members to the findings. Two of the main teacher unions, NASUWT and NUT, held a joint conference on the PISA findings in January 2003 which was very well attended by teachers. Speakers from the Department (including the Minister of State, David Miliband) and OECD also attended.

7. How did the results of international studies influence schools and instruction? What was the reaction of teachers?

Response

We have no evidence to suggest that they have.

Results and explanation per country

8. Give a summary of results of your country in PISA.

Response

Reading Literacy 7th position
Mathematical Literacy 8th position
Scientific Literacy 4th position

9. Are there explanations for the overall score and for each of the three domains

Response

A number of explanations for England's above average performance in PISA have been put forward but none of them can be said with any certainty to be definitive.

Overall

- Pupils took the PISA tests at age 15/16, during which time they would have prepared intensively for their GCSE exams, whereas in many countries pupils do not take external exams before the age of 18. There is anecdotal evidence to suggest that the content and style of the PISA tests, with its emphasis on real-life situations, part-credit for part-answers etc. corresponds well to GCSE papers.

Reading Literacy

- The PISA reading literacy scales focus on aspects of reading which form a significant part of the reading requirements of the National Curriculum for English and the skills tested are highly relevant to GCSE. The types of text included were predominantly non-fiction and media and are therefore a subset of National Curriculum reading, which has a broader range of literary reading.

- The forms of questioning in PISA are more restrictive than is the case in the current National Curriculum assessments for 14 year olds or in GCSE at age16, where there are no multiple choice questions (compared with 50% multiple choice items in PISA). The predominant style of assessment of reading in England is of longer constructed responses.

Mathematical Literacy

- In comparison with the TIMSS studies of the 1990s, students in England performed much better in the mathematical literacy domain of PISA. In this sense, PISA is a very different study from TIMSS, which focused much more narrowly on knowledge of the curriculum.

- TIMSS-R showed that English pupils performed better in more "applied" areas of mathematics e.g. measurement and data representation, than the more "academic" areas e.g. arithmetic, geometry and algebra, and it was the more "applied" areas that PISA seems to have focused on.

- Ultimately, although maths was only a minor domains in the 2000 tests, PISA showed that in an important area, "the ability to recognise and interpret mathematical problems encountered in their world", our pupils perform strongly.

Scientific Literacy

- The TIMSS studies already showed England to be a strong performer in science. Science is one of the 'core' subjects of the National Curriculum and is taught from age 5. National Curriculum tests in science are taken at age 11 and 14.

France

Reception by the media

1. How are results presented in the media (TV, mass and quality newspapers)?

The French ministry organised a press conference to present the French results for both PIRLS and PISA. This was suitably taken up in the press but did not create any particular reaction because our national tests already give us information on what our pupils can do.

2. What topics are publicly reported and discussed beyond the international rankings?

The press tend to repeat what the ministry says in its analysis of the results. For PISA, for instance, we emphasised the fact that French pupils are reluctant to answer when they are not sure that they know the right answer, unlike pupils in some other countries, thereby showing something about learning and assessment practices. This was something that the press took up.

Reception by policy makers and politicians

3. How do you inform your minister?

Ministers are not normally informed directly. A submission is prepared for his advisers pointing out the main findings and the potentially embarrassing points which the press may take up. It is then up to those advisers to inform ministers if they think it is necessary.

4. a) What is the reaction of the main political forces?

Because for both PISA and PIRLS the French results are consistent with the results of national tests and because France's rank is either average or just above average, there was no specific party political reaction.

4. b) What are the main lines and topics of the political discussion?

There is a consensus among political parties on the strengths and weaknesses of the French education system

5. Are there concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum)?

One of the weaknesses of the French evaluation system is that it is not sufficiently used by policy makers to initiate changes. This is also the case for international studies. The policy makers responsible for the curriculum or teaching/learning policies do not normally act on them.
In the case of PIRLS, and following the presentation to the press, the national inspectorate decided to organise a meeting with the assessment directorate about reading at the primary level (such a meeting is unusual) in order to see what could be changed in the pedagogy or curriculum. Whether anything will happen in practice beyond that is another matter.

Influence on schools

6. How are schools and teachers informed about the results of the international studies?

Beside what may feature in the press, they are informed through ministry publications. The ministry published for each survey a short document (Note d'Information) giving the French results and analysing them. A more extensive specialised publication was also published about the PISA results. In all of these we try to explain the pupils' performance from a pedagogical (teaching/learning) point of view.

7. How do the results of international studies influence schools and instruction? What is the reaction of teachers?

No information is available on these points but it can safely assumed that the impact is negligible.

Results and explanation per country

8. Give a summary of results of your country in PISA.

Reading slightly above OECD average (505)

Maths above OECD average (517)

Science exactly OECD average (500)

9. Are there explanations for the overall score and for each of the three PISA domains

Reading: results very dependent on the question format (French pupils more at ease with multiple choice questions). Better at interpreting (based on MCQ than “reacting to text (based on writing a long reply, which French pupils are not used to at this stage).

Maths: results dependent on syllabus and familiarity with types of exercises.

Science: mostly a “reading” exercise with similar results as the reading test.

Germany

1. Media

At the same time as the publication of the OECD report, a German PISA report was presented. Two additional national reports were published in 2002 (comparison of the 16 German states) and 2003 (a differentiated view to the results). The PISA 2000 results were presented in all newspapers; some quality newspapers presented a supplement with the main results, an interview with the national project leader and expert interpretations. There were also a lot of round table discussions on TV.
Beyond the international ranking, the most frequently opened discussed topics were the strong correlation between socio-economic status and achievement, the mediocre quality of classroom instruction, the achievement of the children of migrants and the early selection of pupils in the German school system.

2. Reception by policy makers

The National PISA consortium organised several press-conferences for the press, for ministers, for the staff of the ministers and for educational interest groups. Ministers have also been informed by papers from their staff. These papers included the most important result and background information.
The educational authorities have been shocked by the PISA results. In 2002 the conference of ministers agreed on several measures from which the following activities have a very high priority:

- measures for the improvement of reading comprehension, not only in primary and secondary education but also in the pre-primary section
- development of standards for mathematics, German language, English as a foreign language, that describe what competencies pupils should have at the end of secondary education; these standards go along with new core curricula for the subjects mentioned above
- nearly all states in Germany started to develop large-scale assessment tests for the end of primary and secondary education
- measures for the improvement of students', with a migration background, competencies
- some states started programs for whole day education in primary education

Additionally pilot projects for the improvement of classroom instruction in mathematics and science have been established nation-wide. Also, a nation-wide initiative to foster the research activities in education and didactics started in 2002, in which more than 50 research projects are included.

3. Influence on schools

Schools involved in the PISA study (219 schools in the international and 1466 schools in the national PISA study) got the results of their school in comparison to the national average. Results of single schools have not been published.
Ministries, state-institutes and universities prepared presentations (e.g. power-point presentations) of the main results on internet.
We don't have empirical evidence about the influence of PISA on schools, on individual teachers or on teaching methodology. We estimate that a lot of teachers feel a certain

pressure because of the tremendous public reaction and the new concepts which the ministries recently started.
Indeed, there is an interesting influence on people working in the scientific community: nearly all articles started with the phrase: 'As PISA showed…'

4. Results and explanations per country

According to PISA, Germany was ranked Germany scored in PISA 20th, 20th and 21st in mathematics, science and reading.
In the discussion you'll find the following explanations for the overall scores:

- teachers focus their instructional activities more on the whole class than on individual students
- the diagnostic competencies of teachers are less developed than those in other countries
- teachers have problems mastering the heterogeneous structure of a classroom
- pupils have less experience in testing than pupils in most of the other countries

Explanations for maths and science:

- German pupils learn other topics than those tested in the PISA curriculum (for example: weak application-orientation in math instruction; pupils learn chemistry, biology and physics instead of science)

Ireland

1. *In what way were the PISA 2000 results presented in the media (TV, mass and quality newspaper)?*

The media provided full coverage of the results of PISA 2000 on December 5th, 2001 (the day following the official launch of results by the OECD). The media coverage reflected both the press materials provided to journalists by the OECD, and a press release issued by the Irish Minster for Education and Science, in which the Minister welcomed Ireland's strong overall performance, particular in the area of reading literacy.

The media, and newspapers in particular, have reported on subsequent releases of data from PISA 2000. These include launches of Education at a Glance (in 2002 and 2003), and the launch of the joint OECD/UNESCO report issued in July 2003 that described PISA outcomes for the 43 countries in which PISA 2000 has been administered to date. The media in Ireland have given much less attention to the thematic reports based on PISA 2000 that have been issued in the past year or so (e.g., *Learners for Life: Student Approaches to Learning*; *Student Engagement at School: A Sense of Belonging and Participation*), though some of the outcomes were referred to by the media in their reporting on Educational at a Glance 2003 (which reported some outcomes from the thematic reports).

Prior to the launch of the main report on PISA 2003 (due on December 7, 2004), it is planned to hold a press conference to brief Irish journalists on the main outcomes, in addition to providing them with a press-release from the Minister.

In 2001, the Irish national report on PISA 2000 was launched to coincide with the launch of the international report. The report attempted to contextualise the findings of PISA in terms of the Irish educational system. It included a comparison between the PISA assessment frameworks in reading, mathematical and scientific literacy, and the syllabi/curricula for the Junior Cycle of post-primary schooling. In addition, it reported on hierarchical multi-level models of reading literacy, mathematical literacy and scientific literacy that sought to explain performance on PISA. The media in Ireland did not focus on this report to the same extent as they focused on the first international report on PISA 2000. It is planned to launch a national report on PISA 2003 sometime in spring 2005, several months after the launch of the PISA 2003 international report, so that maximum publicity for both international and national reports can be gained.

In November 2003, the Educational Research Centre launched a report titled, '*A Teacher's Guide to the Reading Literacy of Irish 15-Year Olds*'. This report, which is available at http://www.erc.ie/pisa, provides an interpretation of the outcomes of PISA, with particular reference to performance on different text types, and a comparison between the estimated performance of Irish 15-year olds in PISA on the International Adult Literacy Survey prose scale, and the performance of Irish adults in 1994 on the same scale. The report concludes with a consideration of policy implications arising from PISA 2000. Irish newspapers and radio stations summarised the findings of report, again bringing to the attention of readers and listeners, such issues as poor performance of students who scored at or below Level 1 on the PISA reading proficiency scales, and the large differences in achievement between vocational schools on the one hand, and community/comprehensive and secondary schools on the other.

2. What topics were publicly reported and discussed beyond the international rankings?

In reporting on the initial results of PISA (in December 2004), the print media in particular, focused on variables associated with performance in reading, including the association between engagement in reading (frequency of leisure reading) and performance on the PISA combined reading literacy scale. The media have also shown an interest in associations between gender and reading, and between socio-economic status and reading.

There has been some interest in the performance of non-national students in PISA. This stems from the finding that Ireland is the only OECD country in which 'non-national' students in Ireland outperformed 'native' students on the combined reading literacy scale. It should be noted, however, that 'non-national' students constituted a very small proportion of the PISA sample in Ireland.

There has been some comment in the media on the finding that, while Ireland's mean score in reading literacy and scientific literacy were above the corresponding OECD country average scores, performance in mathematical literacy was not significantly different from the OECD country average. These comments have been made in the context of concerns about the country's long-term economic competitiveness. However, it has also been recognised that mathematical literacy was a minor domain in PISA 2000, and that more detailed results on performance in mathematical literacy will be available following publication of the international report on PISA 2003.

Reception by politicians

How do you inform your minister?

A deputy chief inspector at the Department provided a briefing to the Minister prior to the publication of the results of PISA 2000. Senior inspectors and civil servants at the Department had been briefed on the outcomes of PISA 2000 by the Educational Research Centre about one month before the launch in 2001. The deputy chief inspector was also familiar with PISA through his involvement with the National PISA Advisory Committee (a committee consisting of researchers, experts in the content areas assessed by PISA, and members of the National Council for Curriculum and Assessment and the Department of Education and Science) and his attendance at meetings of the PISA Board of Participating Countries.

4. a) What was the reaction of the main political forces?

While most parties expressed satisfaction at the strong overall performance of Ireland, particularly in the area of reading literacy, opposition TDs (members of parliament) have asked a number of questions in the Dail (house of parliament) about aspects of the results. These include the fact that 11% of Irish students performed at or below Level 1 on the PISA proficiency scale, and hence might be expected to experience difficulties in reading in life-long learning. In response to one such question, the minister cited the provision of learning support and resource teaching to students with reading difficulties, and the provision of extra resources to schools in areas of designated disadvantage as steps that the Department was taking to address low achievement.

Following publication of the OECD/UNESCO report, *Literacy Skills for the World of Tomorrow,* in July 2003, the Director of the Educational Research Centre was invited to discuss the outcomes of PISA 2000 before the Joint Oireachtas (Parliament) Committee on Education and Science, which consists of senators and members of parliament representing all political parties.

b) What were the main lines and topics of the political discussion?

The main areas of discussion have been:

- The stronger performance of females students in reading literacy, and male students in mathematical literacy
- The estimates of between-school variation for Ireland, which are lower than expected, and suggest that differences between schools in Ireland are smaller than in many other countries, despite evidence that, within Ireland, students attending vocational schools, and schools in areas of educational disadvantage, perform less well than students in other schools
- Links between the syllabi/curricula presented at Junior Cycle in post-primary schools, and the tests that constitute the PISA assessment.

5. *Are there concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum)?*

Rather than suggesting the need to launch any new initiatives immediately, the outcomes of PISA 2000 have reinforced current policies. These include policies in the areas of

- addressing educational disadvantage and underachievement in reading through schemes such as those described earlier, and the Junior Certificate School Programme (a programme for at-risk students in the Junior Cycle of post-primary schooling)
- addressing early school leaving
- implementing new syllabi/courses in the areas of mathematics (a new Junior Certificate syllabus was implemented in 2000), and in science (a new Junior Certificate syllabus was launched in 2003)
- increasing uptake of science subjects in post-primary schools (a government Task Force on the Physical Sciences made heavy use of the PISA results in its report published in March 2002 – see http://www.education.ie/ and go to Reports and Publications).
- Curriculum review – the National Council for Curriculum and Assessment draws on the frameworks underpinning the PISA 2000 assessment in its work on advising the Minster for Education and Science on matters related to curriculum and assessment.

Influence on schools

How have schools and teachers been informed about the results of the international studies?

Leaders of the teacher unions were provided with an overview of the outcomes of PISA 2000 researchers from the Educational Research Centre on the day on which the international report was launched in December 2001. Reports on the outcomes of PISA have appeared in the newsletters and journals of the main teacher unions. Two copies of the

Irish national PISA report (summary version – see http://www.erc.ie/pisa) were sent to all post-primary schools in December 2001.

The impact of PISA on schools has been relatively low to date. This may be due, in part, to the fact that PISA doesn't involve teachers directly in the assessment (by, for example, asking them to complete a Teacher Questionnaire). In order to increase teachers' awareness of the outcomes of PISA 2003, the Educational Research Centre published a report titled, *A Teacher's Guide to the Reading Literacy of Irish 15-Year Olds,* in November 2003. This is currently being disseminated to schools and can also be downloaded at http://www.erc.ie/pisa

Summary of Results

Give a summary of the results of PISA 2000.

Ireland ranked fifth of 27 OECD countries on the combined reading literacy scale. Just one country, Finland, achieved a significantly higher mean score. In mathematical literacy, Ireland ranked 15th, achieving a score that was not significantly different from the international average. In scientific literacy, Ireland ranked 9th, achieving a score that was significantly higher than the international average. However, the performance of Irish students on scientific literacy was lower than that of several countries with average scores on reading literacy that were not significantly different from Ireland's. Irish female students outperformed Irish male students in reading literacy (by three-tenths of a standard deviation). Irish males outperformed females on mathematical literacy (by one-sixth of a standard deviation). The difference in mean scores between male and female students was not statistically significant. In Ireland, 18% of the variation in reading literacy scores was attributed to differences between schools. The corresponding percentages for mathematical and scientific literacy were 11% and 14% respectively. These are well below the corresponding OECD country average estimates of between-school variation.

Are there explanations for the overall score and for each of the three domains?

Work conducted by the Educational Research Centre suggests that the strong performance of Irish students on combined reading literacy may be attributed, at least in part, to the literacy and literary experiences students get in the context of studying the syllabus for the Junior Certificate examination in English, where they are required to use many of the processes assessed by PISA.

The fact that science is not a compulsory subject in Irish post-primary schools was mentioned as one reason why Ireland's score on PISA scientific literacy was a little lower than in reading literacy.

The Educational Research Centre noted that links between the mathematics syllabus for the Junior Certificate examination and the PISA test of mathematical literacy are weaker than those for reading literacy. However, they Centre warned against over-interpreting the outcomes for PISA mathematical literacy until the results for 2003, where it was assessed as a major domain, become available.

The Centre suggested that the age-based nature of the PISA approach to sampling should be taken into account in interpreting the outcome of PISA 2000.

Luxembourg

1 Media

At the time of publication of the international OECD report, a national PISA 2000 report of Luxembourg was being presented.

No additional national reports have been published. The PISA 2000 results have been presented in all newspapers and magazines. There have also been some round table discussions on the local TV channels.

The National PISA consortium organised a press conference on the day of the public release, a debate in Parliament in late February 2002, as well as a public presentation of the PISA 2000 results in early February 2002.

2 Beyond the international ranking, the most often publicly reported topics were the strong correlation between socio-economic status and achievement as well as the overall low achievement scores of the Luxemburgish pupils. The problem of testing pupils in the language of instruction which is not their mother tongue was discussed. As a matter of fact the language of instruction, i.e. German and French, is either the first, the second or the third foreign language taught to the pupils. The overall motivation of pupils to participate and the general organisation of the study were also subject to discussion.

3 Reception by policy makers

Information to the minister was organised by the BPC member, together with the NPM and the coordinating bodies of the ministry.

4 Reaction

a. The educational authorities, the public, pupils and teachers were shocked by the PISA results. The political opposition parties mainly used PISA results in order to criticise the governmental policy.
b. Main lines: school failure, complexity of the structure of the school system, content of the school programs

5 Starting in 2002, several measures were taken in order to improve the pupil's educational situation: luckily, some reform projects had been decided before publication of the PISA results; their necessity has been confirmed by the analyses of the results.

- National project on the organisation of preschool and primary school education
- National project on the reform of apprenticeship and vocational education
- National project on the organisation of classical and technical secondary schools
- National project on the review of the curriculum of the lower technical secondary school
- Measures to improve the recruitment of teachers in post-primary education
- Measures to improve reading comprehension, not only in primary and secondary education but also in the pre-school section
- Measures to improve the competencies of pupils with an immigration background

6 Influence on schools

Schools involved in the PISA study received the national report and could download additional international reports from the website of the Ministry. Results of single schools have not been published. School headmasters were informed before the official publication of the results.

The Ministry prepared presentations and summaries of the main results on their website in German and French.

There is no empirical evidence about the influence of PISA on schools, on individual teachers or on the teaching methodology. At the very beginning a feeling of resignation could be noticed in some cases.
However, the PISA shock wave passed through Luxembourg quite quickly and forces could be concentrated on improving the organisation and perception of the study for the oncoming second cycle.

8 Results and explanation per country

Luxembourg scored in general 29th in PISA, in mathematics as well as science and reading.
During the national debates on the PISA results, the following general explanations for the overall scores were highlighted :

- the test was conducted in a foreign language for ALL of the pupils (i.e. in German and French with is the mother tongue only for a very small percentage of foreigners within the country)
- the motivation of the pupils to participate was low, there was no explicit communication strategy
- teachers and pupils were not informed well enough on the goals of the study
- test conditions were not always in favour of the pupils (i.e. tests being carried out in large classrooms and halls)
- Luxembourg has no strong culture and experience in the field of international assessments
- Teaching programs (methodology and objectives) in Luxemburg are very different from the framework of the PISA tests (strong cultural and curricular bias)

Explanations for the results in reading:

- Added to the arguments listed before, the main argument for the low achievement was the conduction of the test not in the pupils' mother tongue but in a foreign language.

Explanations for the results in mathematics:

- Luxembourg's pupils are being taught other topics than those tested in the PISA curriculum and especially there is no focus on how to apply acquired knowledge to other learning contexts.

Explanations for the results in science:

- Luxemburgish pupils start learning sciences in grade 10. As most of the pupils tested were in grade 9 or lower, the result is self explanatory.

Netherlands

1. Media

At the same time of publication of the OECD PISA report a Dutch report was presented which included the Netherlands in the international rankings.
The PISA 2000 results were presented in the newspapers and a very short presentation was made on TV.
Only part of the papers mentioned the international rankings. Most attention was spend to the absence of the Netherlands in the rankings in the official OECD PISA report.
The best headline in one newspaper was: ***Dutch pupils scored but the goal didn`t count.***

2. Reception by policy makers

To get mass media attention for important research reports a press-conference is organised (including a press release) where the report is offered to the minister of Education by the research institute and the press can pose questions to the researchers and to the minister.
The minister has received a summary of the background of the report and of the results and is prepared for possible question that can be posed to here.
The political forces, the members of parliament did what they are used to do: questioning the minister on what they have read in the papers : the absence of the Netherlands in the OECD report.
Since the Netherlands scored well in PISA there were no consequences in terms of reform or development.

3. Influence on schools

Schools and teachers were informed by the media and by the journal and the website of the ministry. There was no feedback to schools on there own scores, since a sample of 30 pupils of the same age per school is not representative for the separate big Dutch secondary schools.
There is no influence on instruction.
PISA 2003 got enough responses (over 80% in stead of the 50% in 2000) This means that a notion of the importance of PISA is established.

4. Results and explanation per country

The Netherlands scored* in PISA 1th, 3th en 6th in mathematics, reading and science.
In general the good results of Dutch pupils in international comparisons are explained by a competitive school system, a central examination at the end of secondary schools, a nation wide test at the end of primary schools, which determined to what level of secondary education a pupil can go. Teachers know what pupils has to learn. Dutch pupils have more experience in testing then pupils in most other countries. Although there exist no national curriculum the used curricula and learning materials are modern.
Math: the Netherlands performed higher on PISA then it did in TIMSS. This has to do with the application-oriented items in PISA.
Reading: the Netherlands scored low in a comprehensive reading test of IEA (1992). This has led to reforms in language instruction in primary schools, more attention for reading instead of grammar, and the founding of a national language instruction expert-centre at a university.
After PISA also the PIRLS results were good in reading.

* Dutch pupils follow secondary education in five different levels. The 50% responses in the Dutch PISA sample was representative with respect to these levels. This guarantees more representativity than a response of 80% in countries where no information is available on the level of pupils in participating schools.

Norway

Reception by the media

1. In what way were the PISA 2000 results presented in the media (TV, mass and quality newspaper)?

The results were presented in a press conference. The main results/highlights were presented by the Minister (Mrs. Kristin Clemet), assisted by the PISA researchers[2]. The researchers thereafter went into the details of the PISA results and answered questions on these from the press. After the press release there was broad reference to the PISA results in the main newspapers and professional journals. The debate was quite "heated" and engaged professionals of pedagogy, researchers, politicians and parents. In political discussions in TV and radio, the results were used by some to call for more resources to the municipalities to run the schools and by others (more to the right) to call for a better utilisation of a very good resource situation by putting stronger demands on outcomes.

The debate ran for a long time. The media´s handling of the results was quite balanced and well informed, much thanks to the proactive information strategy of the Minister. For instance she invited professionals and the media to a series of seminars focusing on the learning outcome of Norwegian pupils. Results from the international studies were actively used in this connection.

2. What topics were publicly reported and discussed beyond the international rankings?

The minister wanted to bring out the message that Norway was "the most average" country in Europe and used the PISA results politically to point to the need for a new political strategy for basic education. The PISA results were accepted as correct, also since there is a very good consistency between the Norwegian national general curriculum and the PISA framework. But their implications were unacceptable, given the fact that Norway has good conditions for producing good results; for instance a favourable resource situation.[3] The political conclusion was that there must be something else "wrong" with teaching and learning. A quite negative and unexpected result also supporting this conclusion was that PISA demonstrated major differences between classes in the same school, also to a certain degree between schools, and in particular among pupils. This result is disturbing for the Norwegian traditional philosophy of comprehensive schooling. It seems that the comprehensive school has not succeeded in evening out the effects of social-cultural background on learning outcome.

Beyond the international ranking in reading, mathematics and science it was also reported and discussed that Norwegian pupils scored very low on three indicators on learning strategies and lowest on one of them; control strategies. Focus was also on the fact that Norway scored very low on learning environment (disturbance, lack of discipline, lack of motivation). This negative picture concerning learning strategies and learning environment was seen in relation to low expectations and demands towards pupils and a lack of focus on outcome in the education system as a whole. In spite of good intentions

[2] The researchers have been very careful about acting as independent professionels with high integrity and no political agenda. Through their presentations and clarifications of the results they have contributed substantial to the understanding of and great interest in the PISA study in Norway.

[3] According to OECD 2002 Norway is 5th on the list of countries regarding expenses per pupil in primary school and 4th in expenses per pupil in lower secondary and upper secondary school.

for years there has until now only existed fragments of a national system of quality evaluation. And what we have known about results has only to a limited extent been used to make improvements.

Reception by politicians

3. How do you inform your minister?

Using PISA as example: The national report was given to the Minister before the international and national publication of results. She read it carefully before she invited the researchers to a meeting to inform her more in detail and make an agreement on an arrangement for publication of the results. Officials in the Ministry and the Board of education also took part in the meeting and they worked closely with the researchers in the following planning and public release arrangements.

4. a) What was the reaction of the main political forces?

There was a general agreement across political parties that it was necessary to take the results seriously, to "take action" and to focus more on output factors in relation to input and process factors. There have been more debates on what measures would be the best, e.g. how to design and organise a national system of evaluation. See also answer to Q 2 and Q 4.

b) What were the main lines and topics of the political discussion?

See answer to Q 2

5. Are there concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum)?

The "diagnosis" of international studies, in particular PISA and PIRLS, has been used in support for a number of political initiatives. Among them are:

- The number of lessons in Norwegian has been increased from a total of 3040 to a total of 3154 lessons in grades 1-4 in primary school.
- A comprehensive strategy for better teaching and learning of mathematics and science
- A comprehensive strategy for the stimulation of pupils´ enthusiasm for reading.
- Scholarships for teachers for further education in Norwegian (focusing on reading and writing abilities) and mathematics.
- The establishment of national centres of competence for the teaching and learning of basic subjects (science, mathematics, reading).
- National tests of learning outcome in basic subjects (reading, writing, mathematics and English) from 2004/2005. The testing will be part of the new national system of evaluation (operative from 2004) and will be based on the same type of methodology as the PISA and PIRLS studies.
- The establishment of a national system of evaluation has a long history, dating back to 1988. Norway´s ranking in international studies over the last years has undoubtedly contributed to an accelerated speed in the development.

Influence on schools

6. How have schools and teachers been informed about the results of the international studies?

- The researchers have been active informants towards the schools, mostly on their own initiative (travelling around, giving lectures and advice).
- The Minister wrote a personal letter to every compulsory school in the country, requesting the school administration and teachers to take notice of the national and local results of the PISA study and take the necessary steps for improvement.
- In 2002 the Minister released a comprehensive ministerial report ("The school knows best") describing the state of the art in current compulsory education (input, process and output factors). The results of international comparative studies were also used in this connection. The report was meant as basis for an informed discussion about the education system among all stakeholders: politicians, the social partners, the teacher union, teachers, school managers, education researchers, parents and others.
- The PISA researchers (University of Oslo) has placed the PISA tests on a web site, for free use as a tool for local testing and quality development.

7. How did the results of international studies influence schools and instruction? What was the reaction of teachers?

From the national media debate it seems that some schools, teachers and researchers meant that some others (media, politicians, researchers etc.) painted a too negative picture of the school. So far we do not have information on the effect of international studies on the practise in schools. With the new national evaluation system there is a possibility to trace influences over time.

Results and explanation per country

8. Give a summary of results of your country in PISA.

Among 31 countries, Norway came out no. 17 in mathematics and no. 13 in science and reading. Near one fifth of Norwegian pupils scored in the two lowest categories of reading (functional illiterate). The Norwegian score is average in comparison to countries that are relevant for comparison. In general Norway scored very close to the OECD average both in reading literacy, mathematical literacy and scientific literacy. In learning strategies Norway scored low on all three indicators and *lowest* of all in control strategies. Norway scored second highest in variation in student performance in reading within schools. Norway scored above average level of noise and disorder in class.

9. Are there explanations for the overall score and for each of the three domains

That there exists a school culture that is too process oriented, too focused on meeting the needs of a perceived average pupil and too little focused on learning strategies and learning outcome. Another explanation is a lack of sufficient qualifications among teachers, especially in mathematics and science. Regarding the level of noise and disorder in Norwegian classrooms it has been said that this to a certain degree may reflect a posi-

tive finding in the IEA Civic Study. According to this study Norwegian classrooms can be characterised as having a rather democratic atmosphere.

Scotland

Reception by the media

1. In what way were the PISA 2000 results presented in the media (TV, mass and quality newspaper)?

Response
Media coverage was at UK level (see response from DfES) as Scotland's results were not included in the PISA 2000 international report. In November 2003, a short article appeared in specialist educational media (TESS), reporting on Scottish analysis from PISA (see question 2).

2. What topics were publicly reported and discussed beyond the international rankings?

Response
A recent article presenting Scottish level results from PISA 2000 had the headline 'School is far more fun in Scotland'. This reported findings from the student questionnaire on school life, support from teachers and discipline.

Reception by politics

3. How do you inform your minister?

Response
The Minister is informed through written submissions and discussions with officials. Briefing notes (BriX) containing key findings and policy implications from the international results are prepared for use by Ministers and policy officials.

4. a)What was the reaction of the main political forces? b)What were the main lines and topics of the political discussion?

Response
The reaction to the PISA results has been positive. There has been an interest in what the international findings can tell us e.g. that it is possible to achieve a high quality of educational outcome together with equity of achievement.

5. Are there concrete initiatives for reform and development as a consequence of the international studies? Of what kind (e.g. standards, testing, curriculum)?

Response
Scotland is considering reforms of the curriculum and of testing, as a result of outcomes of our National Debate (a forum for all stakeholders to contribute their views). International studies may have influenced some of the views, but the reforms are not a direct consequence.

Influence on schools

6. How have schools and teachers been informed about the results of the international studies?

Response
A short report on PISA 2000 including Scotland's position in the rankings and key findings from the international data was provided to schools in January 2002.

It is intended that further analysis of PISA 2000, presenting findings from Scotland will be published in late 2003 or early 2004. Early findings from this were presented at a teacher union conference in November 2003.

An OECD representative visited Edinburgh in January 2003 and presented a seminar on PISA 2000 findings. Headteachers from schools in the PISA 2003 sample were invited to attend, along with representatives from the teacher unions and local authorities.

7. How did the results of international studies influence schools and instruction? What was the reaction of teachers?

Response
We have no evidence to suggest that they have.

Results and explanation per country

8. Give a summary of results of your country in PISA.

Response
Disaggregating Scotland's results from the UK, Scotland's rankings were 6th in reading, 5th in mathematics and 9th in science.

9. Are there explanations for the overall score and for each of the three domains

Response
Scotland's 15 year olds performed significantly better in terms of attainment in maths & science than our 9 & 13 year olds did in earlier international studies.

Sweden

The first international results from PISA 2000 were presented at a press conference on December 4th 2001. At the same date the first Swedish analysis was presented, a full report as well as a shorter offprint. The reports were also published on the website of National Agency for Education.
The initial results were received with rather moderate interest in TV and newspapers. In fact, the Swedish results were received with more interest in Germany. Professional magazines, representing teacher unions etc were more interested, quite naturally. However, when the Norwegian national report, presenting results on discipline in Norwegian schools, were known, this moderate interest turned into it's opposite. Media, not least newspapers, wrote lots and lots of articles about lacking discipline in Swedish schools as well. Many worried citizens send letters or e-mails to the National Agency for Education.
I sum, beyond the international rankings, discipline problems and the excellent Finnish results were the main results discussed by media.

Reception by policy makers

The minister and some of his staff were informed a few days before the official publication of the international and the national report. From the ministry's point of view the results were important and useful. Afterwards they have been used in different analyses and reports from the ministry, not least in the preparation of a national analysis and follow-up of the common education goals within European Union.
The public discussion in media on the lack of discipline resulted in a political debate on education in for instance the parliament, before the election to parliament in September 2001.
PISA 2001 has, however, not resulted in any initiatives for national reform etc. However, National Agency for Education has taken an initiative to make an in-depth analysis on the results of immigrant children, to offer better insights than the initial reports could give. The report has been published in Swedish, but soon there is an English version as well, since we have compared Sweden with nine other countries. A Nordic report on the PISA-results has also been published – *Northern Lights on PISA. Unity and diversity in the Nordic countries in PISA 2000*.
In fact, we now have a strategy to publish PISA-results not only once but use parts of the results in new publications. We also try to make the analyses initiated by PISA BPC known and discussed, more than earlier international comparative studies, by translating chapters into Swedish or making Swedish summaries.

Influence on schools

Schools and teachers have been informed about the results primarily via media and via the website of National Agency for Education. We have no indications on if or how PISA has influenced what's going on in schools. We know that the teachers' unions have been interested in the study and that the results form the first as well as later reports have been published in their magazines.

Results and explanation per country

The Swedish results were above the OECD-mean in the three domains. The best result was in reading literacy – only three countries had results that were significantly better. The explanation might be that we have a tradition with good reading skills (there were governmental demands on reading skills early in our history – 17th century), a fairly high proportion of the citizens read newspapers daily, for many years we have had good pub-

lic and school libraries, we don't have dubbed films or TV-programmes. But of course we must realise that well-educated and dedicated teachers also means a lot.

In the in-depth analysis of the comparatively poor and worrying results of immigrant children we found out that the results can partly be explained by the fact that Sweden, compared to many other, more successful countries, has a much larger proportion of refugee immigrants with poor education and no earlier experience of Sweden and Swedish. In for instance, English speaking countries with a high proportion of work force immigrants the immigrants not only are more well- educated but are also more familiar with English before immigration. However, this is only one contribution to explain and we have seen how difficult it is to make any simple comparisons between countries.

Any explanations of the more mediocre results on mathematical and scientific literacy have not been discussed. We suppose we have to think about this when these domains are the major ones in coming cycles.

Spain

1. Reception by the media

All main newspapers and a majority of regional newspapers reported the international and Spanish results just after the PISA results presentation by the OECD. Also, all main TV channels and some regional ones presented and discussed PISA results, mainly in the news programs. Main radio programs commented and discussed Spanish results.
Overall, a great amount of debate was promoted by the media and different perspectives and valuations were offered by politicians as well as by experts.
The main issue of discussion was the ranking of Spanish results in the international comparison, i.e. the relative results, with fewer attention to the absolute results of the Spanish students that showed a high degree of equity among students and schools and an achievement level very close to the OECD mean, but lower. There was a special effect of the thematic report on school engagement, because the shocking result that shows that Spanish students are the ones with higher absenteeism from school, in comparison with the rest of OECD participating countries in PISA.

2. Reception by policy makers

A paper was prepared by the National Institute for Evaluation and Quality of the Education System (*Instituto Nacional de Evaluación y Calidad del Sistema Educativo–INECSE-*), official body responsible for the implementation of the PISA program in Spain, for the Office of the Minister of Education, Culture and Sport, and for the Press Office of the Ministry.
Also, the Minister of Education, Culture and Sport, together with higher officials of the Ministry, attended two meetings where the PISA 2000 results where presented.
On the other hand, several meetings, attended both by politicians of the governing party and the parties of the parliamentary opposition, jointly with several stakeholders of the education community, were organized by different official and private institutions. Such meetings reflect the amount of interest and political debate aroused by PISA in Spain. The main meetings organized in Spain around PISA results were:

a) Meeting organized by the governing political party (*Partido Popular*) (with the attendance of the Prime Minister of the Spanish Government and the Minister of Education, Culture and Sports)
b) Meeting organized by the Government of the Autonomous Region of Catalonia
c) Meeting organized by the agency of educational evaluation of the Basque Government (ISEI-IVEI)
d) Meeting organized by the National Association of Private Schools (*ACADE*) (with the attendance of the Minister of Education, Culture and Sports)
(In all these meetings the international and Spanish national results were presented by the person responsible for PISA at the OECD)
e) Meeting organized by the *Santillana* Foundation (with the attendance of the General Secretary of Education of the Ministry of Education)
f) Meeting organized by the National Institute for Evaluation and Quality of the Education System (*INECSE*) of the Ministry of Education, with the attendance of representatives of the 17 Autonomous Communities (Regions) of Spain.

As expected, different political parties highlighted different sets of results and, subsequently, interpretations, explanations and valuations of PISA results varied in a wide range among the different political views.
The interpretation of PISA 2000 results by the governing authorities backup the ongoing educational programs and reforms already put in force by the government previously to the release of PISA 2000 results. It is to note the ongoing governmental program for the improvement of reading engagement among Spanish students.

3. Influence on schools

The edition in Castilian language of the Executive Summary of the results of PISA 2000 survey and the two books where the PISA 2000 assessment framework is presented, translated to Castilian, were distributed to all the Spanish participating schools in PISA (both in pilot and main studies).
Also, schools, teachers, families and students were informed by the media of the overall results and conclusions on the Spanish students results.

4. Results and explanation

In Reading, Mathematics and Science, Spanish results are at a level below OECD mean, but not very far away from the mean of OECD participating countries.
Nonetheless, Spain scored 18th in Reading, 19th in Science and 23rd in Mathematics, in spite that the ranking of Spain, in terms of GNP among the participating countries in the 20th position.
Other highlighted results have been the low level of reading habits among the Spanish students, the high degree of absenteeism among students, and the high degree of homogeneity of achievement results and equity of the educational system in comparison to the rest of the PISA participating countries.