

Assessment for Teaching

Second edition

Grounded in contemporary, evidence-based research, the second edition of *Assessment for Teaching* provides a comprehensive introduction to assessment and teaching in primary and secondary school settings. Taking a practical approach to assessment and the collaborative use of data in the classroom, this text advances a developmental model of assessment that aims to improve student outcomes through targeted teaching interventions.

Thoroughly revised and updated to include the latest research, this edition features expanded content on collaborative teaching, competence assessment, learning and assessment, and self-regulated teaching and learning. Each chapter features learning objectives, reflective questions, an extended exercise to link course content with classroom practice, and end-of-chapter rubrics that help readers assess their own understanding and learning.

Written by a team of experts from the Assessment Research Centre at the University of Melbourne, *Assessment for Teaching* is an essential resource for pre-service teachers transitioning into the classroom, and an important professional development reference for in-service teachers facing new challenges in teaching and assessment.

Patrick Griffin held the Chair of Education (Assessment) at the University of Melbourne and was Associate Dean of the Melbourne Graduate School of Education and Director of the Assessment Research Centre in the Graduate School until his recent retirement. He led the global Assessment and Teaching 21st Century Skills Project, run by the Assessment Research Centre, and was also Director of the Centre's Assessment and Learning Partnerships Project, on which the advice of this book is based.

Assessment for Teaching

Second edition

Edited by
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Contributors

Editor

Patrick Griffin held the Chair of Education (Assessment) at the University of Melbourne and was Associate Dean of the Melbourne Graduate School of Education and Director of the Assessment Research Centre in the Graduate School until his recent retirement. He led the global Assessment and Teaching 21st Century Skills Project, run by the Assessment Research Centre, and was also Director of the Centre’s Assessment and Learning Partnerships Project, on which the advice of this book is based. He has published widely on assessment and evaluation topics, including competency, language proficiency, industrial literacy, school literacy, numeracy profile development, portfolio assessment, and online assessment and calibration.

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Abbreviations

ARC	Assessment Research Centre
ARCOTS	Assessment Research Centre Online Testing System
ATAR	Australian Tertiary Admission Rank
ATC21S	Assessment and Teaching of 21st Century Skills
CTT	collaborative teaching team
DeSeCo	Definition and Selection of Competencies
IRT	item response theory
KSAVE	knowledge, skills, attitudes, values and ethics (ATC21S Project)
LOTE	languages other than English
MCQ	multiple-choice question
NAPLAN	National Assessment Program – Literacy and Numeracy
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PLC	professional learning community
PLT	professional learning team
PPLP	personal professional learning plan
SME	subject-matter expert
SOLO	Structure of the Observed Learning Outcome
SOSE	Study of Society and the Environment
SRL	self-regulated learning
SWANs	Students with Additional Needs (learning progressions)
TIMSS	Trends in International Mathematics and Science Study
TVET	TAFE-Delivered Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
ZAD	zone of actual development
ZPD	zone of proximal development

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Preface

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Patrick Griffin and Field Rickards

About this book

This is the second edition of the text on assessment for teaching. Like the first edition the content is based on a mixture of teaching and research – it is informed by practice, theory and research in the classroom. It gives teachers what they have requested to improve teaching and learning. Like the first edition, it is not just another book on assessment. Many of you will have read generalised books on assessment, and some of you will even have written them. Patrick Griffin published one in the 1990s. This book is different. It is a clinical approach to assessment and the use of data in the classroom. It is about changing the culture of schools based on the use of assessment data and developing skills among teachers so they can use assessment information to make decisions about targeted teaching intervention. The book introduces a new kind of thinking, though some of the content is not new – note the case study written in 1970 that commences the Introduction.

The approach propounded here is simple, but it is not simplistic. It is one that demands conceptual reasoning and higher order thinking. In the eight years that the Master of Teaching program has been taught at the University of Melbourne it has developed and matured. We now know that pre-service teachers can cope with this form of assessment and that in-service teachers can also change their practices in the light of it. Over 1500 teachers have participated in the program through online and face-to-face delivery. Over 3000 student teachers have studied the program and many have told us that they secured employment because of their knowledge of this approach to assessment. Many of the 1500 practising teachers who have participated in the online program have testified that it has changed their thinking about the use of assessment data and the way in which it can help teachers to organise classrooms. Of course, some did not change.

There is no point in adding to the assessment literature based on translating psychometric theory and multiple-choice test design. This is not a book that regurgitates the old ideas about assessment wrapped up in the language of

psychometrics. It takes a new approach. The old ways of teaching principles of measurement, specifications and item analysis for multiple-choice test design have had many consequences. Teachers became alienated from testing because of the complexity of the process and the lack of meaning for their teaching practice. Despite the fact that the deficit method has been in schools for more than 100 years and continues to fail, teachers persist in identifying deficits and trying to fix them without a scaffolding approach to intervention. Parents have been asked, even encouraged, to endorse a deficit model of teaching and learning. Teachers are afraid to take a new approach in case that, too, doesn't work. So instead of taking a new approach that might not work, they continue with one that we (and they) know does not work.

Systems of education reinforce these old approaches by ranking students and schools using statistical comparisons to goad schools into action by focusing only on improving scores. In many cases this constitutes increased funding to do more of the same. In such a context, where the emphasis is on methods of objective test development, teachers are expected to have an advanced knowledge of statistics. Consultants feed on this expectation by offering programs and in-service courses on how to interpret test and statistical data. Quite often they provide well-meaning but misleading advice, and teachers become even more alienated from assessment. They focus on low scores and the dangers of failure when they should be focusing on all students and the celebration of every student's successes. The consequences of focusing on the lower quartile of students become evident in Chapter 10 of this book. The problem is exacerbated by teachers working in isolation rather than in collaborative teams such as those we discuss in this book. In general, their assessment literacy is not profound and the current assessment literature adds to and reinforces the confusion around the use of assessment data to improve teaching. So the teaching profession looks for comfort in rhetoric. It offers the rhetoric of assessment *of*, *as* and *for* learning. There is a rhetorical thrust towards what is called authentic assessment. We often wonder what is meant by this and what inauthentic assessment might be.

Under these conditions, assessment and teaching regress into a sea of folk wisdom and opinion about the use of assessment data. Unfortunately the rhetoric of 'without data it's just an opinion' runs rampant in schools. Most of the common ideas of best practice in authentic assessment are, in fact, no more than folk tales spread by discussion groups through which people are looking for answers that don't involve an ocean of statistics. In this book some recognition is given to the old style of approach to assessment (see Chapter 3) without taking it to the lengths that other textbooks do.

For years now the areas of assessment and curriculum have been combined in education administration and teacher training. Curriculum specialists have been the major providers of information about assessment. If assessment specialists were to provide information about curriculum and teaching there would be an outcry, but because everybody has been assessed – everybody has sat tests and suffered under the weight of oppressive assessment – we all regard ourselves as experts and are all looking for different ways and means of getting information

about learning. But our knowledge of assessment in general is often not a result of experiential learning. Rather, it is a result of experiencing failure, either to understand the process of assessment or to link the concept of assessment to the ideas of success and failure.

This book eschews the concept of failure and takes a developmental approach involving targeted intervention under the rhetoric of readiness to learn. It assumes that everybody can succeed and that all we need to do is find out what they are ready to learn and able to learn when encouraged by teachers who draw on professional knowledge of background factors to guide their interventions.

Grant Wiggins and Jay McTighe developed the idea of a process called backward mapping. It consists of the following steps:

1. Review the task to identify prerequisite knowledge and skills.
2. Develop driving questions (to organise the unit) and revisit the essential teaching questions and break these down.
3. Outline major teaching points under each question.
4. Identify tentative formative assessments.

This is not the focus of the approach in this book. The basic difference is a shift away from assessment questions to an emphasis on a level of development and a zone of proximal development. The intervention at that zone is the major emphasis and hence this is more of a forward mapping approach. The book shows in very simple steps how teachers can identify that zone of proximal development.

A developmental approach makes no assumptions about the effects of background factors on teaching and learning. In a deficit model, student demographics such as age, gender, race, socio-economic status, language background, intellectual capacity and other factors are treated as explanations of why people have failed to learn. Pursuant to the developmental approach this is a search for excuses – instead, the developmental approach treats assessment as a search for evidence of learning regardless of background factors. This book encourages teachers to identify, within a developmental paradigm, the point where students are ready to learn, and to intervene appropriately at that point. Then the factors listed above – age, gender, race, socio-economic status, language background, intellectual capacity and so on – determine how the intervention takes place, not why the student is struggling. We assume that if these factors are taken into account in the professional judgement of teachers to select the appropriate intervention strategy then every student will learn. Under this approach the ideas of remediation and deficit make no sense at all. We also advocate that teachers work in collaborative teams, removing the isolation of individual teachers making decisions without the support of their peers.

It is important that a consistent stance is taken into account in reading each chapter of this book. The focus is on teachers working in teams – not team teaching – in order to collaborate on evidence-based decision-making that can markedly improve student learning. Our published papers on the research underpinning this program, some of which are cited at the end of Annex 1 (others are linked through web addresses provided throughout the text), present almost irrefutable evidence

of the impact of peer-group collaboration on teachers and targeted intervention. The evidence shows that collaboration among teachers yields significant and important gains among students. But it requires a cultural change in schools, and this cultural change is an integral part of the success that schools can enjoy if a collaborative, evidence-based approach to the use of assessment data is implemented on a whole-school basis.

We make no apologies for what can be, at times, a confronting approach that challenges the way teachers use assessment data and the way assessment is reported. We regard the teacher as a facilitator, not an expert who passes all necessary information to the students. In a digital age, students can quite readily gain information through the internet and other sources. Our role as teachers needs to change to that of facilitators, as outlined in the case study in the Introduction of this book. That case study demonstrates the effectiveness of our approach in the 1970s. It is even more important now. Students need to be taught how to critically appraise information as well as to access it. Teachers need to show students how to access information but also give them the problem-solving and critical appraisal skills that are necessary in a digital age. Students need to learn how to learn and become autonomous in the classroom. Education needs to change: teaching needs to change, and curriculum needs to change. And if this is to happen, assessment *must* change.

How to use this book

This book is about the necessary change in assessment. It links the new ideas to teaching and learning, to assessment and reporting, and to curriculum resources. All three areas or domains need to be rethought and redeveloped. We hope this book is a part of that change. With this in mind, a set of objectives is provided at the beginning of each chapter, identifying the things we hope you will gain by reading the chapter. We invite you to explore the ideas presented in each chapter and, together with your fellow students or colleagues, exercise your right to challenge the concepts, ideas and instructions that are covered. We encourage you not to simply accept the written word but to challenge and discuss the content. In order to encourage this discussion we ask you to apply the ideas in practice. For those in pre-service programs the opportunity to apply them will be limited. Tutorial groups and placements in schools may provide opportunities for discussion and challenge. For in-service programs we ask teachers to apply the ideas in the classroom and evaluate their effectiveness for both student learning and teaching practice. Our premise is that if these practices do not change or improve student learning they are not worth implementing. The whole point is to help promote, accelerate and support student growth along a developmental continuum. The application in practice is important because student engagement and learning are a critical indicator of success, no matter which approach is being used. Finally, at the end of every chapter there is a series of questions to help you check your understanding. We also ask you to engage in other exercises that will help you and your fellow

learners or colleagues check whether you have understood, or even agreed with, the approach suggested.

The book has a particular structure to help deal with its dual purpose: while it is primarily written for pre-service education it is also written to meet the needs of in-service teachers. It would be folly to change the approach of only pre-service programs.

The Introduction details two teaching approaches – one for mathematics in a secondary school, the other for literacy in primary schools. Each has influenced Patrick Griffin, the author of this introductory chapter and editor of this text, and has accordingly led to the ideas embedded in this book.

Chapter 1 outlines the major concepts and ideas informing this book and provides supporting rationales. It particularly focuses on the distinction between deficit and development.

Chapter 2 discusses the approach to developmental teaching and assessment through the process of collaborative teaching teams. Sharp distinction is drawn between professional learning teams, professional learning communities and collaborative teaching teams. The idea of collaboration is elaborated on in terms of the idea of competency, and competency assessment is defined within the context of collaborative teaching teams and their influence on student learning. The chapter shows how these successful approaches to team-based learning can help teachers develop collaborative practices based on the professional use of data. This is the first stage in what we describe as a cultural change in schools that extends to staffrooms, professional meetings and classroom teaching. It emphasises the need to focus on teaching decisions that are informed by evidence rather than inference.

Chapter 3 examines the clinical approach to teaching and the role that competency assessment in a developmental setting plays in such an approach. It is critical of the deficit model and encourages the reader to take a developmental approach using a series of developmental paradigms and frameworks. It shows how assessment data can be used to identify the zone of proximal development. It reclassifies this approach to assessment as a competency-based approach.

Chapter 4 describes the procedure for conducting assessments and why it is important that these assessment administration instructions are followed closely. The procedures are based on using an online assessment system that gives immediate and detailed feedback to teachers and students.

Chapter 5 explores subjective assessment, otherwise known as judgement-based assessment, and provides a method that our research has shown produces reliable and valid data on which inferences about learning and intervention can be based.

Chapter 6 shows how judgement-based assessment can be interpreted within a developmental paradigm and provides a systematic approach to the writing of assessment rubrics and the interpretation of data linked directly to teaching intervention. Having established the procedures for writing good-quality rubrics, the chapter draws a distinction between flawed and correctly formulated rubrics. It becomes clear that the rubrics proposed in this book differ from those provided in most websites.

Chapter 7 introduces the ideas of self-regulated learning as an important adjunct to targeted and differentiated instruction. Teachers and student teachers need to understand how students learn and how assessment can be used to make decisions about differentiation but also how students left to their own resources can promote their own learning and cognitive growth should sufficient structure and self-regulation be developed.

Chapter 8 takes the view that it does not matter whether the assessment approach is subjective or objective. The important things are that assessment data be interpreted within a developmental paradigm and that the developmental paradigm be defined by a 'construct' or overarching concept. This chapter empowers teachers to design assessments that can be used to identify an underlying developmental progression that can be linked directly to teaching.

Chapter 9 takes this exercise a little further. It illustrates how a relatively simple method of item analysis can be used to identify zones of proximal development. Early in the chapter the emphasis is on dichotomous data (derived from assessments that allow only two responses – yes/no, true/false and so on). In an extension of this idea, the item analysis is applied to rating scales and rubrics, such as those discussed in Chapters 5 and 6. These are described as Guttman analyses for both dichotomous and partial credit items.

Chapter 10 outlines two main sources of assessment data: the student profile report and the class report. The use of these reports is linked directly to teaching intervention rather than taking a summative approach that addresses what has been learned and whether this is acceptable or unacceptable. The reports are formative and we take the view that they should be helping students to learn, teachers to teach and parents to understand the overall performance of the student, and the growth that has taken place regardless of age, gender, race, socio-economic status, language background or intellectual capacity. Development is about growth and the impact of teaching on student learning.

Chapter 11 illustrates the application of these ideas to the teaching of students with additional needs. It summarises the approach described in the preceding chapters with a focus on students who have disabilities and special educational requirements.

Chapter 12 provides a case study of a secondary school where the approach described in this book has been implemented. It illustrates how this approach to assessment requires not only a cultural change among teachers but an administrative and organisational change in the school, demonstrating a whole-school approach to assessment for teaching.

Annex 1 provides a condensed version of the overall approach for school leaders, supplementing and referring to a number of chapters in this book that are likely to be of interest to them.

Annex 2 describes how to use online tests and reports and offers short-term access to ARCOTS to provide some practice with online testing and reporting.

We hope you enjoy this book; more than that, we hope it helps you to improve your evidence-based decisions and teaching interventions and that, ultimately, your students are the beneficiaries.