

Bibliography of recent publications on assessment

to accompany the research report

A review of current thinking and practices in assessment in relation to the PYP

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1. Introduction

This document presents the results of a search of the academic literature for recent writings on the topic of assessment, in particular with a focus on assessment in the primary sector. The search embraced theoretical overviews and reviews, as well as descriptions of empirical research studies focusing on the impact of assessment on the learning and learning motivation of 3-12 year olds.

Publishers' websites were searched for books on the topic of assessment published within the past 10 years. The search for relevant research articles took the form of a comprehensive scan of issue contents pages covering the period 2008-2013 inclusive for each of the following journals:

- American Educational Research Journal
- Assessment in Education
- British Educational Research Journal
- British Journal of Educational Psychology
- British Journal of Educational Studies
- Curriculum Journal
- Education 3-13
- Educational Assessment
- Educational Assessment, Evaluation and Accountability
- Educational Forum
- Educational Measurement
- Educational Research
- Educational Researcher
- Educational Review
- Educational Studies
- Journal of Research in Science Teaching
- International Journal of Science and Mathematical Education
- International Journal of Science Education
- Research Papers in Education
- Review of Educational Research
- Studies in Educational Evaluation
- Teachers College Record
- The Clearing House

Where they are available, the key terms and abstracts included in the bibliography are those offered by the relevant book publishers or, in the case of journal papers, by the article authors. Within each section publications are listed alphabetically on first author name.

2. Recently published books on assessment

This list comprises books on assessment published within the last 10 years.

Alderson, J.C. (2005)

Diagnosing Foreign Language Proficiency: the interface between learning and assessment.

London & New York: Continuum.

Abstract

This book addresses the need for tests that can diagnose the strengths and weaknesses in learners' developing foreign language proficiency. It presents the rationale for, and research surrounding, the development of DIALANG, a suite of internet-delivered diagnostic foreign language tests funded by the European Commission. The word 'diagnosis' is common in discussions in language education and applied linguistics, but very few truly diagnostic tests exist. However, the diagnosis of foreign language proficiency is central to helping learners make progress. This volume explores the nature of diagnostic testing, emphasizing the need for a better understanding of the nature of appropriate diagnosis. The book starts with a debate about how diagnostic testing might most appropriately be developed. Charles Alderson argues that the field has neglected to construct diagnostic tests, partly because other forms of testing have dominated the field. Alderson examines how proficiency has been diagnosed in the key areas of language: reading, listening, writing, grammar and vocabulary. The value of self-assessment is discussed and exemplified as a key component in developing learners', and teachers', awareness of the complexity of language learning. The book ends with a consideration of and recommendations for future developments in the diagnosis of foreign language proficiency.

<http://www.bloomsbury.com/uk/search?q=J.+Charles+Alderson&Gid=1#>

Bachman, L. and Palmer, A. (2010)

Language Assessment in Practice.

Oxford: Oxford University Press.

Abstract

- Draws on authors' extensive experience in language teaching and assessment.
- Takes into account the most recent developments in research in applied linguistics, language teaching, and language assessment.
- Illustrative test development projects guide readers through the process.
- Additional website material accompanies the book.

Presents an innovative, unified, and easily applied approach to designing and developing language assessments.

Language Assessment in Practice is a follow-up to the bestselling Language Testing in Practice. It allows readers to become competent in the design, development, and use of language assessments. The authors discuss concepts and procedures clearly, illustrated with examples.

<http://ukcatalogue.oup.com/product/9780194422932.do>

Berry, R. and Adamson, B. (eds) (2011)
Assessment Reform in Education: Policy and Practice.
Dordrecht: Springer.

Abstract

The early 21st century saw education reforms in many countries that were driven by new economic imperatives and that generally called for a realignment of assessment concepts to match the prevailing educational goals. Divided into two sections and fourteen chapters, this book provides an interpretation of why current assessment policies take the form that they do and the role and status of assessment for learning in the policy-making debates, and identifies the problems and challenges that have occurred and the resolutions that might be proposed. The chapters in the first section, assessment reform experiences, review the history and development of assessment policy and practice in different countries around the world and focus on the issues related to assessment reform in these countries. The salient features of the issues identified are discussed in the second section, issues in the spotlight, of the book. The chapters in this section analyze the origins/causes and discuss complexities, tensions, dilemmas and/or possibilities associated with the issue as well as setting out the implications of the issue for the future of assessment reform, and possible ways forward.

<http://www.springer.com/education+%26+language/book/978-94-007-0728-3>

Black, P. Harrison, C., Lee, C., Marshall, B. and Wiliam, D. (2003)
Assessment for Learning.
Maidenhead: Open University Press.

Abstract

The starting point of this book was the realisation that research studies worldwide provide hard evidence that development of formative assessment raises students' test scores. The significant improvement in the achievements of the students in this project confirms this research, while providing teachers, teacher trainers, school heads and others leaders with ideas and advice for improving formative assessment in the classroom. Assessment for Learning is based on a two-year project involving thirty-six teachers in schools in Medway and Oxfordshire. After a brief review of the research background and of the project itself, successive chapters describe the specific practices which teachers found fruitful and the underlying ideas about learning that these developments illustrate. Later chapters discuss the problems that teachers encountered when implementing the new practices in their classroom and give guidance for school management and LEAs about promoting and supporting the changes. This book offers valuable insights into assessment for learning as teachers describe in their own words how they turned the ideas into practical action in their schools.

<http://mcgraw-hill.co.uk/html/0335212972.html>

Carless, D. (2012)
From Testing to Productive Student Learning: Implementing Formative Assessment in Confucian-Heritage Settings.
London: Routledge.

Abstract

Research evidence indicates that formative assessment is one of the most effective ways of enhancing student learning. It is, however, difficult to implement successfully, principally because what is tested through summative assessment has such a powerful influence on teacher and student actions. This book scrutinizes the relationship between testing and learning from alternative perspectives to the dominant literature from the major Anglophone countries. It develops the notion of contextually grounded formative assessment practices by analyzing data from schools in the Confucian-heritage setting of Hong Kong. It explores questions such as:

- Under what circumstances do tests support or hinder student learning?
- How can teachers effectively prepare students for tests and appropriately follow up after tests?
- What are the key socio-cultural influences impacting on testing and student learning in the classroom?
- How do teachers change in their orientation towards assessment and what support do they require?

This text is a valuable resource for education students, professionals and researchers, policy-makers and curriculum developers.

<http://www.routledge.com/books/details/9780415811545/>

Chapman, C. and King, R. (2012)
Differentiated Assessment Strategies.
 Thousand Oaks, CA: Corwin Press.

Abstract

In this second edition of the bestseller, the authors provide research-based and practical formative assessment tools, strategies, and activities that simplify the process of identifying students' strengths and needs. Updated features include a new chapter on exciting ways to engage learners in self-assessment; more tools for assessing before, during, and after learning; and approaches to help students take ownership of their own learning. *Differentiated Assessment Strategies* gives teachers:

- Formative assessment strategies for all grade levels and content areas
- Tools for interpreting ongoing assessment data for immediate intervention and planning
- Assessment strategies that provide immediate feedback to teachers and learners
- Methods for determining learner preferences, cognitive styles, and multiple intelligences
- Tips for establishing a positive environment for assessment

Included are surveys, checklists, questionnaires, assignments, graphic organizers, portfolio work samples, rubrics, and more. These user-friendly tools are valuable for assessing all students, informing instruction, and accommodating learners' individual needs. The final chapter pulls it all together and shows how to integrate formative assessment to improve student achievement.

<http://www.corwin.com/books/Book235665?siteId=corwin-press&subject=C00&qsupld=false&productType=&q=Chapman&fs=1>

Cowie, B., Moreland, J. and Otrell-Cass, K. (2013)
Expanding Notions of Assessment for Learning.
 Dordrecht: Springer.

Abstract

Assessment for learning [AfL] is bound up with students becoming autonomous lifelong learners who are active participants in the classroom and beyond. This book explores teacher and student experiences of AfL interactions in primary science and technology classrooms. Working from a sociocultural perspective, the book's fundamental premise is that AfL has a contribution to make to students developing identities as accomplished learners and knowers. The focus is on understanding and enhancing teacher practices that align with the spirit of AfL. The following points are illustrated:

- AfL interactions are multifaceted, multimodal and take place over multiple time scales.
- Student learning autonomy is promoted when teachers provide opportunities for students to exercise agency within a system of accountabilities.
- Teacher pedagogical content knowledge plays a pivotal role in teachers being able to respond to students.

Productive AfL interactions are reflective of the way a particular discipline generates and warrants knowledge. The book will be of interest to teachers and educational researchers who want to examine AfL from a theoretical and a practical perspective

<http://www.springer.com/education+%26+language/book/978-94-6209-061-3>

Fulcher, G. (2010)

Practical Language Testing.

London: Hodder Education.

Abstract

Practical Language Testing equips you with the skills, knowledge, and principles necessary to understand and construct language tests. This intensely practical book gives guidelines on the design of assessments within the classroom, and provides the necessary tools to analyze and improve assessments, as well as deal with alignment to externally imposed standards. Testing is situated both within the classroom and within the larger social context, and readers are provided the knowledge necessary to make realistic and fair decisions about the use and implementation of tests. The book explains the normative role of large scale testing and provides alternatives that the reader can adapt to their own context. This fulfills the dual purpose of providing the reader with the knowledge they need to prepare learners for tests, and the practical skills for using assessment for learning. Practical Language Testing is the ideal introduction for students of applied linguistics, TESOL, and modern foreign language teaching as well as practicing teachers required to design or implement language testing programs.

http://ebookey.org/Practical-Language-Testing-Glenn-Fulcher_1687400.html#jHy0OrcRYv74AywR.99#

Gardner J., Harlen W., Hayward L. and Stobart G. with Montgomery M. (2010)

Developing teacher assessment.

Maidenhead: Open University Press.

Abstract

This book explores the processes involved in developing assessment practice. It argues that the role of teacher assessment needs to be put firmly at the forefront of the educational agenda and that assessment by teachers needs to be developed in a widespread, high quality and sustainable fashion. The authors, all members of the influential Assessment Reform Group, argue that the target-driven approach of external testing leads to problems, including 'teaching to the test' to the detriment of the wider curriculum, and motivational problems. In this book, they tackle the differences between formative and summative assessment and ask the question: "What is quality teacher assessment?"

There is coverage of key professional learning dimensions including:

- The purposes of assessment
- The need for evidence to support innovation
- The process and steps to develop new practice
- Perceptions of what counts as quality assessment in schools

The authors draw on these various perspectives to explain how teachers and schools can build on existing practice, and develop new practices, and how the system should react to support them. This book is essential reading for teachers, head teachers, local authority professionals, policy makers and academics.

<http://mcgraw-hill.co.uk/html/0335237835.html>

Gardner, J. (ed) (2012)
Assessment and Learning.
London: Sage Publications.

Abstract

Assessment and Learning places learning at the centre of our concerns and explicitly underscores the importance of assessment in that learning. This new edition provides a comprehensive overview of assessment that is used to support learning, practice-based theory on assessment for learning, and formative assessment to support individual development and motivate learners. With a strong list of existing and new contributors, this second edition has been updated to include the latest work on assessment. Readers will find research-informed insights from a wide variety of international contexts. It features:

- New chapters on e-assessment, the learner's perspective on assessment and learning and the influence of assessment on how we value learning
- Teacher-friendly assessment topics
- Practical examples and chapter summaries throughout

This book is useful to teacher educators and researchers on postgraduate courses in education, teaching, learning and assessment.

<http://www.uk.sagepub.com/books/Book235374 - tabview=title>

Greenstein, L. (2012)
Assessing 21st century skills: a guide to evaluating mastery and authentic learning.
Thousand Oaks, CA: Corwin Press.

Abstract

The Common Core State Standards clearly define the skills students need for success in college and the 21st century workplace. The question is, how can you measure student mastery of skills like creativity, problem solving, and use of technology? Laura Greenstein demonstrates how teachers can teach and assess 21st century skills using authentic learning experiences and rigorous, varied assessment strategies. Based on the best ideas of renowned experts in education, this book provides a framework and practical ideas for measuring:

- Thinking skills: critical thinking, problem solving, creativity, and metacognition
- Actions: communication, collaboration, digital and technological literacy
- Living skills: citizenship, global understanding, leadership, college and career readiness

Included are numerous rubrics and checklists, a step-by-step model for developing your own classroom assessments, a lesson planning template, and sample completed lesson plans. *Assessing 21st Century Skills* gives you the tools and strategies you need to prepare students to succeed in a rapidly changing world.

<http://www.corwin.com/books/Book237748?siteId=corwin-press&subject=C00&qsupld=false&q=Greenstein&surfUrl=http%3A%2F%2Fwww.corwin.com&pageTitle=productsSearch>

Griffin, P., McGaw, B. and Care, E. (eds) (2012)
Assessment and Teaching of 21st Century Skills.
Dordrecht: Springer.

Abstract

Rapid—and seemingly accelerating—changes in the economies of developed nations are having a proportional effect on the skill sets required of workers in many new jobs. Work environments are often technology-heavy, while problems are frequently ill-defined and tackled by multidisciplinary teams. This book contains insights based on research conducted as part of a major international project supported by Cisco, Intel and Microsoft. It faces these new working environments head-on, delineating new ways of thinking about '21st-century' skills and including operational definitions of those skills. The authors focus too on fresh approaches to educational assessment, and present methodological and technological solutions to the barriers that hinder ICT-based assessments of these skills, whether in large-scale surveys or classrooms. Equally committed to defining its terms and providing practical solutions, and including international perspectives and comparative evaluations of assessment methodology and policy, this volume tackles an issue at the top of most educationalists' agendas.

<http://www.springer.com/education+%26+language/book/978-94-007-2323-8>

Harlen, W. (2007)
Assessment of learning.
Thousand Oaks, CA: Sage.

Abstract

This book takes a critical look at how students' achievements are assessed for a range of purposes, from reporting progress to selection and qualification. It considers the relationship between what is taught, and how, and what and how learning outcomes are assessed. The impact of using assessment results for setting targets and evaluation of provision for learning is also discussed.

The pros and cons of using tests and examinations and alternatives based on the judgments of teachers are considered in terms of four key criteria: validity, reliability, impact and required resources. Evidence from research and examples of current practice in different countries within and outside the UK support the case for making more and better use of teachers' judgments in assessment of learning. In this way assessment of learning (summative assessment) can be compatible with assessment for learning (formative assessment).

<http://www.sagepub.com/books/Book230814?siteId=sage-us&prodTypes=any&q=Harlen&fs=1>

Johnson, S. (2012)
Assessing learning in the primary classroom.
London: Routledge.

Abstract

Assessing Learning in the Primary Classroom is an accessible introduction to the concepts critical to a professional understanding of this vital aspect of a teacher's role. It comprehensively considers the principles underpinning effective assessment, the different forms it can take and the different purposes it serves, both within and beyond the classroom. Linking the latest research and theory with examples of assessment in the classroom, it considers key issues such as:

- Why and how we assess
- How we ensure quality in assessment: validity and reliability
- Assessment internal and external to the school
- Statutory assessment throughout the primary school

- Local, national and international assessment
- Using assessment results in pupil, teacher, school and system evaluation

Assessing Learning in the Primary Classroom is for all students undertaking their PGCE, those working at masters level, and experienced teachers who wish to broaden their understanding of both the value and pitfalls of educational assessment.

<http://www.routledge.com/books/details/9780415562768/>

Marshall, B. (2011)

Testing English: formative and summative approaches to English assessment.

London: Continuum International Publishing Group.

No abstract available.

<http://www.bloomsbury.com/uk/testing-english-9781441182937/>

Masters, G.N. (2013)

Reforming Educational Assessment: Imperatives, principles and challenges.

Victoria: Australian Council for Educational Research.

Abstract

This review addresses the role of assessment in education. It observes that the field of educational is currently divided and in disarray. Fault lines fragment the field into differing, and often competing philosophies, methods and approaches. At the same time, there are unprecedented external pressures for assessment reform. These pressures include the following: the need for better information to guide and evaluate educational decision-making; advances being made in understandings of human learning; calls for greater emphasis on the development of a broader range of life skills and attributes; and changes in where and how learning takes place, particularly resulting from advances in technology.

This review had its genesis in an ACER research conference in Perth in 2009 on the topic of assessment and student learning. Strong themes emerging from papers presented at the conference include: the growing need for quality assessment information to inform decision-making at all levels of education; the desirability of assessments that explore and provide insights into where students are in their learning; and the importance of ensuring that assessment and reporting processes are consistent with what is known about the conditions that support successful learning. This review builds on, and attempts to extend, that seminal discussion.

http://research.acer.edu.au/aer_covers/13/

Stiggins, R.J. and Chappuis, J. (2011)

An Introduction to Student-Involved Assessment FOR Learning (6th Edition).

Boston: Pearson.

Abstract

Written for pre-service teacher candidates who have little or no classroom experience, Rick Stiggins' multiple award-winning and market-leading text focuses squarely on preparing new teachers to assess students in classrooms, providing them with their initial orientation to classroom assessment and to the challenges they will face in monitoring student learning, in using the assessment process, and its results to benefit their students. The text clearly instructs teaching candidates on how to gather dependable evidence of student learning using quality assessments and how to use those assessments to support and to certify student learning. The book has an exceptionally strong focus on integrating assessment with instruction through student involvement in the assessment process; it is clearly the most non-technical and hands on practical orientation to assessment validity and

reliability yet developed. It offers five easy-to-understand keys to effective classroom assessment practice that any teacher can learn to apply.

The presentation covers the full range of classroom assessment methods, when and how to use them and how to communicate results in ways that support learning. Examples and models are offered across grade levels and schools subjects to assist candidates in learning these things. The treatment of student-involved assessment, record keeping, and communication as an instructional intervention is a unique entity of the text. Specific assessment strategies are offered throughout for helping students see the learning target from the beginning and then watch themselves move progressively close over time until they achieve ultimate learning success. Showing how to use assessment to accurately reflect student achievement and how to benefit—not merely grade—student learning, the text examines the full spectrum of assessment topics, from articulating targets, through developing quality assessments and communicating results effectively.

<http://www.pearsonhighered.com/bookseller/product/Introduction-to-StudentInvolved-Assessment-FOR-Learning-An-6E/9780132563833.page>

Stobart, G. (2008)

Testing times: The uses and abuses of assessment.

London: Routledge.

Abstract

Assessment dominates our lives but its good intentions often produce negative consequences. An example that is central to this book is how current forms of assessment encourage shallow ‘for-the-test’ learning. It is true to say that as the volume of assessment increases, confidence in what it represents is diminishing. This book seeks to reclaim assessment as a constructive activity which can encourage deeper learning. To do this the purpose, and fitness-for-purpose, of assessments have to be clear. Gordon Stobart critically examines five issues that currently have high-profile status:

- intelligence testing
- learning skills
- accountability
- the ‘diploma disease’
- formative assessment

Stobart explains that these form the basis for the argument that we must generate assessments which, in turn, encourage deep and lifelong learning. This book raises controversial questions about current uses of assessment and provides a framework for understanding them. It will be of great interest to teaching professionals involved in further study, and to academics and researchers in the field.

<http://www.routledge.com/books/details/9780415404754/>

Swaffield, S. (ed.)(2008)

Unlocking assessment: Understanding for reflection and application.

London: David Fulton Publishers.

Abstract

Assessment is inextricably linked with learning and teaching, and its profile in British schools has never been higher. Recently the value and importance of formative assessment in supporting learning and teaching has also become widely recognised. Although assessment is a prime concern of anyone involved in education it remains a highly complex field where much controversy and misunderstanding abounds.

This book explores the values, principles, research and theories that underpin our understanding and practice of assessment. It also provides practical suggestions and examples, and addresses some key points about the future development of assessment. The book makes accessible complex but crucial ideas and issues, so that teachers can be more confident and proactive in shaping assessment in their classrooms, in ways that support learning and avoid unintentional harmful consequences.

<http://www.routledge.com/books/details/9780415453134/>

William, D. (2011)

Embedded formative assessment.

Bloomington, IN: Solution Tree Press.

Abstract

If we want our students to thrive in the impossibly complex, unpredictable world of the 21st century, we must concentrate on increasing educational achievement by increasing the quality of the teachers in our schools. In this book Dylan William argues that quality of teachers is the single most important factor in the education system. He outlines the many possible ways in which we could seek to develop the practice of serving teachers and concludes that of these, formative assessment has the biggest impact on student outcomes. He looks at some of the popular initiatives that aim to increase student achievement, such as learning styles, and presents research that shows formative assessment practices have a much greater impact on educational achievement than most other reforms. Formative assessment functions to the extent that evidence about student achievement is elicited, interpreted and used by teachers and learners to make decisions about the next steps in instruction that are likely to be better than the decisions they would have made in the absence of that evidence. The five key strategies of formative assessment that William outlines are: Clarifying, sharing and understanding learning intentions and criteria for success; Engineering effective classroom discussions, activities and learning tasks that elicit evidence of learning; Providing feedback that moves learners forward; Activating learners instructional resources for one another; Activating learners as the owners of their learning. William presents a summary of the research evidence that shows the impact of each of the above strategies, and offers over fifty practical techniques that teachers can use to incorporate the strategies into their classroom practice.

<http://www.solution-tree.com/embedded-formative-assessment.html>

Wilson, M. (ed.) (2004)

Towards Coherence Between Classroom Assessment and Accountability.

University of Chicago Press.

Abstract

In analyses of the role of national educational assessment, insufficient attention has been paid to the central place of the classroom. Rather than encouraging a two-way flow of information, today's "standards-based" frameworks tend to direct the flow of accountability from the outside into the classroom. The authors of this volume emphasize that assessment, as it exists in schools today, consists mainly of the measurements that teachers themselves design, evaluate, and act upon every day. Improving the usefulness of assessment in schools primarily requires assisting and harnessing this flood of assessment information, both as a means of learning within the classroom and as the source of crucial information flowing out of classrooms. This volume aims to encourage debate and reflection among educational researchers, professionals, and policymakers. Five source chapters describe successful classroom assessment models developed in partnership with teachers, while additional commentaries give a range of perspectives on the issues of classroom assessment, standardized testing, and accountability.

<http://press.uchicago.edu/ucp/books/book/distributed/T/bo3642268.html>

Wyatt-Smith, C. and Cumming, J. (eds) (2009)
Educational Assessment in the 21st Century.
Dordrecht: Springer.

Abstract

Even in the white heat of the ever-present education debate, assessment is one of the hottest and most contested topics. While teachers develop practical methodologies such as Assessment for Learning, that aim to bring positive benefits to learners, governments and policy-makers strengthen the role of externally mandated assessment for accountability purposes.

With the field of assessment a key focus for research the world over, the traditional issues of the topic, such as validity and reliability, have been joined by a host of other issues all pressing for attention. These include: the value of testing for international benchmarking and public reporting; taking account of cultural and social diversity; new modes of testing and assessment; technological innovation; the issue of what counts as authentic assessment; and inclusion and disability issues in assessment. As this book makes clear, the challenge for assessment in the 21st century will be to reflect these newly emerging educational priorities. Assessment procedures will be needed that support the next generation in acquiring the skills and values they will need to manage emerging global challenges, skills such as teamwork, problem-solving and the ability to manage one's own learning. The contributors here offer hope, suggesting that after more than a century of modernist-inspired educational assessment practices inimical to the issues of utility, fairness, flexibility and relevance, we may well be standing at the threshold of significant change.

<http://www.springer.com/education+%26+language/book/978-1-4020-9963-2>

3. Journal papers featuring assessment for learning

3.1 Rationale and properties

Bennett, R.E. (2011)

Formative assessment: a critical review.

Assessment in Education, 18(1), 5-25.

Keyterms

formative assessment, assessment for learning.

Abstract

This paper covers six interrelated issues in formative assessment (aka, 'assessment for learning'). The issues concern the definition of formative assessment, the claims commonly made for its effectiveness, the limited attention given to domain considerations in its conceptualisation, the under-representation of measurement principles in that conceptualisation, the teacher-support demands formative assessment entails, and the impact of the larger educational system. The paper concludes that the term, 'formative assessment', does not yet represent a well-defined set of artefacts or practices. Although research suggests that the general practices associated with formative assessment can facilitate learning, existing definitions admit such a wide variety of implementations that effects should be expected to vary widely from one implementation and student population to the next. In addition, the magnitude of commonly made quantitative claims for effectiveness is suspect, deriving from untraceable, flawed, dated, or unpublished sources. To realise maximum benefit from formative assessment, new development should focus on conceptualising well-specified approaches built around process and methodology rooted within specific content domains. Those conceptualisations should incorporate fundamental measurement principles that encourage teachers and students to recognise the inferential nature of assessment. The conceptualisations should also allow for the substantial time and professional support needed if the vast majority of teachers are to become proficient users of formative assessment. Finally, for greatest benefit, formative approaches should be conceptualised as part of a comprehensive system in which all components work together to facilitate learning.

<http://dx.doi.org/10.1080/0969594X.2010.513678>

Black, P. and Wiliam, D. (2009)

Developing the theory of formative assessment.

Educational Assessment, Evaluation and Accountability, 21(1), 5–31.

Keyterms

formative assessment, assessment for learning, dynamic assessment, self-regulation Instruction, pedagogy, cognitive acceleration, dialogue.

Abstract

Whilst many definitions of formative assessment have been offered, there is no clear rationale to define and delimit it within broader theories of pedagogy. This paper aims to offer such a rationale, within a framework which can also unify the diverse set of practices which have been described as formative. The analysis is used to relate formative assessment both to other pedagogic initiatives, notably cognitive acceleration and dynamic assessment, and to some of the existing literature on models of self-regulated learning and on classroom discourse. This framework should indicate potentially fruitful lines for further enquiry, whilst at the same time opening up new ways of helping teachers to implement formative practices more effectively.

<http://link.springer.com/article/10.1007/s11092-008-9068-5>

Brookhart, S.M. (2011)
Educational assessment knowledge and skills for teachers.
Educational Measurement, 30(1), 3–12.

Keyterms

educational assessment, teacher competency, classroom assessment.

Abstract

The 1990 Standards for Teacher Competence in Educational Assessment of Students (AFT, NCME, & NEA, 1990) made a documentable contribution to the field. However, the Standards have become a bit dated, most notably in two ways: (1) the Standards do not consider current conceptions of formative assessment knowledge and skills, and (2) the Standards do not consider teacher knowledge and skills required to successfully work in the current accountability and “standards-based reform” context. This article briefly reviews the 1990 Standards and their influence, describes some other lists of assessment knowledge and skills that might be considered in updating them, and then proposes educational assessment knowledge and skills for teachers that reflect current teacher assessment needs. This set of competencies should help focus the work of teachers, teacher supervisors, professional developers, teacher educators, and others responsible for teachers’ assessment knowledge and skills.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2010.00195.x/abstract>

Cauley, K.M. and McMillan, J.H. (2010)
Formative assessment techniques to support student motivation and achievement.
The Clearing House, 83(1), 1-6.

Keyterms

formative assessment, motivation, feedback.

Abstract

Formative assessment can have a powerful impact on student motivation and achievement. This article discusses five key practices that teachers can use to gather important information about student understanding, provide feedback to students, and enable students to set and attain meaningful learning goals. Each of the techniques can enhance student motivation as well as achievement.

<http://dx.doi.org/10.1080/00098650903267784>

Clark, I. (2010)
Formative Assessment: 'There is nothing so practical as a good theory'.
Australian Journal of Education, 54(3), 341-352.

Abstract

In K–12 education, formative assessment is a pedagogical process gathering momentum among researchers and practitioners. It has become a common theme at educational conferences, a key Organisation for Economic Co-operation and Development (OECD) research theme since 2002 and the subject of increasingly frequent requests for government funding in various nations around the world. A school that implements formative assessment reform is engaged in a dynamic process that links instruction and curriculum with assessment in order to support individual learning in the social setting of the classroom. Formative assessment is described, with the elements and principles that direct the assessment process delineated. The importance of high-quality interactions to formative assessment is considered, as well as an evaluation of the theories that form the basis for the formative assessment process.

<http://aed.sagepub.com/content/54/3/341.abstract>

Coffey, J.E., Hammer, D., Levin, D.M. and Grant, T. (2011)
The missing disciplinary substance of formative assessment.
Journal of Research in Science Teaching, 48(10), 1109–1136.

Keyterms

formative assessment, teaching, science education.

Abstract

We raise concerns about the current state of research and development in formative assessment, specifically to argue that in its concentration on strategies for the teacher, the literature overlooks the disciplinary substance of what teachers and students assess. Our argument requires analysis of specific instances in the literature, and so we have selected four prominent publications for consideration as examples. These, we show, pay little attention to the student reasoning they depict, presume traditional notions of “content” as correct information, and treat assessment as distinct from other activities of learning and teaching, even when they claim the contrary. We then offer an alternative image of formative assessment centered on attention to disciplinary substance, which we illustrate with an example from a high school biology class. Assessment, we contend, should be understood and presented as genuine engagement with ideas, continuous with the disciplinary practices science teaching should be working to cultivate.

<http://onlinelibrary.wiley.com/doi/10.1002/tea.20440/abstract>

Crooks, T. (2011)
Assessment for learning in the accountability era: New Zealand.
Studies in Educational Evaluation, 37(1), 71-77.

Keyterms

Assessment, Learning, Accountability, New Zealand

Abstract

The requirements for valid assessment for learning and assessment of learning are reviewed and then the tensions between these two purposes of assessment are explored, first in general and then within two areas of the New Zealand education system. First, the nature of assessment for learning in primary schools is discussed and how it is, or might be, affected by four accountability pressures associated with assessment of learning. The second area is assessment for qualifications in the final years of secondary education. Here, some of the assessment of learning occurs at local level, within schools, and the remainder occurs at national level. These two assessment pathways create substantially different conditions affecting assessment for learning.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000150>

Crossouard, B. (2009)
A sociocultural reflection on formative assessment and collaborative challenges in the states of Jersey.
Research Papers in Education, 24(1), 77-93.

Keyterms

formative assessment, sociocultural learning theory, Cultural Historical Activity Theory, instructional design, critical thinking skills, assessment for learning.

Abstract

Drawing upon data arising from an evaluation carried out for the Jersey educational authority, this article discusses the interaction of two professional development initiatives, formative assessment and critical skills thinking, bringing the two initiatives together from the perspective of Cultural Historical Activity Theory (CHAT). This allows the illumination of the power relations that are

embedded within assessment practice and in consequence the importance of an instructional design that addresses these elements. After giving an overview of sociocultural learning theories and contextualising the research and the two initiatives in question, the article draws on the data to suggest the overlap between the mediating tool of a 'challenge' and the CHAT concept of an 'activity system'. It discusses the value of constructing a shared, collective focus (or object) for task activity; the authenticity and extended experiential nature of the task; the collaborative division of labour in the execution of the task and its assessment. Drawing upon the evaluation data, it is suggested that formative assessment might focus more strongly on extended task design, with the aim of creating spaces for student agency that is nevertheless in dialogue with curricular requirements. This also entails paying more explicit attention to the social positioning of teachers and learners, as well as amongst learners themselves, and ensuring that power relations are not glossed over in discussions of assessment regimes. In this respect the concept of an activity system seems potentially useful to teachers, not only researchers, in engaging with the complexities of designing classroom activities that support students' critical engagement and participation in different communities of practice.

<http://dx.doi.org/10.1080/13669870801945909>

Dunphy, E. (2010)

Assessing early learning through formative assessment: key issues and considerations.

Irish Educational Studies, 29(1), 41-56.

Keyterms

formative assessment, early childhood and development, professional knowledge, ethics.

Abstract

At all levels of education the assessment of learning is generally regarded as an integral part of teachers' work. For early childhood teachers, i.e., those who work with children in the age-range birth to six years, there are very particular considerations arising from the characteristics of young learners and the nature of early learning. This paper reviews the research on formative assessment of early learning and development. In doing so, it explores important theoretical constructs related to early learning and synthesises research related to key aspects of young children's learning. It discusses the methods that are most useful for developing rich pictures of early learning and development. Some of the challenges inherent in formative assessment in early childhood settings are also outlined and discussed.

<http://dx.doi.org/10.1080/03323310903522685>

Hutchinson, C. and Young, M. (2011)

Assessment for learning in the accountability era: Empirical evidence from Scotland.

Studies in Educational Evaluation, 37(1), 62-70.

Keyterms

assessment for learning, assessment policy, educational evaluation, self-evaluation, intelligent accountability, national monitoring, professional learning, Scotland.

Abstract

In many European languages, the words 'assessment' and 'evaluation' are synonymous, but in English the two terms are used differently. Educational 'assessment' is learner-focused and part of professional pedagogy, relating directly to the accountability of practitioners and schools to learners and their families. Educational 'evaluation' is understood to be a parallel and linked process, relating to the quality of national policy and of provision and practice in establishments, part of accountability to the wider public. In Scotland, assessment policy has been focused on aligning 'assessment for learning' and 'assessment for accountability' for nearly a decade and policy guidance has been based on the principle that formative and summative uses of information can apply as well

to system evaluation as to school-based assessment. Self-evaluation has been increasingly emphasized, promoting better understanding of the role of continuous review in supporting and improving education. In theory, the two processes of assessment and evaluation should align without difficulty as 'intelligent accountability' and together should act as a powerful driver for improved educational outcomes. However, achieving alignment in practice, which requires good professional relationships and mutual trust in different communities of practice, as well as shared understanding and expectations, has proven to be very hard to achieve. This article will show the progress that has been made with alignment; indicate where there have been difficulties and why; and suggest that several important factors need to be acknowledged if alignment is to be achieved.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000204>

Klenowski, V. (2011)

Assessment for learning in the accountability era: Queensland, Australia.

Studies in Educational Evaluation, 37(1), 78–83.

Keyterms

accountability, teacher-based assessment, school-based assessment, standards, judgement and moderation.

Abstract

Developments in school education in Australia over the past decade have witnessed the rise of national efforts to reform curriculum, assessment and reporting. Constitutionally the power to decide on curriculum matters still resides with the States. Higher stakes in assessment, brought about by national testing and international comparative analyses of student achievement data, have challenged State efforts to maintain the emphasis on assessment to promote learning while fulfilling accountability demands. In this article lessons from the Queensland experience indicate that it is important to build teachers' assessment capacity and their assessment literacy for the promotion of student learning. It is argued that teacher assessment can be a source of dependable results through moderation practice. The Queensland Studies Authority has recognised and supported the development of teacher assessment and moderation practice in the context of standards-driven, national reform. Recent research findings explain how the focus on learning can be maintained by avoiding an over-interpretation of test results in terms of innate ability and limitations and by encouraging teachers to adopt more tailored diagnosis of assessment data to address equity through a focus on achievement for all. Such efforts are challenged as political pressures related to the Australian government's implementation of national testing and national partnership funding arrangements tied to the performance of students at or below minimum standards become increasingly apparent.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000162>

Perry, L. (2013)

Review of formative assessment use and training in Africa.

International Journal of School and Educational Psychology, 1, 94-101.

Keyterms

assessment, education, professional development, teaching, training.

Abstract

This literature review examines formative assessment education practices currently being utilized in Africa, as well as recent research regarding professional development on such assessments. Two main conclusions about formative assessment use and training, as well as a set of recommendations about teacher training on formative assessment, can be drawn from this study. First, evidence suggests that a variety of formative assessment techniques are currently being utilized in Africa.

Second, although there is limited evidence regarding the effect of training teachers to utilize formative assessments, all of the available studies suggest that these trainings positively impact instruction. Professional development on this topic should be ongoing and collaborative, focusing on purpose, use, and interpretation of formative assessments while considering the environment in which teachers operate. As countries in Africa and international development agencies seek to improve educational quality while expanding educational access, efforts to train teachers to utilize formative assessments in the classroom should be considered as a means of improvement.

Pryor, J. and Crossouard, B. (2008)
A socio-cultural theorisation of formative assessment.
Oxford Review of Education, 34(1), 1-20.

Keyterms not provided

Abstract

Formative assessment has attracted increasing attention from both practitioners and scholars over the last decade. This paper draws on the authors' empirical research conducted over eleven years in educational situations ranging from infant schools to postgraduate education to propose a theorisation of formative assessment. Formative assessment is seen as taking place when teachers and learners seek to respond to student work, making judgements about what is good learning with a view to improving that learning. However, the theorisation emphasises formative assessment as being a discursive social practice, involving dialectical, sometimes conflictual, processes. These bring into play issues of power in which learners' and teachers' identities are implicated and what counts as legitimate knowledge is framed by institutional discourses and summative assessment demands. The paper argues that, rather than only paying attention to the content of learning, an ambition for formative assessment might be to deconstruct these contextual issues, allowing a critical consideration of learning as a wider process of becoming. The article suggests a model that might be useful to teachers and learners in achieving this.

<http://dx.doi.org/10.1080/03054980701476386>

Ruiz-Primo, M.A. (2011)
Informal formative assessment: The role of instructional dialogues in assessing students' learning.
Studies in Educational Evaluation, 37(1), 15–24.

Keyterms

Informal formative assessment, assessment conversations, instructional dialogues.

Abstract

This paper focuses on an unceremonious type of formative assessment – informal formative assessment in which much of what teachers and students do in the classroom can be described as potential assessments that can provide evidence about the students' level of understanding. More specifically, the paper focuses on assessment conversations, or dialogic interactions or exchanges, which continuously happen in the classroom and that are at the center of informal formative assessment. It is argued that assessment conversations make students' thinking explicit in an unobtrusive manner, and when students' thinking is explicit, it can be examined, questioned, and shaped as an active object of constructive learning. The paper conceptualizes informal formative assessment at the center of effective instructional activities with the use of instructional dialogues as assessment conversations, a typical informal formative assessment practice. The paper then presents a discussion about the evidence on the effect of assessment conversations on student learning.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000253>

Shepard, L.A. (2009)

Commentary: Evaluating the validity of formative and interim assessment.

Educational Measurement, 28(3), 32–37.

Keyterms

formative assessment, interim assessment, validity.

Abstract

In many school districts, the pressure to raise test scores has created overnight celebrity status for formative assessment. Its powers to raise student achievement have been touted, however, without attending to the research on which these claims were based. Sociocultural learning theory provides theoretical grounding for understanding how formative assessment works to increase student learning. The articles in this special issue bring us back to underlying first principles by offering separate validity frameworks for evaluating formative assessment (Nichols, Meyers, & Burling) and newly-invented interim assessments (Perie, Marion, & Gong). The article by Heritage, Kim, Vendlinski, and Herman then offers the most important insight of all; that is, formative assessment is of little use if teachers don't know what to do when students are unable to grasp an important concept. While it is true that validity investigations are needed, I argue that the validity research that will tell us the most—about how formative assessment can be used to improve student learning—must be embedded in rich curriculum and must at the same time attempt to foster instructional practices consistent with learning research.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2009.00152.x/abstract>

Shute, V.J. (2008)

Focus on formative feedback.

Review of Educational Research, 78(1), 153-189.

Keyterms

formative feedback, learning, performance.

Abstract

This article reviews the corpus of research on feedback, with a focus on formative feedback—defined as information communicated to the learner that is intended to modify his or her thinking or behavior to improve learning. According to researchers, formative feedback should be nonevaluative, supportive, timely, and specific. Formative feedback is usually presented as information to a learner in response to some action on the learner's part. It comes in a variety of types (e.g., verification of response accuracy, explanation of the correct answer, hints, worked examples) and can be administered at various times during the learning process (e.g., immediately following an answer, after some time has elapsed). Finally, several variables have been shown to interact with formative feedback's success at promoting learning (e.g. individual characteristics of the learner and aspects of the task). All of these issues are discussed. This review concludes with guidelines for generating formative feedback.

<http://rer.sagepub.com/content/78/1/153>

Swaffield, S. (2011)

Getting to the heart of authentic Assessment for Learning.

Assessment in Education, 18(4), 433-449.

Keyterms

authentic assessment for learning, assessment for learning, formative assessment, assessment for learning strategy.

Abstract

Assessment for Learning (AfL) has gained increasing international prominence in both policy and practice but some of its proliferation, notably the national strategy in England, has been accompanied by distortion of essential features. This paper presents an understanding of authentic (in the sense of genuine) AfL informed by literature and particularly by two major research projects. Assessment for learning is characterised by information being used to inform learning and teaching, its focus on learning conceived broadly, and actively engaged progressively more autonomous students. It is distinctive in its timescale, protagonists, beneficiaries, the role of students, the relationship between student and teacher, and the centrality of learning to the process – all of which can but may not necessarily be features of formative assessment. An examination of the document setting out the National Assessment for Learning Strategy in England reveals the ways that it is at odds with authentic assessment for learning.

<http://dx.doi.org/10.1080/0969594X.2011.582838>

William, D. (2011)

What is assessment for learning?

Studies in Educational Evaluation, 37(1), 3–14.

Keyterms

formative assessment, assessment for learning, feedback.

Abstract

The idea that assessment is intrinsic to effective instruction is traced from early experiments in the individualization of learning through the work of Benjamin Bloom to reviews of the impact of feedback on learners in classrooms. While many of these reviews detailed the adverse impact of assessment on learning, they also indicated that under certain conditions assessment had considerable potential to enhance learning. It is shown that understanding the impact that assessment has on learning requires a broader focus than the feedback intervention itself, particularly the learner's responses to the feedback, and the learning milieu in which the feedback operates. Different definitions of the terms "formative assessment" and "assessment for learning" are discussed, and subsumed within a broad definition that focuses on the extent to which instructional decisions are supported by evidence. The paper concludes by exploring some of the consequences of this definition for classroom practice.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000149>

3.2 Formative assessment applications

Andrade, H.L., Du, Y. and Mycek, K. (2010)

Rubric-referenced self-assessment and middle school students' writing.

Assessment in Education, 17(2), 199-214.

Abstract

This study investigated the relationship between middle school students' scores for a written assignment (N = 162) and a process that involved students in generating criteria and self-assessing with a rubric. Gender, time spent writing, grade level, prior rubric use, and previous achievement in English were also examined. The treatment involved using a model essay to scaffold the process of generating a list of criteria for an effective essay, reviewing a written rubric, and using the rubric to self-assess first drafts. The comparison condition involved generating a list of criteria and reviewing first drafts. Findings include a main effect of treatment, gender, grade level, writing time, and previous achievement on total essay scores, as well as main effects on scores for every criterion on the scoring rubric. The results suggested that reading a model, generating criteria, and using a rubric to self-assess can help middle school students produce more effective writing.

<http://dx.doi.org/10.1080/09695941003696172>

Andrade, H.L., Du, Y. and Wang, X. (2008)

Putting rubrics to the test: The effect of a model, criteria generation, and rubric-referenced self-assessment on elementary school students' writing.

Educational Measurement, 27(2), 3-13.

Keyterms

self-assessment, rubric, formative assessment, writing.

Abstract

The purpose of this study was to investigate the effect of reading a model written assignment, generating a list of criteria for the assignment, and self-assessing according to a rubric, as well as gender, time spent writing, prior rubric use, and previous achievement on elementary school students' scores for a written assignment (N = 116). Participants were in grades 3 and 4. The treatment involved using a model paper to scaffold the process of generating a list of criteria for an effective story or essay, receiving a written rubric, and using the rubric to self-assess first drafts. The comparison condition involved generating a list of criteria for an effective story or essay, and reviewing first drafts. Findings include a main effect of treatment and of previous achievement on total writing scores, as well as main effects on scores for the individual criteria on the rubric. The results suggest that using a model to generate criteria for an assignment and using a rubric for self-assessment can help elementary school students produce more effective writing.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2008.00118.x/abstract>

Berry, R. (2011)

Assessment trends in Hong Kong: seeking to establish formative assessment in an examination culture.

Assessment in Education, 18(2), 199-211.

Keyterms

assessment reform, assessment for learning, policy, culture, education systems.

Abstract

Hong Kong is traditionally an examination-oriented culture, a legacy of its Confucian heritage. Since the 1990s, the Hong Kong government has shown its determination to make a change to this deep-rooted examination-oriented culture with assessment for learning highlighted as an important aspect

in the reform agenda. Although many initiatives have been put in place, the government has not seen many changes in the assessment practices in schools. This paper discusses the difficulties faced when seeking to establish formative assessment in an examination culture.

<http://dx.doi.org/10.1080/0969594X.2010.527701>

Blanchard, J. (2008)

Learning awareness: constructing formative assessment in the classroom, in the school and across schools.

Curriculum Journal, 19(3), 137-150.

Keyterms

assessment, awareness, community, decision-making, development, voice.

Abstract

This article gives details of the Portsmouth Learning Community Assessment for Learning (AfL) project from 2002 to 2007. A context of research is given and a reframing of formative assessment suggested. Qualitative, positive effects are indicated resulting from teachers' collaborative action research and learners' involvement in classroom experimentation and curriculum design. Classroom and institutional cultures are characterised as more or less open to decision-making by learners and stakeholders. A heuristic, hermeneutic framework is presented, outlining what teachers and learners, as well as stakeholders, managers and leaders, can make explicit for any phase of activity. Conditions thought essential to sustainable development are noted.

<http://dx.doi.org/10.1080/09585170802357454>

Bolden, D.S. and Newton, L.D. (2008)

Primary teachers' epistemological beliefs: some perceived barriers to investigative teaching in primary mathematics.

Educational Studies, 34(5), 419-432.

Keyterms

teacher epistemologies, epistemological beliefs, mathematics, barriers to effective teaching, investigative approach, primary mathematics.

Abstract

A recent investigation of primary teachers' epistemological beliefs concerning the teaching and learning of mathematics discovered that teachers' beliefs cannot be said to form neat world views. Teachers' hybrid world views often included epistemological beliefs that supported teaching approaches which evidence suggests leads to greater conceptual understanding of mathematics. Classroom observations and semi-structured interviews with primary teachers suggested that although there is a desire to adopt an investigative approach, this is perceived to be largely incompatible with some of the requirements of the UK National Curriculum. Common potential barriers identified by teachers included: the volume of curriculum content they are required to cover, the limited time available to cover it, some working practices perceived to be associated with the current emphasis on teacher accountability and the current method of assessment by Standard Assessment Task tests (SATs). The findings are discussed in relation to challenges facing UK policy-makers if an approach to teaching primary mathematics, which is known to support conceptual understanding, is to flourish.

<http://dx.doi.org/10.1080/03055690802287595>

Briggs, D.C., Ruiz-Primo, M.A., Furtak, E., Shepard, L. and Yin, Y. (2012)
Meta-analytic methodology and inferences about the efficacy of formative assessment.
Educational Measurement, 32(4), 13–17.

Keyterms

formative assessment, meta-analysis, causal inference.

Abstract

In a recent article published in EM:IP, Kingston and Nash report on the results of a meta-analysis on the efficacy of formative assessment. They conclude that the average effect of formative assessment on student achievement is about .20 SD units. This would seem to dispel the myth that effects between .40 and .70 can be attributed to formative assessment. They also find that there is considerable variability in effect sizes across studies, and that only the content area in which the treatment is situated explains a significant proportion of study variability. However, there are issues in the meta-analytic methodology employed by the authors that make their findings somewhat equivocal. This commentary focuses on four methodological concerns about the Kingston and Nash meta-analysis: (1) the approach taken to select studies for inclusion, (2) the application of study inclusion criteria, (3) the extent to which the effect sizes being combined are biased, and (4) the relationship between effect size magnitude and characteristics of outcome measures. After examining these issues in the context of the Kingston and Nash review, it appears that considerable uncertainty remains about the effect that formative assessment practices have on student achievement.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2012.00251.x/abstract>

Brookhart, S.M., Moss, C.M. and Long, B.A (2010)
Teacher inquiry into formative assessment practices in remedial reading classrooms.
Assessment in Education, 17(1), 41-58.

Abstract

Six remedial reading teachers in a large, rural school district participated in a form of professional development called Teaching as Intentional Learning, based on an inquiry process. Their topic of inquiry was formative assessment. Professional development comprised both direct instruction and inquiry learning in teachers' own classrooms. This study describes the strategies they experimented with, their professional growth in formative assessment, and effects on students. All six teachers showed important professional growth, as indicated by their own reflections and also by their supervisor's observations. In First Grade, at-risk students assigned to these project teachers had increased reading readiness scores on one measure (DIBELS PSF) compared with at-risk students assigned to nonproject teachers.

<http://dx.doi.org/10.1080/09695940903565545>

Cowie, B., Jones, A. and Otrell-Cass, K. (2011).
Re-engaging students in science: Issues of assessment, funds of knowledge and sites for learning.
International Journal of Science and Mathematics Education, 9(2), 347-366.

Keyterms

assessment for learning, funds of knowledge, identity, student engagement.

Abstract

International assessment data paints a complex picture of the engagement and achievement of New Zealand students in science. New Zealand was second only to Finland in the top achievers group in PISA 2006, but it also has one of the widest spreads in student achievement, particularly in relation to Māori and Pasifika students. Thus, the challenges faced by New Zealand students, teachers, schools and policy makers resonate with those from elsewhere. New Zealand has a strong research

and development tradition around student ideas in science education, but recently, there has been increased recognition at the policy and practice level of the importance of both engagement and participation linked to student identity. A sociocultural orientation to identity has the potential to generate new ways of thinking about and responding to the challenge of engaging students in science. This orientation involves considering classrooms as sites for students working through the development and performance of science-related identities, or not. In this paper, three suggestions from long-term research studies are made for ways forward in addressing the challenge of increasing student engagement and participation through an expansion of the possibilities for students to express and develop science-related identities. These are reconceptualising assessment, the inclusion of student funds of knowledge and strategies for breaching the classroom walls.

<http://link.springer.com/article/10.1007/s10763-010-9229-0>

Crossouard, B. (2011)

Using formative assessment to support complex learning in conditions of social adversity.
Assessment in Education, 18(1), 59-72.

Keyterms

formative assessment, classroom assessment, assessment criteria, assessment power relations, curriculum development.

Abstract

This article reports on research into formative assessment within a task design that produces multiple opportunities for teacher and pupil dialogue. It draws upon indepth case studies conducted in schools in socially deprived areas of Scotland, using policy and documentary analysis, video-observation, and an iterative series of interviews with pupils and teachers. The research confirmed the power of this task design, and teachers' skilfulness in deploying it, but raises questions about the understandings of assessment that supported teachers' criteria development, and the ways criteria were brought into classroom dialogue. A large disjuncture is identified between assessing the complexities of these tasks and the assessment vocabularies inherited by teachers. Relational understandings of teaching, learning and assessment that better address teacher 'positionality' are suggested as useful for supporting a standards-based approach to assessment, as well as for addressing issues of social equity.

<http://dx.doi.org/10.1080/0969594X.2011.536034>

Davis, D.S. and Neitzel, C. (2011)

A self-regulated learning perspective on middle grades classroom assessment.
The Journal of Educational Research, 104(3), 202-215.

Keyterms

classroom assessment, middle grades, self-regulated learning.

Abstract

The authors used self-regulated learning (SRL) as a lens for examining teachers' conceptions of assessment and their classroom assessment practices. Fifteen upper-elementary and middle school teachers participated in semistructured interviews designed to uncover their beliefs about the forms and functions of classroom assessment. Observational data were collected in the teachers' classrooms. The findings show that while teachers have complex understandings of classroom assessment, their assessment environments are not optimal for supporting students' development of SRL habits. Teachers tend to see themselves as the initiators and controllers of assessment opportunities, prioritize attainment of content information, and value written assessment products over practices that generate intangible data. The authors describe these trends as consequences of the competing audiences teachers have to satisfy with their assessment practices.

<http://dx.doi.org/10.1080/00220671003690148>

Desoete, A. (2009)

Metacognitive prediction and evaluation skills and mathematical learning in third-grade students.
Educational Research and Evaluation, 15(5), 435-446.

Keyterms

metacognition, mathematics, computerized assessment, EPA2000, training, primary school children.

Abstract

In a 2-year longitudinal study, 66 children were assessed in Grades 3 and 4 with a within-method-and-time design on metacognition (including the computerized Evaluation and Prediction Assessment [EPA2000]) and mathematics. Moreover, half of the children were trained in Grade 3 in the metacognitive skill of predicting their abilities in solving mathematics tasks. All children completed mathematics tests before and after the training took place. Results showed that there was progress in metacognition and in mathematics skills. Moreover, children in the metacognitive group did better than the children in the control group. Conclusions are drawn on the relationship between metacognition and mathematics abilities.

<http://dx.doi.org/10.1080/13803610903444485>

Dixon, H.R., Hawe, E. and Parr, J. (2011)

Enacting Assessment for Learning: the beliefs practice nexus.
Assessment in Education, 18(4), 365-379.

Keyterms

assessment for learning, peer assessment, teacher beliefs.

Abstract

Engagement in self and peer assessment are authentic ways in which students can develop evaluative and productive knowledge and expertise, necessary prerequisites if they are to become autonomous learners. Teachers in the current study who had articulated similar beliefs in regard to the importance of developing student autonomy and who had described similar practices to develop selfmonitoring behaviour were observed teaching a written language unit. However, the ways these practices 'played out' in the classroom was a matter of considerable variation in regard to the nature of the judgements made, the degree of student involvement in evaluative and productive activities, and the amount of control maintained by the teacher. Two particular cases are used to draw attention to teachers' espoused beliefs and their congruence with practice. Given the powerful role that beliefs play in the enactment of specific assessment for learning practices, recommendations for teacher professional development are made.

<http://dx.doi.org/10.1080/0969594X.2010.526587>

Gerard, L.F., Spitulnik, M. and Linn, M.C. (2010)

Teacher use of evidence to customize inquiry science instruction.
Journal of Research in Science Teaching, 47(9), 1037-1063.

Keyterms

science teaching, inquiry, technology, professional development, curriculum, student learning.

Abstract

This study investigated how professional development featuring evidence-based customization of technology-enhanced curriculum projects can improve inquiry science teaching and student

knowledge integration in earth science. Participants included three middle school sixth-grade teachers and their classes of students (N=787) for three consecutive years. Teachers used evidence from their student work to revise the curriculum projects and rethink their teaching strategies. Data were collected through teacher interviews, written reflections, classroom observations, curriculum artifacts, and student assessments. Results suggest that the detailed information about the learning activities of students provided by the assessments embedded in the online curriculum motivated curricular and pedagogical customizations that resulted in both teacher and student learning. Customizations initiated by teachers included revisions of embedded questions, additions of hands-on investigations, and modifications of teaching strategies. Student performance improved across the three cohorts of students with each year of instructional customization. Coupling evidence from student work with revisions of curriculum and instruction has promise for strengthening professional development and improving science learning.

<http://onlinelibrary.wiley.com/doi/10.1002/tea.20367/abstract>

Heritage, M., Kim, J., Vendlinski, T. and Herman, J. (2009)
From evidence to action: A seamless process in formative assessment?
Educational Measurement, 28(3), 24–31.

Keyterms

formative assessment, teacher knowledge.

Abstract

Based on the results of a generalizability study of measures of teacher knowledge for teaching mathematics developed at the National Center for Research on Evaluation, Standards, and Student Testing at the University of California, Los Angeles, this article provides evidence that teachers are better at drawing reasonable inferences about student levels of understanding from assessment information than they are at deciding the next instructional steps. We discuss the implications of the results for effective formative assessment and end with considerations of how teachers can be supported to know what to teach next.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2009.00151.x/abstract>

Hermansen, H. and Nerland, M. (2013)
Reworking practice through an AfL project: an analysis of teachers' collaborative engagement with new assessment guidelines.
British Educational Research Journal, DOI: 10.1002/berj.3037

Abstract

In recent years, the concept of Assessment for Learning (AfL) has travelled across countries, giving rise to a range of educational policy initiatives and school development projects. While researchers have focused on issues such as how formative assessment can support student learning and lead to more efficient classroom practices, less attention has been paid to the collaborative work required to develop shared assessment practices at the school level, and to the integration of AfL-related principles and tools in the collective practice. This paper focuses on the challenges emerging for a teacher team engaging with an AfL project in a lower secondary school in Norway. By employing concepts and perspectives from social practice theory, AfL is understood as a problem complex that needs to be explored and developed locally. We have analysed data from seven video-recorded meetings of an AfL team, supplemented by interviews and field notes, in order to make visible the micro processes of teachers' collaborative work. The analysis shows how the teachers needed to rework historically established practices and principles, which in turn called for a negotiation and re-contextualisation of new concepts and artefacts in their efforts to develop shared assessment practices. This again required ways of representing existing practices and imagining future scenarios. Based on these observations we recommend that AfL projects be understood in their wider

curricular, institutional, and social contexts, and that the constructive dimensions of teachers' collaborative work in such projects should be acknowledged.

<http://onlinelibrary.wiley.com/doi/10.1002/berj.3037/abstract>

Kasanen, K., Rätty, H. and Eklund, A-L. (2009)

Elementary school pupils' evaluations of the malleability of their academic abilities.

Educational Research, 51(1), 27-38.

Keyterms

conceptions of academic abilities, malleability of abilities, elementary school pupils.

Abstract

Purpose: This study set out to investigate pupils' evaluations of their academic abilities in different school subjects and their ratings of their potential for improving their performance in those school subjects.

Sample: Twenty-eight pupils from the third grade (approximately age nine) and 30 pupils from the sixth grade (approximately age 12) in a primary school in Finland were interviewed.

Design and method: The interview included tasks where the pupils were asked to rate and explain their potential for improvement in mathematics, the foreign language and the mother tongue. The explanations given were content-analysed and coding categories were formulated on that basis.

Results: In all the three school subjects, the third-graders had a more positive view of their ability and its potential for improvement than the sixth-graders, and they based their view on a perspective of development and learning new things. The sixth-graders were more moderate and more uncertain in assessing their future performance.

Conclusions: This study provided support to the earlier findings to the effect that pupils' faith in their abilities decreases in the course of their school years. We seek to explain this phenomenon in terms of the early stabilisation of the pupils' school performance, which is conveyed and constructed in the school's evaluative practices, especially in normative assessment. These practices clearly convey a differential conception of ability, which the pupils adopt as part of their selfassessments as shown e.g. by their use of school-like explanations in assessing their performance.

<http://dx.doi.org/10.1080/00131880802704699>

Kingston, N. and Nash, B. (2011)

Formative assessment: A meta-analysis and a call for research.

Educational Measurement, 30(4), 28–37.

Keyterms

formative assessment, meta-analysis.

Abstract

An effect size of about .70 (or .40–.70) is often claimed for the efficacy of formative assessment, but is not supported by the existing research base. More than 300 studies that appeared to address the efficacy of formative assessment in grades K-12 were reviewed. Many of the studies had severely flawed research designs yielding uninterpretable results. Only 13 of the studies provided sufficient information to calculate relevant effect sizes. A total of 42 independent effect sizes were available. The median observed effect size was .25. Using a random effects model, a weighted mean effect size of .20 was calculated. Moderator analyses suggested that formative assessment might be more effective in English language arts (ELA) than in mathematics or science, with estimated effect sizes of .32, .17, and .09, respectively. Two types of implementation of formative assessment, one based on professional development and the other on the use of computer-based formative systems, appeared to be more effective than other approaches, yielding mean effect size of .30 and .28, respectively.

Given the wide use and potential efficacy of good formative assessment practices, the paucity of the current research base is problematic. A call for more high-quality studies is issued.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.2011.00220.x/abstract>

Loughland, T. and Kilpatrick, L. (2013)

Formative assessment in primary science.

Education 3-13, DOI: 10.1080/03004279.2013.767850

Keyterms

primary science, formative assessment, action learning.

Abstract

This action learning study in a year three classroom explored the implementation of five formative assessment principles to assist students' understandings of the scientific topic of liquids and solids. These principles were employed to give students a greater opportunity to express their understanding of the concepts. The study found that the principles of formal assessment worked well in concert with the pedagogical framework of the interactive teaching model.

<http://dx.doi.org/10.1080/03004279.2013.767850>

Lysaght, Z. and O'Leary, M. (2013)

An instrument to audit teachers' use of assessment for learning.

Irish Educational Studies, 32(2), 217-232.

Keyterms

assessment for learning, formative assessment, audit instrument, teacher professional development, assessment audit instruments.

Abstract

This paper traces the design, development and trialling of an assessment for learning audit instrument (AfLAI) in use currently in the Republic of Ireland to gauge teachers' baseline understanding of assessment for learning (AfL) practices and the extent to which AfL is embedded in their teaching. As described in the paper, the AfLAI consists of 58 items distributed across four scales based on the following key AfL strategies: sharing learning intentions and success criteria, questioning and classroom discussion, feedback and peer- and self-assessment. Preliminary data from the study provide a window into current formative assessment practices in Irish primary schools and teachers' professional needs in AfL.

<http://dx.doi.org/10.1080/03323315.2013.784636>

Militello, M., Schweid, J. and Sireci, S.G (2010)

Formative assessment systems: evaluating the fit between school districts' needs and assessment systems' characteristics.

Educational Assessment, Evaluation and Accountability, 22(1), 29–52.

Keyterms

formative assessment, case study, assessment system characteristics, assessment use.

Abstract

Recent legislative and local school accountability efforts have placed a premium on the collection, analysis, and use of student assessment data for educational improvement. As a result, schools have sought assessments that will provide additional information about student performance. In response, a burgeoning boon industry formed—formative educational assessment systems. In this

study we describe how districts search for and acquire formative assessment systems to meet their needs. We focus on three school districts that adopted three different formative assessment systems. Our findings suggest the fit between a system's characteristics and a school district's intended use is the most important consideration in instituting a successful formative assessment system that will have a positive impact on teacher education and student learning.

<http://link.springer.com/article/10.1007/s11092-010-9090-2>

Nsibandé, R.N. and Modiba, M.M. (2012)

'I just do as expected'. Teachers' implementation of Continuous Assessment and challenges to curriculum literacy.

Research Papers in Education, 27(5), 629-645.

Keyterms

curriculum literacy, continuous assessment, social studies education, Swaziland.

Abstract

This paper reports on a study that clarifies the nature and scope of the challenges experienced by primary school teachers in Swaziland when using Continuous Assessment (CA) as a tool to improve teaching and learning. Through the use of classroom observations and stimulated recall interviews, we sought to understand the significance of the choices they made to meet the requirements of the prescribed lesson objectives. Their accounts of the assessment exercises they used reflect their understanding of the content they had to teach, the discipline from which it was drawn and intentions of the CA programme. In conclusion, we provide cues that may be useful to further these teachers' curriculum literacy.

<http://dx.doi.org/10.1080/02671522.2011.560961>

Parr, J.M. and Timperley, H.S (2008)

Teachers, schools and using evidence: Considerations of preparedness.

Assessment in Education, 15(1), 57-71.

Abstract

Despite assessment being viewed as integral to practice, there are questions about schools' preparedness to engage in this process. Data from three studies conducted in New Zealand primary schools explore whether use of student achievement data is part of the professional canon or skill set. (1) When implementing new literacy materials, evidence of need did not necessarily inform choice nor was achievement data used to make decisions about effectiveness of materials or use. (2) When a classroom initiative designed to achieve literacy goals was implemented, few schools collected evidence adequate for its evaluation. In both cases, practitioners appeared to hold a theory about acceptable evidence at variance with current policy expectations. Further, they may have lacked necessary skills. (3) Teachers, with practice, learned to interpret data accurately but this skill did not relate to student progress. A high level of pedagogical content knowledge may be needed to relate achievement information to teaching practice.

<http://dx.doi.org/10.1080/09695940701876151>

Riggan, M. and Olh, L.N. (2011)

Locating interim assessments within teachers' assessment practice.

Educational Assessment, 16(1), 1-14.

Abstract

Promising research on the teaching and learning impact of classroom-embedded formative assessment has spawned interest in a broader array of assessment tools and practices, including

interim assessment. Although researchers have begun to explore the impact of interim assessments in the classroom, like other assessment tools and practices, they have been studied largely in isolation. Drawing on interview and classroom observation data for 32 teachers in two school districts, this article examines how teachers collect, interpret, and act on three types of assessment information: “short cycle” practices embedded within the flow of instruction, teacher developed tools such as quizzes and homework assignments, and interim assessments. The article then describes the ways in which these types of assessment intersect within classroom practice and the degree to which teacher use of assessment tools or practices varies by type.

<http://dx.doi.org/10.1080/10627197.2011.551085>

Sach, E. (2013)

An exploration of teachers' narratives: what are the facilitators and constraints which promote or inhibit 'good' formative assessment practices in schools?

Education 3-13, DOI: 10.1080/03004279.2013.813956.

Keyterms

teachers, perceptions, formative assessment, facilitators, constraints, pedagogy.

Abstract

This paper set out to explore teachers' narratives in order to understand some of the facilitators and constraints which promote or inhibit good formative assessment practices in schools. A 'responsive interview' approach was used to probe a small sample of lower and middle school teachers' perceptions of formative assessment. Qualitative thematic analysis of data identified four key themes which had important implications for pedagogical practice. These were: prescription and ownership; accountability; school context, culture and collaboration; and leadership and management. Evidence from this study suggests that, while teachers may recognise the value of formative assessment in promoting learning, conflicts and tensions between government policies and school practices may inhibit its effectiveness.

<http://dx.doi.org/10.1080/03004279.2013.813956>

Sainsbury, M. and Benton, T. (2011)

Designing a formative e-assessment: Latent class analysis of early reading skills.

British Journal of Educational Technology, 42(3), 500–514.

Abstract

Computer-based testing, or e-assessment, has the potential to deliver immediate results for the benefit of schools. This paper describes a project that aimed to exploit this potential by designing e-assessments where the results were intended for use by teachers in planning the next steps in teaching and learning: low-stakes, formative assessment. A pair of tests assessing early reading was developed, with the test items based on a range of distinct skills, including phonological segmentation, rhyming and word recognition. The tests were administered on a screen with the questions presented aurally and visually. In trials, a total of 1345 test results were obtained from pupils aged 5–7 years from 26 schools. Latent class analysis was used to identify patterns of performance within the data. Four latent classes were distinguished, each characterised by a pattern of responses related to the different test items. The strengths and weaknesses in early reading skills implied by each of these latent classes were described in terms of formative 'profiles' provided for teachers in an online reporting package together with indicators for the next steps in teaching. The research resulted in an automated marking and analysis system that can be genuinely formative.

<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8535.2009.01044.x/abstract>

Smith, K. (2011)

Professional development of teachers—A prerequisite for AfL to be successfully implemented in the classroom.

Studies in Educational Evaluation, 37(1), 55–61.

Keyterms

assessment for learning, professional learning, development, assessment competence.

Abstract

A prerequisite for AfL to be successfully implemented in the classroom is the teachers' assessment practice. In many contexts, including the Norwegian, AfL has not been successfully dealt with during initial teacher education, and there is a need for qualified teachers to engage in professional development in AfL. This article first discusses different perspectives of professional development, not all of which lead to change of attitudes and beliefs resulting in changed practice. Difficulties in implementing AfL beyond the individual teacher and reach the full teaching staff is presented through experiences from a Norwegian research and development project. The next project to be briefly discussed focuses on engaging teachers in developing their own criteria for good classroom assessment. Finally the paper proposes that a major obstacle to teachers' professional development in AfL is the competence of teacher educators in AfL. Do those who are to guide and support professional development in schools hold the essential knowledge and competence themselves? The conclusive argument is that for AfL to be common assessment practice in schools there is a need for development processes at various levels of the education system.

<http://www.sciencedirect.com/science/article/pii/S0191491X11000186>

So, W.W.M. and Lee, T.T.H. (2011)

Influence of teachers' perceptions of teaching and learning on the implementation of Assessment for Learning.

Assessment in Education, 18(4), 417-432.

Keyterms

teacher beliefs, inquiry study, assessment for learning, rubrics.

Abstract

Assessment for learning is a worldwide initiative. With the aim of learning about the influence of teachers' attitudes and perceptions of assessment for learning on daily teaching practices, this study investigated the implementation of assessment for learning using rubrics as a tool for inquiry study. Nineteen secondary school teachers using rubrics were interviewed. The findings show that a narrow perspective of rubrics as a tool for current teaching practice limits teachers' creativity in extending the possibilities of assessment for learning to improve the teaching and learning of inquiry study. The paper draws attention to the influence of teachers' prior perceptions, and provides suggestions for expanding teachers' perspectives of assessment for learning and utilising rubrics as an integral element of the teaching and learning of inquiry study.

<http://dx.doi.org/10.1080/0969594X.2011.577409>

Supovitz, J. (2012)

Getting at student understanding - the key to teachers' use of test data.

Teachers College Record, 114(11), 1-29.

Abstract:

Background/Context: Much has been written about the efficacy of formative assessment. However, relatively little of that research focuses on the design qualities of the assessment instruments themselves that might provide useful information to teachers.

Purpose/Objective/Research Question/Focus of Study: This article decomposes the formative assessment process and reviews the empirical literature on the feedback from an assessment event to the teacher to investigate two research questions. First, what are the design elements of assessments that can enhance their embedded information to help teachers understand how students are thinking about a particular content area? Second, what do teachers need to know to be able to take advantage of more sophisticated assessment designs?

ResearchDesign: The article reviews the literature on test design qualities, focusing on empirical studies that have examined how the qualities of tests inform teachers about student understanding. Overall, 117 articles were synthesized to extract three qualities of test design that enable or constrain their potential to provide insight to teachers about student thinking.

Findings/Results: The literature review identified three crucial test qualities that improve their potential value to teachers. First, tests can convey information about students' developmental path toward a learning goal. Second, tests can provide information about students' thought processes. Third, tests can be designed to reveal information about students' misconceptions within a content area.

Conclusions/Recommendations: The article concludes with a conceptual framework to guide future research on ways to maximize the potential feedback that teachers can receive from assessments. The framework, and hence suggestions for future research, focuses on conducting research on the hypothesized relationships between the qualities of a test itself, the analyses that teachers conduct from the resulting data of student answers, teachers' instructional responses, and the effect of this process on student learning.

<http://www.tcrecord.org/library/content.asp?contentid=16804>

Thomas, T., Deaudelin, C., Desjardins, J. and Dezutter, O. (2011)
Elementary teachers' formative evaluation practices in an era of curricular reform in Quebec, Canada.
Assessment in Education, 18(4), 381-398.

Keyterms

formative evaluation, teacher practices, elementary school.

Abstract

This study examines the formative evaluation practices of 13 experienced elementary school teachers in Quebec, Canada at the level of teacher–student interaction. The qualitative study is based on both semi-structured and stimulated recall interviews as well as videotapes of classroom activities. The participating teachers were found to be using formative evaluation in a spontaneous, informal way and focussing more often on the product rather than the learning process, although differences were seen between approaches used by teachers of grade one students as opposed to approaches used by teachers of older elementary students. The study demonstrates a link between teacher conceptions and their evaluation practices, and raises questions about how experienced teachers interpret and integrate formative evaluation in their classroom routines.

<http://dx.doi.org/10.1080/0969594X.2011.590793>

Timperley, H.S. and Parr, J.M. (2009)
What is this lesson about? Instructional processes and student understandings in writing classrooms.
Curriculum Journal, 20(1), 43-60.

Keyterms

formative assessment, self-regulated learning, student learning, writing instruction.

Abstract

This article examines the extent to which classroom instruction conveyed challenging learning goals in writing through a range of teaching activities and how well the participating students understood those goals. We report an empirical study that examined the quality of writing instructional goals, how well they were conveyed to students through lesson activities and how the students came to understand them. Two different but converging theoretical perspectives of self-regulated learning and formative assessment were used as an analytical framework. Teachers' instructional practices during writing lessons were audiotaped in 17 different classrooms and a sample of students subsequently interviewed to assess their understanding of the dimensions of interest. The conditions monitored included the extent to which the lesson aims and mastery criteria were made explicit and how well feedback was aligned to those lesson aims. In most classes, students' interview responses reflected the extent to which teachers were explicit in these aspects of instructional practice. In general, when lesson aims and mastery criteria were unclear, students identified surface features of writing as their learning aims. When these lesson attributes were clearly articulated by the teacher, students were able to identify deeper features of writing as the lesson aims. When the aims were clear but the mastery criteria and lesson activities were misaligned, however, students identified surface features of writing as the lesson aims, rather than those articulated by the teacher.

<http://dx.doi.org/10.1080/09585170902763999>

Webb, M. and Jones, J. (2009)

Exploring tensions in developing assessment for learning.

Assessment in Education, 16(2), 165-184.

Abstract

This paper is based on a study of classroom practice of primary school teachers who were engaged in a programme of professional development to implement formative assessment in their classrooms. The programme sought to develop the skills and expertise of teachers to enable formative assessment to be used to support and improve the learning of students. This study examined changes in practice in these teachers' classrooms, their students' learning experiences, pedagogical decision-making, and the challenges experienced by teachers and students in developing assessment for learning. Activity theory was used as an analytical tool and enabled the identification of important contradictions in the changing system that produced tensions and difficulties but also provided driving forces for change. The development of formative assessment practices was of necessity accompanied by a culture change in the complex classroom systems. For teachers change was characterised as a process of expansive learning that was motivated by a contradiction between the teachers' beliefs about learning and the existing culture in the classroom. The change in classroom practice was enabled by the formative assessment philosophy and a range of mediating artefacts.

<http://dx.doi.org/10.1080/09695940903075925>

Willis, J. (2011)

Affiliation, autonomy and Assessment for Learning.

Assessment in Education, 18(4), 399-415.

Keyterms

assessment for learning, autonomy, learner identity, sociocultural theory, teacher–student relationships.

Abstract

Assessment for Learning (AfL) is an international assessment area of interest, yet, during 20 years of AfL research, the desired outcome of increased learner autonomy remains elusive. This article analyses AfL practices in classrooms as students negotiated identities as autonomous learners within

a classroom community of practice. A sociocultural theoretical framework informed the analysis of three case studies conducted in Queensland middle school classrooms. Key findings include the importance of the teacher–student relationship, viewing AfL as patterns of participation that develop expertise, and learner autonomy as a negotiated learner identity within each classroom context.

<http://dx.doi.org/10.1080/0969594X.2011.604305>

Yeh, S.S. (2010)

Understanding and addressing the achievement gap through individualized instruction and formative assessment.

Assessment in Education, 17(2), 169-182.

Abstract

This article synthesizes findings regarding the development of competence and learned helplessness and factors influencing persistence and intrinsic motivation, suggests the process through which small differences in early achievement are magnified by the current structure of schools, and reviews evidence suggesting that the characteristics of a specific type of individualized instruction and assessment system may be especially suited to remediate these differences. Agegraded schools and group tests label students as 'below' and 'above' average, inadvertently demoralizing below-average students, depressing effort and achievement, and perpetuating the gap in achievement between poor students and their more affluent peers. Analysis of the research literature suggests that the psychological experience of school for both high and low achieving students may be altered through a structure where instruction is individualized, students are challenged at their own levels, and each student receives objective assessment information confirming that he or she is successfully advancing to higher levels.

<http://dx.doi.org/10.1080/09695941003694466>

Yurdabakan, I. (2011)

The investigation of peer assessment in primary school cooperative learning groups with respect to gender.

Education 3-13, 39(2), 153–169.

Keyterms

constructivism, cooperative learning, primary school, peer assessment, gender.

Abstract

There are studies especially at higher education level investigating the subsequent responses of students towards reciprocity, tacit agreement and assessment of peers, but research on the effect of gender on peer assessment is limited. The present study focuses on whether peer assessment used in cooperative learning groups varies with respect to gender and investigates the compatibility level of peer assessments with teacher grades. This study was conducted in a primary school fourth grade social sciences course with 46 participants, 28 female and 18 male, their ages ranging from 9 to 10. The study rendered different results of peer assessment, where male and female students scored their fellow and opposite sexes with respect to their contribution to group work and their learning levels. The compatibility between female and teacher scores was higher than male and teacher scores.

<http://dx.doi.org/10.1080/03004270903313608>

4. Journal papers featuring assessment for other purposes

4.1 Expositions, reflections, reviews

Aitken, N., Webber, C.F., Lupart, J., Scott, S. and Runt, R. (2011)

Assessment in Alberta: Six areas of concern.

The Educational Forum, 75(3), 192-209.

Keyterms

administration/supervision, assessment, bias in assessment, evaluation, measurement, political aspects/governmental influence, teacher education/certification, testing.

Abstract

This report on the Alberta Student Assessment Study describes the context, methodology, and emergent themes. It outlines the purposes and uses of assessment⁷ according to the various stakeholder groups. Using both qualitative and quantitative data from students and parents, as well as educators at all levels, there were six areas or themes that emerged for further exploration: politics of assessment, decision making, teacher learning, communication and relationships, instructional leadership, and fairness and equity.

<http://dx.doi.org/10.1080/00131725.2011.576803>

Hayward, E.L. and Hutchinson, C. (2013)

'Exactly what do you mean by consistency?' Exploring concepts of consistency and standards in Curriculum for Excellence in Scotland.

Assessment in Education, 20(1), 53-68.

Keyterms

standards, consistency, national assessment, change, risk.

Abstract

Scotland, in common with many other countries internationally, has paid considerable attention to the development of assessment for learning. Currently, schools in Scotland are engaged in a major programme of curriculum and assessment reform, entitled Curriculum for Excellence. As part of the reform process, there is concern amongst practitioners, researchers and policy-makers about 'consistency' and 'standards'. In this article, we explore international issues of consistency and standards through a Scottish lens. In particular, we focus on how standards, and the idea of consistency of judgements and standards, are understood and applied in practice. We draw on international research and policy, and reflect on how that evidence relates to the findings from a recent government-funded research project in Scotland, 'Assessment at Transition'. We conclude by identifying what the different communities need to do to help build an integrated, assessment-capable system that will be sustainable in the longer term.

<http://dx.doi.org/10.1080/0969594X.2012.742423>

Klinger, D.A., Maggi, S. and D'Angiulli, A (2011)

School accountability and assessment: Should we put the roof up first?

The Educational Forum, 75(2), 114-128.

Keyterms

assessment, educational accountability, student performance.

Abstract

School accountability and student assessment are closely associated in educational jurisdictions' attempts to monitor student achievement, focus instruction, and improve subsequent student and school performance. The research reported in this article examines the School Effectiveness Framework in Ontario, Canada, exploring the foundations upon which the framework is based and educators' efforts to use assessment information to monitor the effectiveness of their reform efforts. Through document analysis and interviews, the researchers highlight the challenges and opportunities surrounding the accountability and assessment partnership.

<http://dx.doi.org/10.1080/00131725.2011.552671>

Looney, A. and Klenowski, V. (2008)

Curriculum and assessment for the knowledge society: interrogating experiences in the Republic of Ireland and Queensland, Australia.

Curriculum Journal, 19(3), 177-192.

Keyterms

curriculum and assessment reform, knowledge societies, learning curriculum.

Abstract

The 'knowledge society' has become a central discourse within educational reform. This article posits that the impact of the knowledge society discourse on curriculum and assessment has led to the emergence of what the authors term a new-form/re-form curriculum, and it asks whether what is transacting in contemporary movements in curriculum is less the reform of curriculum and more the emergence of a new-form/reform curriculum. What is emerging is well beyond the discussions of outcomes and curriculum alignment that characterised much curriculum reform effort in the late 1990s. In this new-form/re-form curriculum 'content' is displaced by 'skills' and 'knowledge acquisition' by 'learning'. Curriculum coverage is replaced by learner engagement. In this context, assessment also begins to take on new-form/re-form. Assessment now engages and promotes learning as process rather than as product. Two cases – the Republic of Ireland and Queensland, Australia – are analysed and compared to illustrate this shift in the conceptualisation of curriculum and assessment. Consideration is given to the possibility that this new-form/re-form curriculum represents a settlement in the contestation associated with learning outcomes and their perceived technical rationality and market focus. The paper concludes that the new-form/re-form curriculum is emerging in locations as diverse as Ireland and Queensland.

<http://dx.doi.org/10.1080/09585170802357496>

McKechan, S. and Ellis, J. (2012)

Collaborative learning in the Scottish curriculum for excellence: the challenges of assessment and potential of multi-touch technology.

Education 3-13, DOI: 10.1080/03004279.2012.717959

Keyterms

collaborative learning, co-operative learning, critical skills, assessment, multi-touch technology.

Abstract

Scottish educational policy advocates the benefits of collaborative learning as a way of developing critical life skills, across the primary curriculum. In this paper, the rationale for collaborative learning, and specifically the Critical Skills (CS) approach, is considered along with an account of the perspectives of primary teachers implementing the methodology in their classroom. Based on the results of semi-structured interviews and an electronic survey, this article considers teachers' opinion on the effectiveness of the CS approach, and highlights challenges relating to attaining, effectively retaining and analysing the evidence of impact gained via collaborative learning. It concludes that the

latest technologies, including multi-touch technology, present scope to ease the challenge of assessing the collaborative process.

<http://dx.doi.org/10.1080/03004279.2012.717959>

Pellegrino, J.W. (2012)

Assessment of science learning: Living in interesting times.

Journal of Research in Science Teaching, 49(6), 831–841.

Keyterms

assessment, validity, educational measurement.

Abstract

Beginning with a reference to living in a time of both uncertainty and opportunity, this article presents a discussion of key areas where shared understanding is needed if we are to successfully realize the design and use of high quality, valid assessments of science. The key areas discussed are: (1) assessment purpose and use, (2) the nature of assessment and the importance of research on learning, (3) assessment design processes, (4) validity arguments, (5) measurement and statistical inference, (6) affordances of technology, and (7) systems of assessment. After introducing each vital area, the article discusses how each of the five articles in the special issue is connected to the areas. Concluding comments emphasize the reminder that despite the large amount of work to be done, we are well positioned to realize the high quality, valid science education assessments that we need for K-16 science education.

<http://onlinelibrary.wiley.com/doi/10.1002/tea.21032/abstract>

4.2 Summative assessment applications

Armstrong, C. (2011)

The impact of self and peer perceptual differences on student social behaviour.

British Journal of Educational Psychology, 81(3), 355–368.

Abstract

Background. The development of socially appropriate behaviour is increasingly seen as an important part of a student's education.

Aim. To examine whether changes in a student's behaviour, as part of an ongoing social empathy intervention, can in part be explained by the difference between the student's self-perception of their behaviour and their peers-perception of their behaviour.

Method. A school population (383 students from year levels 4 to 6) was assessed for a range of prosocial and antisocial behaviours. Assessments were made by the students themselves, and by peer nominations of their classmates. A perceptual difference index was calculated to determine the difference between the student's self-assessment and their peers' assessment of their behaviour.

Results. Hierarchical regression found that students' prosocial behaviour increased more over the course of the school year when self-perception of their prosocial behaviour more closely matched the perceptions of their class-peers. Similarly, students' antisocial behaviour decreased more over the school year when their self and peer perceptions of their antisocial behaviour were more closely aligned. Very few personal demographics were associated with either type of behaviour, and overall there was found to be a great deal of stability in behaviour.

Conclusion. This study highlights the importance of taking into account students' personal characteristics when developing interventions to encourage socially appropriate behaviour.

Furthermore, it suggests that in order to achieve positive change, any intervention must engage student's self-beliefs regarding their behaviour.

<http://onlinelibrary.wiley.com/doi/10.1348/000709910X522393/abstract>

Brown, G.T.L., Kennedy, K.J., Fok, P.K., Chang, J.K.S. and Yu, W.M. (2009)

Assessment for student improvement: understanding Hong Kong teachers' conceptions and practices of assessment.

Assessment in Education, 16(3), 347-363.

Abstract

Hong Kong is seeking to increase the use of 'assessment for learning' rather than rely on 'assessment of learning' through summative examinations. Nearly 300 teachers from 14 primary and secondary schools answered a Chinese translation of the Teachers' Conceptions of Assessment inventory and a new Practices of Assessment Inventory. Structural equation modelling showed that there was clear alignment between conceptions and practices. Further, there were significant differences in the conceptions of assessment held by Hong Kong teachers as compared to New Zealand and Queensland teachers. This sample of Hong Kong teachers strongly associated ($r=.91$) using assessment to improve teaching and learning with making students accountable through assessment, which, in turn, led to a strong use of examination preparation practices ($\beta=.43$). Hong Kong teachers believed learning outcomes were improved by using assessments to make students accountable and by preparing them for examinations. These results suggest that broader Chinese cultural norms concerning examinations are part of school culture and may provide barriers for the assessment reform agenda in Hong Kong and other Confucian societies.

<http://dx.doi.org/10.1080/09695940903319737>

Harris, L.R. and Brown, G.T.L. (2009)

The complexity of teachers' conceptions of assessment: tensions between the needs of schools and students.

Assessment in Education, 16(3), 365-381.

Abstract

Teachers' conceptions of assessment are important as they shape their usage of assessment practices. This study used a phenomenographic approach to examine the various purposes a sample of 26 New Zealand teachers ascribed to assessment. Seven purposes were discussed: compliance, external reporting, reporting to parents, extrinsically motivating students, organising group instruction, teacher use for individualising learning, and joint teacher-student use for individualising learning. This study showed that teachers held complex conceptions of assessment and described using different assessments for differing purposes. It highlighted how teachers must consider divergent stakeholder interests when selecting assessments for students, balancing the needs of the society, the school, and the pupil. The data emphasised the particularly strong tension between what teachers feel is best for students versus what is deemed necessary for school accountability.

<http://dx.doi.org/10.1080/09695940903319745>

Koh, K. and Luke, A. (2009)

Authentic and conventional assessment in Singapore schools: an empirical study of teacher assignments and student work.

Assessment in Education, 16(3), 291-318.

Abstract

This is an empirical examination of the quality of teacher assignments and student work in Singapore schools. Using a theoretical framework based on principles of authentic assessment and intellectual quality, two sets of criteria and scoring rubrics were developed for the training of expert teachers to judge the quality of assignments and student work. Following rigorous training, the inter-rater reliability of expert teacher scoring was high. Samples of teacher assignments and student work were collected in English, social studies, mathematics, and science subject areas from a random stratified sample of 30 elementary schools and 29 high schools. For both grade levels, there were significant differences for the authentic intellectual quality of teachers' assignments by subject area. Likewise, the differences of authentic intellectual quality for student work were significant and varied by subject area. Subject area effect was large. The correlations between the quality of teachers' assignment tasks and student work were strong and significant at both grade levels. Where teachers set more intellectually demanding tasks, students were more likely to generate work or artefacts judged to be of higher quality. The findings suggest that teacher professional development in authentic intellectual assessment task design can contribute to the improvement of student learning and performance. It is argued that this will be a key requisite of educational systems like Singapore that are seeking to expand pedagogy and student outcomes beyond a focus on factual and rote knowledge.

<http://dx.doi.org/10.1080/09695940903319703>

Maier, U. (2009)

Towards state-mandated testing in Germany: how do teachers assess the pedagogical relevance of performance feedback information?

Assessment in Education, 16(2), 205-226.

Abstract

The paper analyses how teachers view state-mandated tests in Baden-Württemberg, a large state in the south-west of Germany. For the first time in 2006, public secondary schools were bound by law to administer Vergleichsarbeiten [state-wide tests] in up to three relevant subjects after Grade 6. Scholars in the field of school improvement emphasise that there is a gap between performance

feedback provided by external tests and how this information is internally processed. To bridge this gap, a crucial precondition is that teachers must accept state-wide testing as a useful instrument for improving the performance of schools. To examine how teachers view the pedagogical relevance of performance feedback information, 256 secondary schools were approached, and an anonymous questionnaire was completed by a representative sample of 307 teachers with Grade 6 classes. Analysis of the quantitative data reveals that teachers in general secondary schools (the lower level of the academically streamed secondary system) are more openminded towards the tests than their colleagues in intermediate schools or in grammar schools (the highest level). Even so, only a small percentage of teachers in general secondary schools acknowledge the pedagogical relevance of performance feedback information for improving teaching strategies. This result suggests that state-mandated testing in Baden-Württemberg is highly unlikely to initiate or support school improvement activities for the time being.

<http://dx.doi.org/10.1080/09695940903076030>

Pakarinen, E., Lerkkanen, M-K., Poikkeus, A-M., Siekkinen, M. and Nurmi, J-E. (2011)
Kindergarten teachers adjust their teaching practices in accordance with children's academic pre-skills.

Educational Psychology, 31(1), 37-53.

Keyterms

adaptive teaching, teaching practices, classroom observations, prereading skills, pre-math skills, kindergarten.

Abstract

This study examined the extent to which kindergarten children's academic pre-skills are associated with their teachers' subsequent teaching practices. The pre-skills in reading and math of 1268 children (655 boys, 613 girls) were measured in kindergarten in the fall. A pair of trained observers used the Classroom Assessment Scoring System instrument to observe 49 kindergarten teachers on their emotional support, classroom organisation and instructional support in kindergarten in the spring. The results of the multilevel modelling showed that low levels of academic pre-skills in kindergarten classrooms in the fall predicted high classroom quality in the classrooms later on. The results suggest that the overall level of children's academic pre-skills in the classroom plays an important role in the ways in which teachers adapt their instructional practices to the needs of a particular classroom.

<http://dx.doi.org/10.1080/01443410.2010.517906>

Pecek, M., Zuljan, M.V., Cuk, I. and Lesar, I. (2008)
Should assessment reflect only pupils' knowledge?

Educational Studies, 34(2), 73-82.

Keyterms

functions of assessment, assessment criteria, cognitive objectives, conative objectives, teachers' attitudes, primary education.

Abstract

In order to realise increasingly complex objectives of compulsory education, it is necessary to have in place appropriate teaching concepts as well as assessment and testing guidelines. The question, however, is what should be assessed: levels of acquired knowledge, skills or attitudes? Should assessment be only a measure of the educational process outcomes, or should it also measure the process of knowledge acquisition itself? How should assessment be carried out in order to respect the principle of fairness and justice? In this paper, we will present results of a research project in which we were interested to find out what teachers would assess if it were up to them to decide. Our

survey was conducted on a representative sample of primary school teachers in Slovenia. In spite of clear regulations prescribing that teachers should only assess pupils' progress in relation to the defined objectives and knowledge standards, teachers underlined the necessity to also consider other aspects of children's development.

<http://dx.doi.org/10.1080/03055690701811073>

Scott, S., Webber, C.F., Aitken, N. and Lupart, J. (2011)
Developing teachers' knowledge, beliefs, and expertise: Findings from the Alberta Student Assessment Study.
The Educational Forum, 75(2), 96-113.

Keyterms

assessment expertise, assessment knowledge, assessment principles, assessment terminology, preservice education, professional development.

Abstract

This article reports on a subset of findings that emerged from the Alberta Student Assessment Study in relation to the preservice and in-service development of teacher knowledge of, expertise in, and beliefs underpinning their assessment practices. Findings indicate that, although there has been a lot of attention given to improving assessment, confusion remains for teachers about terminology, principles, and pragmatics that undermine teacher confidence about assessment and making sound judgments about students' work.

<http://dx.doi.org/10.1080/00131725.2011.552594>

Winterbottom, M., Brindley, S., Taber, K.S., Fisher, L.G., Finney, J. and Riga, F. (2008)
Conceptions of assessment: trainee teachers' practice and values.
Curriculum Journal, 19(3), 193-213.

Keyterms

assessment, assessment for learning, formative, summative, trainee teacher, values.

Abstract

This study examines the values and practice in relation to assessment of a sample of 220 trainee teachers studying for a Postgraduate Certificate in Education, an initial teacher training and education (ITET) course, at the University of Cambridge, UK. The survey instrument was drawn from James and Pedder (2006), and was composed of questionnaire items that sought to elicit how trainees valued different classroom assessment practices, and the extent to which their own teaching complied with such values. The study draws additionally on the findings of James and Pedder (2006) to compare and contrast results with those for qualified teachers. Item and factor analyses revealed three dimensions that underpin trainees' classroom practice and values (promoting learning autonomy, performance orientation, making learning explicit). Values-practice gaps were greatest on promoting learning autonomy and performance orientation. Trainees valued practices associated with the former more than they implemented them in their teaching, while they implemented practices associated with the latter more than predicted by their values. Values-practice gaps suggested that trainees were constrained from implementing their values to a greater extent than qualified teachers, particularly with respect to these two factors.

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Wyatt-Smith, C., Klenowski, V. and Gunn, S. (2010)

The centrality of teachers' judgement practice in assessment: a study of standards in moderation.
Assessment in Education, 17(1), 59-75.

Abstract

There is a strong quest in several countries including Australia for greater national consistency in education and intensifying interest in standards for reporting. Given this, it is important to make explicit the intended and unintended consequences of assessment reform strategies and the pressures to pervert and conform. In a policy context that values standardisation, the great danger is that the technical, rationalist approaches that generalise and make superficial assessment practices, will emerge. In this article, the authors contend that the centrality and complexity of teacher judgement practice in such a policy context need to be understood. To this end, we discuss and analyse recorded talk in teacher moderation meetings showing the processes that teachers use as they work with stated standards to award grades (A to E). We show how they move to and fro between (1) supplied textual artefacts, including stated standards and samples of student responses, (2) tacit knowledge of different types, drawing into the moderation, and (3) social processes of dialogue and negotiation. While the stated standards play a part in judgement processes, in and of themselves they are shown to be insufficient to account for how the teachers ascribe value and award a grade to student work in moderation. At issue is the nature of judgement as cognitive and social practice in moderation and the legitimacy (or otherwise) of the mix of factors that shape how judgement occurs.

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