

Executive Summary

Assessment is integral to the education process. The most visible assessments are summative, measuring what students have learnt through testing and examination, or holding schools accountable for student performance. But assessment can also be “formative”. Formative assessment refers to frequent, interactive assessments of student progress and understanding. Teachers are then able to adjust teaching approaches to better meet identified learning needs.

Formative assessment differs from summative assessment in that the information gathered in the formative process is used to shape improvements, rather than serve as a summary of performances. The principles of formative assessment may be applied at the school and policy levels to identify areas for improvement and to promote constructive cultures of evaluation throughout education systems. Studies show that formative assessment is one of the most effective strategies for promoting high student performance. It is also important for improving the equity of student outcomes and developing students’ “learning to learn” skills. But formative assessment is not practised systematically, particularly in lower secondary schools – the focus of this study – where barriers to innovation and change are often more difficult to overcome. These barriers include perceived tensions between classroom-based formative assessments and highly visible summative tests for school accountability (teachers tend to teach to the test), and a lack of connection between systemic, school and classroom approaches to assessment and evaluation.

This study looks at the practice of formative assessment in classrooms and schools in eight education systems: Australia (Queensland), Canada, Denmark, England, Finland, Italy, New Zealand and Scotland. It focuses on classroom practice to a greater degree than is usual in OECD studies. In taking this approach, the study gives shape to the concept of formative assessment as practised across these countries, and analyses how policies supporting the use of formative assessment can develop. It also suggests ways in which policy could better support the wider practice of formative assessment.

There are three major parts to the study:

- **Part I** offers the OECD analysis of case study findings and international research on formative assessment. The key findings are highlighted under the subheadings below.
- **Part II** presents the case study evidence gathered in each of the participating countries. The schools featured in the case studies were chosen because they provide useful examples of highly effective formative assessment in practice, and are therefore illustrative of what is possible. While there are common elements across the case studies, they also take a range of approaches to teaching and learning, including, for example, a co-operative learning programme in Scotland, a school focused on the use of ICT to re-shape teaching and learning in Québec, a programme designed to meet the cultural and learning needs of Maori students in New Zealand, and approaches to promoting democracy in Danish schools. Each case study begins with an overview of the policy context within which schools are working, describes teaching and assessment in classrooms and examines the ways in which school leaders guided the change process in their schools.
- **Part III** includes English, French and German literature reviews describing the context of formative assessment research in their respective traditions. The English literature review by Paul Black and Dylan Wiliam summarises findings from their highly influential 1998 review, and their subsequent experience in working with teachers to translate research into practice in a pilot programme. They observe that while much is known about the kinds of classrooms that promote effective learning, less is known about making it happen on a broader basis.
The review of the French language literature by Linda Allal and Lucie Mottier-Lopez has a particular focus on the concept of “regulation” (how teachers orchestrate learning for and with students). They emphasise the importance not only of providing students with feedback, but of adapting instruction to meet a variety of student needs and of providing them with skills and tools for self-assessment.
The review by Olaf Köller explores the German literature in educational psychology, primarily concerned with how students respond to various forms of feedback, a key element in formative assessment. The findings point to the greater impact of feedback based on individual progress toward learning goals, rather than comparison with other students.

Introducing the concept of formative assessment

Chapter 1 defines the concept of formative assessment and presents evidence regarding its effectiveness in improving student achievement, equity of educational outcomes, and learning to learn skills. The chapter suggests that the principles of formative assessment may be applied to identify areas for improvement and to promote effective and constructive cultures of evaluation from individual classrooms through to whole systems. The chapter concludes with an overview of the study scope and methodology.

Exploring the range of policy approaches

Chapter 2 introduces the range of policies the case study countries have developed to promote the broader practice of formative assessment. Transforming teaching and assessment approaches across education systems requires strong policy leadership, serious investment in training and professional development and innovative programmes, as well as appropriate policy incentives. The chapter builds a framework for analysing policy approaches. There is *legislation* promoting and supporting the practice of formative assessment and establishing it as a priority. There are efforts to encourage *the use of summative data for formative purposes*. *Guidelines* on effective teaching and formative assessment have been embedded in the national curriculum and other materials. There is the *provision of tools and exemplars* to support effective formative assessment. There are important *investments in special initiatives and innovative programmes* incorporating formative assessment approaches. There is also investment in *teacher professional development* for formative assessment. All education systems will need to strengthen the policy mix and to make deeper investments if they are to promote real changes in teaching and assessment throughout education systems.

Understanding the elements of formative assessment

Chapter 3 examines the elements of formative assessment as identified in the case study research and in the international literature, with the following six elements of classroom practice emerging consistently:

- Establishment of classroom cultures that encourage interaction and the use of assessment tools.

- Establishment of learning goals and tracking individual student progress toward goals.
- Use of varied instruction methods to meet diverse student needs.
- Use of varied approaches to assess student understanding.
- Feedback on student performance and adaptation of instruction to meet identified needs.
- Active involvement of students in the learning process.

Teachers in the case study schools in all eight countries had incorporated each of the six elements of formative assessment into regular practice, using the elements as a framework for teaching and learning. Many said they had made fundamental changes in their teaching – in their interactions with students, the way they set up learning situations and guided students toward learning goals, even how they thought about student success. Research also points to the importance of *how* teachers apply each of the elements in making an impact on student achievement.

Analysing formative assessment in practice

Chapter 4 provides vivid descriptions of each of the elements of formative assessment in practice. The examples, which are drawn from a diversity of settings, help to move the discussion of formative assessment from broad principles to a more concrete understanding of the changes formative approaches entail. The chapter describes specific approaches and techniques that teachers have used to encourage greater classroom interaction, to better gauge levels of student understanding, and to develop students' skills of self- and peer-assessment. Formative assessment requires hard work, as well as shifts in how teachers view their own roles and that of their students.

Addressing benefits and barriers in the school and classroom

Chapter 5 addresses the concerns of educators who may be sceptical about the ability of teachers and schools in general to take on formative assessment in the face of logistical challenges. The chapter draws on the case study material to show how teachers, after experimenting with a variety of techniques, were able to develop straightforward and ingenious solutions to problems such as large class size and extensive curriculum requirements. With experience, they also began to use formative assessment methods with

students they considered as more challenging. The chapter also examines the vital role of school leaders in initiating, deepening and sustaining changes.

Meeting the policy challenges

Chapter 6 examines policy implications of the case study findings and identifies the ways in which policy can facilitate and encourage the wider practice of formative assessment. System-wide changes in teaching and assessment require strong policy leadership. This means that policy makers and officials need to send consistent messages about the importance of quality teaching and learning, of adapting teaching to meet diverse student needs, and of promoting students' skills for "learning to learn". Policy focused on teaching and learning should recognise complexity, be concerned with the *process* of learning, and draw upon a broad range of indicators and outcome measures to better understand how well schools and teachers are performing. The six policy principles discussed in the chapter are to:

- Keep the focus on teaching and learning.
- Align summative and formative assessment approaches.
- Ensure classroom, school and system level evaluations are linked and are used formatively to shape improvements at each level
- Invest in training and support for formative assessment.
- Encourage innovation.
- Build stronger bridges between research, policy and practice.