



Assessment for learning

There is a central role for formative assessment in a responsive approach to teaching involving identifying and building on the skills attitudes, knowledge and understandings children bring to school; in supporting and encouraging children's active engagement in learning and fostering their awareness of their own thinking and progress. Harrison and Howard (2011) highlight the key roles of feedback, sharing criteria with learners, questioning and self-assessment in promoting effective learning.

In the Early Years there are also arguments that a more holistic approach to assessment is important, that takes account of children's attitudes and interaction with others and with the environment in thinking (Glauert, 2009b). Insights from recent research highlight the need to develop assessment approaches sensitive to the capabilities of young children (Robbins, 2005). Calls have been made for the development of multimodal approaches to assessment in early mathematics and science activity (e.g. Glauert, 2009a) that attend to, for example, children's gestures, speech or visualisations, and digital technology offers increasingly holistic ways of capturing children's engagement. Similarly within creativity, efforts have been made in the last two decades toward understanding and assessing creativity as complex (Feldhusen and Ban, 1995), involving multiple components (Amabile, 1983). In the context of the Early Years this has meant an emphasis on children's learning in context, close observation and documentation, sometimes from multiple perspectives (Rinaldi, 2006, Project Zero and Reggio Children, 2001).

The assessment of creativity is an area of growing interest, as creativity and innovation are perceived as increasingly important globally. The EU has paid attention to the assessment of creativity since the 2009 European Year of Creativity and Innovation which included a conference on the measurement of creativity held in Brussels, later published by the Joint Research Center, European Commission (Villalba, 2008, 2009). Hingel (2009) argued as part of this EU exploration of the potential for measuring creativity, that measures should be developed to provide evidence of progress over time.

Whilst formative assessment for learning is vital in helping diagnose appropriate next learning, there remains an emphasis in policy on the role of summative assessment for wider comparative purposes and its use for evaluation of performance at school, national and international levels. International comparisons in particular are driving national and European concerns to document and nurture economic competitiveness. This can be seen within schemes that seek to document the learning of older learners,





for example in the IEA¹'s Trends in International Mathematics and Science Study (TIMSS²) for grades 4 and 8 introduced in 1995 and the OECD³'s Programme for International Student Assessment (PISA) for fifteen year olds, introduced in 1997. Each of these large scale assessments systems provide comparative summative assessment information of older learners for educational policy making purposes and have rapidly gained international governmental support. TIMSS encompassed more than sixty countries in 2011. In the case of PISA, 65 countries and economies were involved in the 2012 wave. Both produce summative data through specially administered tests. Whilst TIMSS focuses on mathematics and science, PISA offers an interesting blend. Since PISA sets out to measure knowledge and skills seen as vital to living as an effective 21st century citizen, its focus is not only on the domains of knowledge seen as vital in participating countries, but also on appropriate skills (Schleicher and Tamassia, 2003). Thus since 2003, problem-solving has been assessed within the context of using science and mathematics knowledge to solve everyday problems as part of the PISA assessment framework.

The inclusion of problem solving highlights increasing concern within Europe to find ways of measuring complex skills in relation to traditional domains of knowledge, and work undertaken by OECD has also recently focused on the development of a composite indicator for creativity (Saltelli and Villalba, 2008). There is a clear recognition of the need to move beyond the pure acquisition of knowledge in the ways that education systems evolve (Stewart, 2011). What is not yet in place is a way of assessing creativity in the context of other subjects such as science and mathematics, and it is not clear how this might develop; the European Commission's Joint Research Centre probe was sceptical about the cost and effectiveness of using PISA or another international test (Villalba, 2008:33).

Thus internationally the tension between formative and summative assessment in relation to assessment for learning vs assessment for comparative purposes, is evident. Summative assessment is being used as a powerful tool for policy makers to know how children are doing, and to compare countries' performance. Arguably, these large scale surveys are used to aid policy development, ensure preparation for adult life and influence national growth rather than formatively guide individual progress or development. It is possible, as Saltelli and Villalba (2008) argue, that measurement of creativity is vital in that the comparison between countries' performances may provide insight into how key variables interact at a wider societal and economic level – for example, how the rise of the 'creative class' might relate to economic growth. They argue that a European creativity indicator should be developed – a challenge

1 International Association for the Evaluation of Achievement

2 TIMSS was linked with PIRLS (Progress in International Reading Literacy Study) in 2011

3 Organization for Economic Cooperation and Development





taken up by Kern and Runge (2008) who grouped thirty-two indicators for creativity which focus on social and economic factors, although the establishment of an intercultural notion of creativity is not yet under way (Hingel, 2009).

It should be noted that the summative use of assessment for comparative purposes is highly economically-focused, seeing creativity as a means to the ends of economic prosperity; an assumption that can be challenged as discussed earlier (Gibson, 2005). Not only that, but as Looney (2009) notes, writing for OECD, there is a tension between high-stakes summative assessment and innovation. Looney argues that it has been possible to reconcile such testing through a range of strategies encompassing performance measurements for students and schools, re-aligning standards and assessment and integrating assessment and learning, and perhaps most importantly through staff taking appropriate risks to foster creativity and innovation in their institutions.

