



OECD Reviews of Evaluation and Assessment in Education

SWEDEN

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Executive Summary

In Sweden's highly decentralised education system, evaluation and assessment are crucial to ensure that professionals get the information and feedback they need to improve the quality of their work. Evaluation and assessment are also key tools for the central Government to monitor whether national goals for quality and equity in education are being achieved. The Swedish approach combines national standard-setting and central test development with a high degree of trust in school professionals to carry out evaluation and assessment. While key elements of evaluation and assessment are well established at student, teacher, school and system levels, challenges remain in aligning the different elements to ensure consistency and complementarity.

- **Increasing the reliability of national assessments and building teacher capacity.** As national assessments play a key role in Sweden's evaluation and assessment system, it is important that the results are reliable and nationally consistent. Currently, the national tests are scored locally by students' own teachers. A re-correction of national assessments showed that teacher grading was uneven. This raises concerns about fairness in grading and also reduces the adequacy of national test results as a measure of school and system performance. High quality training and professional development for effective assessment are essential to strengthen teachers' practices. External moderation can further help increase consistency and comparability of national test results. Options for doing this include having a second grader in addition to the students' own teachers, employing professionals for systematic external grading and/or moderation, or introducing a checking procedure by a competent authority or examination board.
- **Establishing teacher appraisal as an integral part of the evaluation and assessment framework.** Teachers benefit from a high degree of trust and extensive autonomy, but they have few opportunities for professional feedback. The teaching profession would benefit from a system of teacher appraisal for registration at key stages, associated with career opportunities for effective teachers. The appraisal system should be based on professional standards for teachers that provide a clear and concise statement or profile of what teachers are expected to know and be able to do. There also should be a stronger emphasis on teacher appraisal for improvement purposes that is fully internal to the school and linked to professional development opportunities. In this context, teacher appraisal should be closely connected to school self-evaluation, which should focus on monitoring the quality of teaching and learning.

- **Articulating school-self evaluation and external school evaluation.** The evaluation and quality assurance of individual schools is a well established aspect of the Swedish approach to evaluation and assessment. While a range of school evaluation practices are well developed, the different processes could be better articulated. External evaluation could be more clearly based on internal self-evaluation. The authorities should continue to provide professional development for internal quality management, make successful models available for schools, and stress the importance of quality reporting on teaching and learning progress. The evaluation competencies of staff at municipal level and networking among them should be supported so that they can fully play their role in quality assurance. If school self-evaluation is well developed, then the external evaluation can move to focus increasingly on risk-analysis, proportional inspection and stronger follow-up of problematic cases.
- **Strengthening education system monitoring and mobilising existing data.** The performance of the education system is monitored via a range of tools and the results are publicly available. But the system lacks a reliable measure of learning outcomes to monitor if national learning goals are being achieved. Different options should be explored to provide a more reliable system monitoring tool. This could include ensuring external monitoring of national assessments, introducing a sample monitoring survey or heightening the policy relevance of results from international assessments. In addition, Sweden should also encourage greater mobilisation of existing data and information. Simple options include improving the school level management of data, establishing a protocol for data sharing and consulting key stakeholders on how to best report existing information in a format that corresponds to municipal and school needs.
- **Developing a coherent framework for evaluation and assessment.** The well-detailed elements of evaluation and assessment currently do not link into a coherent framework. The development of a strategic plan or national framework for evaluation and assessment could help optimise alignment between the different components. It could provide an overview and reference for all actors working with evaluation and assessment in education, outline evaluation and assessment requirements at different levels, clarify responsibilities related to these requirements and map the range of tools that are available to optimise practices. It should be complemented by competency descriptions for those who carry evaluation responsibilities and be followed up by specific professional development opportunities.

Assessment and Conclusions

Education system context

Evaluation and assessment are key to the success of Sweden's decentralised education system

Since a major administrative reform in the early 1990s, Sweden has one of the most decentralised education systems in the world, with its 290 municipalities in charge of organising and operating school services. School leaders and teachers also have wide-reaching autonomy in deciding on study options, teaching materials and methods. The role of the national Government and agencies is to set curriculum goals and monitor outcomes rather than to focus on inputs and processes. In this highly decentralised context, evaluation and assessment are crucial to ensure that professionals get the information and feedback that they need to improve the quality of their work. Evaluation and assessment are also key tools for the central Government to monitor whether national goals for quality and equity in education are being achieved.

The focus on evaluation and assessment has increased as a response to recent challenges

The Swedish education system is facing a number of challenges. Learning outcomes in compulsory school as measured by international student assessments are not as good as they were in the early 2000s. In the last round of the OECD's Programme for International Student Assessment (PISA 2009), the performance of Swedish 15-year-old students was around the OECD average in reading and mathematics, and below average in science. The relationship between socio-economic background and performance has become stronger, and differences between schools have increased over the past decade. National data has also raised concerns about variations in the quality of education across municipalities. Against this backdrop, the Government has introduced a number of reforms to strengthen quality assurance in education. Prominently among current reforms are an emphasis on high-quality data collection systems, increased external monitoring of schools, earlier student assessment and grading, and follow-up of individual students to prevent failure.

Strengths and challenges

Sweden produces a wealth of high quality data but needs to ensure they are appropriately used for improvement

Key elements of evaluation and assessment are well established in the Swedish education system. All educational activities are organised around a system of *management by objectives*, where curriculum goals are set at the national level and then refined in local work plans for each school, and individual development plans for each student. Each level of the education system – national agencies, municipalities and schools – engage in assessment and evaluation activities. At the central level, there is a high degree of transparency in measuring and publishing results on goal achievement, with the national databases, evaluation reports, school inspection reports and “open comparisons” of school performance all being publicly available. Challenges remain, however, in ensuring that the data collected at different levels are appropriately integrated and used. While the accountability function of evaluation and assessment has received increased attention, the priority is now to ensure that municipalities and schools have the tools, incentives and capacity to use data and feedback to improve their practice.

A high-trust system that fosters professionalism but leads to variability in quality assurance practices

The Swedish approach combines national standard-setting and central test development with a high degree of trust in school professionals to carry out evaluation and assessment. Many evaluation and assessment activities including student assessment, teacher appraisal and school quality reporting are managed internally at the school level. This approach fosters and encourages school leader and teacher professionalism in evaluation and assessment. Municipalities, responsible for evaluating schools in a systematic way, also play a key role. As can be expected from such a decentralised approach, there are large variations in the ways evaluation and assessment are undertaken across the country. While a lot of quality assurance work happens locally and informally, these practices are frequently not documented and there is little evidence as to whether good practice is spread and shared across the system. There is concern about those schools and municipalities that have less capacity to implement effective quality assurance measures.

Sweden has a balanced approach to student assessment, which would be further strengthened by an externally validated measure of student performance

Sweden has a balanced approach to student assessment that captures a wide range of learning dimensions. In the early years of education, assessment is mostly formative in nature and students do not receive grades. Students are being engaged in setting learning goals through individual development plans and develop skills for self- and peer-assessment. There is a strong focus on classroom-based assessments through which teachers collect a variety of evidence on student progress and provide regular feedback to students. National tests at key stages of education are intended to capture a wide range of curriculum goals through performance-based tasks including oral assessment and team

projects. The tests are summative in Year 9 and upper secondary school and intend to provide a more standardised and external measure of student achievement. However, as all other types of assessment in Sweden, the national tests are corrected and graded by the students' own teachers, and the weight of test results in students' grades is determined locally. This raises concerns about inequities in grading. In fact, teachers' marking of the performance-based national tests has shown to be uneven. Possible explanations are that grading criteria are not adequately detailed and that teachers vary in their capacity to score student achievement on performance-based tests. There is a lack of external reference points and moderation to ensure that student assessment in Sweden is reliable and fair.

Teachers benefit from a high level of trust but do not receive sufficient professional feedback

Teachers are generally perceived as trusted professionals, which is reflected in the extensive autonomy that they have in the exercise of their duties. Teacher appraisal in Sweden is not regulated by law and no formal procedures exist to evaluate the performance of permanent teachers. The main form of appraisal is a regular individual development dialogue held between the school leader and individual teachers. There is little guidance provided at the central level on how to appraise teacher performance. There is currently no framework of professional standards to define what constitutes accomplished teaching (even though the National Agency for Education is planning to develop such standards). A unique feature of the teaching profession in Sweden is its individualised pay system, which means that employers / school leaders can potentially make salary decisions contingent on evidence of good performance. In practice, however, salary differences are often determined on the basis of effort and commitment rather than achievement of stated objectives. Overall, teachers have few opportunities for professional feedback. The absence of career progression opportunities further undermines the potential of teacher appraisal.

Internal and external school evaluation are well developed and should become increasingly integrated

Although by international comparison between-school differences in Sweden are low, these have been increasing in recent years. The quality of feedback given to schools and their capacity to improve their own work are thus a key factor for success of the Swedish education system. School evaluation in Sweden is based on the publication of school performance data, national inspections, municipal school evaluation, regular surveys on student and parent satisfaction, and qualitative school self-evaluation. The feedback that schools receive is of high quality and the recently created Schools Inspectorate provides incentives for schools to remediate identified shortcomings. The evaluation capacities of school staff seem well developed thanks to an emphasis on school self-evaluation activities and a range of tools to support it. However, while inspections consider the internal quality work of schools, the integration of internal and external school evaluation could be further strengthened. The recent abolition of compulsory quality reporting holds a risk of being understood by schools as a devaluation of internal quality work. Some municipalities contribute remarkably to the quality of school evaluation but the large variability in the quality of municipal school evaluations is a major concern.

Education system evaluation is well established but data collection and presentation could be further improved

The performance of the education system is monitored via a range of tools, including participation in international assessments, aggregation of data from national assessments, thematic quality evaluations by the Inspectorate and evaluation reports by the National Agency for Education. Results of system-level evaluation are taken seriously and feed into policy development for school improvement. However, it can be questioned whether much of the data collected on student outcomes are appropriate for the purpose of system monitoring. The current reporting of outcomes relies heavily on grades awarded by teachers, but recent studies show that teachers' grading is uneven. This implies that aggregating test results / student grades as measures of school, municipality and system performance is not appropriate. Also, there is emerging evidence that the way the existing data is presented could be improved in order to optimise the usability of this information by local policy makers and stakeholders. There is little analysis at the national level of performance differences among municipalities, despite concerns about the variability of quality procedures across municipalities.

Pointers for future policy development

Develop a strategic plan for an evaluation and assessment framework

There are well-detailed elements of evaluation and assessment in Sweden, but currently they do not link into a coherent framework. A major step towards aligning the existing elements of evaluation and assessment would be to develop a strategic plan or national framework for evaluation and assessment. Such a framework for evaluation and assessment can help provide an overview and reference for all actors working in this field across the education system. The plan should outline the evaluation and assessment requirements at different levels, clarify the responsibilities related to these requirements and map the different tools and centres of expertise that are available in Sweden to optimise practices. It should be complemented by competency descriptions for those who carry evaluation responsibilities and be followed up by specific professional development opportunities.

Further strengthen evaluation capacities at the municipal level

Developing a strategic national plan for evaluation and assessment can go a long way in providing a common national reference framework for educational evaluation across the country. The national plan or framework for evaluation and assessment should stress and support the role of municipal directors of education in school evaluation. The plan should come along with a range of tools that municipal directors of education can use in establishing their local quality improvement system. It is important that the national plan for evaluation and assessment is adaptable for different municipality needs, *i.e.* it should not be an obstacle to well-functioning existing local systems, but it needs to provide the necessary guidance, tools and prescriptive elements for municipalities that do not have sufficient resources or capacity to develop their own quality improvement framework.

The Ministry of Education and Research and the National Agency for Education should also support collaboration across schools and municipalities and consider making greater use of funding incentives to support professional networks related to different aspects of evaluation and assessment.

Increase the reliability of national assessments

Given the key role that national assessments play in the Swedish evaluation and assessment system, it is vital to increase the reliability of these tests. External moderation is essential to ensure consistency, comparability and equity of the teacher-based assessments. There are several options of doing this, such as employing a second grader (a teacher in the same subject) in addition to the students' own teachers, employing professionals for systematic external grading and/or moderation, or introducing a checking procedure by a competent authority or examination board. In any of these options, high quality training for all graders is essential to ensure professional assessment competencies. The design of the assessments could also be further developed so as to contribute to greater reliability. This could be done through exploring ways of using ICT in the assessments and analysing the usefulness of introducing "complex assessments" combining the use of performance-based tasks and some standardised close-ended formats.

Clarify learning goals and provide tools for teachers' assessment practice

In Sweden's goal-oriented education system, clarity in terms of expected levels of student performance is essential. Sweden is currently taking a number of steps to strengthen student assessment via the introduction of a new curriculum with clearer and more concrete goals for student learning. The revision of the curriculum is a good opportunity to strike a good balance between teachers' freedom and equivalence in education across the country. In addition to clarifying goals in the curriculum and syllabi, the National Agency for Education should also consider providing additional tools to support teachers in their assessment practice, such as exemplars illustrating student performance at different levels of achievement and scoring rubrics listing criteria for rating different aspects of performance.

Further build teachers' assessment capacities

Teachers' skills for both summative and formative assessment are key to the success of Sweden's approach to evaluation and assessment. As discussed above, training is particularly important to ensure reliability of teachers' scoring of national tests in Year 9 and upper secondary education. But as classroom-based assessments receive a lot of importance, teachers also need opportunities to improve their own skills for test development. Training for assessment should start with basic assessment literacy, for example understanding different aspects of validity – what different assessments can and cannot reveal about student learning. Formative assessment also needs ongoing attention, especially day-to-day short-cycle assessments including skills for setting up learning situations, developing sophisticated questions, providing timely feedback and helping students develop their own skills for self- and peer-assessment. For teachers in Years 3

and 5, where the tests are used for diagnostic purposes, teachers need skills to interpret results, understand whether further diagnostic testing of some students may be warranted and to identify areas where teaching strategies may need adjustment.

Formalise teacher appraisal as part of a system of teacher registration

The teaching profession would benefit from a system of teacher appraisal for registration at key stages in the teaching career to formalise the principle of advancement on merit, associated with career opportunities for effective teachers. The appraisal system should be based on professional standards for teachers that provide a clear and concise statement or profile of what teachers are expected to know and be able to do. Teacher appraisal for registration could rely on three core instruments, namely classroom observation, self-evaluation and portfolio. There is a case for using a national framework and standard procedures in a process strongly influenced or governed by the teaching profession itself. Evaluators need to be trained to appraise teachers according to the criteria of good teaching and the corresponding levels for registration. It is important that the process takes account of the school context and includes the views of the school leader.

Strengthen teacher appraisal for improvement and link it to professional development and school development

There also should be a stronger emphasis on teacher appraisal for improvement purposes that is fully internal to the school. Such developmental appraisal can be low-key and low-cost, and include self-evaluation, peer evaluation, classroom observation, and structured conversations and regular feedback by the school leader and experienced peers. In order to yield effective results, it should be appropriately linked to professional development which, in turn, needs to be associated with school development if the improvement of teaching practices is to meet the school's needs. Schools are likely to perform well if they associate identified individual needs with the school priorities and manage to develop the corresponding professional development activities.

Articulate school evaluation and teacher appraisal

Given that the systems of school evaluation and teacher appraisal both have the objective of maintaining standards and improving student performance, there are likely to be synergies between the two processes. To achieve the greatest impact, the focus of school evaluation should either be linked to or have an effect on the focus of teacher appraisal. School evaluation should comprise an external validation of the processes in place to organise teacher appraisal, holding the school leader accountable as necessary. In the context of school self-evaluation, it is especially important to ensure the centrality of the evaluation of teaching and learning quality at the school. The quality of teaching and learning should be regarded as a responsibility of groups of teachers or of the school as a whole. In this light, school self-evaluation also needs to assess the appropriateness of teacher appraisal mechanisms and of processes to follow up on the results.

Build on the strength of school-internal quality management approaches

The evaluation and quality assurance of individual schools is at the heart of the Swedish approach to evaluation and assessment. While a range of school evaluation practices are well established, the different processes do not always build on each other. Sweden should further invest in ensuring that external evaluation (inspection) is based on internal self-evaluation. This could help reduce the cost of external evaluation and can also improve the quality of inspection in general. The authorities should continue to provide professional development for internal quality management, make successful models available for schools and stress the importance of quality reporting on teaching and learning progress. It should be clarified that abolishing the compulsory nature of quality reporting serves simply to reduce administrative burden on schools and that self-evaluation will remain a formal expectation. Participatory mechanisms in internal quality work should be further encouraged, increasing the role of self-evaluation as a key input for external evaluation.

Further move towards risk-based and proportional approaches to inspection

While the inspections are a popular and highly professional function in Sweden, they are also a human resource intensive activity. It has been decided that the number of inspections will be increased so that every school is evaluated by national inspections every third year (instead of every sixth year). It would be of interest to analyse the cost-effectiveness of increasing the number of inspections for each school vis-à-vis other investments in school evaluation and school improvement. If internal self-evaluation is well-developed then the external evaluation could focus more on risk-analysis, proportional inspection and stronger follow-up of problematic cases. This would allow distinguishing between schools that need full inspection and those where limited action (or no action at all) would be sufficient.

Support school leaders and strengthen their role in school evaluation

Given the central role of school leadership in Sweden's decentralised system, it is difficult to envisage either effective school evaluation or productive teacher appraisal without strong leadership capacities. Hence, the recruitment, training, appraisal and support of school leaders should be given great importance. Professional development of school leaders as well as middle management staff in schools can help enhance the effectiveness of school evaluation. Better personnel support and more established structures of distributed leadership can help free school leaders of some of their more administrative tasks so that they can focus more time on their educational leadership and quality improvement role. To enhance the effectiveness of school evaluation and connect internal and external processes, it would also be helpful to rely as much as possible on school leaders in the role of peer evaluators for inspections. The active involvement of competent school leaders in the inspection process can make inspections more efficient and at the same time improve the contribution of inspection to school improvement through fostering peer learning and knowledge sharing.

Explore ways to more reliably monitor education outcomes at the system level

Currently, the major tools providing evidence on how the Swedish education system is performing do not offer reliable measures of performance differences between regions/municipalities. The Ministry of Education and Research in partnership with the NAE and key researchers should explore different options to provide a more reliable system monitoring tool. One option would be to develop external monitoring of national assessments. Collaboration with professionals in external marking of tests would also serve to build capacity both centrally and throughout the system. Another option would be to consider introducing a national monitoring sample survey. Such a survey would allow the assessment of a broader range of curriculum content and allow benchmarking of different municipalities on an externally validated measure. Sweden could also evaluate possibilities to heighten the policy relevance of international assessment surveys. For example, increasing the sample size of students participating in international assessments would allow comparison of student performance among selected sub-national groupings.

Improve mobilisation of existing information within the system

Sweden should also encourage greater mobilisation of existing data and information. One option would be to establish a protocol to share data among key stakeholders in system evaluation. This would be of particular relevance in supporting the Inspectorate goal to establish an ‘early warning’ key indicator system, but also for researchers conducting officially commissioned evaluation studies. The National Agency for Education could consult with the Swedish Association of Local Authorities and Regions on how it can better report existing information in a format that best fits municipal policy maker needs. There appears to be a demand from policy makers at the municipal level for a systematic reporting of key national information by individual municipality – the availability of information in the central NAE databases reportedly does not suffice and local policy makers would prefer clear reports on key indicators. Such consultation may reveal limitations of existing information, but can feed into future plans to collect data that would better suit the demand from municipalities for quality indicators.

List of Acronyms

Acronym	Name
BRUK	Swedish abbreviation for the school self-assessment tool "Assessment, Reflection, Evaluation and Quality" (<i>Bedömning, Reflektion, Utveckling, Kvalitet</i>) developed by the National Agency for Education
CBR	Country Background Report (the report prepared by the Swedish Ministry of Education and Research as a background document for this review)
CEDEFOP	European Centre for the Development of Vocational Training
ECEC	Early Childhood Education and Care (ISCED 0)
ICT	Information and Communication Technologies
IDP	Individual Development Plan
IEA	International Association for the Evaluation of Educational Achievement
NAE	Swedish National Agency for Education
OECD	Organisation for Economic Co-operation and Development
PESOK	Swedish abbreviation for a school climate diagnostic tool developed by the Department of Education of the University of Stockholm (<i>Instrument för bedömning av det pedagogiska och sociala klimatet i grundskolor och gymnasieskolor</i>)
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
SALAR	Swedish Association of Local Authorities and Regions
SALSA	Swedish abbreviation for a database called "Local Relationship Analysis Tool" (<i>Skolverkets Arbetsverktyg för Lokala Sambands Analyser</i>) developed by the National Agency for Education
SECO	Central Organisation of Swedish Student Councils (<i>Sveriges Elevråds Centralorganisation</i>)
SEK	Swedish Krona
SIRIS	Swedish abbreviation for a database called "Information System on Results and Quality" (<i>Skolverkets Internetbaserade Resultat- och kvalitets Informations System</i>), developed by the National Agency for Education
SSL	Swedish as a Second Language
SVEA	Swedish Student Council (<i>Sveriges Elevråd</i>)
TALIS	Teaching and Learning International Survey
TIMMS	Trends in International Mathematics and Science Study

Chapter 1

Introduction

This Country Note for Sweden forms part of the OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes. The purpose of the Review is to explore how systems of evaluation and assessment can be used to improve the quality, equity and efficiency of school education. Sweden was one of the countries which opted to participate in the country review strand and host a visit by an external review team. This Country Note is the report from the review team. It provides, from an international perspective, an independent analysis of major issues facing the evaluation and assessment framework in Sweden, current policy initiatives, and possible future approaches. The Country Note serves three purposes: (1) provide insights and advice to the Swedish education authorities; (2) help other OECD countries understand the Swedish approach; and (3) provide input for the final comparative report of the project.

1.1 Purpose of the OECD Review

This Country Note for Sweden forms part of the OECD *Review on Evaluation and Assessment Frameworks for Improving School Outcomes*. This Review is designed to respond to the strong interest in evaluation and assessment issues evident at national and international levels. It provides a description of design, implementation and use of assessment and evaluation procedures in countries; analyses strengths and weaknesses of different approaches; and provides recommendations for improvement. The Review looks at the various components of assessment and evaluation frameworks that countries use with the objective of improving student outcomes. These include student assessment, teacher appraisal, school evaluation and system evaluation. The Review focuses on primary and secondary education.¹

The overall purpose is to explore how systems of evaluation and assessment can be used to improve the quality, equity and efficiency of school education.² The overarching policy question is “How can assessment and evaluation policies work together more effectively to improve student outcomes in primary and secondary schools?” The Review further concentrates on five key issues for analysis: (i) Designing a systemic framework for evaluation and assessment; (ii) Ensuring the effectiveness of evaluation and assessment procedures; (iii) Developing competencies for evaluation and for using feedback; (iv) Making the best use of evaluation results; and (v) Implementing evaluation and assessment policies.

Twenty-five education systems are actively engaged in the Review. These cover a wide range of economic and social contexts, and among them they illustrate quite different approaches to evaluation and assessment in school systems. This will allow a comparative perspective on key policy issues. These countries prepare a detailed background report, following a standard set of guidelines. Countries can also opt for a detailed review, undertaken by a team consisting of members of the OECD Secretariat and external experts. Ten OECD countries have opted for a country review. The final comparative report from the OECD Review, bringing together lessons from all countries, will be completed in 2012.

The project is overseen by the Group of National Experts on Evaluation and Assessment, which was established as a subsidiary body of the OECD Education Policy Committee in order to guide the methods, timing and principles of the Review. More details are available from the website dedicated to the Review: www.oecd.org/edu/evaluationpolicy.

1.2 The participation of Sweden

Sweden was one of the countries which opted to participate in the country review strand and host a visit by an external review team. Sweden’s involvement in the OECD Review was coordinated by Ms. Kerstin Hultgren, Senior Advisor, Division for Schools, Swedish Ministry of Education and Research.

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1. The scope of the Review does not include early childhood education and care, apprenticeships within vocational education and training, and adult education.
 2. The project’s purposes, design and scope are detailed in OECD (2009a).

An important part of Sweden's involvement was the preparation of a comprehensive and informative Country Background Report (CBR) on evaluation and assessment policy (see Swedish Ministry of Education and Research, 2010). The review team is very grateful to the authors of the CBR, and to all those who assisted them for providing an informative document. The CBR is an important output from the OECD activity in its own right as well as an important source for the review team. Unless indicated otherwise, the data for this report are taken from the Swedish Country Background Report. The CBR follows guidelines prepared by the OECD Secretariat and provides extensive information, analysis and discussion in regard to the national context, the organisation of the educational system, the main features of the evaluation and assessment framework and the views of key stakeholders. In this sense, the CBR and this Country Note complement each other and, for a more comprehensive view of evaluation and assessment in Sweden, should be read in conjunction.

The review visit to Sweden took place on 4-11 May 2010 and covered visits to Stockholm, Malmö, Osby and Haninge. The itinerary is provided in Annex 1. The visit was designed by the OECD in collaboration with the Swedish authorities. The reviewers comprised three OECD Secretariat members and two experts external to both the OECD and Sweden. The composition of the review team is provided in Annex 2.

During the review visit, the team held discussions with a wide range of national, regional and local authorities; officials from the Ministry of Education and Research; relevant agencies outside the Ministry which deal with evaluation and assessment issues; teacher unions; parents' organisations; representatives of schools; students' organisations; and researchers with an interest in evaluation and assessment issues. The team also visited a range of schools, interacting with school management, teachers and students. The intention was to provide a broad cross-section of information and opinions on evaluation and assessment policies and how their effectiveness can be improved.

This Country Note is the report from the review team. The report provides, from an international perspective, an independent analysis of major issues facing the evaluation and assessment framework in Sweden, current policy initiatives, and possible future approaches. The Country Note serves three purposes:

- Provide insights and advice to the Swedish education authorities;
- Help other OECD countries understand the Swedish approach; and
- Provide input for the final comparative report of the project.

1.3 Acknowledgements

The review team wishes to record its grateful appreciation to the many people who gave time from their busy schedules to inform the review team of their views, experiences and knowledge. The meetings were open and provided a wealth of insights. Special words of appreciation are due to the National Coordinator, Kerstin Hultgren from the Ministry of Education and Research, and Ann-Kristin Boström from the National Agency for Education, for sharing their expertise and responding to the many questions of the review team. The courtesy and hospitality extended to us throughout our stay in Sweden made our task as a review team as pleasant and enjoyable as it was stimulating and challenging.

The review team is also grateful to colleagues at the OECD, especially to Stefanie Dufaux for preparing the statistical annex to this Country Note (Annex 5) and to Heike-Daniela Herzog for editorial support.

While this report benefitted from the Swedish CBR and other documents as well as the many discussions in Sweden, any errors or misinterpretations in this Country Note are our responsibility.

1.4 Structure of the Country Note

The remainder of this report is organised in six chapters. Chapter 2 provides the national context, with information on the Swedish school system and the main recent developments. Chapter 3 looks at the overall evaluation and assessment framework and analyses how the different components of the framework play together and can be made more coherent to effectively improve student learning. Then Chapters 4 to 7 present each of the components of the evaluation and assessment framework – student assessment, teacher appraisal, school evaluation and system evaluation – in more depth, presenting strengths, challenges and policy suggestions.

The policy suggestions intend to build on reforms that are already underway in Sweden. The suggestions should take into account the difficulties that face any visiting group, no matter how well briefed, in grasping the complexity of the Swedish education system and fully understanding all the issues.

Chapter 2

The Context of Evaluation and Assessment in Sweden

Since a major administrative reform in the early 1990s, Sweden has one of the most decentralised education systems in the world, with its 290 municipalities in charge of organising and operating school services. School leaders and teachers also have wide-reaching autonomy in deciding on study options, teaching materials and methods. The role of the national Government and agencies is to set curriculum goals and monitor outcomes rather than to focus on inputs and processes. In this highly decentralised context, evaluation and assessment are crucial to ensure that professionals get the information and feedback that they need to improve the quality of their work. Evaluation and assessment are also key tools for the central Government to monitor whether national goals for quality and equity in education are being achieved.

This chapter provides background information that will help readers not familiar with the Swedish education system understand the context in which evaluation and assessment takes place. The chapter provides a brief overview of the current national demographic, political and economic context as well as a description of the key features of the education system.

2.1 National context

Demographic context

Sweden has a population of 9 million people and is sparsely populated with only about 20 inhabitants per km². Administratively, the country is composed of 290 municipalities of different sizes, ranging from just a few thousand inhabitants to over 800 000 people. Around one third of the population lives in the three major cities of Stockholm, Göteborg and Malmö. Until the 1970s, Sweden used to be a demographically rather homogenous country with most immigrants coming from neighbouring Nordic and European countries. But since the late 1970s, immigration for humanitarian reasons has gained in importance and Sweden has become a culturally and linguistically diverse country: in 2006, 13% of Sweden's population were born in a country other than Sweden (OECD, 2008a). The Swedish education system is thus facing new challenges and opportunities in adapting to a student body coming from increasingly diverse linguistic, cultural and socio-economic backgrounds.

Political context

Sweden is a Constitutional Monarchy with a parliamentary form of government. Since the 1930s, the country has experienced a high degree of political stability. The Social Democrats have been in power (either alone or in coalition) between 1932 and 2006, except for nine years of non Social Democrat rule (in 1976-82 and 1991-94). Since 2006, the country has been governed by a coalition of centre-right parties. Similarly to other Nordic countries, there are a number of factors that have a positive impact on governance in the public sector in Sweden. These include the high general educational level of the population, the high degree of social trust accompanied by a low level of corruption, and the strong traditions of cooperation, consultation and consensus building.

Economic context

Living standards in Sweden are high, although the country's relative economic position has fallen since the 1970s when it was among the richest countries in the OECD. In the early 1990s, Sweden faced a severe recession that has led to a sharp decline in economic growth. This caused major cutbacks in social services and also led to greater pressures on the resources available for school education. The recession of the first half of the 1990s helped focus attention on the need for reform in public administration and led to radical changes in the distribution of responsibilities in education and other sectors, with a very high degree of autonomy being given to municipalities. Throughout the 2000s, Sweden has experienced strong productivity growth and gradually reversed the relative economic decline of previous decades (OECD, 2008b). Sweden continues to operate a comprehensive welfare system and had the OECD's highest level of public

social expenditure in 2005 (OECD, 2010a). But pressures remain on the public sector to achieve more with the available resources by increasing efficiency of public services.

2.2 Main features of the school system

Structure

The Swedish school system is organised in three levels:

- **Pre-primary education** (typical ages 1-6). Pedagogical care is offered at the municipality level for children aged one to five whose parents work or study. Municipalities also have the obligation to offer pre-school classes for six-year-olds. These are usually organised within compulsory schools and are part of the public school system. Attendance of pre-school classes is voluntary, but 95% of all six-year-olds attend.
- **Compulsory education** (typical ages 7-16). Children usually begin their compulsory schooling at age seven though early admission at age six is possible at the request of parents. Compulsory education lasts for nine years and comprises both primary and lower secondary education (ISCED 1 and 2). Participation is mandatory and free of charge.
- **Upper secondary education** (typical ages 16-19). Upper secondary education comprises 17 national programmes lasting for three years. Students can also choose specially designed individual programmes, which combine subjects from the various national programmes. While upper secondary education is not compulsory, 98.5% of compulsory school students choose to enrol in an upper secondary programme. Participation is free of charge.

Distribution of responsibilities

Since the late 1980s, the organisation of the Swedish education system has been highly decentralised. The central Government holds the overall responsibility for schooling and is in charge of developing the curriculum, national objectives and guidelines for the education system. Within this framework, the municipalities and independent providers are responsible for implementing educational activities, organising and operating school services, allocating resources and ensuring that the national goals for education are met. The organisation of schooling within municipalities is further decentralised with a large degree of autonomy delegated to school districts and individual schools. Responsibility for budget allocation and organisation of teaching is, in most cases, left to school districts and school leaders.

As is typical in the Swedish public administration, responsibilities at the central level are shared between the Ministry and a range of central agencies. The Ministry of Education and Research is supported, in the area of school education, by three agencies: the National Agency for Education (NAE) which supports and evaluates the work of municipalities and schools, the Swedish Schools Inspectorate which ensures that municipalities, independent providers and schools follow laws and regulations, and the National Agency for Special Needs Education which coordinates the Government's support for students with special educational needs. These agencies are established by legislation and operate independently of the Government.

Policy development

The Swedish education system has a strong tradition of institutionalised consultation between the different stakeholders. Political decision making is oriented towards reaching consensus between the different participants. When changes are being introduced in the education system, this is generally preceded by wide consultations and submissions for comments. The key stakeholders that are consulted in matters concerning education policy include the Swedish Association of Local Authorities and Regions (SALAR) which represents the views of municipalities, county councils and regions; the Swedish Association of Independent Schools which represent the interests of independent school providers; as well as the national teacher unions (Swedish Teachers' Union and the National Union of Teachers), the Association of School Principals and Directors of Education, and the different parent associations and student councils.

Financing

The 290 municipalities are responsible for funding a number of basic services including education. School education is financed by municipal budgets which consist of both local tax revenue and central state grants. The Government redistributes resources from wealthier to poorer municipalities through a structural equalisation payment. The state grants are untargeted, which means that each municipality can decide on the allocation of resources across different sectors and activities.

The majority of schools are directly run by municipalities, but an increasing number of grant-aided independent schools have been founded since the 1990s. Municipalities provide funding for both municipal and independent schools according the same criteria, namely the number of pupils enrolled and pupils' specific needs. Funding follows the student, which means that if a student changes schools, the associated funding is then provided to the student's new school. Many municipalities provide schools with a lump sum budget covering salaries, buildings, materials and equipment, which is managed by the school leader.

Guiding principles on equity in education

A fundamental principle of the Swedish Education Act is that everyone should have access to equivalent education, independently of gender, socio-economic factors, ethnic background and place of residence. All education in the public school system and higher education institutions is free of charge. Similar to other Nordic countries, Sweden has a comprehensive, untracked school system from pre-primary education through to upper secondary education. With some specific exceptions, schools are not allowed to select their students by academic ability. Upper secondary schools typically provide both vocationally-oriented programmes and academically-oriented programmes within the same institution.

Diversity is highlighted as an asset for teaching and learning. For example, grade repetition is not a commonly used pedagogical strategy in Sweden. If students are at risk of not reaching the education goals, individualised extra support is provided to help them reach the goals. Students may retake an examination if they have failed a course. Integration and inclusion of students with special educational needs are emphasised as guiding principles in the legislation for compulsory schools. The legislation suggests that support for students with special needs should primarily be given within the mainstream classroom (Eurydice, 2010).

2.3 Main trends and concerns

Concerns about a decline in student learning outcomes

Level of student outcomes

Student learning outcomes in Sweden are not as good as they used to be in the early 2000s. Achievement levels of Swedish students in the OECD's Programme for International Student Assessment (PISA) were at the OECD average in reading and mathematics but below average in science in 2009 (OECD, 2010b). Trend analyses of international assessment results have raised concerns about a decline in student learning outcomes in Swedish compulsory schools.

In PISA 2009, the main focus was on reading literacy. Results show that the performance of Swedish 15-year-olds in reading was at the OECD average and had significantly decreased since the first PISA study in 2000 (OECD, 2010c). In the previous PISA studies (2000, 2003 and 2006), the achievement levels of Swedish students in reading had been above the OECD average. Results from the IEA's Progress in International Reading Literacy Study (PIRLS) in 2006 had already indicated a significant decline in the reading performance of Swedish fourth grade students between 2001 and 2006 (IEA, 2007).

The results of Swedish 15-year-olds in mathematics have also decreased. The PISA 2009 results indicated a fall in test scores in comparison to the PISA in-depth assessment of mathematics in 2003 (OECD, 2010c). Science results of Swedish 15-year-olds were for the first time below the OECD average in 2009. Results from the IEA's Trends in International Mathematics and Science Study (TIMSS), which measures the mathematical and science performance of eighth grade students, further showed a significant decline in mathematics and science performance of Swedish students between 1995 and 2007 (IEA, 2008a; 2008b).

Upper secondary education in Sweden reaches very good results in terms of ensuring access to and completion of programmes. Over 90% of 25-year-olds have completed upper secondary education, which is among the highest proportions in the OECD (Annex 5). This high educational attainment notwithstanding, youth unemployment is a cause for concern: in 2007, 19.2% of 15-24-year-olds were unemployed (OECD, 2008b). A 2008 OECD Review of Vocational Education and Training found that closer links of programmes to the workplace would be necessary to improve upper secondary education and transition to the labour market (Kuczera *et al.*, 2008).

Equity of student outcomes

There are also concerns about an increase of inequity in Swedish schools. In previous PISA studies (2000, 2003 and 2006), Sweden had achieved a high level of equity among students from various socio-economic backgrounds. Sweden used to be among the countries with a below-average impact of socio-economic background on performance (OECD, 2007a). However, in PISA 2009, the impact of socio-economic background on reading performance has markedly increased and is now above the OECD average (OECD, 2010c).

The variation in performance between high- and low-performing students in Sweden has also increased between 2000 and 2009. This is due to lower scores among low-achievers while there was no change among high-achievers. Variations in student performance can mostly be found within schools (OECD, 2010d). The between-school variation of performance in Sweden remains lower than the OECD average, which seems to indicate that the specific school a student attends has only a modest impact on how the student performs. However, between-school variation significantly increased since 2000 and is now higher in Sweden than in the other Nordic countries (OECD, 2010c).

These trends towards a widening gap between high- and low-achievers are corroborated by a number of Swedish studies reviewed by the NAE in 2009. The studies included in the NAE review indicated that the spread of grade point averages of different student groups and different schools has widened over time (NAE, 2009a). While such data should be interpreted with caution as differences in grade point averages may simply reflect differences in teacher grading practices (Chapter 7), these national findings are in line with the international survey data cited above. The studies further indicate that the differences in outcomes have become more pronounced between students of different gender, social background and ethnicity, but most importantly between groups of students whose parents have different levels of education (NAE, 2009a).

In this context, the integration of the growing proportion of students with an immigrant background is of particular importance. The PISA 2009 data show a large gap in education outcomes between immigrant students and their native peers at all levels of education, especially for first-generation immigrants (OECD, 2010d). As a recent OECD Review of Migrant Education has pointed out, this gap can be largely explained by differences in socio-economic backgrounds and language barriers (Taguma *et al.*, 2010). Immigrant students also face particular challenges in access to and completion of upper secondary education: in 2007/08, 23% of all students with an immigrant background who finished compulsory education were not qualified to continue to a national upper secondary programme, versus 9% of their natives peers (Taguma *et al.*, 2010). Drop-out rates are also comparatively higher for students with an immigrant background. The proportion of immigrant students aged 16-24 having arrived to Sweden recently has increased markedly the last few years (Statistics Sweden online database).

Decentralisation / recentralisation

In the late 1980s and early 90s, public administration in Sweden underwent a profound decentralisation process, during which decision-making power in education was transferred from the central Government to the municipalities. The purpose of these reforms was to support local democracy and promote increased flexibility and efficiency in finding solutions to meet local needs.

However, since the mid-1990s, both the central Government and stakeholders have voiced concerns about the quality, equity and efficiency of the decentralised provision of education. While some municipalities are providing excellent services, there is a perception that students are not being given the same educational opportunities depending on the municipality in which they go to school. “Open comparisons” of schools published by SALAR show variations in the quality of compulsory schools across Sweden, also

between municipalities with similar socio-economic conditions. There are also concerns about varying degrees of investment and commitment across municipalities.³

The variations between municipalities triggered a debate about the need for more governmental steering and control. Since the late 1990s and early 2000s, more direct governmental steering mechanisms have been introduced. This includes the use of earmarked state funds for certain priority areas, the creation of a national Inspectorate as well as the introduction of more concrete curriculum goals and a strengthened student assessment system (for more detail, see Chapter 3).

School choice, competition and segregation

The decentralisation of power from the state to municipalities in the early 1990s was accompanied by the introduction of school choice and independent schools. The system of grant funding was changed so as to allow different actors to create and manage independent schools. Guardians were granted the right to choose a public school other than the ‘neighbourhood school’ or an independent school for their children. The introduction of more market forces in education was expected to increase efficiency and innovation, by enhancing competition between schools and pushing schools to improve quality and reduce costs.

Independent schools are financed by the municipalities according to the same criteria as the municipality’s own schools. They have to be approved by the Schools Inspectorate and follow the same curricula as municipal schools, but they can have a specific orientation or profile that differs from municipal schools (*e.g.* Montessori and Waldorf Schools, schools with a linguistic or ethnic profile and schools with a specific religious orientation). While the independent sector remains small, the proportion of students attending independent schools has increased rapidly. At the compulsory level, the proportion of students attending independent schools has grown from about 0.9% to 10% between 1990 and 2008. At the upper secondary level, the share has increased from 1.5% to 20% during the same period. In 2008/09, 14% of the compulsory schools and 44% of the upper secondary schools in Sweden were independent schools.

A number of studies have analysed the impact of school choice reforms on the distribution of students across schools. A major review of research shows that the vast majority of students still attend the schools in their neighbourhood, but that more highly educated parents tend to make use of the option of choice for their children (NAE, 2003). In some areas, this seems to have resulted in increasing segregation of students along socio-demographic lines. While the degree of socio-economic and ethnic segregation between schools in Sweden remains low by international comparison, research indicates that segregation has increased in recent years (NAE, 2006; Taguma *et al.*, 2010). It should be noted that residential segregation in Sweden has also increased during this period, which may partly explain the increased levels of segregation in schools (NAE, 2009a).

3. For example, a recent study by the NAE showed significant differences in the ways resources are allocated to schools in different municipalities. In 2007/08, municipal spending per pupil varied across municipalities from 60 000 to 108 000 SEK per year and average teacher-student ratios ranged from 5 teachers per 100 students to almost 16 teachers per 100 students. Municipalities also differed in the degree to which they allocated compensatory funding for schools to support students with special educational needs (NAE, 2009a).

Management by objectives

In line with the decentralisation process, a goal- and result-oriented steering system was introduced. The principle of governing through goals and objectives combined with active national standard-setting has been applied in the public sector as a whole since the early 1990s. This overall administrative culture has a strong impact on activities in the education sector.

Reforms associated with this process included changes in the curriculum, syllabi and grading criteria. The core curriculum that was introduced in 1994 sets out overall learning goals for all students, but schools and teachers have a large degree of autonomy in deciding on teaching content, methods and materials. Schools can offer different study options and teachers have wide scope to interpret the goal documents and adopt flexible teaching practices to meet students' needs. Within this framework, instruction should be individualised to meet diverse student needs and students are increasingly being asked to take responsibility for their own learning (NAE, 2009a; Carlgren, 2009).

While this model has allowed for strong teacher professionalism, it also raises concerns about the equivalence of educational opportunities (see Chapter 3). Some studies have also shown that with the current approach to individualisation of instruction, students are left more to themselves, and those who are in need of special support may have difficulty dealing with the demands to manage their own learning (NAE, 2009a). While, in theory, individualisation should increase equity by tailoring learning to meet individual student needs, teachers may not necessarily have all the know-how or support they need to help an increasingly diverse group of students.

2.4 Main developments

Revision of the Education Act

The Government has decided on a comprehensive revision of the Education Act that will come into effect in July 2011. The current Education Act dates back to 1985 and does not reflect the changes in the education system since the late 1980s. The revisions aim to bring together different pieces of legislation into one single coherent document. In particular, the new Education Act aims to reflect better the growing importance of independent schools and the division of responsibilities between the different levels of governance. The new Act is also intended to provide a more adequate basis for a school system that is managed by objectives.

Reform of upper secondary education

A comprehensive reform of upper secondary education is currently being designed. The 17 national programmes will be replaced by five programmes preparatory for higher education and 14 vocational programmes. The aim of the reform is to respond better to the needs of all young people whether they strive to continue their studies in higher education or to enter directly into the labour market. A pilot project has also been implemented to ensure closer linkages between vocational programmes and the labour market.

Teacher registration

As part of the new Education Act, the Government has proposed a new system for registered teachers, which has been circulated for formal consultation. The registration system would require novice teachers to complete an introduction year at a school during which they would be supported by a mentor. Upon completion of the year, the school leader would have to assess the teacher as suitable for the profession for the teacher to be fully registered. It has also been proposed to establish several qualification stages as part of the registration system in order to encourage teachers to engage in continuous professional development.

Improved training and development for teachers and school leaders

The Government has provided specific funds for the municipalities and independent schools to support professional development. In this context, it has launched *Boost for Teachers (Läraryftet)*, a comprehensive programme for in-service training of teachers with a particular focus on deepening their subject knowledge and didactics. The programme runs from 2007 to 2011 and covers 30 000 fully qualified teachers (*i.e.* around 25% of all primary and secondary school teachers). Moreover, the *National School Leadership Training* programme was made compulsory for school leaders in March 2010. The programme is delivered by higher education institutions, with standards set by the NAE. The training programme covers three areas of knowledge: (1) legislation on schools and the role of exercising the functions of an authority; (2) management by goals and objectives; and (3) school leadership. The programme is completed when participants have achieved the course requirements of 30 higher education credits.

New curriculum and syllabi

The NAE is planning to introduce a new curriculum and syllabi for compulsory schools by mid-2011, as decided by the Government. One of the main changes will be to update learning standards and goals embedded in the curriculum and syllabi so that they are clearer and more concrete. The new syllabi are intended to include more description of teaching content so as to ensure that every child in Sweden has a common basis of knowledge and skills. It is hoped that these changes will contribute to higher levels of achievement – students will be able to learn more when the goals are clear – and will provide a sounder basis for assessment and adaptation of teaching to individual student needs.

An increased focus on evaluation, assessment and accountability

A growing emphasis on evaluation and assessment can be observed at all levels of the education system. A key element of the Swedish approach to management by objectives is the idea that all levels of the education system should use data from assessment and evaluation for analysis, comparison and improvement. The Government has emphasised the importance of high-quality data collection systems, evidence-based policy making, increased external control of schools, earlier assessment, and follow-up of individual students to prevent failure. The features and developments in the evaluation and assessment system will be described in more detail below.

Chapter 3

The Evaluation and Assessment Framework

The Swedish approach combines national standard-setting and central test development with a high degree of trust in school professionals to carry out evaluation and assessment. All educational activities are organised around a system of management by objectives, where each level of the education system – national agencies, municipalities and schools – engage in evaluation activities. At the central level, there is a high degree of transparency in measuring and publishing results on goal achievement. However, while key elements of evaluation and assessment are well established, they currently do not link into a coherent framework. Challenges remain in aligning the different elements of evaluation and assessment and ensuring that the data collected at different levels are appropriately integrated and used for improvement.

This chapter looks at the overall framework for evaluation and assessment in Sweden, *i.e.* its various components such as student assessment, teacher appraisal, school evaluation and system evaluation, the coherence of the whole as well as the articulation between the different components. Following this overview, the succeeding chapters (4-7) will analyse the issues relevant to each individual component in more depth.

This report differentiates between the terms “assessment”, “appraisal” and “evaluation”. The term “assessment” is used to refer to judgments on individual student performance and achievement of learning goals. It covers classroom-based assessments as well as large-scale, external tests and examinations. The term “appraisal” is used to refer to judgements on the performance of school-level professionals, *i.e.* teachers and school leaders. Finally, the term “evaluation” is used to refer to judgments on the effectiveness of schools, school systems and policies. This includes school inspections, school self-evaluations, evaluation of municipalities, system evaluation and targeted programme evaluations.

3.1 Context and features

As in many OECD countries, the different components of Sweden’s evaluation and assessment system have not been designed as a coherent framework. They have developed relatively independently of each other over time. In Sweden’s decentralised education system, local actors hold a large amount of autonomy in designing quality assurance practices, which results in a great variety of approaches. However, all aspects of evaluation and assessment are designed to align to the national curriculum goals and to the principle of management by objectives. In a nutshell, the Swedish approach can be described as consisting of the following four components (adapted from Swedish Ministry of Education and Research, 2010):

- **Student assessment:** Students are assessed continuously by their teachers. In the early years of education, student assessment is mostly formative. Currently, students do not receive grades before Year 8, but the Government has proposed to make grades compulsory from Year 6. Students are engaged in setting learning goals through individual development plans (IDPs) and encouraged to develop skills for self-assessment. There is a strong focus on classroom-based continuous assessment. Teachers are expected to collect a range of evidence on student progress using different methods and provide regular feedback to students through the IDPs. A national ‘test bank’ is available for teachers to use. In addition, national assessments must be administered by schools at key stages in compulsory education (Years 3, 5 and 9) and in upper secondary education. The national assessments in Years 3 and 5 are intended for diagnostic and formative purposes, whereas the assessments in Year 9 and in upper secondary school are summative and must be considered by teachers when setting grades. A specificity of the Swedish approach is that all national tests are administered and marked by the students’ own teachers.
- **Teacher appraisal:** According to the Education Act, teachers’ performance should be appraised by their school leaders and the appraisal should influence teacher remuneration through a decentralised individual pay scheme. The process of teacher appraisal in Sweden is not regulated by law and no formal procedures exist to periodically evaluate the performance of permanent teachers.
- **School evaluation:** Local education authorities are responsible for implementing systematic school evaluation procedures. Until recently, this was done through a

system of quality reporting at the school and municipality level. From 2011 onwards, the quality reporting will no longer be compulsory but schools still have to document their quality assurance practices. National inspections were established in 2003 as a new function of the National Agency for Education (NAE) and strengthened in 2008 with the creation of the Schools Inspectorate as a separate agency. Currently, the aim is to increase the frequency of national inspections so that every school will be visited every third year (instead of every sixth year as was the case in the first round of inspections). The Inspectorate looks at the quality of school organisation, quality development work as well as the quality of school leadership. Overall, schools have access to a variety of feedback, not only from the inspections but also from the NAE's publication of school performance data and from student and parent satisfaction surveys.

- **System evaluation:** The major responsibility for establishing a framework for evaluating the quality of the education system lies with the Ministry of Education and Research, but in practice much authority is given to the National Agency for Education. The performance of the education system is monitored via a range of tools including participation in international assessments, aggregation of data from national assessments, publication of key indicators in national databases, thematic quality evaluations by the Schools Inspectorate and evaluation reports by the National Agency for Education. While aggregated performance data of schools and municipalities are available through national databases, there is relatively little analysis at the national level of the educational performance of individual municipalities.

When analysing the Swedish evaluation and assessment system, it is particularly important to keep in mind some key features of the country's system of educational governance. Sweden has a decentralised education system with (1) municipalities having strong jurisdictions, (2) national authorities playing a strong regulatory and standard-setting role, and (3) consumer decisions and market mechanisms being accepted as important factors. This arrangement is the outcome of a two-decade long development and a series of reforms which led the country from a highly centralised to a highly decentralised system. It is a system of shared responsibilities where the quality of evaluative feedback to the education system and its use is determined by the behaviour of several actors, and effective evaluation can be operated only through the cooperation of all of them (especially national and local authorities).

3.2 Strengths and challenges

Strengths

A strong focus on outcomes

A major strength of the Swedish evaluation and assessment framework is its clear focus on outcomes. Since the late 1980s, as a response to a severe economic recession, Sweden undertook far-reaching public sector reforms to ensure a more efficient government administration. In the education sector, this led to the introduction of a system of *management by objectives*, which underlies all educational activities, including evaluation and assessment.

The purpose of management by objectives is to increase efficiency in central administration by setting goals and assessing outcomes rather than focussing on input and processes. While the responsibility for implementing school education was decentralised to the municipal level, mechanisms for the measurement of outcomes were strengthened. Evaluation and assessment thus moved to the forefront of the educational organisation. All evaluation and assessment activities aim to ensure that individual students are given the opportunity to reach nationally defined goals set out in the curriculum and syllabi (Segerholm, 2009; Swedish Ministry of Education and Research, 2010).

The outcome-oriented framework constitutes a strong basis for Sweden's evaluation and assessment system. Currently, the curriculum goals are defined centrally by the Government, but they are further developed and specified in subsequent steps at each level of the education system. While constituting a common core of values and objectives, the goals are broad enough to allow for local interpretation and adaptation. As explained in Box 1, currently each level of the education system is required to contribute to the setting of objectives.

While this participatory approach to developing objectives has the advantage of strengthening ownership of the goals by municipalities, school leaders, teachers, students and parents, it carries risks in terms of equivalence of education across the country (this will be addressed below). Especially in the context of a growing independent school sector, the provision of education might become increasingly diversified (Nytell, 2010). The Government has decided to introduce a new curriculum and new syllabi in July 2011, which are expected to make learning goals clearer and more concrete. It is hoped that these changes will help teachers promote equal learning standards across the country and avoid large variations in teaching content. In developing the new syllabi and grading criteria, the NAE is collaborating with researchers, teacher trainers, schools and teachers. Before being implemented, the syllabi are published on the internet for broad consultation of stakeholders.

Box 1. The development of goals for the Swedish education system, 2010

This Box describes the participatory approach to goal development that was in place at the time of the OECD visit in May 2010. The processes are likely to change when the new curriculum is implemented in mid-2011.

The national curriculum goals are set at the central level by the Government and the National Agency for Education for year levels 5 and 9 in order to ensure equivalent education for all students across the country. The national curriculum sets out goals for learning at two levels: goals to aim for, and goals to attain, the latter being the minimum required level of achievement. The NAE further develops the curriculum goals into subject-specific syllabi and grading criteria. These national goal documents do not include specifications about teaching content but rather set out broad values and aims.

At the local level, the curriculum goals and syllabi are then further developed and specified for each subject and grade level. Due to the decentralised approach to education, the process for doing this is very uneven across the country. Some municipalities define a local interpretation or specific focus area of the curriculum for all schools in their jurisdiction (for example, in Malmö, given the high proportion of immigrant students, there is a special curriculum focus on language learning). In a range of municipalities, there are annual municipality-wide meetings of teachers teaching the same subject to discuss how the syllabus in this particular subject area should be implemented and assessed.

All schools need to develop their own local work plan, setting their own goals, plans for improvement and indicators to monitor progress. Again, processes for doing vary from school to school. Typically, teachers within the school meet in groups, by year level, by subject or by programme, in order to determine what the national goals should mean at the school level and how they should be implemented. There normally are a few teachers who hold special functions, such as group leader or discussion leader, to animate and lead the discussion. While some schools have little written documentation of this process, others develop elaborate documents. One school visited by the OECD team organised weekly evaluation and assessment meetings for groups of teachers and also had developed school-level syllabi for each subject, based on the national syllabi.

Within each classroom, teachers and students then work together to develop the specific goals for each course and semester based on the national goal documents and local work plans. Even in the earliest grade levels, teachers discuss the goals and performance criteria with their students at the beginning of the year. Teachers are obliged to ensure that students and parents are well informed about the goals and receive regular feedback about their progress. To help students reach the goals, individual development plans (IDPs) with individualised goals are prepared for each student. The IDPs are developed collaboratively in regular ‘development talks’ between the teacher, individual students and their parents (for more information, see Chapter 4).

Sources: Swedish Ministry of Education and Research (2010); Eurydice (2010).

Transparency in monitoring and publishing results

The outcomes-oriented framework is further strengthened by a high level of transparency in monitoring and publishing results. Sweden collects a wide range of data on education system performance, including through participation in international student surveys, national assessments, qualitative thematic reviews and inspection reports (see Chapter 7). The NAE publishes a comprehensive set of educational statistics and has developed two publicly available databases – SIRIS (Information System on Results and

Quality) and SALSA (Local Relationship Analysis Tool) – presenting information on the characteristics and results of municipalities and schools (see Chapters 6 and 7 for more detail). All evaluation reports and inspection reports prepared by the NAE and the Schools Inspectorate are also available online.

In addition, the Association of Local Authorities and Regions (SALAR), has begun to publish its own analysis of NAE data, developing success indicators and rankings of individual schools. The open comparisons present 15 indicators on issues such as national test results, school costs and staffing. They are intended to (1) inform and stimulate the public debate about efficiency in public service, (2) support local and regional efforts to improve services, and (3) increase efficiency and control of activities (Cavaliere Persson, 2010). While there are of course concerns about the unintended effects of such rankings (see chapter 6), the existence of these ‘open comparisons’ does reflect a shift in attitude and thinking towards measuring outcomes. During the OECD review, representatives of SALAR suggested that the fact that these rankings are established by SALAR and not an outside body had made them more acceptable to municipalities.

Evaluation and assessment build on teacher professionalism

The system of management by objectives requires strong teacher professionalism. Within the framework of the national goal documents and the school work plans, teachers have complete autonomy in deciding on teaching content, materials and methods. Moreover, teachers are seen as the main experts not only in instructing but also in assessing their students. This is in stark contrast to some countries where student assessment is conceived as an activity separate from teaching and undertaken by school-external psychometric experts (Nusche, forthcoming). While the absence of a systematic external moderation process raises concerns about the reliability of student assessment results (this will be explored below), the Swedish approach certainly reflects a high level of trust in the teaching profession.

While centrally-developed national tests exist in Sweden, they are administered and marked by the students’ own teachers (Annex 5). The tests were mainly designed as a help for teachers to determine fair and comparable grades, rather than as an external examination tool (Wikström, 2005; Segerholm, 2009). While the national tests give teachers a tool to compare their own assessments to an external reference point, it is important to note that the entire responsibility for student grading rests with the teachers. This reflects that teaching and assessment in Sweden are understood as integrated activities. Teachers are being trusted to review their own students’ test performance and this is conceived as a way for them to further develop their pedagogical competencies.

This approach to student assessment can also lead to foster teachers’ *collective* professionalism. During the OECD Review, school-level professionals reported that teachers of the same subject tend to collaborate in scoring national tests and discuss grading criteria (for more information on the national tests, see Chapter 4). While there is no mechanism to ensure that it happens in every school, teacher cooperation in grading is encouraged (Wikström, 2006). The reliance on multiple human judgements can be an important way of strengthening the reliability of teachers’ assessments (Van der Vleuten and Schuwirth, 2005; Baartman *et al.*, 2006).

Teachers also play a key role in the internal evaluation of their own school. Quality assurance and reporting within schools has been conceived as a collective process with a strong focus on democratic participation and ownership by teachers (NAE, 2005a;

Swedish National Agency for School Improvement, 2007). While approaches to school self-evaluation are highly varied between schools, school-level professionals interviewed by the OECD team reported that there are often specific teachers who hold posts with formal responsibility for quality assurance and evaluation who work together with groups of colleagues. In some schools, teachers are asked to evaluate their school leaders (for more detail on school self-evaluation, see Chapter 6). Research from different countries has shown that such participatory data analysis and school self-evaluation can strengthen professional learning communities in schools and can help engage professionals in quality improvement work (Earl and Katz, 2002; Pont *et al.*, 2008a). This internal quality work by teachers is strengthened by their openness to external feedback (see Chapter 5).

Students are at the centre of evaluation and assessment

An important aspect of the Swedish approach to education is that students are being trusted and considered as responsible partners in the education system in general, and in evaluation and assessment activities in particular (NAE, 2004). The Education Act and the curriculum state that all students should be granted the democratic rights of taking responsibility and participating in the decisions that concern them and their school environment. Teachers are required to involve their students when planning and organising lessons. Schools are responsible for ensuring that both students and parents are involved and given the opportunity to influence school education (Alexandersson and Engström, 2006; Segerholm, 2009).

Students and their parents also play an important role in the evaluation of educational services. At the national level, the NAE carries out a survey on student and parent attitudes towards school every three years. The survey covers issues such as safety, comfort, atmosphere at school, teaching and learning, and opportunities for student participation. The 2009 survey also included questions about proposed changes in the student grading system. While municipalities and schools vary in their approaches to quality assurance, in the municipalities and schools visited by the OECD team locally designed student and parent surveys were frequently used to acquire information about the opinions and expectations of key client groups. Many of the teachers interviewed by the OECD team also designed their own surveys to collect student views on their teaching. Student views were described by the stakeholders we spoke to as a key element for the self-evaluation of teachers and schools.

Beyond the student surveys designed at different levels of the system, students also influence the evaluation and assessment system through their representative organisations. Two nationally organised student councils – SECO and SVEA – are involved in the national debate on education policy and also have strong views about evaluation and assessment. In particular, they advocate for the right to appeal grades through a legal process, given the importance of grades for admission to higher education and future life chances (see Chapter 4).

Moreover, students are given the right to participate in their own assessment. Student assessment throughout compulsory education is organised around individual development plans (IDPs). These are developed and revised collaboratively in regular ‘development talks’ between the teacher, the individual student and his or her parents (for more details, see Chapter 4). The goals determined in IDPs are also used for student self-assessment in which students are asked to rate their own progress and performance.

Challenges

Absence of an explicit strategy or framework for evaluation and assessment

As in many other OECD countries, the different elements of evaluation and assessment have developed gradually over time and there is currently no policy document on the overall framework for evaluation and assessment in Sweden. At the national level, there are provisions for student assessment, school evaluation and system evaluation, but these are not explicitly integrated or aligned (more on this below). While a lot of quality assurance work happens locally within classrooms, schools, and municipalities, there tends to be little documentation of such practices, which weakens the possibilities for sharing of good practice and systemic learning over time.

As a consequence of the lack of an explicit overall framework, the roles and responsibilities for implementing different aspects of evaluation and assessment are not clearly laid down in writing. While the realms of responsibility in evaluation and assessment have evolved over time and are more or less clear to the actors involved, cooperation and synergies could be further enhanced. In particular, there is limited cooperation between the national and the municipal provisions for evaluation and assessment. Even though all municipalities are obliged to undertake evaluations and ensure quality in their schools, little is known about whether different municipalities work together and share good practice in this area. There is no regular nation-wide initiative bringing together the people working with educational quality assurance in municipalities. The Ministry of Education and Research and the National Agency for Education do not collaborate with municipal quality assurance staff as a group. The cooperation between the recently created national Schools Inspectorate and the municipal staff working on quality assurance is also limited.

Some elements of evaluation and assessment are not sufficiently articulated

Linking different elements of assessment and evaluation in a way as to generate complementarities, avoid duplication or prevent inconsistency of objectives is an important aspect of designing an evaluation and assessment framework. The review team noted a number of missing links, or inconsistent articulations, between different elements of the Swedish approach to evaluation and assessment. These include:

- *Alignment of teacher appraisal with professional standards*

This is currently being developed, but at the time of the OECD visit, there was no clear and concise statement or profile of what teachers are expected to know and be able to do, which weakened the capacity of school leaders to effectively assess teacher performance (Chapter 5).

- *Linkages between teacher appraisal, professional development and school development*

There are indications that teacher professional development is not systematically linked to teacher appraisal. Teacher appraisal and professional development could also be better articulated with school development priorities (Chapter 5).

- *Alignment of teacher appraisal with school evaluation*

Synergies between teacher appraisal and school evaluation could be better exploited as both share a common focus on improving teaching and learning

processes. This relates to a range of aspects, such as school-based teacher appraisal being validated by school evaluation processes and making the focus of school evaluation on teacher effectiveness systematic across schools (Chapter 5).

- *Articulations between school self-evaluation, school inspection and municipal school evaluation*

While a range of school evaluation processes are well established, school self-evaluation and external evaluations (by the Inspectorate and by the school owners) are not always complementary and well integrated (Chapter 6).

- *Linkages between student assessment and system evaluation*

Education system evaluation relies heavily on teacher-based assessment of students, which is problematic given the variability in teachers' assessment practice and the lack of external moderation (Chapter 4; Chapter 7).

- *Linkages between municipal and national level evaluation*

There is little analysis at the national level of performances differences between municipalities, despite concerns about the variability of quality procedures across municipalities (Chapter 7).

Concerns about the lack of a reliable measure of learning outcomes

A major challenge in the Swedish quality management system is the lack of an external assessment framework that would allow monitoring whether national learning goals are being achieved. The key evaluation and assessment activities – student assessment, school inspection, system evaluation and empirical educational research – are based on teacher assigned grades as the primary outcome measure. Even the national tests are graded by students' own teachers, which means that there is no externally validated measure of student learning outcomes.

The Swedish Schools Inspectorate has undertaken a national re-correction of teacher scoring of student performance on national tests and found that the current assessment system is highly variable (see Chapter 4 for more details). The Inspectorate found that teachers interpret scoring guides very differently and that grading practices vary widely between teachers and schools. Possible explanations are that grading/scoring criteria are not adequately detailed and that teachers vary in their capacity to score student achievement on performance-based tests. This is of key concern in achieving equivalence of educational opportunity throughout the Swedish system. It also reduces the adequacy of national tests as a measure of education system performance (see Chapter 7).

The national tests currently serve many different functions including diagnostic, formative and summative assessment of individual students and they also produce the basic data for school self-evaluation, inspections and system-level evaluations. While the tests were originally designed to help teachers calibrate grades, they are increasingly used as national outcome measures. It is questionable whether in their current format the national tests can successfully fulfil all these expectations. Sweden should consider ways to increase the reliability of the existing tests as well as possibilities of introducing additional types of student assessments such as a sample-based survey (more on this in Chapter 7).

Variations in the implementation of evaluation and assessment

As can be expected from a decentralised system, there are large variations in the ways the national documents and guidelines for evaluation and assessment are implemented across the country. This can be both a strength and a challenge. The diversity of approaches to evaluation and assessment allows innovation and thereby system evolution. There are excellent quality assurance initiatives at the local and school level, generating commitment, professionalism and dynamism. Yet, there are concerns about those school owners and schools where such initiatives are not in place (Chapter 6).

The school owners (municipalities and independent providers) are responsible for evaluating their schools in a systematic way, but they vary in their capacity and commitment for doing so. The Schools Inspectorate has criticised the fact that municipalities and schools are not coherent and systematic enough in their evaluation activities (Skolinspektionen, 2009). The instruments used by municipalities and other providers for quality assurance are extremely diverse (see Chapter 6). No national data is available on how many municipalities use the different available tools for quality assurance or on the frequency with which they are used. There is little evidence as to whether examples of good practice are spread and shared across the system.

Approaches at the school level are equally diverse. School leaders and their teaching staff hold responsibility for day to day evaluation activities within schools and for reporting their results to the municipality. However, the ways in which school self-evaluation is conducted, the role that school leaders take in the framework and the communication channels between schools and municipalities are highly variable. Some municipalities have an explicit policy defining the role of school leaders in the evaluation and assessment framework. Depending on the municipalities, there may be support structures for schools to conduct internal quality work or not.

At the classroom level, the OECD review team noted insecurity among teachers about how to best implement the curriculum and grading criteria so as to ensure a fair assessment of student performance (Chapter 4). The fact that each teacher can determine the teaching content of his or her subject leads to concerns about equivalence of education across the country. In particular, difficulties tend to arise when students change schools. The school-level professionals and stakeholder groups we spoke to communicated a fairly consistent view that the introduction of the core curriculum in 1994 did not come along with sufficient guidance, support materials and training to ensure equivalence in education and equity in student assessment.

There is room to strengthen knowledge management across the system

There is no central organisation responsible for knowledge management in the evaluation and assessment framework. While Sweden is collecting large amounts of data and statistics, the collection, presentation and analysis of existing data at the central level could be further improved (see Chapter 7).

The different municipalities have their own data collection systems, but they are not standardised and cannot be used in a comparable way across municipalities. The same is true for independent school providers. Each provider collects its own data, and there is no attempt to harmonise this data. The Association of Local Authorities and Regions (SALAR) and the Independent Schools Association do not play any role in standardising or aggregating the data.

At the school level, the use of data systems is very uneven. Some schools do not have data management systems. This means that the development of individual students is not tracked over time and that such information cannot be easily shared among teachers or with a student's next school. There are a number of IT companies that sell data collection and management systems to municipalities but no information is available on how many schools have such computerised systems to store individual student data. There is no national plan to deal with this or standardise the approaches to facilitate comparison. During the OECD visit, representatives of the NAE noted that schools would need additional support in order to store, collect and use information for improvement at the school level.

Links to improvement of classroom practice are less clearly articulated

Another important challenge is to find the right balance between the accountability function and the improvement function of evaluation and assessment. The closing of the National Agency for School Improvement and the creation of the Schools Inspectorate points to a shift of priorities towards a greater focus on accountability. In recent years, there has been a lot of investment in collecting data about student, school and local system performance. The control of municipalities and schools through the Swedish Schools Inspectorate has been strengthened. Pressures are created through the publication of data and the naming of schools or municipalities that are not performing. The Inspectorate does not yet have the possibility to sanction public schools, but it has a mandate of being “tough”, and the possibility of introducing sanctions is stipulated in the new Education Act that will be implemented in July 2011.

While transparency of information and high-quality data are essential for a well-functioning evaluation and assessment system, the priority now is to ensure that the existing data and information are actually used for improvement. There has been comparatively less focus on ensuring that municipalities and schools have the capacity to use the data and feedback made available to them in order to improve their practices. There is no particular mechanism to ensure that the results of evaluation and assessment activities feed back into classroom practice. A report by the Schools Inspectorate found that schools in particular often lack the capacity to use performance data constructively for improvement (Skolinspektionen, 2009). There is also room to develop more practice-based expertise by strengthening possibilities for schools to share examples of good practice in using evaluation and assessment results for school improvement.

3.3 Pointers for future policy development

In order to strengthen the overall framework for evaluation and assessment (each component will be discussed in more detail in the succeeding chapters), the review team proposes the following approaches for Sweden to consider:

- Develop a strategic plan for evaluation and assessment and sustain efforts to improve capacity.
- Develop an externally moderated student assessment system.
- Increase clarity and support from the national level.
- Improve knowledge management and strengthen links to classroom practice.

Develop a strategic plan for evaluation and assessment and sustain efforts to improve capacity

While all aspects of evaluation and assessment are linked – within national policy documents – to the national curriculum goals and the principle of management by objectives, there is room to strengthen the coherence of the overall evaluation and assessment system and to make sure it influences classroom practice. To optimise complementarities of evaluation practices at different levels of the education system, we recommend developing a strategic plan for evaluation and assessment. The main function of the plan would be to propose a higher level of integration and coherence of the different components of the evaluation and assessment framework. Voices of key stakeholders groups, as well as the social partners, should be engaged in the development of the plan so as to ensure that it is responsive to broader social and economic needs as well as to the goals of the education system. The plan should essentially constitute a common framework of reference for educational evaluation across the country.

The process of developing a strategic plan for evaluation and assessment should provide an opportunity to rethink articulations between different evaluation components. For example, there is room for increased integration between teacher appraisal, school evaluation and school development (Chapter 5), between school self-evaluation, inspection and municipal school evaluation (Chapter 6) and between school evaluation and the external world, including the needs of the labour market (Chapter 6). It would also be important to reconsider how each component of the evaluation and assessment framework can produce results that are useful for classroom practice and school improvement activities. Such a plan could contribute to clarifying responsibilities of different actors for the different components and allow for better networking and connections between the people working on evaluation and assessment issues.

The plan should come along with clear goals and map the existing range of tools for quality assurance at different levels. It should permit overall alignment to common evaluation practices across municipalities while leaving sufficient space for local adaptation. This could imply requiring municipalities to develop action plans at the local level aligned to the national quality plan. The goals defined at the national and local level should be complementary in order to avoid conflicting messages to schools. The plan should be adaptable to different municipality needs. While it should not become an obstacle to the existing excellent approaches in some municipalities, it needs to provide the necessary guidance and prescriptive elements for municipalities that have so far shown little capacity or commitment to develop their own frameworks for evaluation and assessment.

The strategic plan should be followed up by improved training and competency descriptions for key people within the evaluation and assessment framework. This concerns in particular the directors of education and other staff working on evaluation and assessment issues at the municipality level. Their job description and training currently does not correspond to the high *de facto* evaluation responsibilities that they carry. The National Agency for Education could play a role in allowing for increased collaboration and networking among the municipal staff responsible for quality assurance in education. This could be done, for example, through an annual meeting of municipal quality assurance staff. The central level could also play a greater role in supporting networks of municipalities working on particular quality assurance and improvement projects. Greater use of earmarked funding for such quality initiatives should be considered.

At the school level, principals and teachers also have important responsibilities in evaluation and assessment but have not been sufficiently trained and prepared for these aspects of their job. In a decentralised system without school-external assessment frameworks, it is essential that teachers are specifically trained to be professional and reliable assessors (Chapter 4). While training in assessment and evaluation will receive increased attention in the new initial teacher training to be implemented in July 2011, it is also essential to systematically provide in-service training in this area for practicing teachers and school leaders. As a basis for professional feedback and continuing professional development, it would also be important to develop professional standards for school leaders and teachers that clearly outline what they are expected to know and be able to do (Chapter 5).

Increase reliability of the national assessment system

In addition to designing an overall strategic plan for the evaluation and assessment system, there is a need to strengthen the reliability of student assessment. To increase the reliability of national test results, it would be helpful to ensure that the national tests are reviewed by a grader who is external to the school and does not know the student being assessed. There are several options of doing this: employing a second grader (a teacher in the same subject) in addition to the students' own teachers, introducing a checking procedure by a competent authority or examination board, or implementing systematic external grading and moderation through professionals specifically employed for this purpose (for more detail and examples, see Chapter 7). In any of the above options, high-quality training for all graders is essential to ensure professional assessment competencies.

There is also room to improve the design of the student assessment system to increase the reliability of results. This could be done via the introduction of "complex assessments" combining the use of performance-based tasks and standardised close-ended formats. For example, the national tests could comprise a section that can be corrected automatically by a computer. This should by no means replace the current performance-based assessments, but it could add another dimension to the national tests whose results would be more easily comparable. There also is scope to improve the use of high quality ICT programmes in designing assessments (see Chapter 4). Finally, Sweden could consider introducing other types of tests such as sample-based surveys for system monitoring (see Chapter 7).

Increase clarity of goals and support for effective assessment practice

As the analysis above has shown, more clarity and support from the national level is necessary to ensure equivalent education and assessment across all schools in Sweden. As mentioned above, there is a need for clearer external reference points in terms of expected levels of student performance. While it is important to keep the curriculum open so as to allow for teachers' professional judgements in the classroom, there is still a lot of scope to make the curriculum goals and syllabi more concrete. A new curriculum, with more concrete goals, new syllabi and knowledge requirements has already been decided by the Government. It will come into force in July 2011. The revision of the curriculum and syllabi is an opportunity to strike a better balance between teachers' freedom and equivalence in educational opportunities.

However, in addition to clearer goals, the NAE should also consider providing additional training and tools to support teachers in their daily practice. Capacity building through adequate provision of initial training and professional development related to assessment literacy is key to strengthening teacher and school leader practices (see Chapter 4). There also is a strong need to provide better support materials, scoring guides and exemplars of different performance levels teachers can use in their assessments. More developed guidelines for grading practices can help ensure equivalence of opportunities for all students. For example, there could be clearer guidance concerning the weight of the national tests in the final grade for students.

To support and encourage quality initiatives at the municipal and school level, the central level could also consider making greater use of funding incentives. For example, the Ministry of Education and Research and/or the National Agency for Education could support local practices related to implementing quality assurance plans within municipalities and professional networks for quality assurance. This could be done through the allocation of targeted earmarked funding specifically designated for this purpose.

Improve knowledge management and strengthen links to classroom practice

Improved knowledge management and knowledge sharing is essential at all levels of the evaluation and assessment system. At the national level, the Ministry of Education and Research or the National Agency for Education could initiate a consultation about the data needs of different stakeholders. Representatives of different stakeholder groups should be brought together to discuss if and how the existing data bases can be integrated in a user friendly way, whether certain data should be presented differently and which data gaps should be filled by additional collections (for more detail, see Chapter 7).

One area for improvement of knowledge management and systemic learning is to improve the school level organisation of data. Currently, this has not been a major focus area and the quality of school data systems is highly diverse. Also, data are not shared between Early Childhood Education and Care (ECEC) providers, compulsory schools and upper secondary schools, which means that important diagnostic information might be lost. Even within a school, data sharing between teachers often relies on informal contacts and may vary in scope and quality and in some cases teachers may not benefit from their colleagues' knowledge about their students.

Improved school level data systems would be important to allow for better tracking and follow-up of individual student development. While currently there are large amounts of aggregate data, it is difficult to track progress of individual students or groups of students within schools, which might be what is most interesting for teachers themselves. Teachers may also be interested in different types of data such as results from classroom assessments that may track, say, monthly progress, which could be stored in a school-internal database. The usefulness of developing student files that remain confidential and follow the student should be explored. The national level could play a role providing guidance and developing a protocol for data sharing and confidentiality rules.

The evaluation and assessment framework will not be able to improve student learning if it is not accompanied by appropriate strategies that ensure teachers benefit from the results of evaluation and assessment for their classroom practice. Making data timely, relevant and easily accessible for teachers – and providing the support tools and training that they need to use it – are among the most critical points for designing an effective evaluation framework.

Chapter 4

Student Assessment

Sweden has a balanced approach to student assessment that captures a wide range of learning dimensions. There is a strong focus on classroom-based assessments through which teachers collect a wide range of evidence on student progress and provide regular feedback to students. National tests at key stages of education are intended to capture a variety of curriculum goals through performance-based tasks including oral assessment and team projects. However, as all other types of assessment in Sweden, the national tests are corrected and graded by the students' own teachers, and the weight of test results in students' grades is determined locally. This raises concerns about inequities in grading. Given the key role that national assessments play in the Swedish evaluation and assessment system, it is vital to increase the reliability of these tests. External moderation could help ensure consistency, comparability and equity of the national assessments. Capacity building for effective summative and formative assessment is also key to strengthening teacher and school leader practices.

This chapter focuses on approaches to student assessment within the Swedish evaluation and assessment framework. Student assessment refers to processes in which evidence of learning is collected in a planned and systematic way in order to make a judgement about student learning (EPPI, 2002). This chapter looks at both summative assessment (assessment *of* learning) and formative assessment (assessment *for* learning) of students.

4.1 Context and features

Student assessment and the role of national tests

Students receive a summary statement of their achievements in school through end-of-semester reports in Years 8 and 9 as well as in the school-leaving reports at the end of upper secondary school. These summary statements of student learning are based on teachers' continuous assessments in the classroom, which is supported by compulsory national tests in certain subjects and stages of education.

National tests exist for key stages in compulsory school (Years 3, 5 and 9) and in upper secondary school. The results from national tests are one of the bases for teachers to determine students' overall grades. Teachers grade the national tests for their own students and each school decides how to weigh the national assessments and course grades. According to the National Agency for Education (NAE), the primary purposes of the national assessments are to:

- Ensure that all students have the opportunity to achieve goals for learning, regardless of gender, race, economic background, or place of residence.
- Ensure fair and equitable grading across schools, as the manner and frequency of assessment varies a great deal from municipality to municipality (and even from school to school). The NAE has also established grading criteria for different subjects offered in the curriculum.

National assessments in Years 3 and 5 are intended for diagnostic and formative purposes. These assessments cover Swedish/Swedish as a Second Language (SSL), mathematics and English (in Year 5 only). They are compulsory and must be administered by schools in a nationally specified period in the spring.

The national tests in Year 9 and those in upper secondary school are summative. Students are required to sit assessments in the core subjects (Swedish/SSL, mathematics and English). In addition, each school administers national tests in one of the science subjects (biology, physics or chemistry), as allocated by the NAE⁴.

Beginning in 2012, students in Year 6 will take national assessments in Swedish/SSL, mathematics and English. These assessments will be compulsory and will replace those now given to students in Year 5.

Tests are also available "on demand" in different subjects, including foreign languages, social science subjects and selected vocational subjects from a test bank run

4. For this purpose, the NAE created three samples of schools, each representative for the total student cohort in Year 9. The samples consider parents' level of education, Swedish/foreign background and responsible school organiser.

by the NAE. The tests, which are aligned with the national curriculum, are intended to supplement teachers' own classroom-based assessments. In addition, the NAE provides diagnostic materials in the core subjects.

A new grading system

Currently, students do not receive grades until Year 8. From Year 8 and through upper secondary school, students receive a term grade at the end of the autumn and spring semesters. Currently, the grade levels in Year 8 and 9 are: G (Godkänt – Pass), VG (Väl Godkänt – Pass with distinction), MVG (Mycket Väl Godkänt – Pass with special distinction). If a student does not fulfil the requirements for a passing grade, no grade is awarded in the subject. In upper secondary education, there is also a failing grade – IG (Icke Godkänt). Under the current system, students who meet “goals to attain” as set out in the course syllabi may be awarded a Pass grade. The NAE sets out criteria describing the kinds of performance students must demonstrate for the more difficult to attain VG and MVG grades.

The Government has proposed making grades compulsory from Year 6. The intention is to help students get used to being graded before they start lower secondary education. This option is still under discussion and there are advocates on both sides of the argument. The Government has also proposed the introduction of five grades instead of the current three grades (G, VG, MVG). The introduction of additional grade levels are intended to provide teachers with more options in assigning grades – for example, if they believe a student's work falls between a VG and MVG performance. Reducing the interval between grade levels is also intended to increase students' motivation to achieve better results, as the next level will be more easily achievable.

Formative assessment

Formative assessment, which the OECD (2005a) defines as the frequent assessment of student progress to identify learning needs and adapt teaching, is supported in Swedish schools through:

- Regular development talks with students and their guardians.
- Individual Development Plans (IDPs).
- Student involvement in goal setting and self-assessment.

Individual school leaders set out the general template for the IDP that will be used in their school. The IDP is to include an assessment of the student's current performance levels in relation to learning goals set in the curriculum and syllabi, and steps the student should take to reach those goals. Whether to include additional information, such as the student's more general development (*e.g.* the student's ability to take on responsibility, their social skills, and so on) is up to the school leader. The written IDP is to include the student's and guardian's input from the regular development talks, which usually take place once a semester. For students who are experiencing difficulty, schools are required to document plans as to how they will help students achieve goals.

4.2 Strengths and challenges

Strengths

Strengths associated with performance-based assessments

Sweden's national assessments measure student progress toward standards embedded in the national curriculum. The assessments are performance-based – that is, students are scored on open-ended performances, such as written essays, oral communication skills, demonstrating reasoning processes, collaborative problem solving, and so on. Compared with close-ended testing formats, performance-based assessments are often seen as being more effectively aligned with curricula that emphasise development of higher-order thinking skills and capacity to perform complex tasks.⁵ Such tests assess a range of integrated knowledge and skills by asking students to perform a task rather than to select a correct answer (Wren, 2009). The national assessments, each of which may take several hours, and may be spread out over several weeks, cover a wide swath of the curriculum. Teachers thus have more information on student performance across a range of tasks, and a better idea of each student's development and progress.

Assessments for students in Years 3 and 5 are used solely for diagnostic and formative purposes. Several of the younger students we interviewed commented that they had enjoyed taking the tests. The Year 9 students we spoke to, as well as those taking examinations in upper secondary education, were naturally more anxious about the assessments, as the results are one of the bases on which teachers determine student grades. At the same time, several of the older students felt that the assessments had been valuable in getting them to reflect upon what they had studied during the year. The fact that students who do not pass one or more of the national subject tests may re-take them helps to lower the personal stakes for students somewhat.

Both primary and secondary students with whom we spoke said that they believed the tests were set at a reasonable level of difficulty. Some students even said that they felt the tests were too easy. This may reflect the current two-tiered system of standards, which sets out goals to attain and goals to strive for. However, this two-tiered system will be removed when the new curriculum comes into force in July 2011.

Advantages of teachers scoring their own students' performance on national assessments

Teachers score their own students' performance on the national assessments. Often teachers work in teams, with colleagues from their own school, or with teachers from other local schools who teach the same subjects, to score the tests (Swedish Ministry of Education and Research, 2010). While there are challenges associated with this approach, as will be noted below, there are also advantages. For example, the scoring experience may serve as an important form of professional development for teachers. Teachers are able to discuss views on student performance with their peers.

5. By contrast, standardised assessments with close-ended answers, such as multiple-choice, true-false or fill-in-the blank tasks, tend to focus on content rather than thinking skills. In such standardised tests – which are often machine-scored – tasks are treated as discrete items and may not capture reasoning processes behind student responses.

They can also use the national tests for formative purposes, returning the work to students along with feedback on strengths and weaknesses. Such feedback can be given to individual students, but also collectively to the whole class (Crooks, 2004). The reviewing of national tests provides opportunities for teachers to analyse the impact of past teaching and learning approaches and adapt instruction.

Another clear advantage of teacher involvement in scoring is that schools have test results much more rapidly than they would if they were relying upon a separate organisation to deliver the results. This is important in terms of teachers' ability to use the results in a formative fashion (more will be said below about the importance of timing for giving formative feedback). Teachers are also much more likely to refer to the results of the national assessments and to adapt instruction to meet student needs when they have spent time directly reviewing their own students' performance.

A strong focus on classroom-based assessments

Schools in Sweden have full autonomy in determining the criteria for the internal assessment of students (Annex 5). Each school decides how to weigh the results of the national examination and the teachers' assessment.

Although there are concerns about the unevenness of teacher grading both within and between schools – and these concerns will need to be addressed – the practice of basing final grades on a broad range of evidence on student achievement is important and should be continued. Teachers have many more opportunities to observe students over time and performing a variety of tasks, including extended projects, and in this sense their observations have higher validity. Teachers are also less likely to “teach to the test” when they are able to take into consideration a range of experiences and observations of student performance. The fact that classroom-based assessment takes place on multiple occasions reduces the risk of student assessment-anxiety.

Classroom-based assessments are further supported by the fact that national test banks are available, so that teachers may choose assessments they would like to use for their own purposes. Teachers with whom we spoke noted that they used tests from the NAE's central test bank from time to time. Given that students learn at different rates, the fact that teachers are able to download tests when they believe students are ready is also very positive. Control over timing of the tests also means that teachers may provide students with feedback on their test performance when it is relevant to what they are learning. Scotland uses a similar approach, and these tests are very popular. The NAE is currently expanding the number of tests available through the central test bank.

A firm foundation for formative assessment

Classroom-based formative assessment involves the minute-to-minute, day-to-day interactions between and among teachers and students that help to uncover how well students understand new concepts, and where teachers may need to adjust teaching to better meet learning needs. In classrooms featuring formative assessment, students are frequently engaged in assessing their own and their peers' work as they build their skills for learning to learn. The results of summative tests (classroom-based tests or national assessments) may also be used formatively. However, assessment is considered as formative *if and only if* it shapes subsequent learning (Black and Wiliam, 1998; Wiliam, 2006).

Sweden's focus on engaging students in setting goals for learning through the IDP, and developing skills for self- and peer-assessment are important for the effectiveness of formative assessment. Teachers are generally more likely to focus on formative assessment when they have tools and guidelines to support the process (OECD, 2005a). The IDP, as a core feature of Swedish education, ensures that both teachers and students are focused on identifying individual learning goals, and developing strategies to address any shortcomings. It can be a powerful tool for developing students' own assessment skills, as well.

While the review team did not have the opportunity to observe any classes, both teachers and students indicated that Swedish classrooms do support many of the elements of effective formative assessment. For example, students interviewed for the review said that their teachers give them regular feedback on the quality of their work, and that they usually know how well they are performing and what they need to do to improve their work and reach learning goals. Several students commented that they felt well supported in the learning process. They also said that they frequently assess the quality of their own or their classmates' work, and they found this process useful.

While some stakeholders expressed concerns that students should get used to receiving grades earlier in their education, in terms of formative assessment, Sweden's relatively low-key focus on student grades is a positive point. In their review of the literature on formative assessment, Black and Wiliam (1998) found that the grading function in schools tends to be overemphasised while learning is underemphasised. In many ways, formative assessment is fundamentally about the quality of interactions between and among students and teachers. In this regard, Sweden's strong focus on student-centred learning and on the importance of helping all students to achieve are major strengths. As will be discussed below, additional support for building teachers' skills in different approaches and techniques will further strengthen formative assessment in day-to-day teaching, learning and assessment.

Challenges

Some cautions regarding reliability and generalisability of national test results

While performance-based assessments, the format used for the Swedish national tests, have many advantages over standardised assessments, some cautions must also be noted. The first is that, while performance-based assessments are, in principle, more effectively aligned with curricula that emphasise higher-order thinking skills, this is not necessarily always the case. Researchers in the United States found that performance-based assessments frequently do not measure the skills and processes intended (Baxter and Glaser, 1998; Hamilton *et al.*, 1997; Pellegrino *et al.*, 1999). In other words, they may be of limited validity. While the stakeholders with whom we spoke were very positive about the national assessments, any judgment on the validity of the current assessments (in other words, whether they measure what they are intended to measure) would require a more in-depth evaluation.

Performance-based assessments also tend to have lower reliability and generalisability than do standardised assessments. Research in other countries has shown that it is very difficult to generalise from hands-on performance-based tasks to make judgements about student competencies. Shavelson *et al.* (1990), for example, found that performance-based assessments in science were highly task dependent. This is in line

with research showing that higher order thinking skills are context and situation specific (Linn *et al.*, 1991).

There are important challenges for teachers in Sweden and elsewhere in scoring open-ended performance assessments. The Swedish Schools Inspectorate has recently undertaken the first of three national corrections of teacher scoring of student performance on national tests and concluded that the current grading and assessment system is not reliable. Overall, the Inspectorate re-corrected 35 000 tests taken by students in Year 9. While there were no big differences between the marking of teachers and cross-checkers in mathematics, there were indeed large discrepancies in Swedish (open-ended questions). Overall, the reviewers have found that teacher scoring of national tests continues to be very uneven.

Concerns about inequities in teacher grading

According to the stakeholder groups with whom we spoke, the current standards and learning goals have long been considered as being too vague to guide instruction and assessment. Teachers may interpret learning goals and the grading criteria in many different ways which leads to inequities in teacher grading. While the new curriculum has yet to be released, several of the stakeholders we interviewed had had the opportunity to review at least some portion of the new standards and learning goals. They reported that the new goals within the curriculum are more concrete and believed they will help to address at least some of the unevenness in teacher grading within and between schools and municipalities.

Another area of concern is in regard to equivalence of student grades (reliability) across schools. There is no national guideline as to how much weight should be given to the national test result within the overall grade assigned to students. A 2009 study by the NAE stated that there are great differences between how teachers designate students' overall grades in relation to their national test results. There were large differences both between schools and between teachers within a school. According to the study, some teachers set grades that are significantly higher than test results, others parallel to test results and some assign grades lower than the test results (NAE, 2009b).

Limits to the use of the national tests to diagnose student needs

Year 3 and Year 5 teachers consider the national assessments as diagnostic and formative. However, schools have to administer the tests in a nationally specified period in the spring, which means that results are only available very late in the school year. This poses less of a problem for schools where teachers remain with the same students for more than one year. Teachers and students would nevertheless derive more benefit from having results of the tests early in the school year.

In addition, such standards-based assessments⁶ typically do not provide the level of detail needed to develop profiles of individual student needs. As is typical for standards-based assessments, scoring of Sweden's national assessments is criterion-referenced. That is, scores describe student performance relative to performance targets. Criterion-referenced scores are usually reported as broad proficiency categories, such as

6. Note carefully that “standards-based assessments” refer to assessment of progress toward learning standards, while “standardised” assessments refer to a testing technology.

basic, proficient and advanced (Cizek *et al.*, 2004). The “cut score” is the level at which students pass the test.

While criterion-referencing is appropriate for standards-based assessments, if the proficiency categories are too broad they will mask significant heterogeneity in student performance. This is particularly important for students who perform “below expectations”, and for whom it is important to diagnose the source of learning difficulties. For example, Rupp and Lesaux (2006) found that it was virtually impossible to disentangle the cause of reading difficulties based on the single global score or classification of standards-based assessments. Thus before teachers are able to develop remedial plans, lower-performing students may require additional diagnostic testing. A number of empirically validated diagnostic tools are designed to identify the source of learning difficulties, and better shape remediation programmes. Teachers should be aware of the limits of standards-based assessments and should have training to use validated diagnostic tools.

Another challenge with the national assessments in Year 5 is that these tests are used over two successive years. It seems inevitable that teachers, who will have spent considerable time administering and scoring the tests in the first year of its use will tend to “teach to the test” in the second year. There is therefore a risk of score inflation – that is, scores will overstate improvements in student learning. The information on student performance might therefore be less useful in diagnosing student needs.

Teacher training for assessment competencies is still limited

Teachers may receive training to build their assessment competencies (for both formative and summative assessment) during initial or in-service training. However, based on feedback from the stakeholders we spoke to, up to now teachers have not been required to take courses in assessment and evaluation during their initial training or in professional development courses. This is a significant gap, as skills for both formative and summative assessment are key to the success of Sweden’s approach to “management by objectives” in education. Teachers and school leaders we interviewed also noted that they took a somewhat *ad hoc* approach to choosing courses for professional development. Very often, they choose courses according to their own interests, which are not necessarily aligned with the school’s overall development needs.

In a 2007 research project, Peterson and Vestman (2007) described the range of courses addressing student assessment and organisational evaluation available at Swedish universities offering teacher education. The different programmes described in the project tended to offer one or two courses in these areas, but they were often electives or embedded in courses on other subjects. Some of the educators with whom the OECD review team spoke noted that their own teacher training had placed very little emphasis on assessment and evaluation skills. The new initial teacher training to be implemented from July 2011 may help provide teachers with better basic assessment literacy. It contains specific goals and a mandatory course related to assessment and grading. Assessment topics are also expected to be integrated into the didactics of every subject of the new initial teacher training. The new School Leadership Training Programme also includes a module on working in a results-oriented system.

The challenge of integrating formative assessment in day-to-day practice

The results of national assessments, inspection reports, student IDPs and classroom interactions may all be used formatively. The distinguishing feature of formative assessment for any of these approaches is that the information be used to make improvements (Bloom, 1968; Scriven 1967). But the way in which information is used and the timescale for decisions may be very different. Wiliam (2006) distinguishes between long-, medium, and short-cycle formative assessment. According to Wiliam, long-cycle formative assessment occurs across marking periods, semesters or even years (four weeks to a year or more); medium-cycle formative assessment occurs within and between teaching units (three days to four weeks); and a short-cycle formative assessment occurs within and between lessons (five seconds to two days).

Sweden's student IDP and the emphasis on the use of the national assessments as a diagnostic and formative tool (at least for younger students), might be considered as long- and medium-cycle formative assessments. These assessments are important for identifying areas of need, developing broad teaching strategies to address needs identified within the student cohort, planning, allocation of resources, and so on. But short-cycle formative assessment – the daily interactions between and among students and teachers – has the most direct and measurable impact on student achievement (Looney, 2011). In short-cycle interactions, formative assessment is part of the classroom culture, and is seen as an integrated part of the teaching and learning process. Teachers systematically incorporate formative assessment methods in their course planning – for example, in how they intend to develop classroom discussions and design activities to reveal student knowledge and understanding. These interactions encompass effective questioning to uncover student misconceptions and identify patterns in student responses, feedback on student performance and guidance on how to close learning gaps, and student engagement in self- and peer-assessment.

The way in which teachers approach these different tasks is also important. For example, studies show that feedback which does not provide students with specific guidance on how to improve, or that is “ego-involving”, even in the form of praise, may have a negative impact on learning. Feedback that is focused on the process of learning and that tracks student progress over time is more effective (Köller 2001; Mischo and Rheinberg, 1995). Questions focused on causal effects or that aim at uncovering misconceptions are much more effective than “yes or no” questions or questions that stress recall rather than reasoning processes, which are much more typical in classrooms (Black, 1993; Black and Wiliam, 1998; Stiggins *et al.*, 1989). If formative assessment is to be effective, teachers need to have strong skills to adapt teaching, as well. Teachers thus need to be able to call upon a broad repertoire of teaching methods to better meet individual student needs.

Sweden already has a firm foundation for effective formative assessment – particularly in the value it places on student-centred learning and in use of the IDP as a tool for individualised student assessment – but formative assessment can still be further improved. Based on our conversations with school professionals, our impression was that Sweden may further strengthen classroom-based formative assessment by placing a stronger focus on short-cycle classroom interactions, and in building teachers' repertoire of research-based formative assessment techniques as well as ways to respond to identified learning needs and capacity to adapt to individual student needs.

4.3 Pointers for future policy development

Sweden is taking a number of positive steps to strengthen formative and summative assessment of students – including the introduction of a new curriculum with clearer and more concrete goals for learning. Policy makers may want to consider additional strategies. The preceding discussion of strengths and ongoing challenges within the Swedish assessment system suggest a number of potential directions for policy. These include:

- Strengthen reliability and generalisability of the national assessments.
- Invest in initial training and professional development to strengthen teachers' assessment skills.
- Develop tools to support teacher assessment.
- Strengthen short-cycle, classroom-based formative assessment.

Strengthen reliability and generalisability of the national assessments

Given the key role that national assessments play in the Swedish evaluation and assessment system, it is vital to increase the reliability of these tests. There are several options of doing so.

Some of the concerns about the reliability and generalisability of teachers' marking of the national assessments may be addressed through training for raters. Caldwell *et al.* (2003) have found that such training can increase the reliability of scores. This would require further investment in improving teacher capacity to assess students specifically on the national tests by providing more detailed guidelines on scoring and participation in scoring workshops for different disciplines. Results from the series of three reviews by the Schools Inspectorate should provide useful information on the extent of variation in reliability of teacher grading.

Consideration should also be given to establishing a systematic external validation of national test results, for example via a random checking procedure conducted by a competent authority or even establishing an examination authority to score student results in national tests. External moderation of teacher-based assessments can help increase consistency, comparability and equity of teacher-based assessment (for an example from Queensland, Australia, see Box 2). An external checking procedure would require additional resources at the central level with competent psychometricians, but also could benefit from collaboration with educational professionals in scoring different disciplines (see Chapter 7).

Box 2. Moderated student assessments in Queensland, Australia

In Queensland, there is no whole-cohort external testing or examining in secondary schools. In 1972, Queensland abolished external examinations and replaced them with a system of moderated internal assessments. School-based assessments for the Senior Certificate (Year 12) are currently moderated for those subjects that count towards university entrance. The moderation processes for the Senior Certificate involve subject-based panels of expert teachers providing advice to schools on the quality of their assessment programme and their judgments of quality of student performance based on sample portfolios. The system involves follow-up where panels identify difficulties. There is negotiation of the final results to be recorded on the Senior Certificate. Results are expressed in terms of five relative grades or ‘levels of achievement’ expressed in terms of standards descriptors (referred to as “exit standards”).

Source: Sebba and Maxwell (2005).

In addition, the use of so-called “complex assessments” that combine both performance-based assessment and standardised close-ended questions may help. Such an approach builds on the strengths of both types of assessment: higher validity of performance-based assessments, and the reliability and generalisability of standardised assessments (Linn *et al.*, 1991; Pellegrino *et al.*, 1999).

Another option would be to invest in the development and use of high quality ICT-based programmes to assess complex performances and track students’ problem solving skills. As of yet, the use of computer-based assessments is very limited in Sweden⁷, although there has been some discussion regarding this possibility. The student councils have also suggested that this would be an important step in improving the national assessments. International test developers are now devoting significant attention to developing effective computer-based assessments that can measure students’ reasoning processes and other higher-order cognitive skills and score “open-ended” performances, such as student essays⁸. Technology-based assessments may also include simulations, student collaboration and constructed response formats. Students may receive feedback on their performances as they are taking the test – blending formative and summative functions of the assessment (Bennett, 2001; Lewis, 1998; Mislavy *et al.*, 2001). However, there is still quite a bit of development work on computer-based assessments and these approaches are not yet widespread.

It is important to note that each of these proposals would add to the cost of the current system. But the level of confidence in results will be much higher. Training to support improved scoring should be in addition to, not as a replacement for, other professional development to support instruction and assessment competencies. Complex assessments would add a standardised portion to the current assessments – not replace it. While test developers have piloted some pioneering ICT-based assessments, more work needs to be

7. The NAE has developed ICT-based assessments for Swedish for Immigrants (SFI) but due to technical difficulties these are for currently only used in some municipalities.
8. ICT programmes that score “open-ended performances” are still in the relatively early stages of development and while they may facilitate scoring of large-scale assessments, cannot replace human raters. Further studies are also needed to determine the validity and generalisability of different automated essay scoring tools (see Wang and Brown, 2007).

done before these kinds of tools are available across different subjects for students at different levels of development.

Finally in order to ensure that Sweden's performance based assessments measure the skills and processes intended, it would be important to evaluate the validity of the assessments. The review team heard very positive feedback regarding the national assessments, from teachers as well as students. However, it is important to ensure that the assessments are valid – *i.e.* that they measure what they were intended to measure. External valuation of the validity of assessments would add to confidence, as well as usefulness of tests for policy decisions, or development of instructional strategies.

Invest in initial training and professional development

In Sweden's goal-oriented education system, strong teacher skills for both formative and summative assessment are essential to monitor progress towards learning goals. As discussed above, training is particularly important to ensure the reliability of teachers' scoring of national tests. Training for teachers scoring tests for students in Year 9 and in upper secondary school is particularly important, as the results of these assessments have important consequences for students. Moreover, in a system where teacher-based assessments have an important place, teachers also need opportunities to develop and improve their own skills for test development. Teacher-based assessments also need to meet criteria for validity, and to be aligned with central learning goals, particularly since teachers' assessments largely determine students' final grades.

For teachers in Years 3 and 5, where the tests are used primarily for diagnostic purposes, teachers need skills to interpret results, to understand whether further diagnostic testing of some students may be warranted, and to identify areas where curricular strategies may need adjustment, or where they may invest resources in new programmes to meet student needs. Ongoing attention to teacher training in formative assessment is also vital. Effective formative assessment requires that teachers develop sophisticated skills for uncovering students' level of understanding, for providing feedback and adjusting teaching strategies to meet identified needs, and for helping students to develop their own skills for learning to learn. Sweden's emphasis on student-centred learning also means that teachers need skills to help students develop their own skills for self- and peer-assessment.

Training to develop assessment competencies should start with basic assessment literacy, for example, the ability to understand different aspects of validity – what different assessments can and cannot reveal about student learning. Assessment training should also overlap with knowledge of how students learn in different domains so that teachers are able to interpret patterns of student responses to identify misconceptions, and to respond with appropriate instructional strategies.

Develop tools to support teacher assessment

The steps already taken to improve the standards and learning goals embedded in curriculum will go a long way toward improving assessment. The NAE may want to consider providing additional tools to support teacher assessment, such as exemplars illustrating student performance at different levels of achievement, and scoring rubrics listing criteria for rating different aspects of performance. This can help guide teacher assessment. For example, the Ministry of Education in Newfoundland and Labrador, Canada, disseminates rubrics with specific guidelines and criteria for evaluating student

work (OECD, 2005a). The rubrics describe levels of quality for each of the criteria, usually on a point scale. Teachers may also use rubrics for classroom-based assessments, sharing the different criteria with students so that they understand different levels of quality work.

Ensuring that the national tests in Years 3 and 5 take place earlier in the year would also help support teachers' diagnostic assessments. France, the French-speaking community of Belgium and Spain all take this approach. In these countries, national assessments are administered to students who have just made key transitions in their schooling (e.g. from primary to lower secondary schools). At the policy level, trends identified within the aggregate data help to shape policy and identify areas where the majority of students are performing below expectations. At the school level, teachers may identify areas where several new students are having particular difficulty, and adjust curricula to meet these needs (Looney, 2011).

Tests made available through the central test bank can also be used by teachers to design their own classroom-based summative and formative assessments – providing ideas on questions or process that will help identify student misconceptions in different learning domains.

Strengthen short-cycle, classroom-based formative assessment.

Sweden has a strong foundation for effective formative assessment. The IDP, the focus on using data from national assessments for younger students to improve teaching and learning, and the strong student-centred culture are all very positive. Policy makers may consider strengthening teachers' skills day-to-day formative assessments – including skills for setting up learning situations, developing sophisticated questions, providing timely feedback, and so on. These short-cycle formative assessments are likely to have the most direct impact on student achievement. They also are important for ensuring that assessment is not an “add on”, but is integrated with teaching and learning. Formative assessment becomes a part of the culture of the classroom. In this way, Sweden might develop an even stronger framework incorporating long-, medium- and short-cycle formative assessment to improve learning and outcomes for all students.

Chapter 5

Teacher Appraisal

Teachers are generally perceived as trusted professionals, which is reflected in the extensive autonomy that they have in the exercise of their duties. Teacher appraisal in Sweden is not regulated by law and no formal procedures exist to evaluate the performance of permanent teachers. The main form of appraisal is a regular individual development dialogue held between the school leader and individual teachers, but there is little guidance provided on how to appraise teacher performance. Overall, teachers have few opportunities for professional feedback. The teaching profession would benefit from a system of teacher appraisal for registration at key stages in the teaching career to formalise the principle of advancement on merit, associated with career opportunities for effective teachers. The appraisal system should be based on professional standards for teachers that provide a clear and concise statement or profile of what teachers are expected to know and be able to do. There also should be a stronger emphasis on teacher appraisal for improvement purposes that is fully internal to the school. In this context, teacher appraisal should be closely connected to school self-evaluation, which should focus on monitoring the quality of teaching and learning.

This chapter looks at approaches to teacher appraisal within the Swedish evaluation and assessment framework. Teacher appraisal refers to the evaluation of individual teachers to make a judgement about their performance. Teacher appraisal typically has two major purposes. First, it seeks to improve teachers' own practice by identifying strengths and weaknesses for further professional development – *the improvement function*. Second, it is aimed at ensuring that teachers perform at their best to enhance student learning – *the accountability function* (Santiago and Benavides, 2009).

5.1 Context and features

Teacher appraisal procedures

Teacher appraisal in Sweden is not regulated by law and no formal procedures exist to evaluate the performance of fully qualified individual teachers. While teachers may be evaluated collectively as part of school self-evaluation and school inspection, there is no official method for individual appraisal of teachers by school heads or peers (Annex 5).

The main form of feedback for permanent teachers is through dialogue with the school leader. School leaders and teachers may hold “individual development dialogues” which focus on teachers' work, working conditions and training. However, according to representatives of the Ministry of Education and Research, it varies between school organisers how regularly such dialogues take place and in how far they are connected to “pay dialogues” which serve to determine the teachers' individual salaries (more on this below). At the present time, the implementation of individual development dialogues differs considerably across municipalities and schools, depending on local capacities and the evaluation ethos of schools. It is not guaranteed that every school leader appraises each teacher annually.

There is little guidance provided at the central level on how to appraise teacher performance. The idea is that each municipality in collaboration with the local stakeholders defines its own appraisal criteria linked to local objectives. Most municipalities have now established some teacher appraisal procedures with the expectation that schools further refine and develop these. In several municipalities, local stakeholders, municipality officials and school leaders have jointly developed criteria for the appraisal of teachers. The criteria commonly used are quite vague and typically state what is expected from teachers in terms of participation in school wide development and in the development of teaching methods, collaboration with other teachers, encouraging student involvement, and provision of feedback to parents. Although it is clearly stated in the salary national agreement that teachers' pay should be linked to performance, teachers are often evaluated on the basis of degrees of effort and commitment rather than in relation to what they have achieved in terms of stated objectives (Strath, 2004).

There is no systematic information on teacher appraisal in independent schools. Each independent school or each group of independent schools (if within the same school organiser) develops its own system of teacher appraisal with no external monitoring and so the diversity of approaches is considerable.

Individual teacher pay and career

A unique feature of the teaching profession in Sweden is its individual-based pay system. Within the framework of central collective agreements with a five-year timeframe between SALAR, the employers' organisation, the teacher unions, local authorities and local school management negotiate individual employment and salary conditions.⁹ Currently there is no ceiling but an agreed minimum salary fully qualified teachers. The system was implemented in 1996, following years of negotiations between teacher unions and local employment authorities. As a result, teacher remuneration is not associated with fixed pay scales. Individual-based pay is in force among other professional groups employed by municipalities and is a general trend in the public sector.

Teachers' individual pay seems to depend on three important variables: (1) the labour market: in regions or subjects where teacher shortages are greater, teachers tend to get higher salaries; (2) dedication and commitment: the system can also be used to reward teachers who are prepared to take on more responsibilities (school leaders can reward teachers if they work harder and take up more jobs than what is expected in general of teachers); (3) the system is in part performance-related: the collective central agreement intends to link improved performance to pay increases – schools can decide to pay teachers differently although they have similar tasks. In relation to the latter aspect, the 2000 central agreement stressed the importance of establishing well defined criteria for evaluating teaching performance.

School leaders usually hold regular (annual or biannual) individual “pay dialogues” with their teachers in order to set the teachers' salaries. The basis for the annual or biannual pay dialogue between the school leader and the teacher is a set of criteria determined at the municipality (or independent school) level. As the criteria are set locally, they can vary considerably. According to the directives given in the agreement between the employers and the teacher unions, the criteria for salary setting should consider local objectives and priorities, which to a large extent reflect those set by the Government and the Parliament. A prerequisite for evaluating teachers is then that the process of local goal setting and the procedures for self-evaluation are well established (Strath, 2004).

The individualised pay system means that employers/school leaders can make salary decisions contingent on evidence of professional development. This, in theory, gives the employer/school leader the capacity to offer incentives for professional development and more attractive career paths for teachers as their expertise develops.

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9. Since the purpose of individual-based pay is to link salaries with objectives and performance, both SALAR and the teacher unions at the central level agree that the preferred procedure involves a dialogue between the teacher and the closest manager. However, realising that not all municipalities have reached a point where the unions and the municipality administration feel confident enough to delegate full responsibility to the closest manager, SALAR and the teacher unions have agreed to allow the option to conduct the pay review through an active involvement by the local trade unions and the local municipality officials. It has become common, however, for the beginning salary of the teacher as well as the yearly salary revisions to be determined through a professional dialogue between the teacher and the school leader. The dialogue procedure involves the following steps: the employer/school leader presents the rationale behind the pay system before presenting a pay review proposal to the teacher; the employer/school leader passes it thereafter on to the local trade union of which the employee is a member. If the trade union does not call for local negotiations, the employer's proposal is accepted (Strath, 2004).

At the same time, the opportunities for career development and promotion are limited. Teachers can become team leaders. In this position they have a coordinating responsibility for a teacher team in the school. Teachers can also, from July 2011, become “lecturers” if they have an academic degree (licentiate or doctorate) and are well qualified and registered. The idea is that lecturers should be used for more qualified tasks but it is up to the school organiser (in practice often the school leader) to decide on the exact role of the lecturer in the local context. However, the only real promotion possibility for teachers is to become a school leader. There are no national regulations governing the dismissal of teachers. Teachers tend to be dismissed only in exceptional circumstances; reasons for dismissal have included serious mismanagement of work and criminal activities.

Other forms of feedback for teachers

Teaching quality is also addressed by the Schools Inspectorate and through schools’ self-evaluation. In its full school inspections, the Inspectorate targets the following three areas: student results; standards of achievement; and teaching and learning (Chapter 6). No individual appraisal of teachers is undertaken but an inspector may identify an underperforming teacher and inform the school leader, who is then supposed to take action. Through its quality reviews, the Schools Inspectorate also assesses the quality of the teaching, for instance at the subject level (*e.g.* the teaching of Physics), or teachers’ qualifications. One of its main functions is to determine differences in the quality of the teaching and teaching qualifications across schools, in view of assessing inequities in the school system. Teachers and school leaders are also responsible for school internal evaluation (see Chapter 6). It is expected that schools put in place development processes as part of systematic work on quality improvement, including the quality of teaching and learning.

Competencies to undertake teacher appraisal

The key role in teacher appraisal is exercised by school leaders. These are typically former experienced teachers who are appointed by municipalities through open competitions. Requirements to become a school leader, such as the type of professional experience, are determined by the school organisers. The National *School Leadership Training Programme* has become mandatory in March 2010. The Programme is open to serving school leaders who have not completed a similar programme. It aims at better equipping school leaders to exercise their responsibilities as laid down in the curricula and other legal instruments. The appraisal of staff is not among the main focus areas of the Programme, even if it includes the development of skills for the evaluation of activities and results (Chapter 6).

School inspectors are also among the main sources of feedback for teachers. Within the Schools Inspectorate the majority of the inspectors have their professional background in the educational field, with most being recruited among former teachers, teacher educators and municipality education officials. In order to get as broad a base of knowledge and experience as possible the Inspectorate also recruits individuals trained in other areas such as law and the social sciences, as well as researchers and analysts in different disciplines. Irrespective of their background, inspectors must have a university education or equivalent and broad knowledge and experience in their professional field.

Using appraisal results

The individual development dialogue between the school leader and the teacher may have a number of implications. It is expected that it informs the professional development activities of the teacher, ideally in close linkage to the needs of the school and the local community. The individual-based pay system also provides for the performance of the teacher to be reflected on her salary, even if there is often evidence that instead effort and commitment carry greater weight.

If an underperforming teacher is identified, the school leader takes responsibility for finding a solution. Only in rare cases is a permanent teacher dismissed for underperformance. Typically, the school leader together with municipality officials moves the underperforming teacher to a different role/function within the municipality.

Box 3. The teaching profession in Sweden – training, recruitment and responsibilities

Employment status

Teachers working in the public sector are salaried employees of municipalities. Pay and working conditions are governed by five-year agreements between the employers' organisation (SALAR) and the teacher unions. These stipulate minimum salaries and general working conditions. The more specific salary and working conditions of individual teachers are determined locally (*i.e.* school level) in an individual-based pay system. Teachers working in independent schools are salaried employees of independent schools' organisers and have their salaries and working conditions often negotiated between the schools' organisers and teacher unions.

Most teachers are employed on *indefinite term contracts* which means that they can only be dismissed on grounds covered by legislation such as redundancy (*e.g.* due to declining enrolments). Teachers who do not have a teaching degree are usually employed under a fixed-term contract. Under the Education Act those who do not meet the requirements for employment as teachers under indefinite term contracts may be employed for only a maximum of one year at a time.

Prerequisites to become a teacher and teacher recruitment

To obtain employment as a teacher in Sweden individuals should have a recognised qualification, which is usually a teacher education degree offered in Sweden, with content focusing on the type of teaching the position involves, or equivalent education from another Nordic country or a country that is a member of EFTA or the EU. Other requirements include good knowledge of the Swedish language and an appreciation of the regulations applicable to the school system, in particular concerning the goals of education. Where there are not enough qualified applicants local authorities can employ other persons on a fixed-term contract. Only under exceptional circumstances can people without full qualifications be appointed on indefinite term contracts.

Teacher recruitment and appointments are the responsibility of school leaders and other members of the school management team – both in the public sector and in independent schools – and are undertaken in the context of open competitions. The process is carried out in consultation with either the municipality in which the school operates or the school's organiser in the case of independent schools.

Professional development

The National Agreement between employers and teacher unions ensures that time for teachers' professional development (104 hours per school year) is built into every teacher's regulated working time. This is roughly equivalent to 13 days per year, a relatively high figure and a considerable investment of teachers' time. How this time is used is determined on the basis of the school's and the individual teacher's needs.

The locus of responsibility for professional development is decentralised to local municipalities and schools, within the national "management by objectives" context. School leaders have a major responsibility to ensure the 104 hours are used well, as part of their overall responsibility for ensuring quality and developing their schools, but local educational authorities (municipalities or independent schools' organisers) play an important role in determining which professional development programmes receive financial support. Schools use this time resource for collective actions among the teachers, as well as time for individual development.

The Government can provide specific funds for the municipalities and independent schools to support professional development. An example is *Boost for Teachers (Lärarlyftet)*, a comprehensive programme for in-service training of teachers with a particular focus on deepening their subject knowledge and didactics. The programme runs from 2007 to 2011 and covers 30 000 fully qualified teachers (*i.e.* around 25% of all primary and secondary school teachers). The Government has decided to continue the *Boost for Teachers* until 2014, but the purpose has changed. The programme will allow teachers who are not qualified in the subject they teach to take additional training towards a recognised qualification in that subject.

Teachers' roles and responsibilities

Because of the goal-oriented and decentralised school system, teachers have a broad mandate. Together with school leaders, teachers take responsibility for students achieving the educational standards and goals set by the national Government. This entails, among other things, the development of learning processes to achieve national objectives for student learning, interpreting the curriculum and adapting it to the local context, designing appropriate student assessment methods and moderating student assessment with colleagues.

A number of specific features of the Swedish education system greatly shape the work of teachers. First, the *student-centred approach* of the Swedish education system guides teachers' practices. Teachers must take into account students' views on their learning, give them more responsibility, respect their opinion, and continually inform them of their progress. Second, teachers work in a context of local responsibility. Together with their colleagues teachers must review, evaluate and reconsider their teaching. Teachers contribute to the development of the school work plan, and they have to reflect and discuss local conditions that help to attain the school's objectives. Third, teachers need to understand and respect different cultural identities given the high proportions of immigrants in schools.

Teamwork and peer learning among teachers

There is a long tradition of teamwork in Swedish schools. One of the reasons is the flat organisational structure of Swedish schools. Teachers are typically organised into small groups which share responsibility for organising their work. For instance, the results from the biannual individual discussions with the students on their progress and development may be analysed by the group of teachers taking responsibility for a given group of students. Another reason relates to the high degree of teachers' autonomy and the need for teachers to contribute to the school's strategies to achieve the national student learning goals. Activities such as interpreting the curriculum and adapting tuition to the local context, establishing student assessment methods and ensuring fairness in the grading of national tests typically bring teachers together in activities which stimulate peer learning and increase co-operation within the school.

Issues of concern to the whole staff are generally discussed at planning sessions to which all teachers contribute. School development in Sweden involves as many staff as possible in the processes of self-evaluation, follow-up and improvement. According to the teachers met by the Review Team, benefits from the teamwork include the support by colleagues, the shared responsibility for the learning and the counselling of students. Teamwork is perceived by teachers as essential to deal with the students in a comprehensive way.

Teacher accountability through market mechanisms

It is important to stress that there are features in the Swedish education system that lead to strong competitive features on schools and teachers to perform well in order to: justify municipal spending on schools; attract students; and attract/retain effective teachers. These relate to school funding and reflect the decentralised nature of the Swedish education system. First, "funding follows the student" as when a student moves school, the operating grant that applies to that student is reallocated to their new school (regardless of it being a municipal or an independent school). Second, the municipalities are able to choose the amount of funding that they allocate to schools provided that they comply with their legislative obligations and meet the national objectives. Third, most funds are allocated to schools in a block grant, and school leaders are able to determine the division of funds between different categories of expenditure, including different types of teachers and non-teaching staff.

5.2 Strengths and challenges

Strengths

Teachers are trusted professionals with a high degree of autonomy

The Review Team formed the view that Swedish teachers are generally perceived as trusted professionals among the different stakeholders. This is reflected in the extensive autonomy they benefit in the exercise of their duties. Teachers are instrumental in contributing to the shaping of their school's strategies to achieve national goals for student learning in the highly decentralised setting of the Swedish education system. Teachers decide on the teaching content, teaching materials and methods of instruction to achieve the broad objectives stated in the syllabi. They also have autonomy in student assessment, including the grading of their students' national tests according to grading criteria established at the central level. Most importantly, they function as learning facilitators for their students as these are taking more responsibility for their learning, student learning becomes more individualised and communication with students' parents is strengthened. Overall, teachers are given considerable scope to exercise their professionalism and benefit from good levels of trust among students, parents, and the communities.

Teachers are keen to receive professional feedback

One of the results of being perceived as trusted professionals is that Swedish teachers are generally eager and willing to receive feedback. Teachers clearly conveyed to the Review Team that they appreciated the time the school leader took to provide them with feedback and in general found classroom visits either by the school leader or their peers useful. In most cases, the regret was that the extent of professional feedback was limited and they were eager to have more opportunities to discuss their practice.

Similarly, the teachers we spoke to expressed satisfaction with the feedback they received from school inspectors in the context of school inspections. They recognised the fine expertise of inspectors and were happy to receive views from an agent external to the school. A study conducted on the school inspections in 2006 found that teachers who were being inspected (as well as school leaders, civil servants and local politicians) perceived the external inspections as positive and supportive (ESV, 2006). According to the study, the points of criticism found by the inspectors were generally used constructively within schools. In a 2005 report, the two national teacher unions already stated that they had "long demanded that national inspections be tightened up" (Läraryrket and Lärarnas Riksförbund, 2005).

The individual-based pay system has the potential to improve teacher performance

The individual-based pay system has been a significant step towards greater flexibility in the management of teacher careers and a closer linkage between teacher performance and reward. It has the important advantage that schools can potentially reward effective teachers, including with better pay. It also allows schools to better value those competencies that best fit their needs. However, important aspects of its implementation such as the way the performance of teachers is assessed and what the

system actually rewards (*e.g.* commitment or labour market position instead of performance) do raise concerns about the ability of the individual-based pay system to actually provide teachers with the incentives to improve their performance. This is addressed below.

Feedback by students contributes to the improvement of teaching practices

Reflecting the student-centred approach to education in Sweden, teachers often run surveys among their students with the objective of obtaining student feedback on their teaching practices and the learning in their classroom. These surveys are organised on the teachers' own initiative and their results are used exclusively by the concerned teacher often in interaction with the students. Peterson *et al.* (2000) argue that students respond reliably about teacher quality if questions are formulated in a simple and relevant way. Teachers interviewed by the review team expressed that students provide useful views into their strategies for teaching and learning and they find this opportunity for feedback important as a way to consult students on their own learning. Quite appropriately, student surveys are kept within the classroom and used only for improvement purposes following the judgment of the concerned teacher.

Challenges

There is no shared understanding of what counts as accomplished teaching

At the time of the OECD review visit (May 2010), there was no national framework of professional standards for the teaching profession. There was no clear and concise statement or profile of what teachers are expected to know and be able to do. Professional standards are essential to guide any fair and effective system of teacher appraisal given the need to have a common reference of what counts as accomplished teaching (OECD, 2005b). The lack of such a framework weakens the capacity of school leaders to effectively assess teacher performance in the annual development talks held with teachers. This situation is likely to change in the future: the review team was informed that the National Agency for Education (NAE) is currently working on a system of teacher registration, which will also include a framework of professional standards for the teaching profession.

Teacher appraisal in the context of an individual-based pay system can be problematic

We have discussed the potential benefits of the individual-based pay system for teacher appraisal above – local management is in a position to do proper staff planning, can stimulate professional development, and has tools to reward, retain and motivate teachers. However, undertaking teacher appraisal in the context of the individual-based pay system is problematic in a number of ways.

It is clear that linking teacher appraisal to pay necessarily entails high stakes for teachers and therefore constitutes a strong accountability procedure with the potential to provide incentives for teachers to improve their performance. However, in practice, the individual-based pay system seems to be predominantly used as an instrument to meet recruitment needs (competition in the labour market for teachers) and to reward teacher commitment and additional tasks rather than as a means to reward the performance of teachers.

There is evidence of the system serving well the purpose of attracting young teachers who are in a stronger bargaining position as they tend to be more mobile to move across schools. This is evidenced by the fact that relative salaries have increased, especially in areas of shortage. At the same time, the review team formed the impression that the system is not as effective in giving recognition to experienced teachers who have reached high standards of professional performance. The labour market effects of the system seem to dominate the opportunities to reward performance. There is also anecdotal evidence that teachers who are prepared to take on more tasks and responsibilities tend to be better rewarded by the pay system. This indicates that the pay system is being used to reward commitment and the extra tasks that some teachers may want to take and not necessarily the actual performance of the teacher.

The major reason why school leaders may feel inhibited to establish a closer linkage between pay and performance is the absence of a clear framework for evaluating the performance of teachers. As indicated above, there are no profession-wide agreed competence standards for teachers or a shared understanding of what counts as accomplished teaching. In addition, there is a lack of agreed procedures and instruments to evaluate the performance of teachers so standards of reliability, validity and fairness can be met. The review team met with school leaders who had little time to perform classroom observation and to engage in a closer analysis of teacher performance with the consequence that performance ends up receiving little weight in the salary decision. In addition, it is clear that no consistency in teacher appraisal can be assured across schools and municipalities as methodologies used are different and each school leader gives distinct importance to performance as a factor to influence teacher pay.

The absence of career opportunities undermines the role of teacher appraisal

There does not seem to be a career path for effective teachers. The role of team leader is not regarded as a major step in the career and no other steps exist. There is no career structure at the national level and there are few opportunities for promotion, greater recognition and more responsibility. This is likely to undermine the potentially powerful links between teacher appraisal, professional development and career development.

A related issue is that teachers are appraised according to local standards and have individual careers and salaries that depend on local decisions. Teachers are entirely dependent on local capacity and willingness to benefit from a meaningful career whereby they are provided with opportunities to improve their practice, see their professional development recognised and are able to gain greater responsibility as they evolve in the profession. Conditions for career progression vary considerably across schools and municipalities. Also, teachers lack the opportunity to gain external or independent validation of their teaching competences and to have this validation used in school-level negotiations over salary rises. The lack of external validation may also render teacher mobility across municipalities and schools more difficult.

Teachers have few opportunities for feedback

Swedish teachers have few opportunities for professional feedback. The main opportunity to receive feedback on their practices is the individual development dialogue held with the school leader. As explained earlier, there are some challenges in providing professional feedback when concurrently pay levels are discussed. In addition, school leaders are overwhelmed with tasks at the school and, in general, they do not seem to

have the time to engage properly in the coaching, monitoring, and appraisal of teachers. For example, classroom observations by school leaders seem to be relatively occasional. Overall, there is scope for improvement in areas such as classroom observation, peer discussion, coaching, or self-critical analysis.

While school organisers (municipalities and independent providers) are the employers of teachers, most delegate the assessment of the quality of the teaching and learning as well as teacher appraisal to school leaders. Few school organisers have evaluation and assessment frameworks and competencies and skills to monitor the quality of services provided by their schools, including the external appraisal of teachers. This limits the ability for teachers to receive professional feedback by their employer and a validation of their work by an entity external to the school. The Inspectorate also plays little role in providing feedback to individual teachers. The interaction with inspectors is infrequent and does not allow for a comprehensive review of teaching practices for individual teachers. While inspections have a high influence on performance appraisal of the school management, its influence on appraisal of individual teachers is low (Annex 5).

Missing links between teacher appraisal, professional development and school development

Even though the importance of professional development is widely recognised in Sweden, the review team formed the view that its provision appears fragmented and not systematically linked to teacher appraisal (or, more precisely, to the individual development dialogue with the school leader). Without a clear link to professional development opportunities, the appraisal process is not sufficient to improve teacher performance, and as a result, often become a meaningless exercise that encounters mistrust – or at best apathy – on the part of teachers being evaluated (Danielson, 2001; Milanowski and Kimball, 2003; Margo *et al.* 2008).

There is also clear potential in linking professional development to school development. School-based funding and resources are giving schools greater opportunities to ensure that professional development is closely related to the needs of the whole school. Similarly, thanks to the individual-based pay system, school leaders are in a position to provide teachers with incentives to engage in professional development which is relevant for school development. However, in our view, professional development could be better linked with school development. This is in part due to the limited time school leaders have for pedagogical leadership and the limited extent to which teaching practices are evaluated.

Teacher appraisal and professional development could also be better informed by school evaluation processes. The comparative indicators in Annex 5 show that in 2006, Sweden was the only country among eleven OECD countries for which information was available where school inspections had no influence on the assistance provided to teachers to improve their teaching skills. Similarly, school self-evaluations did not have any influence on such assistance for teachers to improve their skills – this was the case in three out of eleven OECD countries for which information was available. The influence of inspections and school self-evaluations on remuneration and bonuses received by teachers was low in Sweden as in most countries (Annex 5).

Linking students' feedback to teachers' pay raises concerns

It appears that in at least one municipality, student views are one of the aspects on which teacher salaries will be based (Swedish Ministry of Education and Research, 2010). As explained earlier, the OECD review team is of the view that students' surveys about teaching practices are more relevant for teacher's self-assessment within the classroom with a formative purpose only. While the use of student surveys can provide useful insights, cautions have to be taken because the students are not teaching experts and do not necessarily value the aspects which are more likely to enhance student learning (Peterson *et al.*, 2000). As a result, the use of student surveys is not recommended for accountability purposes in teacher appraisal. On a related matter, parents' surveys are more relevant for whole-school evaluation – as they appear to be used in Sweden - than for individual teacher performance appraisal (Isoré, 2009).

5.3 Pointers for future policy development

In order to make teacher appraisal more effective in the Swedish school system, the review team proposes the following approach:

- Develop national professional standards for teachers to guide all aspects of the teaching profession, including teacher appraisal.
- Create a common career structure with key career stages.
- Introduce a system of teacher registration to determine access to key career stages.
- Strengthen teacher appraisal for improvement and ensure it informs professional development.
- Ensure appropriate articulation between school evaluation and teacher appraisal.

The detailed suggestions and the associated arguments are provided below (see Santiago and Benavides, 2009, for a detailed conceptual framework for teacher evaluation).

Develop national professional standards for teaching

A national framework of professional standards for teachers is essential as a reference for teacher appraisal. The development of a clear and concise statement or profile of what teachers are expected to know and be able to do should be a priority in Sweden. The preparation of a profile of teacher competencies should be based on the objectives for student learning. Teachers' work and the knowledge and skills that they need to be effective must reflect the student learning objectives that schools are aiming to achieve. There needs to be profession-wide competence standards and a shared understanding of what counts as accomplished teaching (OECD, 2005b). Such professional standards should help align teacher development performance standards and school needs.

The profiles should express different levels of performance appropriate to beginning teachers, experienced teachers, and those with higher responsibilities. It also needs to be ensured that the professional standards for teachers provide the common basis to organise the key elements of the teaching profession such as initial teacher education, teacher registration (see below), teachers' professional development, career advancement and, of course, teacher appraisal. Clear, well-structured and widely supported professional

standards for teachers can be a powerful mechanism for aligning the various elements involved in developing teachers' knowledge and skills (OECD, 2005b). Of critical importance in this regard is that the teaching profession should take the lead in developing and taking responsibility for the professional standards for teachers.

Create a common career structure with key career stages

We have noted that the absence of career opportunities for effective teachers undermines the role of teacher appraisal. While the individual-based pay system goes a long way to meeting the needs of relating performance to teacher rewards, it does not take place within a broader framework that allows teachers to build a career. Hence, schools and teachers could benefit from a common career structure for teachers that applied across the country, and which comprised (say) three key stages: beginning teacher; established teacher; and expert teacher. The concept of career stages, or a career ladder, would help meet this need. Access to each of the key stages could be associated with formal processes of appraisal through a system of teacher registration (see below).

Introduce a system of teacher registration to determine career-progression

The teaching profession in Sweden would benefit from teacher appraisal at key stages in the teaching career to formalise the principle of advancement on merit associated with career opportunities for effective teachers. Such appraisals, which are more summative in nature, need to have a stronger component external to the school and more formal processes. They could be organised through a system of teacher registration with (say) access to three key stages: beginning teachers, established teacher; and expert teacher. This is in line with what is being considered in Sweden at the moment by the Government following an inquiry in charge of proposing a new approach to manage teacher qualifications and skills (SOU, 2008). Examples of consolidated teacher registration models are those of several states in Australia (Department of Education, Employment and Workplace Relations, 2010). When designing a teacher registration process, Sweden should consider different ways to ensure that there is strong influence on and ownership of the process by the teaching profession itself.

Reference criteria

The appraisal system associated with the registration process should be founded on the national framework of professional standards for teachers. A reference contribution in this area is Danielson's *Framework for Teaching* (Box 4).

Box 4. Danielson’s Framework for Teaching

Danielson’s *Framework* is articulated to provide at the same time “a ‘road map’ to guide novice teachers through their initial classroom experiences, a structure to help experienced professionals become more effective, and a means to focus improvement efforts”. It groups teachers’ responsibilities into four major areas further divided into components:

Planning and Preparation: demonstrating knowledge of content and pedagogy; demonstrating knowledge of students; selecting instructional goals; designing coherent instruction; assessing student learning.

The Classroom Environment: creating an environment of respect and rapport; establishing a culture for learning; managing classroom procedures; managing student behaviour and organising physical space.

Instruction: communicating clearly and accurately; using questioning and discussion techniques; engaging students in learning; providing feedback to students; demonstrating flexibility and responsiveness.

Professional Responsibilities: reflecting on teaching; maintaining accurate records; communicating with families; contributing to the school and community; growing and developing professionally; showing professionalism.

Source: Danielson (1996; 2007).

Danielson’s framework can be used for many purposes. It has been developed mainly as a guiding foundation for professional conversations among practitioners. It has influenced a large number of teacher appraisal systems around the world. An example can be found in the *Professional Standards for Teachers* in England (TDA, 2007). These standards cover all aspects grouped into ‘professional attributes’, ‘professional knowledge and judgment’ and ‘professional skills’. Moreover, the standards differentiate in several stages from what can be expected of the newly qualified teacher to the standard expected of excellent and advanced skills teachers (see Santiago *et al.*, 2009, for further details).

It is important that teacher appraisal for registration takes account of the school context, and includes the views of the school leader. Schools have to respond to different needs depending on the local context and face different circumstances, especially in a system as decentralised as Sweden. Hence it is desirable that an individual teacher is evaluated against reference standards with criteria that account for her school’s objectives and context.

Instruments

Teacher appraisal for registration could rely on three core instruments: classroom observation, self-evaluation and documentation of practices in a simplified portfolio. It should be firmly rooted in classroom observation. Most key aspects of teaching are displayed while teachers interact with their students in the classroom. It should also involve an opportunity for teachers to express their own views about their performance, and reflect on the personal, organisational and institutional factors that had an impact on

their teaching. The portfolio should allow teachers to mention specific ways in which they consider that their professional practices are promoting student learning, and could include elements such as: lesson plans and teaching materials, samples of student work and commentaries on student assessment examples, teacher's self-reported questionnaires and reflection sheets (see Isoré, 2009).

Training

An area in which there needs to be particular care is the in-depth training for the evaluators. Evaluators need to be trained to appraise teachers according to the limited evidence they gather, the criteria of good teaching and the corresponding levels to attain registration. Second, evaluators should be trained to also provide constructive feedback to the teacher for further practice improvement.¹⁰ Also, substantial activities for professional development on how to best use appraisal processes should be offered to teachers. It is essential that teachers are provided with support to understand the appraisal procedures and to benefit from appraisal results. It is also expected that appraisal and feedback become core aspects offered in teacher initial teacher education.

Consequences

The main decision refers to the registration for teachers to access the key stages of the profession. This would be in accordance with the common career structure, with each key stage associated with minimum pay levels to be agreed in national agreements between the employers and the teacher unions. This would ensure a link between teacher appraisal results and career progression, therefore establishing an indirect link with pay levels. It is also important that appraisal for registration informs the professional development plan for the teacher.

Keep the individual-based pay system as a lever to improve teacher performance

The individual-based pay system is now well-ingrained in the Swedish school culture and is generally well accepted by teachers and teacher unions. It has become an important means through which school leaders manage teacher careers in the pursuit of the school's best interests, providing an opportunity to link teachers' performance, commitment or scarce skills to rewards. As such, there is a case to maintain the system within the framework of a common career structure, national professional standards for teachers and teacher registration. Within the key stages of the career, there could be salary differentiation determined at the school level in a way similar to current practices, as a consequence of individual pay dialogues with the school leader. However, the reference standards should be the professional standards at the national level with school-based (or municipality-based) indicators and criteria, and should take school objectives into account.

10. For further details on the range of characteristics and competencies for evaluators see, for example, Santiago *et al.* (2009).

Strengthen teacher appraisal for improvement (developmental appraisal)

The review team is of the view that there needs to be a stronger emphasis on teacher appraisal for improvement purposes (*i.e.* developmental appraisal). This developmental appraisal would have as its main purpose the continuous improvement of teaching practices in the school. It would be an internal process carried out by line managers, senior peers, and the school leader (or members of the management group). The main outcome would be feedback on teaching performance as well as on the overall contribution to the school which would lead to a plan for professional development. It can be low-key and low-cost, and include self-evaluation, peer evaluation, classroom observation, and structured conversations and regular feedback by the school leader and experienced peers. It could be organised once a year for each teacher, or less frequently depending on the previous assessment by the teacher.

The key aspect is that developmental appraisal should result in a meaningful report with recommendations for professional development. To be effective, appraisal for improvement requires a culture in which there is developmental classroom observation, professional feedback, peer discussion and coaching opportunities. The willingness to share classroom practice and to receive feedback, which is characteristic of the Swedish school system, will surely facilitate this process.

School leadership capacity is also essential. Given the central role of school leadership in Sweden's decentralised system, it is difficult to envisage either productive teacher appraisal or effective school development without strong leadership capacities. Therefore the recruitment, training, professional development and appraisal of school leaders should be given great importance (Pont *et al.*, 2008a). It should also be ensured that school leaders can spend appropriate time on their pedagogical role. It is our view that the concept of shared leadership needs to be more firmly embedded in schools, to support existing school leaders and allow them to concentrate on their pedagogical role. School leaders generally need better personnel support, and better training in human resource management, including teacher selection and appraisal. In particular the National School Leadership programme should put more emphasis on skills for appraisal and feedback.

As suggested below, school evaluation should comprise the external validation of the processes in place to organise developmental appraisal, holding the school leader accountable as necessary.

Strengthen links between teacher appraisal, professional development and school development

The linkages between teacher appraisal, professional development and school development need to be reinforced. Teacher appraisal is unlikely to produce effective results if it is not appropriately linked to professional development which, in turn, needs to be associated with school development if the improvement of teaching practices is to meet school's needs. The schools that associate the identified individual needs with the school priorities, and that also manage to develop the corresponding professional development activities, are likely to perform well (Ofsted, 2006).

Articulate school evaluation and teacher appraisal

Analysis from OECD's Teaching and Learning International Survey (TALIS) suggests that school evaluations can contribute to foster and potentially shape teacher appraisal and feedback (OECD, 2009b). Given that the systems of school evaluation and teacher appraisal both have the objective of maintaining standards and improving student performance, there are likely to be synergies between the two processes. To achieve the greatest impact, the focus of school evaluation should either be linked to or have an effect on the focus of teacher appraisal (OECD, 2009b). Also, as indicated above, school evaluation should comprise the external validation of the processes in place to organise developmental appraisal, holding the school leader accountable as necessary.

In the context of school self-evaluation, it is also important to ensure the centrality of the evaluation of teaching quality and the appraisal of individual teachers. The quality of teaching and learning are predominantly regarded as a responsibility of groups of teachers or of the school as a whole. In this light, school self-evaluation also needs to assess the appropriateness of teacher appraisal mechanisms (both summative and formative) and of processes to follow up on the results.

Chapter 6

School Evaluation

School evaluation in Sweden is based on national inspections, municipal school evaluation and school self-evaluation. The feedback that schools receive on their performance is of high quality and the recently created Schools Inspectorate provides incentives for schools to remediate identified shortcomings. The evaluation capacities of school staff seem well developed thanks to an emphasis on school self-evaluation activities and a range of tools to support it. However, while inspections consider the internal quality work of schools, the integration of internal and external school evaluation could be further strengthened. The recent abolition of compulsory quality reporting holds a risk of being understood by schools as a devaluation of internal quality work. Some municipalities contribute remarkably to the quality of school evaluation but the large variability in the quality of municipal school evaluations is a major concern. There is room for further investment in strengthening school leadership and developing capacity for school evaluation at both the school and municipal level. If school self-evaluation is well developed, then the external evaluation can move to focus more on risk-analysis, proportional inspection and stronger follow-up of problematic cases.

This chapter analyses approaches to school evaluation within the Swedish evaluation and assessment framework. School evaluation refers to the evaluation of individual schools as organisations. This chapter covers both internal school evaluation (*i.e.* school self-evaluation) and external school evaluation (such as inspections).

6.1 Context and features

Similarly to other countries, the evaluation of individual schools constitutes a key element of the evaluation and assessment framework in Sweden. As regulations allow for the local interpretation of national goals and individual schools are encouraged to apply different solutions, the quality of their work may differ and their performance can be influenced by this. Although Sweden, together with other Nordic nations, belongs to the group of countries where international assessments of pupil performance show low between-school differences, these have been increasing (Chapter 2). As it is now widely recognised that individual school units may perform differently, the quality of feedback given to them about their performance, as well as their capacity to improve their own work using this feedback, have become a key success factor in the Swedish system.

The effectiveness and the impact of school evaluation depends to a large degree on three interrelated factors: (1) the *quality of the feedback* schools get from evaluation, (2) their *capacity to use this feedback for improvement*, and (3) *the impact of incentives or sanctions* that make them react to the feedback they receive. When analysing the Swedish system of school evaluation, this chapter will look at these three factors. The underlying assumption here is that good quality feedback produces improved performance only if schools have the capacity to use feedback effectively and if the system of incentives or sanctions helps them in doing so.

The components of school evaluation in Sweden

Sweden has a well developed system of feedback to individual schools. School evaluation in Sweden has several components that were gradually developed over the past one or two decades. Feedback comes to schools from different sources, including self-evaluation activities performed by them. Both quantitative and qualitative feedback is available and it covers different aspects of school life and educational performance. It consists of four major pillars:

- Publicly available standardised data on pupil performance and other key areas based on statistics and national tests aggregated at school and municipal level (making comparison between schools and municipalities in several key areas possible).
- National and municipal school inspection (producing publicly available written reports and also direct oral feedback).
- Regular, systematic and also occasional school and municipal questionnaire-based surveys on client opinion and satisfaction (targeting mainly parents and pupils).
- Qualitative municipal and school self-evaluation and quality management processes (documented particularly in yearly quality reports by schools and municipalities).

Standardised data on pupil performance

Sweden is one of the European countries where the publication of national test results is organised, or required of schools, by central/local governments – this was the case in 9 out of 35 European education systems participating in a recent Eurydice study on national testing (Eurydice, 2009).

In Sweden, standardised data on pupil performance are available online along with other key indicators aggregated at both school and municipal level through the SIRIS¹¹ database operated by the National Agency of Education (NAE). The data contain (1) the basic statistical figures of schools such as numbers of pupils and teachers, pupil-teacher ratio, qualification levels of teachers and spending, (2) figures on grades and promotion such as the number of pupils achieving the basic level and eligible for admittance into secondary schools, and (3) results from national tests in the ninth year of compulsory school and course examinations at upper-secondary school.

The system is permanently developed in terms of quantity, quality and accessibility of data. An important development is the public database and data management system called SALSA,¹² operated also by the NAE, which allows the general public to get performance data on specific schools and municipalities. The data available include the proportion of pupils who have passed the minimum level at Grade 9 and also the “expected value” calculated on the basis of some background information about pupils,¹³ that is, it allows users to make an estimate on the **value added** performance of every municipality and every school operating a Grade 9.

School inspections

Using national inspection as a form of creating feedback for schools is a relatively new development in Sweden. This was established in 2003 as a new function of the National Agency of Education and strengthened in 2008 when the Schools Inspectorate was created as a new, separate agency. After a first round of inspection covering every school between 2003 and 2009, with around 1 000 schools inspected every year, a second round was started in 2010. Currently the aim is to increase the frequency of national inspection so that each school will be visited in every third year (instead of every sixth year, as was the case in the first round). School inspection follows nationally established standards, focussing on **results** (norms, values and knowledge), **activities** (teaching, steering, management and quality work) and **conditions** (access to information and education, resources) in schools. These standards are still less elaborated than in those countries where inspection has longer traditions. Reports produced by the Inspectorate are publicly available for each school online through the SIRIS system. Larger cities are also operating school inspection, employing either full time inspectors or charging teachers or school leaders on a part time basis.

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11. See SIRIS website:
http://siris.skolverket.se/portal/page?_pageid=33,90158&_dad=portal&_schema=PORTAL
 12. See SALSA website: *<http://salsa.artisan.se>*
 13. The indicators used for calculating the “expected value” of performance are (1) the percentage of boys, (2) the percentage of pupils with foreign background born abroad and in Sweden, and (3) the educational level of parents.

Student and parent surveys

Schools and municipalities may conduct regular surveys based on questionnaires sent to pupils and parents. The review team found the use of questionnaire-based surveys in the schools and municipalities visited. In some schools and municipalities, this quality management instrument is mentioned explicitly in working plans and quality reports. The opinion of pupils was seen by the teachers we spoke to as one of the most important sources of information for the evaluation of effectiveness of their pedagogical work and this was reflected in the use of this instrument in school evaluations. We were told that pupils are regularly asked about the quality of teaching, and the students we spoke to were, in general, capable to express well balanced, clearly formulated and substantial opinions. The quality of parental opinions is backed by the richness of information available to them through the schools' and national websites.

Municipal and school self-evaluation

The role of qualitative self-evaluation processes is a particularly important component of the system of school evaluation in Sweden. Since the late 1990s, schools and municipalities have been obliged to produce yearly *quality reports* with the aim of “informing citizens and others about the performance of the municipal schools” (Swedish Ministry of Education and Research, 2010). This obligation is now being removed, but documented quality management remains a duty of schools and municipalities.

The preparation of quality reports, sometimes called “quality dialogue” (Adolfsson & Wikström, 2007) has been conceived as an open participatory process with the involvement of teachers, other staff, students and parents (NAE, 2005a) and with a clear school improvement goal. As the background report prepared for this study stressed, the “systematic quality work was aimed at continually identifying the necessary prerequisites for working towards the national goals, developing work processes, assessing results and goal fulfilment, and taking appropriate measures” (Swedish Ministry of Education and Research, 2010). A key function of regular quality reporting is to monitor continuous improvement over time. Schools also have access to various self-evaluation tools (more details on this below).

6.2 Strengths and challenges

Strengths

Rich feedback for schools

One of the apparent strengths of school evaluation in Sweden is the rich variety of feedback schools have access to. Schools are provided with various forms of qualitative and quantitative feedback coming from different sources, including from their own self-evaluation, from the municipalities and from the central authorities. Quantitative information covers different aspects, including national test results and grade point averages. Qualitative information is also manifold, including views expressed by clients and assessment by professional inspectors using standard evaluation criteria. In general, Swedish schools operate in a feedback rich environment which makes it very difficult for an underperforming school to remain unnoticed.

The feedback system is institutionalised, it operates in a transparent way, its professional quality is high, and it is continuously developing. The two major national agencies involved in school evaluation – the National Agency for Education (NAE) and the Swedish Schools Inspectorate – have strong assessment and evaluation competencies. The NAE has built databases (SALSA and SIRIS) including data about every school, and most data is publicly available. Every school is regularly and frequently evaluated, which reduces the risk of low performing schools remaining lastingly unnoticed.

There is a clear division of responsibilities between the two agencies: the NAE collects, manages and processes quantitative data. It also ensures that this data is made available to other actors who are involved in school evaluation, namely the national inspectors, the municipal evaluators and the schools themselves (for their internal quality management and self-evaluation). The Schools Inspectorate, with its 290 inspectors (from a total staff of 360 employees) and nine regional units undertakes the actual visits to schools all over the country. Its activity is focused on providing qualitative feedback to schools, based mainly on site visits and on-the-spot observations but also on the specific, school-related quantitative data provided by the NAE. The site visits of the Inspectorate follow a standard procedure. Feedback is provided to schools and their maintainers through oral and written reports. The reports have a standard structure which facilitates comparison over time and with other schools (for the thematic structure of a typical inspection report, see Annex 3).

Publication of comparative outcome data

The quantitative information provided by the NAE also allows comparisons of student results on national tests in the ninth grade over time and with other groups of schools (see Table 1). The data presented in Table 1, together with a range of other information, are available online for every school. It allows teachers, parents, municipal and school leaders and other stakeholders to see not only the current performance of the particular school but also its improvement (or degradation) over time and its performance compared to the average of the whole municipality, larger administrative units and the national level.

Table 1. The presentation of the performance of a Swedish basic school in an inspection report

	The performance of the school					Whole municipality	Municipal group	Whole country
	2004	2005	2006	2007	2008	2008	2008	2008
The average merit rating ¹⁴	174.3	191	199	198.8	196.9	208.7	209	209.3
Proportion of students (%) who achieved the objectives in all subjects	60	80	77	72	67	74	78	77

Source: Swedish Schools Inspectorate (2008)

14. The “average merit rating” is a standard indicator calculated on the basis of scores allotted to pupils in specific subjects according to their performance measured in grades.

Availability of data on the ‘value added’ by schools

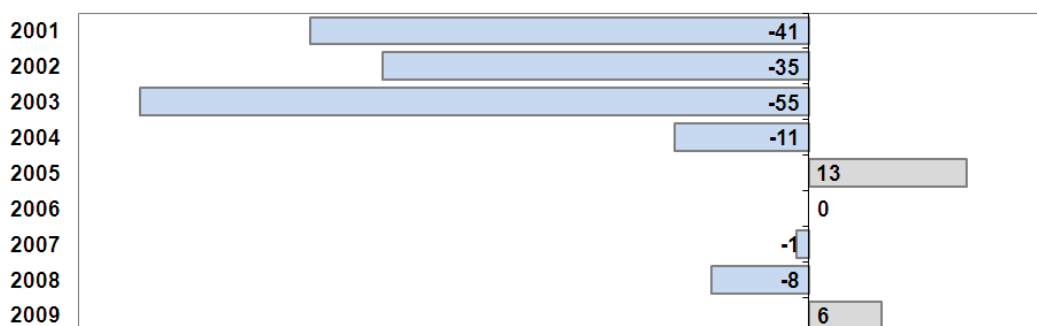
Data about an estimated added value is also publicly available for every school. On the basis of national level research on the relationship between students’ socio-economic background and learning outcomes, an expected performance level is calculated for every school (in terms of “average merit rating” and in terms of expected proportion of students achieving the national objectives in all subjects). This expected performance level is compared with the actual observed performance of students in the school.

Figure 1 illustrates this for a randomly selected school. For the school represented in Figure 1 below, the observed value of the proportion of students achieving the objectives in all subjects in 2008 was 8 points lower than what could have been expected on the basis of the socio-economic composition of pupils. The context value-added data can also be analysed over time. In the case of the school presented here one can observe a remarkable improvement between 2001 and 2009: while in 2001 the proportion of those who achieved the national objectives in all measured subjects was 41 points lower than one could have expected, this value in 2009 was 6 points higher.

This type of context value-added calculation is still relatively new; it is debated and contested in research on educational assessment and evaluation (OECD, 2008c). But nonetheless, the fact that such data is publicly available in Sweden certainly makes public perceptions of the performance of specific schools more balanced than would be the case without such data.

Figure 1. Presentation of the value added by a randomly selected school (SALSA database)

Presentation of the difference between the expected and the observed proportion of students who achieved the objectives in all subjects for a randomly selected school in the SALSA database



Source: SALSA database, National Agency for Education (http://salsa.artisan.se/cgi-shl/school_frame.exe?andel=yes&antal=+1&selskolor=198007101&todo=schools_all_years_frame).

Feedback from school inspections

The feedback provided to the schools by the Inspectorate as a written report is very detailed and very specific. It contains tangible conclusions for each of the areas evaluated. That is, every school receives a number of specific evaluative messages telling them whether the “written goals and requirements are basically met” in the given examined area or whether “action is needed”. If action is needed, the school finds in the report a long and detailed written description of the specific problem found.

Annex 3 provides an example of the structure of a typical inspection report. In this particular report, the inspectors had evaluated 29 specific areas. According to the inspectors, specific action for improvement was needed in eight of the 29 areas. As the number of areas that need or do not need intervention is quantified, it is possible to make comparisons in time or between specific areas. This provides a possibility to see, either locally or nationally, in which thematic areas most support is needed. This way the instruments that are used primarily for school evaluation can also be used for system evaluation and they can feed into national policy-making.

School capacity to use feedback

Another strength of school evaluation in Sweden is the capacity of schools to use feedback for improvement. Feedback seems to be integrated in schools into a communication-rich organisational environment which is capable to understand and interpret it.

School internal quality management

The relatively intensive school self-evaluation activities contribute to the openness of professionals for feedback coming from external evaluation. The internal quality management in Swedish schools, especially the quality reporting practices, foster the intelligent collaborative use of feedback.

Since the late 1990s, Sweden has invested into developing quality management in schools. Since 1997, schools have been obliged to develop internal quality management processes, following national guidelines. According to Nyttell (2010), some 75 000 Quality Reports have been produced between 1998 and 2009. While there are great variations in local practices, overall quality work and reporting have been conceived as a communicative and participatory process. There may be teachers who hold posts with formal responsibilities for quality work and many teachers are involved in this activity. The dominant conception of this quality management in Sweden, as it was communicated to us by the stakeholders we interviewed, emphasises democratic dialogue and ownership by the teaching staff. This is a highly valuable asset which should to be preserved.¹⁵

The concept of quality management or quality development, as it is reflected in the quality model of the NAE¹⁶, is embedded in a classic strategic management model focussing on four key questions: (1) “who we are”, (2) “where we want to go”, (3) “how we can get there”, (4) “how did we succeed”. This is the complete strategic planning cycle which starts with a self-analysis and the analysis of the environment, it continues with vision-making and strategic goal setting, then implementation planning and, later on, the evaluation of the results. Quality reporting is, in fact, only the last element of this process, its most important aim being to feed back into the four-stage strategic cycle.

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15. The system of school evaluation has, in this respect, evolved in accordance with the recommendation of the European Parliament and the Council of the Ministers of education of the European Union which has encouraged building external evaluations on internal self-evaluation, and using self-evaluation “as a method of creating learning and improving schools” with the involvement of stakeholders (teachers, pupils, management, parents and experts) “in order to promote shared responsibility for the improvement of schools” (European Parliament, 2001).
 16. See www.skolverket.se/sb/d/2172;jsessionid=F93592744DEB28ED06182097F6E93293.

Training for school leaders and teachers

Since 2010, compulsory training is provided to school leaders, which includes a significant part on evaluation. One of the three curricular pillars of the National School Leadership Training Programme is “management by goals and objectives” and among the learning outcomes under this pillar one finds items like demonstrating “knowledge of the different methods for quality monitoring and quality development”, “good ability to use different tools and methods to follow up and evaluate results of their own school” or “the ability to evaluate and communicate the school’s results as a basis for further development” (NAE, 2009c). Assessment topics will also be more intensely covered in the new initial teacher training to be implemented in 2011. This increases the probability of feedback being actively and intelligently used at the school level.

Tools to support school self-evaluation

The strategic quality work of schools has been supported by a rather rich supply of quality management instruments, such as self-evaluation and benchmarking tools, detailed electronic questionnaires, evaluation standards, sophisticated indicator systems and progress models. Some of these instruments have been created and put at the service of schools by the national agencies. Others are developed by private companies selling consulting services to schools and municipalities. Information about these instruments is available through the internet, and some of them can be used online.¹⁷ For a description of the most commonly used tools, see Box 5.

17. Several of these instruments and services were presented as good examples in the chapter on self-evaluation of the expert committee report which, in 2007, recommended the reinforcing of state schools inspection (SOU, 2007).

Box 5. Examples of tools for school self-evaluation

- The NAE operates a school self-assessment tool called **BRUK**, which is the Swedish abbreviation of “Assessment, Reflection, Evaluation and Quality”. This is an on-line questionnaire made available through the website of NAE, which allows schools to identify their strength and weaknesses related with curriculum-driven activities (www.skolverket.se/bruk).
- The NAE has also supported the use of the **Balanced Score Card** method (Olson & Sahlin-Andersson, 2005) which has been implemented in several institutions.
- Attempts have also been made to implement **Total Quality Management**, although there is some evidence on this being not very successful (Svenson, 2004).
- The NAE has also supported the development of a quality assurance tool called “**Qualis**” which resulted in a quality scale or “quality staircase”. This tool, developed by a private consulting company, allows schools to set goals for gradually climbing up on the stairs and to reach higher level organisational maturity through systematic internal organisational development and quality improvement (www.q-steps.se/Templates/Page____74.aspx).
- A further instrument, called “**Skolindicator**”, is described on its website as “an analysis tool for the business-development of school” which “not only provides a good basis for decisions for the school leader” but it is also “a process that involves all employees, provides a common picture of the current situation and describes an ideal state to strive towards.” (www.skolindicator.se/skolindicator/view.cfm?oid=1006).
- The Department of Education of the University of Stockholm has developed a school climate diagnostic tool, called **PESOK**. According to its website it can be used not only by schools to “describe and analyse the pedagogical and social climate and thus serve as a basis for school improvement” but also by municipalities and national agencies for the evaluation of schools (<http://web.ped.su.se/PESOK>).

All these supporting initiatives, embedded into an advanced concept of strategic and participatory quality management, show that schools in Sweden are relatively well prepared to make good use of the feedback they receive. Schools are expected to behave as autonomous units, capable of using both self-evaluation and external feedback for strategic management processes. While there are variations across schools, many schools seem to be capable of meeting these ambitious expectations and possess the human capacities to use feedback intelligently for improvement.

Incentives for schools to use evaluative feedback

The recently strengthened inspection system has created strong incentives for schools to use evaluative feedback. The approaches of the Schools Inspectorate make it difficult for schools to ignore feedback or neglect quality. Schools receive from the inspectors a very detailed and specific “to-do list” after the inspection is completed. The inspectors typically come back to schools to check whether they took action to intervene in areas in need of improvement. Schools and municipalities have to report in writing within three

months after receiving the inspection report on the measures taken to address identified shortcomings. The Inspectorate is deliberately communicating an image of “toughness” about itself. It is aware of the fact that some local units (schools or municipalities) are less cooperative and in such cases it does not refrain itself from turning to the media and criticizing publicly the non-cooperative partner or to turn to a court. While currently the Inspectorate cannot sanction public schools, the possibility of introducing sanctions is stipulated in the new Education Act to come into force in mid-2011.

Incentives are an important part of an effective evaluation system. But they need to be thoughtfully designed. For example, some incentives or sanctions are seen as particularly high stakes for teachers and might have unintended negative consequences. Thus, it is important to review carefully the impact of incentives and sanctions on teachers and teaching. The effective use of feedback at the school level is not always a question of willingness but may also be a question of knowing how to address weaknesses identified in evaluation and assessment.

Strong potential in the municipal management of schools

Finally, among the strengths of the school evaluation system, it is important to stress the role of municipalities in creating an administrative environment that encourages quality improvement through feedback, capacity development and incentives. Although, similarly to many countries with decentralised systems of educational administration, the quality of local (municipal) administration is uneven, the review noted a strong potential in the local (municipal) management of schools in Sweden.

A number of municipalities have developed advanced systems of school evaluation and school improvement backed by democratically established, and sometimes quite ambitious municipal educational development strategies.¹⁸ In the municipality of Stockholm, local school system evaluation is particularly well established: it includes a system of quality indicators drawing on student performance and feedback via municipal surveys; school quality reports; quality reports for different departments (*e.g.* compulsory schools, Early Childhood Education and Care); and notably the Stockholm Schools Inspectorate, which has conducted curriculum-based inspection since the early 1990s. Stockholm sets goals for all schools in the municipality and each school board develops a set of goals against these. Municipal officials monitor school performance on a set of quality indicators and follow up at least twice a year directly with school leaders.

Other municipalities may conduct quality evaluation relying on contracting teachers and school leaders as peer evaluators. In Malmö, for example, most school leaders have responsibilities at the municipal level and participate in a peer-evaluation system, in which school leaders’ visit each others’ school to monitor and evaluate performance and provide professional advice. This peer evaluation system also enhances knowledge sharing between schools and is a good example of systemic leadership for school improvement (Pont *et al.*, 2008b). Some municipalities are also active in using questionnaire-based surveys to acquire information about the satisfaction of users (parents and pupils or sometimes employers) with the quality of educational services. Municipal evaluations can complement the national evaluations as they take into account the needs of the local society and economy more than national evaluations might do.

18. See for example Södertälje municipality (2009) or Borgholm municipality (2006).

In addition to the compulsory annual quantitative report on schools, a number of municipalities collect and analyse information on specific topics from their schools. For example, the municipality of Haninge that the OECD team visited produces an annual qualitative report on different priority topics, *e.g.* in 2009, these were secondary schooling and adult education. This report is based on a subjective assessment by two municipal officials after interviews with school leaders, students and parents. Officials informed the OECD that such reports had helped create a more common understanding and agreement on educational priorities within Haninge.

Challenges

Distributing resources between different priorities

One of the key challenges for school evaluation is to decide on how to share resources and energy between the three factors mentioned at the beginning of this chapter, that is (1) improving the quality and quantity of feedback, (2) improving the capacities of those who use the feedback (schools and school maintainers), and (3) strengthening incentives and/or sanctions so that the feedback generates genuine action. The review team noted as a challenge in Sweden the question of the optimal sharing of resources between these three lines of action. This is a difficult strategic decision that needs to be reconsidered periodically in any system for school evaluation.

On the basis of the evidence that the review team has collected during visit and in the available literature, it seems that the Swedish system, compared to other educational systems, is already producing a relatively high amount of feedback (see above). In spite of this, investment still seems to be directed towards improving this element and also towards creating more incentives and sanctions. Currently, relatively less investments seems to be focussed on improving the capacities of municipalities and schools to use the feedback.

School inspection, as a human resource intensive activity that requires high quality professional personnel, is an expensive business in every country, and Sweden is not an exception. As stated in a 2006 project proposal by a Swedish university: “this type of evaluation is thorough and accurate but very resource intensive.”¹⁹ This service is particularly expensive if inspectors operate as full-time civil servants, as is the case in Sweden. The Schools Inspectorate employs 360 staff of which 290 are in the status of inspector (most of them ex-teachers, head teachers or senior school administrators but many of them recruited deliberately from among lawyers, researchers or statisticians) (Begler, 2010). A 2007 report of the expert committee that proposed the creation of a separate body for school inspections estimated the yearly costs of this function to be 360 million SEK (SOU, 2007).

As mentioned above, the number of national inspections will be increased so that every school is visited and evaluated by national inspectors every third year (instead of every sixth year). While the inspections are undoubtedly a popular and highly professional function in Sweden, it would be interesting and important to conduct a careful analysis of the cost-effectiveness of increasing the number of inspections vis-à-vis other investments in school evaluation and school improvement. The impact of inspections on quality should be assessed on the basis of evidence. Sweden is already

19. See the website of the project: www.kefu.se/forskning/stratforsk/styrskola.

planning to introduce more “risk-based” approaches to inspection (more on this below); this is a development that should be further encouraged and has the potential to increase the cost-effectiveness of inspections.

There is room to optimise the integration of internal and external school evaluation

While inspections in Sweden do consider the internal quality work of schools, this element could be further stressed. It is important to recall that if external evaluation does not appropriately value school self-evaluation and the development of internal quality culture, this practice and this culture might start stagnating. The recent abolishment of compulsory quality reporting holds, therefore, a risk of being understood by schools as if self-evaluation and internal quality management were not valued anymore. This development seems to signal a shift in focus from internal to external evaluation. It is particularly important to make it clear for schools that documented self-evaluation and internal quality management remain key inputs for external evaluation and also remain basic criteria for receiving positive inspection reports.

Concerns about the balance between legal and professional aspects of inspections

Inspection in Sweden is conceived as a mixture of legal and performance audits: inspectors are expected to judge both the performance of schools and whether they operate according to legal prescriptions. Finding the right balance between the professional and the legal aspects of school inspection is always difficult. The process of teaching and learning is, by nature, extremely complex, and a strong legal regulation of this process can hold the risk of bureaucratisation and professional impoverishment. This issue is of importance in countries where there is a tradition of conceiving the national curriculum as being not only a professional matter but also having a strong legal character, as is the case in Sweden.

At the same time, this risk is counterbalanced in Sweden by the fact that the national curriculum is not very detailed. This implies that the curriculum, as a legal document, does not regulate nationally the details of teaching.

The current trend to make the national curriculum more detailed seems to meet the expectation of both teachers and parents. The clarification of goals and syllabi is important to help ensuring greater equity of provision and educational opportunities. At the same time, it is essential to keep the curriculum open for local adaptation and avoid that it becomes overly prescriptive. If the legal nature of the curriculum remains strong and, at the same time, it becomes very prescriptive, this could raise new challenges for external school evaluation. The legal control by inspectors would then have to cover deeper pedagogical layers. This could potentially lead, against the explicit intentions, to a stronger focus on compliance with standard pedagogical approaches and may hold back pedagogical innovation.

The potentially negative impact of school rankings

Since 2006, the Swedish Association of Local Authorities and Regions (SALAR) has published the results of the national assessments at the compulsory level and schools are ranked according to level of performance as well as educational expenditures. Data on the student completion rate and the percentage of students meeting the general entry

requirements for higher education are also included. These sorts of educational league tables may be found in more than half of OECD countries (OECD, 2009c). Some studies have shown that teachers may view the league tables as carrying high stakes even when the results are used only to identify areas for improvement. Teachers will work to avoid the public stigma of poor results (Corbett and Wilson, 1991; Madaus, 1988; McDonnell and Choisser, 1997; OECD, 2009c).

While there are no studies on the impact the rankings and publication of the reports have had in Sweden, most stakeholders interviewed by the review team did not express concern. The reports by SALAR on the performance of schools also discuss the broader educational context, allow users to calculate the “value added” of the schools and municipalities²⁰ and attempt to identify effective strategies and practices that might be taken up in other areas (SALAR, 2009). This may help to lessen some of the anxiety often associated with publication of results.

It should be noted that a school’s place in the rankings should be viewed with some scepticism. A school’s assessment results may fluctuate a great deal from year to year. This can be because of measurement errors, sampling variability (student characteristics may be unstable from year to year) and non-persistent factors that may affect student performance in one year but not the next (*e.g.* noise in the school yard, a teacher’s absence, and so on). Volatility of scores may be particularly high for small schools (Linn and Haug, 2002).

Concerns about variations in the evaluation capacities of municipalities

Municipalities play a key role in school affairs, including school evaluation, and the quality of school education in Sweden depends fundamentally on the way they exercise this function. A major challenge related to this is the unevenness of the quality of the school evaluations implemented by municipalities. This unevenness has generated a high degree of dissatisfaction with municipal quality management that eventually led to the introduction of national school inspections in 2003 (NAE, 2004). Concerns about the variability of municipal approaches might also have induced some key actors to question the “municipalisation” of the early nineties and to suggest that the administrative responsibility for schools should be transferred back to the national authorities (Landes, 2009).

There are large variations in the capacity to develop quality assurance systems among municipalities. Each Municipality is free to appoint officials to oversee the schooling system, but there is no guarantee that those appointed will have experience in educational quality improvement. Currently, there are no specifications for professional competencies of municipal officials in the Education Act. Also, in smaller municipalities such officials may have many other responsibilities and roles in addition to monitoring the school system. Some schools may keenly miss school quality leadership at this level.

During the OECD review, some concerns were raised about the role of municipalities in evaluation. The Association of School Principals and Directors of Education stated that

20. To calculate the value-added, the data include the proportion of pupils who have passed the minimum level at grade nine, a comparison with the number of students who would normally be expected to pass at this level (the “expected value” based on student characteristics). This allows users to make an estimate on the “value added” of every municipality and every school operating a grade 9.

many municipalities do not devote adequate time and resources to school leader evaluation, claiming that the municipal and/or district officials in charge may not know school leaders. Similarly, teacher unions raised general concerns that many municipalities only monitor school budget and pay little attention to school quality. Further, the National Agency for Special Needs Education and Schools reported that there is significant variation in municipality capacity to deliver and monitor quality education to students with special educational needs.

There are also concerns at the national level about how to best evaluate the way municipalities fulfil their education-related tasks. This is, in most countries, including Sweden, a delicate issue as local governments constitute an independent branch of public power, and, therefore, controlling local governments by the central Government may often have constitutional implications. The Swedish Schools Inspection inspects not only schools but also municipalities, including their way of organising the management of their local school systems which may lead to frictions between them.

Another challenge, which seems to be less expressed, is related to the possible neglect of efforts to improve the capacity of municipalities to exercise their mission in school education. There is a risk to miss opportunities in harnessing their potential in this area. While some municipalities have, in fact, never grown up to their task, others contribute remarkably to the quality of education and there is still unused potential in this field. Municipalities have strong interests in improving school education and some of them have used school evaluation as a powerful instrument to achieve this since the transfer of responsibilities for schools to them in the early nineties.²¹

Ensuring openness of schools to external economic and social influences

Challenges related with the content of feedback sent to schools, and the possible incentives created by this also deserve attention. Even in strong and effective feedback systems, there are always risks of “noises” distorting the content of the messages for schools. For example, accountability or feedback systems based on the use of measurable performance indicators may create messages that give incentives for schools to focus mainly on areas that are easily measured. This may result in the neglect of areas where measurement is more difficult.

So far, Sweden has been quite successful at avoiding these kinds of distortions. The system relies not only on metrics but also on professional judgement. It emphasises the use of qualitative information, generated by school self-evaluation and inspection, to complement quantitative information provided by test results. This has protected the system from relying too much on what is easily measurable. Involving municipalities actively in school evaluation has created good opportunities for the needs of the economic and social environment being expressed.

However, it is important to continue to ensure the evaluation and assessment system is open enough to absorb relevant external influences. While discussing the questions of evaluation and assessment with various stakeholder groups in the country, the themes of labour market relevance or employability were not often raised by our interlocutors. The student associations, however, did voice concerns that theoretical knowledge was overstressed in the assessments, and that it would be important to focus more on

21. See for example the two very informative Swedish case studies in the OECD publication *Schools Under Scrutiny* from the middle of the nineties (OECD, 1995).

project-based activities and entrepreneurship to prepare students adequately for the labour market. While Sweden’s performance-based student assessments indeed emphasise competencies such as teamwork and problem-solving, there could be greater focus on assessing transversal key competences in the context of cross-curricular work. This is now becoming a key concern in many European countries (European Commission, 2009; 2010).

6.3 Pointers for future policy development

On the basis of the analysis of strengths and challenges in this chapter, the review team proposes the following directions for policy development:

- Analyse the efficiency of inspections and consider new approaches to inspection.
- Build on the strengths of school internal quality management approaches.
- Avoid unintended consequences of school rankings.
- Use school evaluation to ensure responsiveness of schools to economic and social contexts.

Analyse the efficiency of inspections and consider new approaches to inspection

As discussed above, it is important to periodically reconsider the distribution of resources devoted to school evaluation between (1) improving the quality and quantity of feedback, (2) improving the capacities of the users of feedback (schools and school maintainers), and (3) strengthening incentives and/or sanctions for action so that a higher priority is given to capacity building in the area of local and school level quality management. An appropriate balance of these three key areas is needed for the school evaluation system to be effective.

To reconsider the balance between the three factors, the review team would suggest analysing the efficiency of school inspection. This should be done on the basis of research evidence on the impact of inspections on the quality of education in schools. New mechanisms for inspection should also be considered, including risk-analysis, proportional inspection and stronger follow-up of problematic cases. Such approaches can improve the cost-efficiency of inspection.

Sweden is already moving into the direction of risk-based inspections. The report of the public expert committee which proposed the creation of a strengthened Schools Inspectorate in 2007 (SOU, 2007) already suggested a reduced or simplified inspection in those cases where the data collected by the NAE do not show specific problems of quality. The background report prepared by the Swedish Ministry of Education and Research (2010) for this study also mentioned that the Inspectorate “is elaborating methods for risk-analysis and for identifying good and poor performing schools” which would make it possible to distinguish between schools that need full (and more costly) action and those where a limited action (or no action at all) would be sufficient. Such approaches are already successfully practised in some other countries (see Box 6) and this is what the Standing International Conference of Inspectorates is also encouraging (SICI, 2009).

The transparency of the operations of the Inspectorate could also be further increased. This could be done, for example, through increased presence of inspectors in public professional dialogues or the development of a more content-rich website.

Box 6. Proportional and risk-based inspection in the Netherlands

Proportional supervision

“In the Netherlands, proportional supervision has played a role in both the Supervision Act and the current practice of inspection since 2002. Proportional supervision is conceptualised in two ways in the Netherlands. In the first place, the frequency and form of inspections are based on the quality of the school and the risks of quality decline. This means that schools with poor quality or schools that can be expected to suffer from a serious decline in quality are inspected sooner and more often than the better performing schools. This form of proportional supervision is also called selective supervision” (Inspectie van het Onderwijs, 2006).

Risk-based Inspection

“Since 2007 the Dutch Inspectorate of Education has carried out risk-based inspections of schools, assessing potential problems that could affect the quality of education. This system reduces the burden felt by schools and makes inspections more effective. Schools delivering a good education (no risks detected) and good results do not require inspection, allowing the Inspectorate to focus on the rapid improvement of schools that supply a poorer education (risks detected) and get unsatisfactory results” (website of the Dutch Inspectorate of Education: www.onderwijsinspectie.nl/english).

Build on the strengths of school internal quality management approaches

One way to control the costs of external evaluation is to base it increasingly on internal self-evaluation and to make this one of the most important inputs for external evaluation. Internal self-evaluation is considered important in many countries not only for its cost implications but also for improving the quality of external inspection in general (SICI, 2001) and for being a key factor in the overall performance of educational systems (OECD, 2004a). It is worth mentioning that the role of self-evaluation as a basis of external evaluation is in general stronger in countries which have stronger accountability policies (Janssens and van Amelsvoort, 2008).

The national authorities should also continue to provide professional support for the development of internal quality management, make successful and effective models available for schools, and stress the importance of participative approaches supporting ownership and of using self-evaluation for organisational learning. It should be clarified that abolishing the compulsory nature of quality reporting serves simply to reduce the administrative burden on schools and that the quality documentation of self-evaluation will remain a formal expectation. It is important to make it clear for schools that internal quality management is unchangeably an important task. Participatory mechanisms in internal quality work should be further encouraged, increasing the role of self-evaluation as a key input for external evaluation. The active involvement and partnership of local municipal administrators of education in school evaluation is also a value to be preserved.

It is also necessary to give more support for schools to develop effective internal quality management mechanisms focussing as much as possible on teaching and learning.

For example, according to a recent Eurydice (2009) study, there are currently no regulations, recommendations or support that relate specifically to the use of test results in school self-evaluation (Annex 5). This is an aspect of evaluation that Sweden could consider strengthening. In some other countries, such as England and Scotland, tools have been designed to assist schools in the analysis of data for self-evaluation. In the French Community of Belgium the inspectorates and educational advisers give support to schools in their internal quality management tasks. In Slovenia, guidelines have been made available by the national examination centre to help schools with the analysis of test results.

Avoid unintended consequences of school rankings

At this point, no studies have been conducted as to how teachers in Sweden perceive the school ranking process through the “open comparisons”. However, studies from other countries show that many teachers interpret rankings as carrying high stakes, even when they do not have any impact on school funding or status. Policy makers might lessen potential impact by ensuring that quantitative data are always accompanied by qualitative data explaining the context in which different schools operate; providing interpretation of data gathered in student assessments, school self-evaluations, and inspections; describing how schools are meeting local goals for education, noting progress made in meeting challenges, describing new programmes under development, and so on.

A continued focus on learning from schools identified as high performing in the rankings may also be important. Indeed, systems focused on raising standards should provide opportunities for system learning – including close examination of data from local levels to better understand the impact of different strategies on school effectiveness and student achievement.

Further strengthen capacity at the school and municipal level

In addition, the effectiveness of school evaluation can also be enhanced through the professional development of staff at the school and municipal level. This in turn will strengthen internal quality assurance and the use of external feedback. It is important to strengthen further the evaluation and quality management components in the training and professional development of school leaders and municipal administrators of education, including those in middle level leadership positions. The review team would also recommend to rely as much as possible on school leaders in role of peer evaluators for school evaluation. The active involvement of competent school leaders in the school evaluation process cannot only make the operation of inspection more efficient but this can also improve the contribution of inspection to school improvement through fostering peer learning and knowledge sharing. The Ministry of Education and Research and the NAE could also play a greater role in supporting municipality networks working on different aspects of evaluation and assessment.

Use school evaluation to ensure responsiveness of schools to economic and social contexts

Sweden has developed a strong evaluation and assessment culture in education, and this is well reflected in self-perceptions (Segerholm, 2009). Evaluation and assessment are conceived as advanced professional activities to be exercised by highly qualified, specialised professionals. Such systems are, paradoxically, more exposed to the risk of

becoming isolated from the external world than systems where professional control is weaker. It is therefore very important that the feedback for schools produced by educational evaluation is also influenced by external views coming from outside the education sector. Sweden should regularly analyse whether external economic and social actors are appropriately involved in the creation of the content of feedback to schools in order to reduce the risk of the sector becoming inward-looking and self-contained.

This risk of isolation of the education system can be counterbalanced, among other things, by national systems of qualifications that allow employers and other economic players to have a stronger influence on evaluation. The latest CEDEFOP report on the development of national qualifications frameworks notes about Sweden that “on a longer term basis, the objective is to open up this qualification framework to bodies and stakeholders outside the public sector on a voluntary basis, for example enterprises and sectors awarding certificates” (CEDEFOP, 2009). Increasing the influence of stakeholders outside the education sector on the evaluation and assessment framework can play an important role in improving the connections between education and work in Sweden.

The inspection function should also be exercised in a way that it does not increase potential isolation of the school system. Quite the contrary, inspection can play a key role in making schools more open to the external world, including the world of work and employment. This can be done, for example, by giving a higher priority in school evaluation to the assessment of those cross-curricular competences that enhance employability, and developing innovative tools that make it possible for inspectors to assess the performance of schools in this specific dimension.

Moreover, inspections could also play a role in fostering innovation in education. This could be done by including the evaluation of innovations and innovation capacities as a new category into the criteria of school evaluation. Concurrently, the inspection process needs to be developed in a way as to foster pedagogical innovations leading to improving the quality of teaching and learning. Similarly to some other national inspection systems, the Swedish Schools Inspectorate should conduct a reflection on ways to contribute to innovation in the school system.

The openness of the education system could further be enhanced by maintaining and strengthening the current role of “users” (students and parents) in school evaluation, making more use of data from local user surveys in school evaluation, taking “users” as a key target group of inspection reports, and making efforts to make these reports even more “user-friendly”.

Chapter 7

System Evaluation

The performance of the Swedish education system is monitored via a range of tools including participation in international assessments, aggregation of data from national assessments, thematic quality evaluations by the Inspectorate and evaluation reports by the National Agency for Education. Results of system-level evaluation are taken seriously and feed into policy development for school improvement. It can be questioned, however, whether much of the data collected on student outcomes are appropriate for the purpose of system monitoring. The current reporting of outcomes relies heavily on grades awarded by teachers, but recent studies show that teachers' grading is uneven. This implies that aggregating test results and student grades as measures of school, municipality and system performance is not appropriate. Options to provide a more reliable system monitoring tool could include setting up external moderation of national tests or introducing a sample monitoring survey. Also, there is room to encourage greater mobilisation of existing data and information in order to optimise the usability of this information by local policy makers and stakeholders.

This chapter looks at system evaluation within the Swedish evaluation and assessment framework. System evaluation refers to approaches to monitor and evaluate the performance of the education system as a whole. The main aims of system evaluation are to provide accountability information to the public and to improve educational processes and outcomes.

7.1 Context and features

Responsibilities for evaluation of the Swedish education system

Establishing a system evaluation framework

Currently, the Swedish Parliament and Government determine the national framework for schooling, comprising national educational objectives, curriculum, and guidelines for the public education system. Municipalities and independent school boards must run their schools within this framework. The major responsibility for establishing a framework for evaluating the quality of the education system lies with the Ministry of Education and Research, but in practice much authority is given to the National Agency for Education (NAE). The general government approach has been to give great autonomy to agencies and just to draw up an annual governing letter to set the framework of what each agency should look at. For example, for the Swedish Schools Inspectorate this would be to inspect municipalities on a regular basis. This leaves space for the Inspectorate to set priorities. Representatives of the Ministry of Education and Research see the forthcoming revised Education Act as a first attempt to establish a more coherent framework.

Monitoring the education system

The major role for monitoring the extent to which the goals for the Swedish education system are being achieved, lies with the NAE – this is an independent agency under the Ministry of Education and Research (described as ‘another level of governance, between politicians and practitioners’ by Wikström, 2006). Important support is also provided by the Schools Inspectorate (established 2008) mainly via its inspection of thematic areas of key political importance within the Swedish system. Municipalities also play a key role in monitoring education: it is their responsibility to formulate educational plans for schools and to ensure they are carried out (NAE, 2005b).

Further monitoring may be provided from outside the education sector by the Supreme Audit Institution and the Swedish Agency for Public Management. The Audit Office not only produces 30 reports each year on the whole of the public sector (financial audit) but also audits different themes, including of course education. The Swedish Agency for Public Management is under the Ministry of Finance and is responsible for conducting quality surveys/evaluations.

Providing evidence on system performance

The Institute for Labour Market Evaluation has a mission to deliver scientific evidence on a range of issues related to the labour market, conducting robust research, but not offering policy advice. Since 2001, it has researched education-related issues from

preschool up to university level, including assessment of policy reforms and general issues of resources/outputs and student transitions to different levels of education.

Major tools to measure performance of the education system

National measurement of student performance at key stages

Chapter 4 on student assessment describes the current system of national tests. At the system level, the national tests perform two major functions: (1) to ‘facilitate fair, standardised and reliable awarding of grades’ by teachers, and (2) to monitor to what extent the national goals are being attained. In 1994, the national test system in Sweden changed. Previously, tests had been graded against a normal distribution, so for example, 7% of students in any given year achieved the top grade. Therefore, these tests could not be used to monitor educational progress over time, since the scale was based on the mean and distribution of the performance of a cohort of a specific year (Wikström, 2006).

Since 1994, national tests are criterion-referenced. They have since been graded against standards based on the new, less prescriptive curriculum. Despite this new potential for national tests to monitor student progress at the system level, their focus was really assessment *for* learning, *i.e.* to support teachers in their pedagogy. Among the main aims of the tests were identifying individual learning needs and taking decisions about the school career of pupils (Annex 5). However, with increased demands from the public and various stakeholders for information on how the school system is performing, the recent trend has been towards assessment *of* learning (NAE, 2005b). There is heightened demand for more summative use of the national test results to evaluate the system, municipalities and schools.

Qualitative reviews of different aspects of schooling

The Swedish Schools Inspectorate conducts thematic reviews as a complement to the regular review of individual schools. Such ‘thematic quality evaluations’ constitute around 50% of all annual inspection activities. For example, recent thematic quality evaluations have included ‘Follow-up and evaluation of teaching and learning results’, ‘Bullying, harassment and discrimination in schools’, as well as teaching in Mathematics, Swedish, Physics and Modern Languages. The Swedish Schools Inspectorate writes a summary report drawing on findings from each school evaluated (Skolinspektionen, 2008).

Further, Sweden participates in international reviews of educational policy, including recent participation in the OECD Review of Migrant Education and the current OECD Review of Evaluation and Assessment Frameworks for Improving Schooling Outcomes.

Participation in international student surveys

Sweden was one of the earliest supporters of international benchmarks of student performance in core areas such as reading, mathematics and science. Information on student reading skills is collected for students in Grade 4 (via the International Association for Educational Achievement’s (IEA) Progress in Reading Literacy Skills [PIRLS] survey) and for 15-year-olds (via OECD’s Programme for International Student Assessment [PISA]). Information on student mathematics and science skills is collected in Grades 4 and 8 (via IEA’s Trends in Mathematics and Science Skills [TIMSS]) and for

15-year-olds (via OECD's PISA). Sweden also supports international comparisons on non-cognitive outcomes, including its participation in the recent IEA International Civic and Citizenship Education Study (ICCS 2009).

7.2 Strengths and challenges

Strengths

Ongoing work to clarify standards and to collect meaningful indicators against these

In recent work to develop new syllabi and grading criteria, the NAE provided sample material on its website and invited public comment. Stakeholders that the OECD met with appreciated this open process. The aim of introducing new syllabi is to provide clearer and more helpful tools and guidelines to teachers in core areas. Feedback from teachers on the existing syllabi (dating from 2001) indicated that they were too broad (see Chapter 4). Stakeholders also informed the OECD that they appreciated central intervention to determine core criteria, although the umbrella organisation for Swedish local authorities (SALAR) noted that this should not interfere too much in local autonomy.

The national curricula and syllabi include both academic and democratic goals. National tests to assess student performance strive to be as well aligned as possible with the syllabi by incorporating more 'cultural' goals in indirect ways, *e.g.* through the use of context of testing items and including attitudinal components. The tests are also complemented by a three yearly national survey of student and parent attitudes towards their education/schooling. The most recent survey was conducted in 2009, the first in 1994 (see: [Summary Report on 2009 results](#); NAE, 2010a).

Growing collaboration among key stakeholders and procedures to learn from evaluation

There is active collaboration among key stakeholders in system evaluation. The Swedish Schools Inspectorate collaborates on a regular basis with the NAE and ensures contact with municipalities via SALAR. In conducting its thematic quality evaluations, the Swedish School Inspectorate tries to select both schools where there are known concerns and schools with good practices. The aim is to use the results of the evaluation to stimulate schools with poorer results to improve, by learning from practices in more successful schools.

After the election in 2006, the Government decided to strengthen and broaden the Inspectorate mandate and emphasised the importance that inspection activities be removed from the NAE: the NAE playing an advisory role and an independent body to evaluate school quality. The forthcoming revised Education Act aims to more clearly point out the responsibilities at each level of the education system, *e.g.* differences between municipality and school leader roles.

SALAR has undertaken to compile and present a set of comparison indicators for Swedish municipalities, including some indicators on resources and some on quality of output *e.g.* for compulsory schools: national test results, final grades and the degree of transition to upper secondary education. SALAR uses such indicators to rank municipalities.

There is also a strong tradition for active consultation and collaboration with key stakeholders when system tools are developed. After public consultation, the Ministry of Education and Research decided to revise the curricula/syllabi. To this end, NAE has worked with small selected groups of teachers to develop tools, sent the draft tools out for comment from all teachers. The NAE works regularly with researchers and teacher trainers and provides examples of new materials on the website for public comment/feedback.

Strong professional competencies within the key players in system evaluation

At the national level there is a clear understanding of the importance of drawing on a range of professional competencies and engaging key stakeholders in designing core elements of the evaluation and assessment framework.

Within the NAE, there is a policy to employ a mix of educators, statisticians, political scientists, sociologists, economists, lawyers, etc (Swedish Ministry of Education and Research, 2010). There are three distinct units within the NAE: education statistics; evaluation of results (national/international); and analysis and reviews. While the unit for educational statistics processes and conducts quality control on national test data, the NAE commissions Statistics Sweden to collect these data adhering to strict technical requirements. The NAE works with researchers and teacher trainers to develop the syllabi, which serve as the standards in the Swedish education system. Once the syllabi are completed, the NAE starts work on designing related national tests.

The professional work of the NAE in monitoring education outcomes is supported by close cooperation with the universities. The NAE manages the national test system and contracts various universities to develop the tests in consultation with representative teacher groups (NAE, 2005b; Annex 5). The NAE also collaborates with universities on the development of other materials such as school quality management tools (Chapter 6).

The NAE is required to demonstrate its competencies in system evaluation. The Swedish Government demands it submit an annual report summarising expenditure, main achievements and progress towards goals. Further, different activities of the NAE may be evaluated at any given time, *e.g.* by the Swedish Agency for Public Management.

Recently, the Swedish Government has doubled the resources given to national school inspection and established an independent body to conduct this (the Swedish Schools Inspectorate). From 2001-08 these responsibilities were carried out by the NAE. The Swedish Schools Inspectorate capitalises on the competencies of NAE staff via regular consultation and inviting some to participate in thematic quality evaluations developed by inspectors.

Other bodies playing a role in system evaluation boast strong capacity. The Swedish Agency for Public Management has a staff of 55 analysts, comprising for the most part political scientists/economists, but also social scientists. The Supreme Audit Institution has 300 employees, 100 of whom work on performance audits. The independence of the Institution is bolstered by limited terms of engagement for staff. The Institute for Labour Market Evaluation has 40 members of staff, mostly economists with a few political scientists, and funds researchers from different disciplines to evaluate issues requiring particular expertise.

The NAE plays a key role in building evaluation competencies throughout the education system. For example, the NAE set the standards for the National School Leadership programme which was made compulsory for all new school leaders in March 2010 and includes a module (1 of 3) on ‘Working in a results-oriented system’. While the NAE does not directly train teachers, it provides guidelines to teachers on working with evaluation and assessment. The NAE also funds in-service teacher training courses, however these cannot solely focus on evaluation and assessment competencies, but should focus on specific subjects, knowledge or didactics.

During the OECD review, the municipalities visited reported that they had invested efforts in strengthening the capacities of teachers related to student assessment, *e.g.* by establishing networks of teachers for grade moderation within municipality schools or by ensuring that teachers follow training arranged by the NAE.

Transparent reporting on education system performance

Knowledge on education system performance is generally well managed. The NAE took over reporting responsibility from Statistics Sweden in 1994/95 with the aim to improve the timeliness, clarity and structure of key descriptive results (see Box 7). All data collected by the NAE are publicly available and all reports by the Swedish Schools Inspectorate and other stakeholders (*e.g.* Swedish Agency for Public Management and SALAR) are on the internet. The NAE website provides its own reports, plus school and municipality annual reports. Municipal and county district aggregate data on student test results from the national tests are available in a public database managed by the NAE. These would mainly be of use to researchers.

The major summative report on the Swedish education system is the NAE’s annual report to the Swedish Government with its assessment on whether the education system achieves its objectives (see: [NAE annual assessment report 2009](#); NAE, 2010b). This includes information on national follow-up and the Swedish Schools Inspectorate’s thematic quality evaluations²². The NAE also produces regular reports to the Swedish Government on different topics of political relevance (see: [2010 report series](#)²³). In addition, the NAE publishes a series of analytical reports including trends over the last ten years, an annual analytical report on themes of current policy relevance or with a more in-depth examination of factors underlying student performance (*e.g.* NAE, 2009a). These analytical reports draw on results from the monitoring system, plus other reports or reviews that have been conducted. Such reports include suggestions for the Government, municipalities and schools.

22. The Swedish Schools Inspectorate does not produce an annual summative report, but does publish reports for schools and municipalities.

23. The report series is available at: www.skolverket.se/sb/d/1590.

Box 7. Key features of the NAE annual reporting on the Swedish education system

Commitment to make key results at the national level more accessible

The official statistics for the Swedish education system are reported on the NAE's website. Both full reports and statistical tables (in MS Excel format) are available. In 2001 the NAE redesigned its reporting website to present more clearly statistics at the national, municipal and school levels (SIRIS database, SALSA analysis tool). For example, up until 2000 results were published in four separate papers: a summary of main results plus analytical papers by researchers on results in English, Mathematics and Swedish and Swedish as a Second Language.

Example of core content in annual reports on national test results

Each annual report presents clear summary tables of student performance at the national level. For example, student performance in Grade 9 in the national tests in Swedish and Swedish as a Second Language, Mathematics and English. This provides the national average percentage of students achieving performance standard 'G', 'VG' and 'MVG' and below 'EUM' (a) In total and by gender (girls/boys); (b) By gender, by immigrant background (Swedish background / other) and by school group

Plus, each annual report includes content analysis of national test results for each subject by different researchers (*e.g.* Stockholm University on mathematics, Göteborg University on English, Uppsala University on Swedish and Swedish as a Second Language).

The content of the reports may vary and highlight different areas of interest, *e.g.* the 2009 report included trend results from 1998 to 2008.

Transparent reporting schedule

November/December: Main report 1: Educational results for compulsory schools and upper secondary schools (previous school year) (See: [Report 325, 2010](#))

February: School year statistics and educational results for municipal adult education (previous school year)

April: Main report 2: Children, pupils and staff (present school year) (See: [Report 347, 2010](#))

September: Main report 3: Costs (previous calendar year) (See: [Report 333, 2009](#))

Source: NAE, 2010c, d and e.

While the major focus of the NAE reports is on the national level and by subgroups of key analytical interest (gender and immigrant background), it does present descriptive results at the municipal level in each of its three major annual reports. For ease of reporting, results are presented by municipal groupings. This classification was established by SALAR and includes nine groups (see Annex 4).

There is transparent reporting of student results at the school level in both national tests and final school grades in the NAE's online databases SIRIS (observed school

averages) and SALSA (school results adjusted with a proxy value added measure) (see Chapter 6 for more detail). Such publication of school results ‘has attracted very little attention and there has been relatively little public debate on the question’ (NAE, 2005b).

Further, the NAE conducts panels to examine how these statistics are used. Also, the NAE tracks use of diagnostic tests by teachers in schools, *e.g.* the NAE reported to the OECD review team that downloads are high for languages, mathematics and physics, but relatively low for biology (although this test is more recently available).

The Swedish education system also regularly benchmarks itself against the performance of other countries. During the OECD review, the NAE reported that there is general acceptance in Sweden of the legitimacy of international tests and that students think it is important to get different views on their performance/learning, other than from their teachers. The NAE works with school coordinators to motivate them to administer the international tests, then they in turn motivate their students. There has not been any problem with meeting sample requirements in the past (see for example, OECD, 2001; OECD, 2004b; OECD, 2007a; 2007b).

Channels to feed results from the national monitoring system back into policy and practice

In 2009, the Swedish Government commissioned an official report (SOU, 2009) to analyse the current use of evaluation and quality assurance in the education system and how this could be developed. The enquiry included experts from the Ministries of Education and Research and Finance, the NAE and the National Agency for Higher Education. Questionnaires were sent to school leaders to ask how they use research results and ask what they would need to improve schools.

Results of system-level evaluation are taken seriously throughout the system and feed into the political debate, notably the annual summative NAE report on the school system including information from the Swedish School Inspectorate thematic quality evaluation reports. Results and analysis often feed into policy for school improvement. The revised Education Act aims to address weaknesses identified in national analysis, *e.g.* teachers must have an academic qualification in the subject they teach, upper secondary vocational students will no longer need to gain equivalent qualification for university entrance as analysis showed this to be a major contributor to student drop out. Similarly, NAE analysis of performance results in international assessments has fed back to policy, *e.g.* the observed decline in mathematics results led to the Ministry initiative to improve mathematics teaching materials, ‘boost for teachers’ (2007-11) and in-service teacher training in specific subjects (*e.g.* mathematics and science).

The Ministry of Education and Research has a policy to improve links between the research society and policy by, for example, collecting reviews of research on different thematic areas. Further, the Ministry of Education and Research prioritises the use of research results to inform better practices in school. Since 2008, NAE has had the task of disseminating research results. The suggestion to conduct systematic overviews of research and to share results in an easily accessible format with schools was one of two major recommendations made in the Government report on evaluation in education (SOU, 2009).

Based on its own analysis of national monitoring results at the municipal level, SALAR has released an analytical report showing eight major factors found in municipalities with strong school performance. The authors interviewed municipal

officials in 15 municipalities showing good and stable performance in their own ranking on key education quality indicators. With simple, clear messages on success factors such as ‘early assessment and follow-up’, ‘high expectations throughout the system’ and ‘clear roles and accountability’ the report has gained much attention and SALAR hopes to inspire lower-ranking members to use these factors for self-evaluation.

The NAE follows up on school improvement initiatives, for example by pinpointing municipalities who do not use available earmarked funds and engaging in an open dialogue with them. A current example is a large available fund for in-service teacher training, but many municipalities have not participated in this training. The NAE asks municipalities why the training offered does not meet their needs and then gives feedback to the Government.

Challenges

Concerns about the reliability of national tests as a measure of system performance

Despite increased demand for performance measures on the Swedish education system, it can be questioned whether much of the current data collected on student outcomes at the national level are appropriate for this purpose. Specifically, national tests in Years 3 and 5 are diagnostic in purpose aiming to identify students who need more intensive support. These are therefore not suited for evaluation of added value or anything of a summative nature.

Further, there are some reliability concerns with the current national student assessment system. The current reporting of outcomes in Year 9 at the end of compulsory schooling and at the upper secondary level heavily relies on the reliability of the grades awarded by teachers. As discussed in Chapter 4 on student assessment, the Schools Inspectorate has reviewed teacher scoring of national assessments and found that teachers' grading of the assessments is very uneven. It follows that aggregating the current test results/grades to use as measures of school, municipality and national performance is not appropriate – this may simply show variation in teacher grading/scoring practices and not real differences in student performance.

Further, during the OECD review, researchers raised concerns on the design of the tests, stating simply that there are not enough test items, for example in the mathematics test, to reliably categorise three distinct performance levels. This technical constraint is in clear conflict with the current policy to provide more detailed grading criteria to teachers along five performance levels. The researchers also emphasised that the available student performance data is not well suited to measure long-term developments in education. The national tests were not designed with the purpose of measuring system-level performance over time. There are also few linking items that allow to measure developments over time and there is no strategy to measure longitudinal developments. There have also been difficulties in securing that the tests of each year are of comparable difficulty.

The Student Council is critical that the major concern of many stakeholders seems to be on the methodology of national tests, whereas they feel there should be more consideration of *what* the tests measure and advocate for developing ways to evaluate broader competencies such as leadership, entrepreneurial approach and communication.

There is no plan to capitalise on the potential analytical power and operational efficiency of computer based assessment in the national tests (see Chapter 4). In the absence of national regulation on how to administer tests, the municipalities would need to decide to invest in the necessary computing facilities. There is currently no possibility for national Government to fund this.

Emerging evidence that collection, presentation and analysis of data could be further improved

The Swedish National Audit Office informed the OECD of its upcoming report on data collection and use of evaluation within the education system. A major point it makes is that there is not enough information available to conduct a thorough investigation. It sees scope to improve the collection of data at different levels, *e.g.* national test data are not collected in a systematic way for all students in all subjects and there is a lack of longitudinal data.

Further, there could be significant improvements with the possibility to track individual students through different education levels. Currently the identification of individual student results is not possible at the national level and the NAE does not hold such information. However, in public schools, access to such information is open and can be requested directly from school leaders. Both student and parent representatives commented during the OECD review that more use could be made of individual student results (although parent representatives voiced concern that such data should remain confidential and follow the student).

Researchers are not able to fully exploit the analytical potential of data within the education system as many data are not collected systematically at the national level. Similar frustrations were voiced by the Institute for Labour Market: good register data only start at age 16; performance data before Grade 9 are not collected centrally, although these exist; compulsory and upper secondary schools could systematically collect information on the future labour market participation of their former students (available in the register).

The Swedish Schools Inspectorate would like to establish a systematic set of indicators to use as an ‘early warning system’ to signal possible performance concerns. However, it does not have access to all available data – all public education data are owned by the NAE. Similarly, the Association of Independent Schools would like to examine results for the independent sector, but does not have the necessary competencies within the association to do so.

There are also concerns about the lack of analysis at the national level of performance differences among municipalities. In the current national reporting system, there is minimal attention paid to municipality differences. In NAE reports, aggregated data are presented by municipality groups and not for each municipality. During the OECD review, representatives from SALAR commented that NAE data are not ‘packaged for use by municipalities’. Administrators and politicians at the municipal level are interested in a broad overview of the relative position of the municipality in terms of major results. For example, an overall aggregate result for Year 9 mathematics performance. Both SALAR and teacher unions compile their own rankings of municipalities in the absence of national reports. Stakeholders in the municipalities visited during the OECD review (with the exception of Stockholm) expressed a wish to be able to more systematically compare municipal school performance against those in other areas. Further, the

publication of NAE's national report is not timely enough to be of optimal use at the local political level.

A need to systematically build in evaluation components to new education policy initiatives

The Swedish Agency for Public Management advises that often new educational policies are implemented too quickly. Rather programmes should be introduced gradually (e.g. 5-6 month steps) and evaluated with good experimental data. Evaluation should be built into reforms and the Ministry of Education and Research should draw on the competencies of the Swedish Agency for Public Management to do so.

The Government commissioned report (SOU, 2009) on use of evaluation and research in the education sector found that there is no organisation responsible for evaluation for policy purposes. The report identifies a need for such a role within the Swedish education system and suggests that such responsibility could be undertaken by either an existing agency, or a new competent body (either an agency or a Council for Evaluation and Analysis).

7.3 Pointers for future policy development

Considering the existing strengths and proposed reforms of the Education Act, the OECD Review Team suggests the following potential policy pointers to increase efficiency in evaluating the Swedish education system:

- Further build and develop evaluation capacity at central and municipal levels.
- Improve the mobilisation of existing information from evaluation and assessment.
- Explore ways to more reliably track educational outcomes at the system level.

Further build evaluation capacity at the central and municipal levels

There are strong recommendations in the Government commissioned report on the use of evaluation and research in the education sector (SOU, 2009) to develop central competencies in evaluation for policy purposes. The Ministry of Education and Research in consultation with the Swedish Agency for Public Management and the report authors should give serious consideration to what would be the best way to develop evaluation for policy purposes at the central level. For example, this could include extending the current responsibilities of the NAE or, as the authors recommend, establishing a Council for Evaluation and Analysis. There is also room for the Ministry of Education and Research to collaborate with the Swedish Agency for Public Management to systematically build evaluation components into new education policy initiatives.

The Ministry of Education and Research in collaboration with SALAR can consider options to actively promote capacity building in evaluation and monitoring at the municipal level. For example, the inclusion in the revised Education Act of evaluation and assessment competency profiles for municipal and district officials carrying such responsibilities. There are also examples of existing municipality networks on different aspects of quality assurance which could be actively promoted throughout the system.

Improve mobilisation of existing information within the system

There is much information available at the central level on the Swedish education system and efforts by the NAE to improve reporting of such information over the years are commendable. The revised Education Act should also clarify responsibilities and roles in system evaluation. In addition to building capacity at the central and municipal level, Sweden should also encourage greater mobilisation of existing information.

There are simple options for the Ministry of Education and Research to ensure the more effective use of existing information by key stakeholders in system evaluation. One option would be to establish a protocol to share data among key stakeholders in system evaluation. This would be of particular relevance in supporting the Swedish Schools Inspectorate goal to establish an ‘early warning’ key indicator system, but also for researchers conducting officially commissioned evaluation studies.

The NAE could consult with SALAR on how it can better report existing information in a format that best fits municipal policy maker needs. There appears to be a demand from policy makers at the municipal level for a systematic reporting of key national information by individual municipality – the availability of information in the central NAE databases reportedly does not suffice and local policy makers would prefer clear reports on key indicators. Such consultation may reveal limitations of existing information, but can feed into future plans to collect data that would better suit the demand from municipalities for quality indicators.

Explore ways to more reliably monitor educational outcomes at the system level

Currently, the major tools providing evidence on how the Swedish education system is performing do not offer reliable measures of performance differences among regions/municipalities. The Ministry in partnership with the NAE and key researchers/psychometricians should study the respective advantages and disadvantages to various options to provide a reliable measure of performance differences among regions/municipalities. Some considerations are outlined below.

Ways to improve the reliability of national assessments

As discussed in Chapter 4, within the existing system of national tests, options could include further investment in improving teacher capacity in student assessment and in the establishment of a systematic external validation of national test results.

Collaboration with professionals in external marking of tests would also serve to build capacity both centrally and throughout the system. An interesting example comes from New Zealand where professionals are engaged to score student work in the annual national monitoring tests (see Box 8 below). There is an open call each year for applications from teachers to score student work on test questions that require professional judgement, *e.g.* open-ended questions where students develop their answers. Participating teachers are paid a fee to score student work over a one-week period. This takes place under the direction of the tests administrators and teachers can work individually or in pairs. It is hoped that participation in such a scoring process would benefit teachers and help them to develop their professional judgement²⁴. However, this

24. For more information, see: <http://nemp.otago.ac.nz/advertising/index.htm>

example from New Zealand refers to a test that is specifically designed to monitor the education system and does not refer to a full cohort national test.

Consider introducing a monitoring sample survey

To have a reliable national measure of performance in areas of key policy interest, Sweden could consider introducing a national monitoring sample survey. Such a survey would allow the assessment of a broader range of curricula content and allow benchmarking of different regions/municipalities on an externally validated measure. Measurement experts in England (Green and Oates, 2009) list the advantages of such tests as follows: “*stability in measures (allowing robust measurement of standards over reasonable timeframes), fuller coverage of the curriculum, lack of distortion deriving from ‘teaching to the test’ and comparatively low cost*”. There are many examples of sample surveys in several OECD countries and the use of such national monitoring surveys is well established in countries such as the United States and Canada. Monitoring surveys are also used in countries with more comparable school population sizes to Sweden (see Table 2).

Table 2. Population and sample size in PISA 2006

	Total enrolled population of 15-year-olds at grade 7 or above	Number of students participating in PISA 2006
Canada	428 876	22 646
Chile	255 459	5 235
United States	4 192 939	5 611
Belgium	124 557	8 857
Netherlands	193 769	4 871
New Zealand	59 341	4 823
Sweden	127 036	4 443

Source: OECD (2007a)

Box 8. Sample surveys in the Netherlands and New Zealand

In the Netherlands, a new monitoring survey – the Annual Survey of Educational Levels (JPO) - was introduced in 2008 to specifically monitor progress on the roll out of the Ministry for Education, Culture and Science’s quality agenda ‘Schools for Tomorrow’ and monitors student mastery of Dutch language and mathematics at two points in primary education (Years 4 and 8). Results are reported and analysed for four major regional groupings in the Netherlands. Analysis of performance in urban and rural classifications is also possible (CITO, 2009).

This comes in addition to the existing monitoring sample survey that has been administered periodically in different disciplines since 1987 and monitors skills in Dutch and mathematics on a five year cycle (Periodical Survey of Education [PPON]). Other curriculum areas that are monitored in the PPON include World Studies, History, Geography, Biology, Physics/Engineering, English, Music and Physical Education (CITO, 2008). The design of the PPON aims to provide robust measures of changes over time covering large amounts of the curriculum. The design of JPO aims to provide more regular and timely feedback on a narrower area corresponding to the national reform agenda in primary education. Both the PPON and JPO monitoring surveys use Item Response Theory and therefore allow reporting of what students can or cannot typically do against defined performance standards.

In New Zealand, the National Education Monitoring Project (NEMP) established in 1993 assesses students in primary education in two different year groups (Years 4 and 8) and follows a set four year survey cycle. In this way the NEMP is conducted each year, but assesses a different set of disciplines. For example, in Cycle 2 Music, Technology, Reading and Speaking are assessed, but in Cycle 4 Listening and Viewing, Health and Physical Education and Writing are assessed. These disciplines, therefore, will only be tested every four years. This allows monitoring of a broad coverage of the national curriculum. According to the NEMP website, the purpose of monitoring samples of students at successive points in time is to identify and report trends in educational performance, to provide good information for policy makers, curriculum specialists and educators for planning purposes and to inform the public on trends in educational achievement.

Heighten the policy relevance of results from international assessment surveys

International student assessment surveys offer a comparison of performance over time and provide rich information on how student performance relates to selected student and school factors in an international comparative context. One way to heighten the policy relevance of the results from such surveys could be to increase the sample size to allow comparison of student performance and student and school factors (as reported by students and school leaders, respectively) among selected sub-national groupings. For example, this could follow the municipality groupings already used by the NAE in its reporting. This has the advantage of capitalising on an existing survey administration exercise, but would require efforts to motivate participation by a larger number of schools and of course would entail higher administration costs. For example, to allow analysis of outcomes in both the Flemish and French Communities of Belgium around twice as many students sat the PISA 2006 survey compared to Sweden (with a comparable population of 15-year-olds in school). However, results would allow a comparison of all outcomes of the international surveys at the chosen sub-national level. For example, in PISA, this would provide:

- Measures of average performance in each domain (reading, mathematics, science).
- Measures of student factors reported via the PISA Student Questionnaire, *e.g.* student attitudes to school, student motivation and engagement, student perceptions of the school environment and approaches to learning. Plus any specific questions that Sweden has chosen to include.
- Measures of school factors reported via the PISA School Questionnaire, *e.g.* information on school student composition, school resources (funding, staffing, etc.) and different practices (admission policies, use of achievement data for accountability, etc.); plus any specific questions that Sweden has chosen to include.

Such results can also be validated at the international level and published in international reports (see for example results for sub-national entities in Belgium, Italy, Spain and the United Kingdom in OECD, 2007b). Another option to heighten the relevance of international assessment results for national policy needs is to collect additional data of national relevance during the administration of international surveys by adding specific components to the international test. For example, including additional questions in the international contextual questionnaires (*e.g.* Student and School Principal questionnaires in PISA) or administering an optional, additional questionnaire on a particular theme (*e.g.* in the past PISA has included optional questionnaires on student pathways or use of ICT).

However, there are limitations to international surveys as tools for national policy makers to monitor the impact of national reforms: international surveys take place on an internationally agreed cycle (typically from 3 to 5 years) and therefore feedback may not come at politically optimal times. Also, international frameworks by definition are not adapted to monitor specific changes in national curriculum.

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Annex 1: Visit Itinerary

(4-11 May 2011)

Tuesday 4 May

09.00-11.00 Ministry of Education and Research
 11.00-13.00 National Agency for Education
 13.00-14.00 Author of Country Background Report
 14.00-15.30 Swedish Schools Inspectorate
 15.30-16.30 Association of Local Authorities and Regions
 16.30-17.30 Association of Independent Schools
 17.45 *Travel to Malmö*

Wednesday 5 May

09.00-11.30 School Visit 1 – upper secondary school
 11.30-13.30 Municipal Educational Authority in Malmö
 13.30-15.00 School Visit 2 – compulsory school
 15.00-16.00 People who work with Quality and Evaluation in Malmö

Thursday 6 May

06.30 *Travel to rural district (Osby)*
 08.30-10.00 Municipal Educational Authority in Osby
 10.00-11.30 School Visit 3 – compulsory school
 12.00-15.50 *Travel back to Stockholm*
 16.00-17.15 National Union of Teachers and Swedish Teachers Union

Friday 7 May

09.00-09.45 Swedish Association of School Principals
 09.45-10.45 National Agency for Special Needs Education and Schools
 10.45-11.45 Organisation of Student Unions (SECO) and Swedish Student Councils (SVEA)
 11.45-12.45 Municipal Educational Authority in Stockholm
 13.00-15.15 School Visit 4 – upper secondary school
 15.30-16.30 Parent's alliance and Parent's Association

Monday 10 May

09.00 *Travel to surroundings of Stockholm (Haninge)*
 09.30-10.00 Municipal Educational Authority in Haninge
 10.00-12.00 School Visit 5 – upper secondary school
 12.00-12.30 *Travel back to Stockholm*
 12.30-15.00 School Visit 6 – independent, compulsory
 15.30-16.00 Experts; the Inquiry SOU 2009:94

Tuesday 11 May

09.00-10.00 Group of Teacher Educators
 10.00-11.30 Research seminar
 11.30-12.15 Swedish Agency for Public Management
 12.15-13.15 Institute for Labour Market Evaluation
 13.15-14.00 Swedish National Audit Office
 15.00-16.00 Final meeting (Ministry of Education and Research and NAE)

**Preliminary Visit undertaken by the OECD Secretariat
(11-12 March 2010)**

Thursday 11 March

09.00-10.00	Ministry of Education and Research
10.00-11.00	Authors of the Country Background Report
11.00-14.00	School visit
14.30-15.30	The Swedish Schools Inspectorate
16.00-17.00	The National Agency for Education

Friday 12 March

09.00-10.00	The National Union of Teachers and the Swedish Teacher's Union
10.30-11.30	The Swedish Association of School Principals and Directors of Education
11.30-12.30	The Swedish Association of Local Authorities and Regions and the Swedish Association of Independent Schools
14.00-15.00	The Organisation of Student Unions (SECO), the Swedish Student Councils (SVEA) and the Parents Alliance
15.00-16.00	National Co-ordinator and others

Annex 2: Composition of the Review Team

Gábor Halász, a Hungarian national, is doctor of the Hungarian Academy of Sciences. He is professor of education at the Faculty of Pedagogy and Psychology of the University Eötvös Loránd in Budapest where he is leading a Centre for Higher Educational Management. He teaches, among others, education policy, education and European integration and global trends in education. He is the former Director-General of the National Institute for Public Education in Budapest (now Institute for Educational Research and Development) where he is now scientific advisor. His research fields are education policy and administration, comparative and international education, educational research and innovation and the theory of education systems. As an education policy expert and policy adviser, he took an active part in Hungary's educational-change process in the 1990s. Dr. Halász is one of the founders and president of the Board of the Hungarian School for Education Management. He actively participates in the professional training of Hungarian school leaders. Dr. Halász has worked as an expert consultant for a number of international organisations, particularly OECD, the European Commission, the World Bank, and the Council of Europe.

Janet Looney, an American national, is an independent consultant specialising in programme design, evaluation, and learning. Between 2002 and 2008, Ms. Looney was the project lead for the What Works in Innovation in Education programme at the OECD's Centre for Educational Research (CERI). She led the development of two major international synthesis reports: *Formative Assessment: Improving Learning in Secondary Classrooms* (2005), and *Teaching, Learning and Assessment for Adults: Improving Foundation Skills* (2008). Prior to her work with the OECD, Ms. Looney was Assistant Director of the Institute for Public Policy and Management at the University of Washington (1996-2002), where she was involved in evaluation of community development programmes, urban education reforms, and state-level implementation of federal welfare. Between 1994 and 1996, she was a Programme Examiner in the Education Branch of the U.S. Office of Management and Budget. She received her Master of Public Administration and Master of Arts in International Studies degrees from the University of Washington in 1993.

Deborah Nusche, a German national, is a Policy Analyst in the OECD Directorate for Education. She is currently working on the OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes. At the OECD, she previously worked on the Thematic Review of Migrant Education and the Improving School Leadership study. She has led country review visits on migrant education and participated in case study visits on school leadership in several countries. She also co-authored the OECD reports "Closing the Gap for Immigrant Students" (2010) and "Improving School Leadership" (2008). She has previous work experience with UNESCO and the World Bank and holds an M.A. in International Affairs from Sciences Po Paris. She co-ordinates this Review of Sweden and acts as Rapporteur for the Review Team.

Paulo Santiago, a Portuguese national, is a Senior Analyst in the OECD Directorate for Education, where he has been since 2000. He is currently the co-ordinator of the OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes. He has previously assumed responsibility for two major cross-country reviews, each with the participation of over twenty countries: a review of teacher policy (between 2002 and 2005, leading to the OECD publication “Teachers Matter”) and the thematic review of tertiary education (between 2005 and 2008, leading to the OECD publication “Tertiary Education for the Knowledge Society”). He has also led reviews of teacher policy and tertiary education policy in several countries. He holds a PhD in Economics from Northwestern University, United States, where he also lectured. With a background in the economics of education, he specialises in education policy analysis.

Claire Shewbridge, a British national, is an Analyst in the OECD Directorate for Education and is currently working for the OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes. She most recently worked on the OECD Review on Migrant Education working on country-specific analysis for the Netherlands, Austria and Norway and co-authored the OECD report “Closing the Gap for Immigrant Students” (2010). For five years, Claire coordinated the PISA thematic report series. She also led analysis of student attitudes towards science learning and the environment in the PISA 2006 survey. Her earlier statistical work with the OECD included educational enrolment, graduation and financial statistics published in *Education at a Glance*, labour force survey statistics published in the OECD Employment Outlook and financial statistics in the OECD’s Development Assistance Committee.

Annex 3: The Thematic Structure of a School Inspection Report in Sweden

1. Introduction (*Inledning*)

2. The background of inspection (*Underlag*)

3. The description of the school (*Beskrivning av skolan*)

4. The result of the assessment (*Bedömningar*)

4.1 Skills (*Kunskaper*)

4.1.1 Results of learning

Under this heading the key indicators of school performance are presented (see Table 1) from the NAE database

4.1.2 Monitoring and communication of results of learning

- *Teachers follow continuously the development and performance of pupils in all subjects in accordance with basic regulations*
- *Teachers support effectively the cognitive and social development of pupils through “development dialogues”*
- *Teachers establish individual development plans as the outcome of “development dialogues”*

4.1.3 Assessment and grading

- *Teachers use the results of the national subject tests to assess students’ knowledge and in support of grading*
- *The assessment and grading by teachers is based on the national targets in the curriculum and on the grading criteria*
- *Grades are given and written evaluation is provided according to national regulations*

4.1.4 The implementation of education

- *Education in the school is determined by the national curriculum and school level curricular goals*
- *Students are given the responsibility and opportunity to influence their own learning*
- *Students are informed about the democratic principles and their ability to work in a democratic framework is developed*
- *Those who work in the school interact with each other within the school and outside the school (including business) to make the school a good environment for the development and learning of pupils*

4.1.5 Adaptation of activities to pupils’ needs

- *Tuition in the school is tailored to the needs, circumstances, experiences and thinking of each student*
- *Children and pupils with difficulties in school work are given special assistance*
- *The constitutional requirements are met when there is a need for special assistance programmes*

4.2 Norms and values (*Normer och värden*)

4.2.1 Norms and values in learning and socialisation

- *The school provides a safe environment that focuses on learning*
- *The schools and the teachers are engaged in an active work on values*
- *The school has established a plan to treating cases of harassment in accordance with regulations*

4.3 Management and quality assurance (*Ledning och kvalitetsarbete*)

4.3.1 Access to equal education

- *Each student is offered the guaranteed number of teaching hours*
- *The school offers language teaching and languages, choices between languages in accordance with regulations*
- *The school organises the teaching of Swedish as a second language in accordance with regulations*
- *The school offers students educational and vocational information and guidance*
- *With the exception of single elements inducing a negligible cost to students education is free for all students*

4.3.2 The training of the staff

- *The members of the teaching staff are trained to teach the subjects they are mainly engaged in*
- *The principal has acquired pedagogical knowledge through training and experience*

4.3.3 The responsibilities of the principal

- *The principal is familiar with the daily work and is an educational leader responsible for achieving the national targets*
- *The principal exercises his/her duties in accordance with the regulations*
- *The legal regulations on personnel management of staff in the preschool and school age childcare are observed*

4.3.4 Quality assurance

- *The school carries out a systematic quality work, i.e. planning, monitoring and evaluating its operations, taking advantage of the results and translating them into actions to improve effectiveness*
- *Quality work is documented in a way that meets the requirements*

Source: Schools Inspectorate (2008).

Annex 4: NAE Reporting on Municipalities

SALAR municipality group classification (established 2005)

Big cities: (Metropolitan municipalities, 3 municipalities) Municipality with a population in excess of 200 000 inhabitants.

Suburban municipalities: (38 municipalities) Municipality where more than 50 per cent of the resident population commutes to work in another municipality. The most common destination will be a big city.

Larger towns: (27 municipalities) Municipality with 50 000 to 200 000 inhabitants and a densely populated area exceeding 70 per cent.

Commute municipalities: (41 municipalities) Municipality where more than 40 per cent of the resident population commutes to work in another municipality.

Sparsely-populated municipalities: (39 municipalities) Municipality with fewer than 7 inhabitants per square kilometer and fewer than 20 000 inhabitants.

Manufacturing municipalities: (40 municipalities) Municipality with more than 40 per cent of the resident population between ages 16–64, employed in manufacturing and industrial organisations.

Other municipalities, over 25 000 inhabitants: (34 municipalities) Municipality with more than 25 000 inhabitants and that is not in any of the group classifications.

Other municipalities, 12 500–25 000 inhabitants: (37 municipalities) Municipality with 12 500–25 000 inhabitants and that is not in any of the group classifications.

Other municipalities, fewer than 12 500 inhabitants: (31 municipalities) Municipality with fewer than 12 500 inhabitants and that is not in any of the group classifications.

The Statistics Sweden official Statistical Databases (SSD) store all the basic data on the Swedish education system aggregated to the county council and municipality levels.

Source: NAE, 2010f.

Annex 5: Comparative Indicators on Evaluation and Assessment

	Sweden	Country Average ¹	Sweden's Rank ²
EDUCATIONAL ATTAINMENT Source: Education at a Glance (OECD, 2010a) ³			
% of population that has attained at least upper secondary education, by age group (excluding ISCED 3C short programmes) ⁴ (2008)			
Ages 25-64	85	71	8/30
Ages 25-34	91	80	6/30
Ages 35-44	90	75	=5/30
Ages 45-54	84	68	8/30
Ages 55-64	75	58	9/30
% of population that has attained tertiary education, by age group (2008)			
Ages 25-64	32	28	15/31
Ages 25-34	41	35	=11/31
Ages 35-44	33	29	=14/31
Ages 45-54	28	25	14/31
Ages 55-64	26	20	=9/31
Upper secondary graduation rates (2008)			
% of upper secondary graduates (first-time graduation) to the population at the typical age of graduation	76	80	=19/26
STUDENT PERFORMANCE			
Mean performance in PISA (Programme for International Student Assessment 2009) (15-year-olds) Source: PISA 2009 Results (OECD, 2010c) ³			
Reading literacy	497	493	=15/34
Mathematics literacy	494	496	20/34
Science literacy	495	501	23/34
SCHOOL SYSTEM EXPENDITURE Source: Education at a Glance (OECD, 2010a) ³			
Expenditure on primary, secondary and post-secondary non-tertiary institutions as a % of GDP , from public and private sources			
1995	4.1	~	6/26
2000	4.3	~	=3/29
2007	4.1	3.6	=4/29
Public expenditure on primary, secondary and post-secondary non-tertiary education as a % of total public expenditure (2008) ⁵	8.2	9.0	=16/29
Total expenditure on primary, secondary and post-secondary non-tertiary education from public sources (2007) (%)	100.0	90.3	1/25
Annual expenditure per student by educational institutions, (2007) (US\$)⁶			
Primary	8338	6741	8/28
Lower secondary	9020	7598	11/27
Upper secondary	9247	8746	13/27
All secondary	9143	8267	10/29
Change in expenditure per student by educational institutions, primary, secondary and post-secondary non-tertiary education, index of change between 1995, 2000 and 2007 (2000 = 100)			
1995	94	88	8/22
2007	117	125	=14/27
Current expenditure – composition, primary, secondary and post-secondary non-tertiary education (2007)⁷			
Compensation of teachers	51.4	63.8	19/20
Compensation of other staff	18.9	14.9	5/20
Compensation of all staff	70.3	79.2	24/28
Other current expenditure	29.7	20.8	5/28

	Sweden	Country Average ¹	Sweden's Rank ²
SCHOOL STAFF NUMBERS			
Ratio of students to teaching staff (2008) Source: Education at a Glance (OECD, 2010) ^{3,8}			
Primary	12.2	16.4	21/27
Lower Secondary	11.4	13.7	14/24
Upper Secondary	14.7	13.5	8/24
All Secondary	13.1	13.7	14/29
TEACHER SALARIES in public institutions, Source: Education at a Glance (OECD, 2010a) ³			
Annual teacher salaries (2008)⁶			
Primary – starting salary (US\$)	28409	28949	17/29
Primary – 15 years experience (US\$)	33055	39426	21/29
Primary – top of scale (US\$)	37967	48022	23/29
Primary – ratio of salary after 15 years experience to GDP per capita	0.90	1.16	23/29
Lower secondary – starting salary (US\$)	28984	30750	17/29
Lower secondary – 15 years experience (US\$)	33885	41927	23/29
Lower secondary – top of scale (US\$)	38431	50649	23/29
Lower secondary – ratio of salary after 15 years experience to GDP per capita	0.92	1.22	25/29
Upper secondary – starting salary (US\$)	30533	32563	16/28
Upper secondary – 15 years experience (US\$)	36163	45850	20/28
Upper secondary – top of scale (US\$)	41131	54717	21/28
Upper secondary – ratio of salary after 15 years experience to GDP per capita	0.98	1.29	24/26
Number of years from starting to top salary (lower secondary education) (2008)	a	24	a
Decisions on payments for teachers in public schools (2008)⁹			
Criteria for base salary and additional payments awarded to teachers in public institutions			
● Base salary/■ Additional yearly payment /Δ Additional incidental payment			
Years of experience as a teacher	●	●29 ■9 Δ8	
Management responsibilities in addition to teaching duties	●	●12 ■18 Δ7	
Teaching more classes or hours than required by full-time contract	Δ	●2 ■10 Δ17	
Special tasks (career guidance or counselling)	-	●4 ■13 Δ11	
Teaching in a disadvantaged, remote or high cost area (location allowance)	●	●9 ■18 Δ4	
Special activities (e.g. sports and drama clubs, homework clubs, summer schools etc.)	-	●1 ■8 Δ12	
Teaching students with special educational needs (in regular schools)	-	●9 ■11 Δ5	
Teaching courses in a particular field	●	●5 ■8 Δ4	
Holding an initial educational qualification higher than the minimum qualification required to enter the teaching profession	●	●18 ■9 Δ5	
Holding a higher than minimum level of teacher certification or training obtained during professional life	●	●15 ■11 Δ3	
Outstanding performance in teaching	●	●5 ■9 Δ8	
Successful completion of professional development activities	●	●10 ■7 Δ4	
Reaching high scores in the qualification examination	●	●4 ■3 Δ3	
Holding an educational qualification in multiple subjects	-	●3 ■4 Δ3	
Family status (married, number of children)	-	●2 ■8 Δ1	
Age (independent of years of teaching experience)	-	●4 ■3 Δ1	
Other	-	●1 ■8 Δ2	
SYSTEM EVALUATION			
Examination regulations, public schools only (2008) , Source: Education at a Glance (OECD, 2010a) ^{3,10}			
Primary education (Yes/No)			
A standard curriculum or partially standardised curriculum is required	Yes	27/29	
Mandatory national examination is required ¹¹	No	4/29	
Mandatory national assessment is required ¹²	Yes	19/29	
Lower secondary education (Yes/No)			
A standard curriculum or partially standardised curriculum is required	Yes	27/29	
Mandatory national examination is required	No	10/28	
Mandatory national assessment is required	Yes	18/29	
Potential subjects of assessment at national examinations¹¹ (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ^{3,10}			
National examinations exist (Yes/No)			
Mathematics	a	9/9	
Science	a	7/9	
National language or language of instruction	a	9/9	
Other subjects	a	8/9	
Compulsory for schools to administer national examinations (Yes/No)	a	7/9	
Year/Grade of national examination	a	9/2	

	Sweden	Country Average ¹	Sweden's Rank ²
Potential subjects of assessment at national periodical assessments¹² (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ^{3,10}			
National periodical assessments (Yes/No)	Yes	14/25	
Mathematics	Yes	12/13	
Science	No	5/13	
National language or language of instruction	Yes	12/13	
Other subjects	Yes	6/12	
Compulsory for school to administer national assessment (Yes/No)	Yes	10/13	
Year/Grade of national assessment	9		
Possible influence of national examinations (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ³			
None/Low/Moderate/High ¹³			
Performance feedback to the school	a	None:2 Low:1 Moderate:1 High:3	
Performance appraisal of the school management	a	None:4 Low:1 Moderate:1 High:1	
Performance appraisal of individual teachers	a	None:4 Low:2 Moderate:0 High:1	
The school budget	a	None:7 Low:1 Moderate:0 High:0	
The provision of another financial reward or sanction	a	None:7 Low:1 Moderate:0 High:0	
The assistance provided to teachers to improve their teaching skills	a	None:3 Low:0 Moderate:3 High:0	
Remuneration and bonuses received by teachers	a	None:7 Low:0 Moderate:0 High:0	
Likelihood of school closure	a	None:7 Low:0 Moderate:1 High:0	
Publication of results (Yes/No) ¹⁰	a	9/10	
Publication of tables that compare school performance (Yes/No)	a	2/10	
Possible influence of national periodical assessments (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ³			
None/Low/Moderate/High ¹³			
Performance feedback to the school	m	None:4 Low:1 Moderate:2 High:3	
Performance appraisal of the school management	m	None:6 Low:2 Moderate:1 High:0	
Performance appraisal of individual teachers	m	None:8 Low:1 Moderate:0 High:0	
The school budget	m	None:8 Low:1 Moderate:0 High:0	
The provision of another financial reward or sanction	m	None:9 Low:0 Moderate:0 High:0	
The assistance provided to teachers to improve their teaching skills	m	None:5 Low:1 Moderate:3 High:0	
Remuneration and bonuses received by teachers	m	None:9 Low:1 Moderate:0 High:0	
Likelihood of school closure	m	None:9 Low:0 Moderate:0 High:1	
Publication of results (Yes/No) ¹⁰	m	7/12	
Publication of tables that compare school performance (Yes/No)	m	2/12	
Existence of national tests (2008-09) Source: Eurydice (2009) ¹⁴			
Yes 30/35			
Number of national tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ¹⁴			
Compulsory tests	3	2.7	=4/22
Sample tests	-	2.3	-
Optional tests ¹⁵	-	2.3	-
Years of testing			
Number of subjects covered in national tests	a ¹⁶	2 subjects:14 3+subjects:13	3 subjects:11 Does not apply:5
Main aims of nationally standardised tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10,14} (Yes/No)			
Taking decisions about the school career of pupils	Yes	17/30	
Monitoring schools and/or the education system	No	21/30	
Identifying individual learning needs	Yes	12/30	
Bodies responsible for setting national tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{9,14}			
● Tests for taking decisions about the school career of pupils/■ Tests for other purposes/Δ No national tests			
A unit/agency within the ministry of education without external players	-	●2 ■0 Δ5	
A unit/agency within the ministry of education with external players	-	●3 ■10 Δ5	
A public body distinct from the ministry, which specialises in education or educational evaluation	●■	●11 ■16 Δ5	
A private body or university department	●■	●4 ■4 Δ5	
People in charge of administering national tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{9,14}			
● Tests for taking decisions about the school career of pupils/■ Tests for other purposes/Δ No national tests			
Class teachers	●■	●10 ■15 Δ5	
Class teachers + external people	-	●1 ■3 Δ5	
Other teachers from the same school	-	●3 ■3 Δ5	
Other teachers from the same school + external people	-	●1 ■4 Δ5	
External people alone	-	●3 ■5 Δ5	

	Sweden	Country Average ¹	Sweden's Rank ²
Persons in charge of marking national tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{9, 14}			
• Tests for taking decisions about the school career of pupils/■ Tests for other purposes/Δ No national tests			
Class teachers	● ■	●7 ■10 Δ5	
Class teachers + external people	-	●4 ■2 Δ5	
Other teachers from the same school	-	●1 ■3 Δ5	
Other teachers from the same school + external persons	-	●0 ■1 Δ5	
External persons alone	-	●8 ■16 Δ5	
Standardisation of test questions (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10, 14} (Yes/No)			
Questions are the same for all pupils taking one national test	Yes	19/30	
Questions are not the same for all pupils taking one national test	No	8/30	
Whether test questions are standardised or not varies depending on type of test	No	2/30	
Data not available	No	1/30	
Use of ICT in national testing (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10, 14} (Yes/No)			
ICT is currently used in national tests	No	11/30	
Use of ICT for on-screen testing	a	3/30	
Use of ICT for marking tests	a	8/30	
Participation of students with special educational needs (SEN) in national testing (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10, 14} (Yes/No)			
Pupils with SEN may take part in national testing	Yes	27/30	
Participation in national testing for pupils with SEN is compulsory	No	12/30	
Participation in national testing for pupils with SEN is optional	Yes	9/30	
Participation varies depending on type of test, level of education or type of school	No	5/30	
Data not available	No	1/30	
Communication of the results of national tests to local authorities (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10, 14} (Yes/No)			
Local authorities have access to aggregated results for their own area	Yes	17/30	
Use of achievement data for accountability (2009) (15-year-olds) Source: PISA Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where the principal reported that achievement data is used in the following procedures			
Posted publicly	61.1	36.4	6/33
Used in evaluation of the principal's performance	43.1	35.5	12/33
Used in evaluation of teachers' performance	42.6	44.2	15/33
Used in decisions about instructional resource allocation to the school	36.3	32.2	13/33
Tracked over time by an administrative authority	83.5	65.2	9/33
SCHOOL EVALUATION			
Requirements for school evaluations by an inspectorate (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ³			
None/1 per 3+ years/1 per 3 years/1 per 2 years/1 per year/1+ per year	1 per 3+ years	None:4 1 per 3 years:6 1 per year:1	1 per 3+ years:5 1 per 2 years:0 1+ per year:1
Possible influence of school evaluation by an inspectorate (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ³			
None/Low/Moderate/High ¹³			
Influence on performance feedback			
Performance feedback to the school	High	None:0 Low:1 Moderate:1 High:10	
Performance appraisal of the school management	High	None:0 Low:2 Moderate:3 High:7	
Performance appraisal of individual teachers	Low	None:1 Low:5 Moderate:2 High:3	
Financial and other implications			
The school budget	Low	None:5 Low:2 Moderate:2 High:1	
The provision of another financial reward or sanction	Low	None:4 Low:4 Moderate:0 High:1	
The assistance provided to teachers to improve their teaching skills	Non	None:1 Low:2 Moderate:6 High:2	
Remuneration and bonuses received by teachers	Low	None:6 Low:1 Moderate:2 High:0	
Likelihood of school closure	Low	None:2 Low:3 Moderate:2 High:2	
Publication of results (Yes/No) ¹⁰	Yes	11/13	
Publication of tables that compare school performance (Yes/No)	m	1/12	
Requirements for school self-evaluations (lower secondary education) (2006) Source: Education at a Glance (OECD, 2008) ³			
None/1 per 3+ years/1 per 3 years/1 per 2 years/1 per year/1+ per year	1 per year	None:6 1 per 3 years:1 1 per year:8	1 per 3+ years:1 1 per 2 years:0 1+ per year:3

	Sweden	Country Average ¹	Sweden's Rank ²
Possible influence of school self-evaluations (lower secondary education) (2006)			
Source: Education at a Glance (OECD, 2008) ³			
None/Low/Moderate/High ¹³			
Influence on performance feedback			
Performance feedback to the school	High	None:1 Low:2 Moderate:1 High:8	
Performance appraisal of the school management	Moderate	None:2 Low:2 Moderate:4 High:4	
Performance appraisal of individual teachers	Low	None:4 Low:4 Moderate:2 High:2	
Financial and other implications			
The school budget	High	None:5 Low:2 Moderate:2 High:1	
The provision of another financial reward or sanction	Low	None:4 Low:4 Moderate:1 High:0	
The assistance provided to teachers to improve their teaching skills	None	None:3 Low:2 Moderate:1 High:5	
Remuneration and bonuses received by teachers	Low	None:5 Low:3 Moderate:0 High:1	
Likelihood of school closure	None	None:8 Low:0 Moderate:1 High:0	
Publication of results (Yes/No) ¹⁰	Yes	4/14	
Publication of tables that compare school performance (Yes/No)	Yes	1/14	
Use of student test results in school evaluation (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10,14} (Yes/No)			
Test results may be used for evaluation	Yes	15/30	
Test results used for external evaluation	Yes	5/30	
Recommendations or support tools for the use of results during internal evaluation	No	7/30	
Use varies depending on type of test, level of education or type of school	No	3/30	
Publication of individual school results in national tests (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{10,14} (Yes/No)			
Individual school results may be published	Yes	10/30	
Publication organised, or required of schools, by central/local governments	Yes	9/30	
Publication at the discretion of schools	No	1/30	
Accountability to parents (2009) (15-year-olds) Source: PISA Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where principals reported that their school provides parents with information on:			
This child's academic performance relative to other students in the school	11.0	46.1	32/32
This child's academic performance relative to national or regional benchmarks	87.4	46.8	1/33
This child's academic performance of students as a group relative to students in the same grade in other schools	20.0	23.1	19/33
TEACHER APPRAISAL			
Official methods for individual or collective evaluation of teachers (2006-07) Source: Eurydice (2008) ^{10,14}			
Teacher evaluation exists	Yes	30/33	
Teacher inspection on an individual or collective basis	Yes	22/30	
School self-evaluation	Yes	14/30	
Individual evaluation by school heads	No	16/30	
Individual evaluation by peers	No	5/30	
Methods used to monitor the practice of teachers (2009) (15-year-olds)			
Source: PISA Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where the principal reported that the following methods have been used the previous year to monitor the practice of teachers at their school			
Tests of assessments of student achievement	29.9	58.3	31/34
Teacher peer review (of lesson plans, assessment instruments, lessons)	14.7	56.3	34/34
Principal or senior staff observations of lessons	63.1	68.3	24/34
Observation of classes by inspectors or other persons external to the school	23.4	28.0	20/34
STUDENT ASSESSMENT			
The influence of test results on the school career of pupils (2008-09) (primary and lower secondary education) Source: Eurydice (2009) ^{9,14}			
ISCED 1/ ISCED 2 ⁴			
Award of certificates	ISCED 2	ISCED 1:2 ISCED 2:12	
Streaming	-	ISCED 1:4 ISCED 2:2	
Progression to the next stage of education	-	ISCED 1:1 ISCED 2:2	
No national tests, or no impact on progression	ISCED 1	ISCED 1:29 ISCED 2:22	
Completion requirements for upper secondary programmes			
Source: Education at a Glance (OECD, 2009a) ^{3,4,9}			
● Final examination / ■ Series of examinations during programme / Δ Specified number of course hours and examination / ♦ Specified number of course hours only			
ISCED 3A	● ■ ♦ (in some municipalities)	●21 ■19 Δ19 ♦3	
ISCED 3B	-	●6 ■8 Δ7 ♦0	
ISCED 3C	-	●17 ■18 Δ17 ♦1	

	Sweden	Country Average ¹	Sweden's Rank ²
Student grouping by ability (2009) (15-year-olds)			
Source: PISA Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where principals reported the following on student grouping by ability			
Student are grouped by ability into different classes			
For all subjects	3.3	9.4	23/33
For some subjects	35.4	37.4	11/33
Not for any subject	57.0	50.4	16/33
Student are grouped by ability within their classes			
For all subjects	7.1	4.5	5/33
For some subjects	52.8	46.4	11/33
Not for any subject	39.0	47.0	22/33
Groups of influence on assessment practices (2009) (15-year-olds) Source: PISA			
Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where the principal reported the following groups exert a direct influence on decision making about assessment practices			
Regional or national education authorities (e.g. inspectorates)	62.0	56.6	15/33
The school's governing board	5.3	29.6	32/33
Parent groups	2.5	17.3	32/33
Teacher groups (e.g. staff association, curriculum committees, trade union)	72.9	58.1	12/33
Student groups (e.g. student association, youth organisation)	15.8	23.4	20/33
External examination boards	5.5	45.2	30/31
Responsibility for student assessment policies (2009) (15-year-olds) Source: PISA			
Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where the principal reported the following groups have considerable responsibility in establishing student assessment policies			
Establishing student assessment policies			
Principals	76.3	63.5	14/33
Teachers	74.7	69.0	16/33
School governing board	3.8	26.5	30/33
Regional or local education authority	24.3	15.5	7/32
National education authority	19.0	24.3	15/33
Frequency of student assessment by method (2009) (15-year-olds) Source: PISA			
Compendium for the school questionnaire (OECD, 2010b) ³			
% of students in schools where the principal reported the student assessment methods below are used with the indicated frequency			
Standardised tests			
Never	3.4	23.7	=27/33
1-2 times a year	42.2	51.0	22/33
3-5 times a year	49.0	16.5	1/33
Monthly	3.3	4.3	14/33
More than once a month	0.0	3.4	=28/33
Teacher-developed tests			
Never	0.0	2.7	=20/33
1-2 times a year	1.3	6.7	24/33
3-5 times a year	17.5	30.0	23/33
Monthly	32.4	27.6	11/33
More than once a month	47.2	33.3	9/33
Teachers' judgmental ratings			
Never	0.0	6.6	=28/33
1-2 times a year	4.9	12.0	=25/33
3-5 times a year	6.4	22.9	31/33
Monthly	15.7	15.7	=13/33
More than once a month	71.4	42.2	3/33
Student portfolios			
Never	57.8	24.1	1/33
1-2 times a year	23.3	34.4	25/33
3-5 times a year	3.2	20.6	33/33
Monthly	9.7	10.4	14/33
More than once a month	2.9	9.3	=23/33
Student assignments/projects/homework			
Never	0.6	1.5	=13/33
1-2 times a year	6.8	12.2	20/33
3-5 times a year	24.5	16.1	6/33
Monthly	24.4	13.6	=1/33
More than once a month	41.5	56.5	26/33

	Sweden	Country Average ¹	Sweden's Rank ²
% of students reporting the following on the frequency of homework (2000) (15-year-olds) Source: PISA Student Compendium (Reading) (OECD, 2000) ³			
Teachers grade homework			
Never	19.1	14.9	8/27
Sometimes	49.9	44.2	=7/27
Most of the time	23.9	24.5	16/27
Always	6.1	13.9	19/27
Teachers make useful comments on homework			
Never	19.7	23.5	18/27
Sometimes	51.8	50.1	10/27
Most of the time	23.0	19.2	8/27
Always	4.8	4.9	12/27
Homework is counted as part of marking			
Never	6.1	13.7	20/27
Sometimes	29.6	33.3	19/27
Most of the time	38.3	25.7	2/27
Always	24.0	24.7	12/27
Use of student assessments (2009) (15-year-olds) Source: PISA Compendium for the school questionnaire (OECD, 2010b)³			
% students in schools where the principal reported that assessments of students are used for the following purposes			
To inform the parents about their child's progress	97.9	97.5	18/33
To make decisions about students' retention or promotion	38.1	77.1	29/33
To group students for instructional purposes	37.8	49.8	22/33
To compare the school to district or national performance	77.5	53.0	4/33
To monitor the school's progress from year to year	91.6	76.0	7/33
To make judgements about teachers' effectiveness	21.5	46.9	30/33
To identify aspects of instruction or the curriculum that could be improved	81.7	76.7	18/33
To compare the school with other schools	74.7	45.4	4/33
% of students repeating a grade in the previous school year according to reports by school principals in the following levels (2009) (15-year-olds) Source: PISA Compendium for the school questionnaire (OECD, 2010b)³			
ISCED2	0.3	3.2	=22/29
ISCED3	0.3	4.5	=24/29
Level of school autonomy regarding the criteria for the internal assessment of pupils (2006-07) (primary and lower secondary education) Source: Eurydice (2008)^{10, 14}			
Full/ Limited/ No autonomy	Full	Full:24 Limited:10 No:0	
School decision-makers involved in determining the criteria for the internal assessment of pupils (2006-07) (primary and lower secondary education) Source: Eurydice (2008)^{10, 14}			
School responsibility involved	Yes	34/34	
School head	No	0/34	
Teachers individually or collectively	No	13/34	
School management body	No	0/34	
Responsibilities vary depending on level of education	Yes	21/34	
School autonomy in preparing the content of examinations for certified qualifications (2006-07) (primary and lower secondary education) Source: Eurydice (2008)^{10, 14}			
School responsibility involved/ examinations for certified qualifications exist	No	24/34	
Full/ Limited/ No autonomy	-	Full:5 Limited:0 No:19	
School decision-makers who may be involved in preparing the content of examinations for certified qualifications (ISCED 2)⁴ (2006-07) Source: Eurydice (2008)^{10, 14}			
School responsibility involved/ examinations for certified qualifications exist	No	5/34	
School head	No	0/5	
Teachers individually or collectively	No	1/5	
School management body	No	0/5	
Responsibilities vary depending on level of education	No	4/5	

Sources:

Eurydice (2008), *Levels of Autonomy and Responsibilities of Teachers in Europe*, Eurydice, Brussels.
 Eurydice (2009), *National Testing of Pupils in Europe: Objectives, Organisation and Use of Results*, Eurydice, Brussels.
 OECD (2000), *PISA Student Compendium (Reading)*, OECD, <http://pisa2000.acer.edu.au/downloads.php>
 OECD (2008), *Education at a Glance, OECD Indicators 2008*, OECD, Paris.
 OECD (2009a), *Education at a Glance, OECD Indicators 2009*, OECD, Paris.
 OECD (2010a), *Education at a Glance, OECD Indicators 2010*, OECD, Paris.
 OECD (2010b), *PISA 2009 Compendium for the school questionnaire*, OECD, <http://pisa2009.acer.edu.au/downloads.php>
 OECD (2010c), *PISA 2009 Results: What Students Know and Can Do, Volume I*, OECD, Paris.

Data explanation:

m Data is not available
 a Data is not applicable because the category does not apply
 ~ Average is not comparable with other levels of education
 = At least one other country has the same rank

The report Eurydice (2009) includes all 32 member countries/education areas of the European Union as well as the members of the European Economic Area (Iceland, Liechtenstein and Norway).

PISA is the OECD's Programme for International Student Assessment, which was undertaken in 2000, 2003, 2006 and 2009. 15-year-old students worldwide are assessed on their literacy in reading, mathematics and science. The study included 27 OECD countries in 2000, 30 in 2003 and 2006, and 34 in 2009. Data used in this appendix can be found at www.pisa.oecd.org.

Notes:

1. The country average is calculated as the simple average of all countries for which data are available.
2. "Sweden's rank" indicates the position of Sweden when countries are ranked in descending order from the highest to lowest value on the indicator concerned. For example, on the first indicator "population that has attained at least upper secondary education", for the age group 25-64, the rank 8/30 indicates that Sweden recorded the 8th highest value of the 30 OECD countries that reported relevant data.
3. The column "country average" corresponds to an average across OECD countries.
4. ISCED is the "International Standard Classification of Education" used to describe levels of education (and subcategories).

ISCED 1 - Primary education

Designed to provide a sound basic education in reading, writing and mathematics and a basic understanding of some other subjects. Entry age: between 5 and 7. Duration: 6 years

ISCED 2 - Lower secondary education

Completes provision of basic education, usually in a more subject-oriented way with more specialist teachers. Entry follows 6 years of primary education; duration is 3 years. In some countries, the end of this level marks the end of compulsory education.

ISCED 3 - Upper secondary education

Even stronger subject specialisation than at lower-secondary level, with teachers usually more qualified. Students typically expected to have completed 9 years of education or lower secondary schooling before entry and are generally around the age of 15 or 16.

ISCED 3A - Upper secondary education type A

Prepares students for university-level education at level 5A

ISCED 3B - Upper secondary education type B

For entry to vocationally oriented tertiary education at level 5B

ISCED 3C - Upper secondary education type C

Prepares students for workforce or for post-secondary non tertiary education

5. Public expenditure includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions.
6. Expressed in equivalent US\$ converted using purchasing power parities.

7. Expenditure on goods and services consumed within the current year which needs to be made recurrently to sustain the production of educational services – refers to current expenditure on schools and post-secondary non-tertiary educational institutions. The individual percentage may not sum to the total due to rounding.
8. Public and private institutions are included. Calculations are based on full-time equivalents. “Teaching staff” refers to professional personnel directly involved in teaching students.
9. The column “country average” indicates the number of countries/systems, in which a given criterion is used, for example, regarding the indicator “Decision on payments for teachers in public schools”. In the row “Management responsibilities in addition to teaching duties”, ●12 ■18 △7 indicates that this criterion is used to determine the base salary in 12 countries/systems, to determine an additional yearly payment in 18 countries/systems and to determine an additional incidental payment in 7 countries/systems.
10. The column “country average” indicates the number of countries for which the indicator applies. For example, for the indicator “mandatory national examination is required” 4/29 means, that 4 countries out of 29 for which data is available report that mandatory national examinations are required in their countries.
11. By “national examination” we mean those tests, which do have formal consequences for students.
12. By “national assessment” we mean those tests, which do not have formal consequences for students.
13. These measures express the degree of influence on the indicator: None: No influence at all; Low: Low level of influence; Moderate: Moderate level of influence; High: High level of influence. The column “country average” indicates the number of countries/systems, in which one of the given criteria is used.
14. For this indicator, the column “country average” refers to Eurydice member countries/areas.
15. “Compulsory tests” have to be taken by all pupils, regardless of the type of school attended, or by all students in public sector schools. “Optional tests” are taken under the authority of schools.
16. Austria, Belgium-Flemish Community, Ireland, Lithuania, Latvia, Sweden, England, Northern Ireland and Scotland apply several tests at the national level each with a distinct number of subjects. Thus, for these countries no exact number of subjects tested can be provided.

Source Guide

Participation of countries by source

	PISA (OECD, 2000)	Education at a Glance (OECD, 2008)	Education at a Glance (OECD, 2009a)	Education at a Glance (OECD, 2010a)	PISA Compendium (OECD, 2010b) PISA Results 2009 (OECD, 2010c)	Eurydice (2008)	Eurydice (2009)
Australia	•	•	•	•	•		
Austria	•	•	•	•	•	•	•
Belgium (Flemish Community)		•	•	•		•	•
Belgium (French Community)	•	•	•	•	•	•	•
Belgium (German Community)						•	•
Brazil							
Bulgaria						•	•
Canada	•	•	•	•	•		
Chile				•	•		
Czech Republic	•	•	•	•	•	•	•
Denmark	•	•	•	•	•	•	•
Estonia					•	•	•
Finland	•	•	•	•	•	•	•
France	•	•	•	•	•	•	•
Germany	•	•	•	•	•	•	•
Greece	•	•	•	•	•	•	•
Hungary	•	•	•	•	•	•	•
Iceland	•	•	•	•	•	•	•
Ireland	•	•	•	•	•	•	•
Israel					•		
Italy	•	•	•	•	•	•	•
Japan	•	•	•	•	•		
Korea	•	•	•	•	•		
Latvia						•	•
Lichtenstein						•	•
Lithuania						•	•
Luxembourg	•	•	•	•	•	•	•
Malaysia							
Malta						•	•
Mexico	•	•	•	•	•		
Netherlands		•	•	•	•	•	•
New Zealand	•	•	•	•	•		
Norway	•	•	•	•	•	•	•
Poland	•	•	•	•	•	•	•
Portugal	•	•	•	•	•	•	•
Romania						•	•
Slovak Republic		•	•	•	•	•	•
Slovenia					•	•	•
Spain	•	•	•	•	•	•	•
Sweden	•	•	•	•	•	•	•
Switzerland	•	•	•	•	•		
Turkey		•	•	•	•		
UK - England						•	•
UK - Wales							•
UK - Northern Ireland	•	•	•	•	•	•	•
UK - Scotland						•	•
United States	•	•	•	•	•		

OECD Reviews of Evaluation and Assessment in Education

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