

## Assessment and recommendations

### Context

#### ***An average to above average performance in international student assessments***

Danish students participate in the IEA (International Association for the Evaluation of Educational Achievement) Progress in International Reading Literacy Study (PIRLS) in Year 4 and in the Trends in Mathematics and Science Study (TIMMS) in Year 8. In the 2011 round of assessments in mathematics and science, Danish students scored above the TIMMS scale centrepoint, but below the TIMMS Advanced and High International Benchmarks. In the reading assessment, Danish students reached excellent results above the PIRLS scale centrepoint and the PIRLS High International Benchmark. This result places Denmark among the top eleven high-achieving countries. Over time, Denmark has increased its performance in mathematics and science (between 2007 and 2011) as well as in reading (between 2006 and 2011).

At age 15, Danish students participate in the OECD Programme for International Student Assessment (PISA) in mathematics, reading and science. In the PISA 2012 assessment of mathematics, Danish students performed above the OECD average, but performance has steadily decreased since PISA 2003 across assessments. In reading and science, performance was around the OECD average in PISA 2012, and this has remained unchanged since PISA 2003. In problem-solving, Denmark also performed around the OECD average. Denmark has a comparatively small share of low-performing students, but also a relatively low proportion of top-performing students. The difference in performance between the 90th and the 10th percentiles is comparatively small. Across assessments, the share of top-performing students has remained stable in science, but decreased since 2003 in mathematics (from 15.9% to 10%) and reading (from 8.1% to 5.4%). The share of low performing students has been reduced in science and reading, but has increased in mathematics.

#### ***Concerns about the performance of disadvantaged students despite a number of features that promote equity***

The Danish education system has a number of features that promote equity. This includes a high proportion of students enrolled in early childhood education and care, low levels of year repetition and comprehensive schooling until age 16. Nevertheless, like in other countries, students' socio-economic background has a strong impact on performance in Denmark. For example, in PISA 2012, 16.5% of the variance in mathematics performance in Denmark could be explained by socio-economic background (OECD average: 14.8%). Similar to the average across OECD countries, a more socio-economically advantaged student in Denmark scored 39 points higher in mathematics than a less-advantaged student – the equivalent of nearly one year of schooling. According to PISA 2012, education in Denmark is less equitable than in other Nordic countries where the strength of the relationship between

socio-economic background and performance is less pronounced. In Denmark, furthermore, only a small proportion of students beats the odds and manages to overcome difficult socio-economic circumstances (4.9%, compared to an OECD average of 6.4%).

Similar to other Nordic countries with comprehensive schooling systems, performance between schools differs relatively little in Denmark. Between-school differences account for less than 15% of the OECD average total variation in performance in Denmark. By contrast, across OECD countries, 37% of the overall performance differences are observed between schools. The performance differences that do exist between schools are relatively closely related to socio-economic disparities between schools. Performance differences within schools are around the OECD average, but these within-school differences are more strongly related to students' socio-economic status: 65.8% of the total variation in performance is observed within schools (OECD average: 63.3%), and 10.5% of the performance difference can be explained by differences in students' socio-economic status (OECD average: 5.1%).

Students with an immigrant background are particularly at risk of underperformance in Denmark, and more so than in many other OECD countries. In the PISA 2012 mathematics assessment, students with an immigrant background scored an average of 40 points lower than their native peers after accounting for socio-economic background (OECD average: 21 points). Students with an immigrant background in Denmark were 2.43 times more likely to perform in the bottom quarter of the performance distribution than non-immigrant students (OECD average: 1.70 times more likely).

### **A wide-reaching reform of the Folkeskole and a number of other reforms**

In June 2013, the Danish government introduced a reform of the *Folkeskole* based on a broad political agreement to improve public primary and lower secondary education. The reform has been implemented since the 2014/15 school year. As basis of this reform, the government set three national goals: i) the *Folkeskole* must challenge all students to reach their full potential; ii) the *Folkeskole* must lower the significance of social background on academic results; and iii) trust in the *Folkeskole* and student wellbeing must be enhanced through respect for professional knowledge and practice in the *Folkeskole*. These three goals were conceived to set a clear direction and a high level of ambition for the development of the *Folkeskole* and to provide a clear framework for a systematic and continuous evaluation of the reform. The three national goals are operationalised through four clear, simple and measurable targets that form the basis for dialogue and follow-up regarding the development of students' academic performance and wellbeing at all levels. To fulfil the three national goals, the 2014 *Folkeskole* reform focuses broadly on three main areas of improvement: a longer and varied school day with more and improved teaching and learning; better professional development of teachers, pedagogical staff and school principals; and few and clear objectives as well as a simplification of rules and regulations. Other recent changes include a reform of initial teacher education, the introduction of a new framework for the utilisation of teachers' working hours (Act no. 409), and a policy of inclusion of children with special educational needs in mainstream education.

## **Strengths and challenges**

### **A school system based on trust, local autonomy and horizontal accountability**

Resource allocation decisions are based on the principle of autonomy and devolved directly to schools. This provides good conditions for the effective management of resources and gives municipalities and schools the necessary flexibility to use funding to

fit their own needs. At the same time, there are mechanisms to ensure that schools do not make resource management decisions in isolation and that schools are held accountable and supported in their resource management. Local stakeholders are involved in budget decisions via the work of the school board. Municipal education offices provide their school leaders with various degrees of help with the more technical aspects of school budgeting. And municipalities play an important role in the delivery of services and can help their schools achieve economies of scale.

Supervision and support are also available for municipalities. Biannual quality reports prepared by the municipalities provide a tool for goal-oriented management of local school systems, horizontal accountability and central supervision. In their preparation of the quality reports, municipalities can draw on data provided in a data warehouse run by the Ministry for Children, Education and Gender Equality. The central level monitors progress towards the goals of the *Folkeskole* reform and follows up with support in the case of underperformance of schools.

The central level has also been taking on an increasing role in collecting and disseminating knowledge of good practice. A newly created “resource centre for the *Folkeskole*” in the Ministry for Children, Education and Gender Equality plays a key role in overseeing a new body of learning consultants and for bringing together evidence from research and practical knowledge from the field. Local acceptance of this central role for knowledge management and support for municipalities and schools through the learning consultants indicates good levels of trust and co-operation between the central and local level in an effort towards making educational practice more evidence-based.

***A high level of consensus regarding the need for change, clear national targets for the school system, and a range of tools to monitor goal achievement and reform implementation***

The Danish school system has been successful in building consensus around the need for change and in implementing a wide-reaching reform of the *Folkeskole*. The 2014 *Folkeskole* reform has been supported by a broad partnership involving several ministries at the central level and the representative organisations of municipalities, school leaders, parents and students. Despite the challenges that all actors are confronted with in a period of major change following not only the 2014 *Folkeskole* reform, but also the introduction of a new framework for the utilisation of teachers’ working hours, changes to initial teacher education, and the inclusion of children with special educational needs, there appears to be wide agreement among the main stakeholders that most of these changes have been necessary to improve the school system.

Denmark has put major emphasis on ensuring that reforms are introduced along with clear goals and targets. The most notable example of this goal-oriented approach is the 2014 *Folkeskole* reform with its three core objectives for student achievement, equity and wellbeing. Similarly, the policy for teacher competency development and specialisation includes clear targets that provide a common objective for actors at all levels. The inclusion process had also been introduced together with a quantitative target and was measured against this benchmark until 2015. This outcome-oriented approach to designing and implementing reforms represents a new way of educational steering in Denmark. It holds the potential of creating greater transparency and a sense of common purpose within a highly decentralised school system.

Furthermore, there is a clear intention to make sure that the central goals are translated into concrete targets at the local and school levels. Evaluation and reporting mechanisms have been introduced to monitor progress towards these goals at the central, municipal and school levels. Key monitoring instruments include the national student assessments, the calculation of “expected” exam grades for all students, the national wellbeing survey, and a survey to monitor the effect of inclusion on wellbeing. The use of the results from these measurements by actors at all levels is being facilitated by increasingly user friendly tools to access the data (e.g. through the development of a data warehouse by the Ministry for Children, Education and Gender Equality). In addition, stakeholder groups have developed their own initiatives to evaluate the impact of the reform on their members and to identify any potential negative effects.

***Challenges for maintaining a focus on broad learning goals and scope for improving the monitoring of learning outcomes in terms of equity and excellence***

Danish education pursues a broad set of learning goals for all-rounded student development. As emphasised in the *Folkeskole* Act, Danish students are to acquire not only subject-specific knowledge, but also cross-curricular learning goals, the Common Objectives provide a fairly broad curricular frame and the 2014 *Folkeskole* reform again emphasises the importance of cross-curricular learning and complex competencies. However, as in many other countries, there appears to be some lack of alignment in Denmark between these broad goals for student learning and relatively narrow measurements of learning. There seems to be a perception among teachers and school leaders that schools are held accountable primarily based on the results of students on the national tests, an impression that is reinforced by the fact that the main benchmarks for monitoring the *Folkeskole* reform are based primarily on the national test results. Too narrow a focus on discrete learning areas may negatively impact the learning process itself and there are some indications of this being the case in Denmark. Nevertheless, it also needs to be recognised that there are inevitable trade-offs between different goals in school systems, and that the focus on one goal may lead to a smaller focus on other goals.

While the Danish school system has a strong focus on supporting equity, the present monitoring system could pay more attention to monitoring the equity outcomes of the system. The 2014 *Folkeskole* reform sets the goal of lowering the significance of social background on academic results, but it does not include an explicit vision or targeted measures for particular student groups at risk of underperformance. The reform does not set specific benchmarks for reducing educational disadvantage for these groups and there appears to be little differential analysis on the impact of the reform on different student groups. In the monitoring of educational quality, student assessment results are not systematically disaggregated for student groups from different backgrounds. Information on student outcomes reported in the ministry’s data warehouse is not systematically broken down for different student groups. As a result, system evaluation does not include measures to assess whether or not equity objectives are being achieved. Similarly, at the level of municipalities and schools, it does not seem to be common practice to analyse results separately for different groups at risk of underperformance.

A stronger focus on excellence might be needed as well considering Denmark’s relatively low proportion of top performing students and concerns that highly talented students may not be receiving adequate levels of challenge and support to fully realise their academic potential. With a view of achieving the goal of the 2014 *Folkeskole* reform to

“challenge all students to reach their full potential”, and of moving more schools “from good to great”, the Danish school system would benefit from a stronger focus on monitoring continuous improvement and excellence and on promoting excellence in school practices and outcomes.

### **High investment in education and explicit equalisation mechanisms in the funding system**

Historically, Denmark has allocated a high level of resources to education. Expenditures per student have always been clearly above average expenditures in the OECD and the EU. During the last decade, there has been some variation in the level of total expenditures, but total expenditure has always been at a comparatively high level. Recent policies have acknowledged that better learning outcomes for all students are possible without using more of society’s resources on education and it has been possible to implement reforms with clear and high ambitions for improved student performance without a major increase in overall spending.

The funding system of the *Folkeskole* entails several equalisation mechanisms. The national system reduces differences in financial capacity across municipalities. Within municipalities, the mechanisms for school funding typically take socio-economic characteristics of the student body at the school into account. Overall, these mechanisms yield school expenditures per student that are positively related to the share of students with a low socio-economic status at the school. The fact that students facing some kind of disadvantage need extra resources and follow-up is widely accepted. In addition, municipalities can apply to the central government for specific targeted funds for special needs education and students with special needs receive additional resources.

However, there is untapped potential for municipalities to learn from each other from their diversity of approaches on how funding formulas can best contribute to equalise student performance and there is little evaluation of how additional funding for schools with a disadvantaged intake is used and to what extent it contributes to improving learning opportunities for disadvantaged students.

### **Some concerns related to the decentralised funding model and a lack of transparency on the use of resources at the local and school levels**

The national funding system implies that the resources available in each municipality to a large extent depend on national policies. The flexibility of municipalities to influence their own income is limited by the national steering of the income tax rate. At the same time, the central government’s influence on expenditure on education is limited as education is only one of many local services the municipalities are responsible for and prioritise across. The present system relies to some extent on the regulation of inputs as illustrated by the maximum class size rule.

Although the 2014 *Folkeskole* reform has changed the focus towards learning outcomes, the measurement of learning outcomes still has to develop and there are at present no attempts to link expenditure decisions to realised outcomes. The decentralised approach to school funding makes it difficult to monitor how resources are being distributed and used at the local and school levels. Hence, there is little knowledge at the local and system level on how resources are used, whether resources are spent efficiently, and to which extent the different priorities set by the municipalities affect the quality and equity of learning outcomes.

Furthermore, expenditure per student clearly varies across municipalities. This stems from differences in socio-economic conditions between municipalities, but also from differences in the decided level of service or differences in productivity, which indicates a potential for efficiency savings in several municipalities.

### **Potential for efficiency and innovation through private schools, but risk of increasing segregation**

Private schools have a long tradition in Denmark and constitute a significant and growing part of compulsory education. According to OECD statistics, the only European countries that have a larger share of students in private lower secondary schools than Denmark are the Netherlands and Spain and between 2008 and 2013, the share of students in private schools in Denmark increased from just under 17% to over 19%. From an efficiency point of view, the coexistence of public and private schools might be beneficial. Private schools might enhance competition and innovation. However, one potential challenge in education systems relying on an extensive offer of private schools is increased segregation of students. Students in private schools are typically from relatively well-educated families with relatively high income. Available data indicate that this is the case on average also for Denmark.

Understanding how schools are competing for students is important for judging whether competition contributes to improved performance of the school system. In Denmark, there are significant information gaps with respect to school quality across private and public schools. If parents care strongly about the peers of their children, this might work in the direction of segregation in the school system. Furthermore, competition between schools does not by itself eliminate an information problem. Research indicates that while choice policies increase the level of information of all parents, the quantity and quality of information seems to be highly correlated with parents' level of education. It is, therefore, important that relevant, fair and comparable information on available school choices is easily accessible for all parents.

### **A high degree of delayed enrolment in upper secondary education**

About half a cohort in Denmark enrolls in the voluntary Year 10 of the *Folkeskole*, thereby delaying their enrolment in upper secondary education (youth education). One of the arguments for the public support of Year 10 rests on the possibility for students to improve their qualifications up to a level necessary for upper secondary education. If this is the real motivation for the main part of the students enrolling in Year 10, it reflects that the *Folkeskole* is either not able to provide students with the necessary skills to succeed in upper secondary education, or that the requirements in upper secondary education are too high compared to the quality of the *Folkeskole*. In either of those cases, Year 10 can be seen as some form of year repetition. It is highly questionable whether so much of the year repetition in the last year of compulsory education contributes most effectively to student learning as remedial education is more efficient in early ages than towards the end of compulsory education.

An alternative explanation for the high enrolment in Year 10 is that it provides an opportunity for young people to enhance their wellbeing, to develop broader social and emotional skills and competencies, and to find out what to do later in life. In that case, Year 10 is a year without much learning pressure on core subjects for a majority of the students. While there can be benefits (e.g. in terms of social competencies and clarity

about future career choices), it is questionable whether a year without clear learning intentions for core subjects in school contributes to student performance in upper secondary education and labour market attachment for young adults. An additional year in education delays entry into the labour market and there is also a risk that children at this critical age downplay education as a life-long investment.

***New opportunities for schools to utilise their teachers' competencies and working time to meet local needs, but also challenges in adapting to the new arrangements***

Considering the role of the quality of daily classroom instruction for student learning and achievement, the effective use of teachers and other staff and the quality of their instruction in classrooms is essential. The introduction of a new framework for the utilisation of teachers' working hours (Act no. 409) has increased schools' flexibility in using the time and competencies of their teachers. School leaders now have the flexibility to organise their staff around the learning needs of their school's students and the competencies, strengths, weaknesses, and learning needs of their staff. For instance, school leaders can assign less teaching time to their teachers in favour of having them work with other teachers in their area of expertise or they can use their new autonomy to support beginning teachers in their school. This holds the potential that schools can adjust the use of staff and their time to local needs if school leaders use their new autonomy well and if teachers adjust to the new realities. The introduction of longer school days as part of the 2014 *Folkeskole* reform provides some further potential opportunities for schools and students. Teachers are typically required to be present for a longer time at school which may help students learn and facilitate greater collaboration between teachers and other staff.

However, as can be expected with any reform, the report notes some concerns with the initial implementation of the new organisation of teachers' working time. While it was the government's intention that teachers should change their way of working, such a change in work organisation is likely to take more time. Whether the change of working time arrangements actually leads to a more efficient organisation of teachers' work and responsibilities will depend on the ability of teachers and school leaders to adapt to the new arrangement. For instance, if teachers do not have the right conditions to prepare and collaborate as they use more of their time on teaching, there could be risks to both quality and equity in schooling. Strategies to develop and allocate human resources effectively in schools are, then, crucial to ensure the successful implementation of the new working time arrangement.

***Conditions in place to focus on goal-oriented teaching and learning, but challenges in moving from a teaching to a learning focus and in making better use of the available data***

Denmark has put the conditions in place for school staff and leaders to focus on pedagogy which alters student learning outcomes. One of the most fundamental changes over the past 15 years has been the introduction of a set of Common Objectives, a set of binding learning progressions, achievement targets and curricular guidelines. The introduction of a set of national assessments and a student wellbeing survey constitute a further important step. A range of data are thus increasingly available at the municipal, school and individual student levels to use when setting goals and monitoring progress toward the achievement of these goals. The *Folkeskole* reform has strengthened this focus on outcomes further.

Evidence also points to a growing willingness at all levels of the system to dialogue around pedagogical needs and to build on collaborative work to improve student achievement and wellbeing. At the national level, this is evident in the establishment of a learning consultant corps, the development of a website of educational resources and initiatives to share research. In municipalities, there seems to be a genuine attempt to make school leader collaborative work the norm. And schools seem to be increasingly organised in a way that grants opportunities for collaboration, teamwork and peer learning. School leaders and teachers seem to recognise the value of having educators with expertise work directly with teachers to improve teaching practice.

The shift towards focussing on student learning is, however, still in its infancy in terms of implementation in classrooms, schools and municipalities across the country. Stakeholders reported that important progress had been made both in the availability of relevant data and the focus of professionals on the assessment of outcomes, but they also reported that further progress was needed in using this data effectively for accountability and improvement purposes. Teachers identified a need to come to an understanding of the new goal-oriented way of working with the curriculum and how it changes how they teach and assess students. Many municipalities are still reluctant to follow up on school performance and goal attainment despite the fact that school performance is now more transparent. And school leaders tend to use more informal leadership strategies rather than evaluation, documentation and other forms of data. Embedding a learning focus in practice is a major cultural shift that needs to be implemented through a range of changes with regards to initial teacher education, professional development, performance management and leadership.

***Several aspects of teacher professionalism still at the early stages of development and scope to further strengthen pedagogical leadership***

Considering the decentralised nature of education in Denmark, not all municipalities and schools may provide their teachers with the support they need to develop their practice. There does not appear to be a shared understanding of the standards of teacher practice and there is little discussion regarding excellent teaching within schools, municipalities or at the central level. There is no formal and systematic induction to provide new teachers with the additional support they may need for coping in the early years of their career. The availability of induction processes depends on local contexts and, while some municipalities and schools pay special attention to new teachers, such practices appear to be as yet the exception rather than the norm. There is neither a standard certification of new teachers that is based on a specific set of criteria, nor a formal appraisal of a teacher's readiness to assume a teaching role or a probationary period for newly qualified teachers. And while there are teacher appraisal practices at a local level, performance appraisal of practicing teachers is not mandatory. Occasionally, municipalities require their school leaders to appraise their teaching staff, but no formal appraisal process appears to be occurring systematically. If teacher appraisal takes place, it does not always seem to involve classroom observations, to have strong links to professional development, or to have substantial impact on teaching practices. As a result, not all teachers receive feedback on how to improve. The underperformance of a teacher may not be detected and, therefore, be addressed, to the detriment of students.

Also the management of the school leadership profession reveals a number of challenges. There is no common understanding of effective leadership that could guide the



management and development of the profession. This leads to a lack of clarity among school leaders in terms of expectations and on how to improve their leadership practice. School leaders are not required to undertake specific training for their function, even if they may participate in such training. And while there are practices of school leader performance management at the level of municipalities, practices vary and not all school leaders benefit from sufficient support and feedback. There seems to be a great deal of focus on pedagogical leadership as well as a desire on the part of school leaders to carry out this work, but school leaders feel they are lacking training and experience to work in this manner. The lack of strong school leadership raises concerns regarding the quality of school improvement efforts overall and specifically how effective leaders are at developing the competency of the teaching staff in individual schools. The lack of strong leadership is also of concern considering the significant changes the Danish education system is undergoing.

## Policy recommendations

### ***Continue to pay attention to using resources efficiently***

Developments in the *Folkeskole* over the last years have the clear potential to contribute to improved efficiency and effectiveness of the Danish school system. The 2014 *Folkeskole* reform aims to further strengthen the focus on learning environments and student performance. There has been a reduction in expenditure per student up to the *Folkeskole* reform and the reform has increased the school day of students without a symmetric increase in the number of teachers. The introduction of a new framework for the utilisation of teachers' working time (Act no. 409) has created greater flexibility for schools to use the time and competencies of their teachers. Whether the recent changes lead to greater efficiency and effectiveness will, however, depend on the ability of all actors in the system to use resources efficiently and to adapt to the changes the recent reforms imply. It will, therefore, be key to ensure that all actors continue to work intensively on using resources most effectively to improve student learning in relation to national goals. Knowledge-sharing across schools and municipalities will be particularly important in this regard. There is, for example, a lot of potential for municipalities to learn from each other regarding the effective design of school funding formulas to create synergies and to avoid double efforts. LGDK and the association of municipal administrators responsible for culture, day care and education (*Børne- og Kulturreformeringen* [BKF]) have the potential to play a key role here. Considering changes to teachers' working conditions, strategies to develop and allocate human resources effectively in schools are crucial to ensure the success of the reform.

### ***Strengthen public reporting about the performance of the system and analyse the effectiveness of resource use in municipalities and schools***

To move the school system towards excellence while further narrowing equity gaps requires strong public consensus regarding fiscal effort and inclusiveness. The Ministry for Children, Education and Gender Equality has already undertaken considerable steps to make data from its central monitoring system available for use by different stakeholders, and municipalities and schools in particular. To build and sustain the overall consensus for investments in the *Folkeskole*, Denmark should consider strengthening its reporting about the performance of the school system also to the public at large at all levels of the system. Data on inputs and outcomes should be easily publicly available. Denmark could develop a system-wide reporting framework that brings a broader range of financial indicators and outcome indicators together. The reporting framework could form the basis for the

periodic publication of key national analytical reports in addition to the digital publication of the data (e.g. in the ministry's data warehouse). The system of the Ministry of Social Affairs and the Interior to monitor municipal service performance could be extended to include information on different outcomes of the school system.

Municipalities and schools should make efforts to bring together and analyse data on the use of resources and outcomes. LGDK should pursue its plans to develop the municipalities' common business management system (FLIS) into a data hub that brings together information on resources and outcomes. Individual municipalities should be encouraged to consider both financial and pedagogical dimensions in their biannual quality reports and to use data with a greater focus on the effective use of resources to meet the goals of the education system and the *Folkeskole* reform. At the school level, a school-level reporting framework could be introduced that enables schools to examine the fiscal impact of their resource and curriculum decisions and that creates greater transparency about resource use decisions in schools. Schools should be encouraged by their municipalities to consider the impact of their resource use decisions as part of their self-evaluations.

### ***Consider reducing enrolment in Year 10***

The OECD review team formed the impression that the goals of Year 10 are not clearly defined and that the large enrolment rate in Year 10 only weakly contributes to the educational outcomes in Denmark, even if there may other benefits (e.g. social and emotional skills). The review team suggests that public support for Year 10 should be more focused on those in real need to increase their skills. The obligation for municipalities to provide Year 10 to all students, including students from advantaged socio-economic backgrounds to spend a "leisure time" year, should be reconsidered. The target group for Year 10 could be better defined (e.g. it could be an offer targeted at students achieving below a specific skill level as measured by the final school results in Year 9) and students' right to enrolment could be linked to certain criteria. It appears highly inefficient that a large share of 16-17 year-old youth spend an additional year of education with low focus on improving basic or vocational skills. It should also be considered to implement stricter criteria in order for private schools to receive public financial support for Year 10 education.

For some students it seems necessary to improve their skills before they are ready to enrol in upper secondary education. For these students, Year 10 takes the form of year repetition. Considering that the empirical evidence clearly suggests that remedial education is more efficient the earlier it is introduced for students, the enhanced provision of targeted remedial education at an earlier stage in the *Folkeskole* should be a priority. The 2014 *Folkeskole* reform has the clear goal of improving the skills of students. This should reduce the need for Year 10 education as a means for skill upgrading, and contribute to more students transferring directly from the *Folkeskole* to upper secondary education. Denmark should consider establishing a national goal to gradually decrease enrolment in Year 10.

### ***Ensure that school competition can happen with regard to school quality rather than student composition***

Information on school performance and school quality seems necessary in order for the relatively large share of private schools in Denmark to contribute to improved performance of the school system. For example, if parents choose schools based on the degree to which students perform relative to the national goals, there can be competition based on school quality. Without information on school quality, school choice will be based on other factors.

If school choice is based primarily on peer composition in schools, the large degree of private schools will contribute to school segregation. In addition, parents are likely to be interested in a variety of other factors at schools, such as cultural and sport activities.

In the present system, there is a risk that schools compete along these dimensions and that parents put larger weights on such issues than they ideally would prefer, simply because they have very limited information on the learning environment and school quality. In this context, developing a shared vision of school quality, refining both external and internal evaluation of school quality and performance and improving parents' access to relevant information will be important to ensuring that the large share of private schools can be used more strategically to improve performance.

Equity concerns in the use of information about school quality also need to be taken into account. In most countries, upper middle-class and middle-class families are those most aware of how to use the education system for their own interest and benefit and those more likely to use information about school achievement to place their child in the best performing schools.

### ***Give attention to all learning goals in the evaluation and assessment framework***

A key challenge in monitoring the quality and progress of education systems is to develop indicators and measures of system performance that permit a good understanding of how well the system is achieving its objectives. While national goals are typically comprehensive and broad, monitoring systems may be rather limited in the information they can offer. For monitoring to be meaningful, it must be well-aligned to the type of learning that is valued. Denmark should, therefore, consider introducing broader national measures of student learning to monitor the school system's progress in stimulating students to excellence in higher-order thinking and in the development of complex competencies. System-level attention to broader learning goals can also help communicate to municipalities and schools a shared focus on the broader aims of the *Folkeskole*.

A great deal of assessment research in recent years has focused on “authentic” forms of assessment that would be able to capture the type of learning that is valued in today's societies. These alternative forms of assessment are more effective at capturing more complex achievements, but they are also more costly to implement on a large scale than closed-ended test formats. One option for Denmark would, therefore, be to consider introducing a light monitoring sample survey to supplement the current national monitoring system with information on broader competency goals. Such a sample survey can provide stable trend information and monitor a broader range of student knowledge and skills at a lower cost compared to a full cohort test. In addition, the central level should continue communicating to schools the importance of supplementing standardised national assessment tools with a range of other assessments to obtain relevant information on student learning across the curriculum and to use this information to design differentiated teaching strategies. Denmark should continue to develop teachers' assessment capacities and support professional learning communities that work with assessment data in non-threatening ways.

### ***Pay special attention to monitoring the learning outcomes of students at risk of underperformance and further support schools in striving towards excellence***

Denmark should give more prominence to monitoring inequities in learning outcomes between specific student groups. Attention to equity issues when monitoring results and goal

achievement at the system level can inform policies and help target support more effectively. For example, education system targets could pay attention to the achievement of different student groups and it would be important to review how more targeted indicators for the achievement of equity goals could be included in the monitoring strategy for the *Folkeskole* reform. Overall, the value of annual monitoring reports could be further enhanced by regularly reporting information on student learning outcomes for underperforming groups of students. This would allow tracking the education system's progress in responding to the needs of diverse groups. National research into how student background characteristics and school contextual characteristics are associated with student performance can identify the type of information that is most pertinent to collect systematically.

Ensuring that key performance indicators in the ministry's data warehouse are systematically disaggregated for different groups at risk of underperformance would be helpful for monitoring equity goals at all levels of the system, including municipalities and schools. Feeding such disaggregated information back to municipalities and schools should also enhance their focus on equity outcomes and strategies in their own self-evaluations and development and improvement planning. In addition, given Denmark's high investment in schools enrolling students from socio-economically disadvantaged backgrounds and students with special educational needs, it would be important to monitor specifically how such funding is used at the school level and how this translates into performance for these students. Municipalities should collect data, track resources spent on different student groups and monitor how these resources support teaching and learning for students at risk of underperformance. School boards should discuss the use of resources and the achievement levels for different student groups with their school management. The central level could also commission thematic studies on the use of resources for equity and inclusion in Danish schools.

As part of the 2014 *Folkeskole* reform, the Danish government aims to challenge all students to reach their full potential and to increase the number of high-performing students from year to year. A policy focused on achieving these ends must set high standards for achievement. Using differentiated approaches to teaching, assessment and evaluation can help to provide the right level of support and challenge to individual students, professionals and schools. At the level of individual students, excellence could be supported through further attention to monitoring student progress and providing differentiated feedback for improvement. At the level of professionals and schools, Denmark could consider introducing differentiated supervision mechanisms. This would involve maintaining close attention to helping underperforming schools improve, but at the same time focussing on schools that are already achieving average or good results so as to raise ambitions and move towards excellence. Enhancing school evaluation practice would be key to continuously challenge all schools to improve. The national level could play a stronger role in stimulating more effective self-evaluation at the school and local level and establish and manage a national sample programme of external reviews of schools, possibly in partnership with LGDK and individual municipalities across Denmark.

### ***Promote the better use of data at all levels of the system***

Information can only lead to school improvement if it is relevant, available in adequate quantity, and properly interpreted. As the Danish school system is highly decentralised and relies on resource management and evaluation competencies of all its agents, it is of key importance to increase the capacity at all levels to ensure the effective use of available

information, particularly in schools and municipalities. Such capacity building must respond to the diverse needs of different stakeholders and consider equity issues inherent in the use of data and information. Some municipalities and schools may be more likely than others to fully use the available data.

For municipal staff, this means developing the capacity to understand, interpret and make decisions based on evaluation and assessment data collected from schools and drawn from the data warehouse together with their own data on resource inputs. Municipalities should be able to use school reporting data as a basis for engaging in meaningful discussions with their schools. This capacity needs to be sustained over time and ongoing resources should be set apart to make sure municipalities can play their supervision role to its full extent. For school principals and teachers, it means developing the capacity to collect and report data on school budgets and student outcomes to their school community and their municipality in effective ways. School leaders need to develop an inquiry habit of mind, become data literate and be able to create a culture of inquiry. Exemplars of good practice in data interpretation, analysis, reporting and communication should be provided nationally to schools and municipalities to make sure some minimum requirements are met and municipalities should support their schools and school leaders in using the available data. However, school professionals need to develop not only the capacity to use, interpret and follow up on results obtained from nationally provided evaluation and assessment tools, but also to develop valid and reliable tools which meet their own specific local needs.

National expertise could also be further developed. It has become increasingly important to invest in higher education and research to increase the number of experts capable to respond to future needs and to offer the best advice available from scientific knowledge and scholarly work. Both the Ministry for Children, Education and Gender Equality and LGDK have an important role to play in the management and dissemination of knowledge and data required to analyse the relationship between inputs and outputs and the causal links between interventions and outcomes. They can facilitate both horizontal and vertical connections within the system to increase the coherence of the evaluation and assessment framework and to properly align efforts and resources on priorities. The ministry's initiatives to establish a learning consultant corps and to develop a data warehouse are both promising in encouraging and facilitating the use of data. Both initiatives should be sustained and further developed.

***Develop a vision for teacher professionalism and support effective teaching through systematic formal and informal teacher feedback and appraisal***

Many changes to the school system in Denmark have left teachers struggling with what it means to be an excellent teacher. To support teachers, school leaders and municipal leaders in understanding and supporting the implementation of these changes, Denmark should consider developing a national teacher profile, vision or standards of practice. Such a national teacher profile would communicate the new expectations regarding teacher practice putting the conditions in place for many of the changes of the 2014 Folkeskole reform. Teacher standards would establish a foundation for teachers to explore their practice and for schools to develop their improvement initiatives. A national teacher profile would help to provide a framework to guide the development of the profession as whole. In a decentralised system like Denmark, a national teacher profile could be particularly relevant to promote a common vision and shared expectations.

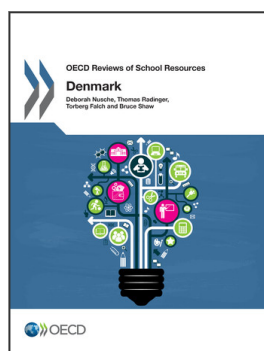
The effective appraisal of teaching is central to the continuous improvement of schools. It is, therefore, also recommended that Denmark strengthen formal teacher performance appraisal focused on the continuous improvement of teaching practice. Formal teacher appraisal would serve both as a form of developmental feedback for teachers and as a mechanism for feedback for schools, municipalities and potentially the Ministry for Children, Education and Gender Equality. Developmental appraisal could be a low-key and low-cost process that is organised internally in schools. To guarantee a systematic application of developmental evaluation across Danish schools, it would, however, be important to undertake the external validation of the respective school processes. Municipalities have a key role to play here. The development of a national sample programme of external reviews of schools through the Ministry for Children, Education and Gender Equality could be a further instrument of external validation. An alternative approach entails the introduction of stronger national parameters and regulations that suggest a range of tools and guidelines for implementation of formal teacher appraisal. Denmark should, furthermore, consider ways to strengthen informal feedback to teachers to improve their practice. This very much depends on the extent to which schools are successful in establishing a culture of learning and continuous improvement. Collaboration has a key role to play as most collaborative teacher activities include an element of feedback to teachers and quite often teacher self-assessment of their practice.

### ***Develop the school leadership profession and provide support for school principals and their deputies***

Denmark should pay particular attention to the development and management of its school leadership profession, from recruitment and initial training to professional development and performance management. This includes both the Ministry for Children, Education and Gender Equality and the individual municipalities as the employers of school leaders. Denmark's school leader association should be thoroughly involved in the process of developing the profession.

The first step in the further development of the profession should be the creation of a framework to guide the work of school leaders (both formal school leaders and informal teacher leaders). Considering the importance of pedagogical leadership for teaching and learning, the framework should have a clear focus on competencies related to this leadership style, but also recognise that successful school leadership is always context-dependent. Once developed, a Danish leadership framework could serve as a basis for continued collaboration among school leaders, as a reference point for school leadership consultants, as a catalyst for the development of personal learning objectives with a learning plan for individual school leaders and a basis for reflection and introspection on the part of individual school leaders. Denmark should also consider developing a more strategic approach to the training of school leaders that ideally represents a continuum and is available at and targeted to the different stages of a school leaders' career. Opportunities for collaboration, coaching and mentoring between school leaders can also provide useful support and enable school leaders to gain new expertise.

The wide range of responsibilities that school leaders are often expected to fulfil bears a risk of placing too high expectation on school leaders. School leaders should, therefore, have the support they need from their employer as well as distributed leadership structures. Further developing school leader performance management in municipalities is another area for possible policy development.



From:

## OECD Reviews of School Resources: Denmark 2016

Access the complete publication at:

<https://doi.org/10.1787/9789264262430-en>

### Please cite this chapter as:

Nusche, Deborah, *et al.* (2016), "Assessment and recommendations", in *OECD Reviews of School Resources: Denmark 2016*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264262430-4-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).