Developing Portfolios for Learning and Assessment

This book is a practical, accessible guide to implementing portfolio use for assessment and learning purposes. It focuses specifically on portfolio use in educational contexts and moves beyond description and general principles to analyse and discuss the impact of portfolio use on assessment, curriculum and pedagogy.

The author has extensive experience of using and researching the use of portfolios in a variety of teaching and learning settings. Throughout the book, practical examples are used to integrate theory and practice, and possible tensions and necessary supports are identified to assist the successful implementation of a portfolio system.

The book is essential reading for lecturers, teachers, teacher educators and students implementing portfolio use for learning, assessment and appraisal purposes.

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For Maria

Contents

Figures

Acknowledgements

Introduction

Aims of this book

The use of portfolios for learning and assessment is becoming internationally popular. Artists, writers, photographers, advertising agents, models, architects and the like have traditionally made use of portfolios to present work samples and examples of their best or distinctive work. Today portfolios are found in all phases of education and professional development for learning, assessment, promotion and appraisal. A portfolio of work can be used for development and assessment of subject knowledge, acquisition of teaching skills and reflective practice, professional and vocational preparation and employment.

This book has several aims. The first of these is to provide professionals, educators and students with guidance on how portfolios have been used for assessment and learning purposes and to illustrate their potential. The contexts of teacher and medical education, primary and secondary classrooms have been included to explain the processes and principles involved when using portfolios. The technical and management issues that have emerged in these contexts are described. Case-study material is used to illustrate the range of factors that need to be considered when planning to use portfolios.

The second aim is to analyse and discuss the impact of portfolio use on assessment, curriculum and pedagogy. Key issues, major tensions, constraints and the necessary supports for developing and implementing a portfolio system are identified. The interrelationship of portfolio assessment to curriculum and peda-gogy and required changes to teaching and learning are described. Research evidence gathered from the use of portfolios in teacher and medical education and practical examples from primary and secondary classrooms are incorporated to explain the range of purposes. For example, the move to an outcomes-based curriculum in Australia has resulted in states, like Western Australia, using portfolios for developmental assessment purposes in primary schools while in Scotland portfolios are used for summative assessment at secondary level.

The third aim of this book is to analyse relevant learning theories that underpin this form of assessment. Practical examples are used throughout to describe and analyse the integration of learning and assessment theories with practice. The tensions that exist when using portfolios for learning *and* assessment purposes, at the same time, are emphasised to indicate how unintended outcomes can emerge

and to highlight the possible problems and pitfalls. Examples are given to help describe these issues in detail.

Why portfolios?

There are many theoretical and practical reasons why portfolios are being used in a range of contexts for a variety of purposes. There has been dissatisfaction with assessment approaches derived from a quantitative tradition. For example, recently in England there have been numerous claims that 'students are becoming over-examined' (Hackett, 2001), that we are 'testing our children to destruction' (Guttenplan, 2001) and that it is time 'to trust teachers' (Henry, 2001).

More qualitative, expansionist approaches such as the portfolio provide an alternative. Portfolio use for assessment aligns with current assessment and learning theory. Insights into the alignment of assessment, curriculum and pedagogy through the use of portfolios are discussed throughout the book. It is argued that portfolio use for assessment and learning offers the opportunity to redress the imbalance caused by testing and mechanistic and technicist conceptualisations of curriculum and assessment.

The use of portfolios for a range of purposes has the potential to make more explicit the important relationship between curriculum, assessment and pedagogy. This is because the use of portfolios for assessment helps provide a structure and processes for documenting and reflecting on teaching and related learning practices, and making them public. While much emphasis has been given to the emergence of a new assessment paradigm (Gipps, 1998a; Assessment Reform Group, 1999) the theoretical relationship between curriculum and assessment remains under-represented. Recently, there has been acknowledgement of the need to develop theoretical unity such that the reformed visions of curriculum and assessment for learning align with pedagogy. Shepard (2000) and Looney (2000) have emphasised the need to build a symbiosis between curriculum and assessment policy that is reflected in pedagogical practice. The use of the portfolio offers the opportunity for the realisation of this important integration of assessment with curriculum development and is a theme addressed throughout.

Educators aspire to develop reflective students or professional teachers; research findings conclude that the use of portfolios promotes the development of important skills such as reflection, self-evaluation and critical analysis. Portfolios are being used increasingly for assessment and learning purposes because of the potential for the associated curriculum and pedagogic practices to foster metacognitive development. Tools for metacognition and their connection to the skills needed for learning and understanding need to be understood. These important skills are outlined and their integration into the portfolio process is discussed in chapter 2.

What is a portfolio?

In 1992, Arter and Spandel indicated that the term portfolio had become a popular buzz word; however, they stressed that it was not always clear what was meant or

implied by the term, particularly when used in the context of portfolio assessment. These authors offered the following definition:

> ... a purposeful collection of student work that tells the story of the student's efforts, progress, or achievement in (a) given area(s). This collection must include student participation in selection of portfolio content; the guidelines for selection; the criteria for judging merit; and evidence of student self-reflection.
>
> (Arter and Spandel, 1992: 36)

This definition acknowledges the developmental nature of the assessment process involved and emphasises the importance of the active involvement of the students in portraying what they know and can do. Another significant dimension to this definition is the recognition of the purpose of student reflection on the learning processes involved in the work accomplished and the integration of assessment with teaching and learning. The definition of a portfolio is developed further throughout the book but for now what is important to emphasise is the centrality of student self-evaluation and reflection and the opportunity to portray the processes by which the work in the portfolio is achieved.

Torrance (2000) has described how assessment practices need to develop to identify:

> *what* pupils think is a reasonable answer in a particular context, but also *why* they think this – what are their criteria for response, and what do they think of the teacher/examiner's assumptions? Assessment should also be concerned to find out *what else* it is that pupils know, and *want* to know, since this will form the core of a genuine dialogue about the purposes, processes and desirable outcomes of schooling; the core, in fact, of a high(er) quality educational experience, leading to higher educational standards.
>
> (Ibid., 186)

He suggests that such an approach to assessment would acknowledge that 'some pupils may be in a state between knowing and not knowing – learning, in fact, and being able to continue to learn' (ibid.).

A portfolio of work that incorporates self-reflection supports learning if the developmental nature of the portfolio process is sustained and provides opportunities for students to self-evaluate their own growth. Students need the cognitive tools to be able to understand their development. This is why metacognition is an essential process that needs to remain central to the development of a portfolio of work and is an important aspiration for alternative forms of assessment such as the use of a portfolio.

How are portfolios used?

The use of the portfolio is an educative process in itself. This is because the development of the portfolio of work to be assessed and the submission of this work

is a phase in ongoing learning. The portfolio of work remains a factor in activity. The evidence in the form of the product of the portfolio is a demonstration of learning but at the same time requires the student to develop important insights, skills, strategies, dispositions and understandings for continuing learning.

The metacognitive growth that is intended in the development of a portfolio of work suggests that it is a means by which students may demonstrate their learning but more importantly involves processes and a mode of learning that encourages them to take responsibility for their own continuing learning. The concept of 'freeing of activity' (Dewey, 1916) has been influential in the way in which portfolio use for assessment and learning purposes has been conceived in the writing of this book.

The portfolio is not in itself the end. The associated assessment and pedagogical practices and processes help develop successful learning. Learning occurs, as a consequence of these processes, beyond the submission of a portfolio of work. There is continuous, ongoing development that aligns with Dewey's (1916) notion of aims as continual and ongoing human activities. In describing the criteria of good aims Dewey indicates that the term 'end in view' is suggestive of termination or conclusion of some process. 'Strictly speaking, not the target but *hitting* the target is the end in view' (ibid.: 123). Dewey did not accept the separation of ends from means. This is true for the use of portfolios. It is not the product in isolation but both process and product that are important. Current assessment systems that support educational aims by focusing rigidly on targets to the detriment of student and teacher agency – choice of means and processes of action – *have got it wrong*.

Dewey in describing the concept of 'freeing activity' emphasises that the end or object is not the end in itself, it is the doing with the thing or end that is important. For example, the portfolio of work is not the only intended outcome; 'it is a factor in activity' (Dewey, 1916: 123). A portfolio of work could be a record of one's development to be used for improvement purposes or it could be that it is used to demonstrate one's best work in order to attain a qualification, promotion or new position. 'The doing with the thing, not the thing in isolation, is [the] end. The object is but a phase of the active end – continuing the activity successfully' (ibid.). The development of a portfolio of work requires important cognitive and metacognitive skills such as monitoring, planning, reflecting and self-evaluation. In this way the portfolio cannot be separated from the processes involved in its development. This is what Dewey means by 'freeing activity'.

In this book the principles and processes involved in the development of a portfolio are emphasised. The belief is that separation of ends from means is educationally unsound. For students of today there is a need to continue learning beyond school and to develop means that will enable them to achieve success, fully and freely, through the realisation of their self-initiated ends. The aim or end is in Dewey's terms 'a means of action'. Creativity, curiosity, conversation and critique are some of the means of action of the portfolio process.

There are still limitations, problems and constraints associated with this approach. However, the processes involved in the development of a portfolio engage students such that they focus on their own learning strategies and

achievements. The progress and the quality of their learning are valued over how much has been learnt and whether the knowledge represented in the portfolio matches a centrally predetermined objective response.

The portfolio includes more that one indicator of achievement. There are several entries that reflect a range of assessment types; for example, essay answers, research projects, video-recordings of presentations or exhibitions of learning. There can be ample opportunities for the promotion of individual learning and thinking skills. Students are active in their learning, and the development of their skills can occur in authentic contexts.

The assessment of the portfolio is designed formatively so that there are more opportunities for students to receive feedback. Developmental assessment is integrated into the process and a criterion reference system is used. The teacher assumes the important role of facilitator of learning and is engaged actively in the assessment task. The professional judgement of the teacher is respected and he or she is expected to work collaboratively in the development of progress maps or learning continua that require the analysis of performance. Such assessment practices enable a wider range of knowledge, skills and attitudes to be recorded. This learning is enabling. Students gain valuable skills in organisation, evaluation, reflective thinking and management. Skills such as these allow the students to continue learning and thus to improve their employability in times of uncertainty and continual change.

What can you use a portfolio for?

Internationally, the contexts and purposes for portfolio use are expanding. The many reasons why educators advocate the use of portfolios for assessment purposes in education and professional development are developed more fully in chapter 1. The portfolio is used for assessment, appraisal and promotion in the field of education. In teacher education, for example, portfolios are used for assessing the achievement of pre-service teachers and serving teachers, and in medical education they are learner-centred focusing on the individual's identified professional development needs. Lecturers in higher education and serving teachers are expected to present portfolios for promotion and appraisal. Students in primary and secondary schools develop portfolios of work for assessment and exhibition purposes. In the vocational education field portfolios are used extensively for the assessment of competencies.

Structure and content of the book

The first chapter explores the various purposes of portfolio use. These purposes include summative assessment, certification, selection, appraisal, teaching and learning. For each use an illustration from a particular learning and teaching environment is given to portray the associated processes involved. The portfolio in terms of product is outlined and the relevance of evidence in the assessment process is highlighted. Specific examples of learning outcomes and suggested

samples of evidence are given to illustrate how a portfolio is developed and how the evidence selected is used to demonstrate the attainment of standards.

Portfolio processes are evident in the various phases of producing and collecting the work, selecting work for illustration of competence and reflection on the various forms of evidence to understand and demonstrate development and achievement in learning. Self-evaluation, reflective practice, collaboration and conversation are fundamental processes considered in the next chapter. Much research has been conducted in teacher education and for this reason the development of reflective practice through portfolios is explored in this context.

Portfolios and related assessment concepts form the themes of chapter 3. The changing emphases in assessment are outlined at the beginning of this chapter. The use of criteria is discussed first; competence, achievement and criterion-referencing follow. The important role of formative assessment in the portfolio process is emphasised. Feedback and its integral role in assessment and learning is described in detail. Aspects of validity (construct, consequential and predictive) and issues related to validity and learning are introduced. The assessment of the portfolio raises the importance of understanding the standards and issues related to reliability. Summative and holistic assessment of the portfolio are attended to at the conclusion of the chapter. Examples of grade descriptors are given and the holistic use of criteria in summative assessment is outlined. Important research findings that relate to the holistic assessment of portfolios for summative purposes are shared.

There are many aspects to consider when implementing a new form of assessment such as portfolios. The weaknesses, problems and pitfalls are analysed fully as a cautionary measure. The procedures and support needed for implementation are described in contexts such as initial teacher education or vocational education programmes. The implications are identified for a range of teaching and learning settings. The strengths of the portfolio process are also presented to provide a balanced perspective to the constraints that are summarised in chapter 4.

The fifth chapter is a case study of an attempt to use portfolios for assessment and learning purposes in an initial teacher education course. It is included to share with readers the developmental process in the implementation of a portfolio and the implications for pedagogy and learning. It provides insights on the procedures, practices and resources involved. Important lessons from the experience are described and the implications expanded for others to consider in their own attempts to set up and implement portfolio systems for assessment.

The sixth chapter deals with the principles and processes that underpin the use of portfolios for learning and assessment purposes. The six principles that underpin the use of portfolios are derived from research conducted by this author. Each principle is discussed and highlighted using illustrations from research and a review of the literature. The first principle deals with the focus on learning. The types of learning and learning styles supported through portfolio use are described. The impacts on cognitive and affective development are analysed. The second principle focuses on the developmental process. Issues related to growth, and development in scope, are explained. The documentation of achievements, of analyses of

teaching and learning experiences and inclusion of process artefacts is the third principle. The inclusion of process artefacts is a unique feature of the portfolio. Self-evaluation is integral to portfolio use and this fourth principle is emphasised. The fifth principle relates to the processes involved in the collection, identification and selection of evidence and reflection on the work in the portfolio. Finally the role of the teacher as facilitator is the sixth principle included in the discussion. Portfolios are being increasingly used for professional preparation and appraisal purposes. For promotional purposes teachers, lecturers and administrators are being asked to present a portfolio of evidence. The role of the portfolio in career advancement to demonstrate professional knowledge and as a strategy to improve one's effectiveness as a lecturer, teacher or administrator is discussed and illustrated. The implications for educators and policy-makers conclude this chapter.

Chapter 7 examines the concept of a portfolio in relation to important theories of learning, curriculum and assessment. The conceptual framework that underpins the change to using a portfolio for assessment and learning purposes is described to illustrate the important relationship between the learner, learning and assessment. Theories of learning presented by Dewey (1916), Vygotsky (1978) and Bruner (1990) are drawn upon and the implications for pedagogy are described. The driving forces behind the change in current assessment practices derive from the context of globalisation and information technology. These forces are described to explain why and how assessment practices for the future are changing. Reference is made to the corresponding changes needed in the curriculum for the twenty-first century.

Tensions

There are many tensions associated with the use of portfolios for assessment *and* learning purposes. The first relates to these purposes. Is it possible to use a portfolio as a vehicle of assessment and for purposes of facilitating learning, researching practice and/or professional development?

The second tension relates to the current context of a market economy. Education systems, internationally, have been driven by accountability pressures and/or standards that have to be met at all levels. For example, in England and Wales, the Office for Standards in Education (Ofsted) performs ongoing inspections at primary, secondary and tertiary levels. In addition, the Teacher Training Agency (TTA) has developed bureaucratic standards for use in teacher education. There exist requirements at national (National Qualified Teacher Standards), institutional, subject and individual levels. These policies have resulted in an over-regulated system that creates a context that is not conducive to innovative processes and developmental approaches to assessment, as embodied in the portfolio. In such contexts of accountability, numerical indicators are more seductive to politicians, political advisors and parents. The creation of league tables, for example, has enabled politicians to identify so-called successful and failing schools and in theory has helped parents in their choice of school. Is it possible to use the portfolio as a mode of appraisal and assessment in a highly regulated system

at the same time as using it as a means of validating one's personal development as a professional? For example, an initial teacher in England is confronted with the major dilemma of addressing the TTA standards while somehow trying to maintain a sense of self and personal identity as a teacher. Can teachers address these standards and still maintain their own identity in such a regulated system? The vision of a teacher is complex and demanding. Can a portfolio capture fully the complexities of teaching? These questions are addressed as much of the work, on the use of portfolios for assessment and learning purposes, has been exemplified in teacher education.

At the outset, it is beneficial to acknowledge the inexorable existence of pressures to pervert. In a context that is standards-driven, and values standardisation, there is a great danger that technical, rationalist approaches, that generalise and make superficial the portfolio process, will emerge. In generalising about the portfolio process there is also the real possibility that processes could be trivialised. The problems and pitfalls of portfolio implementation are included to demonstrate how and when some of these issues emerge and specific cases are used to demonstrate how some of these issues have been addressed.

Using the portfolio to support learning and teaching practice, and to empower learners, is difficult in a context that favours traditional methods of raising standards by assignments, exams and observations. In England and Wales, the National Record of Achievement was to be a planning tool and a record of achievements. Broadfoot (1998a: 466) in analysing why Records of Achievement (RoA) did not survive, states that the 'emancipatory discourse associated with RoA initiatives translated into categoric discourse of recording achievement in the context of the development of National Assessment'. It is conceivable that using portfolios primarily for summative assessment and accountability purposes could follow the same fate. When assessment is introduced for comparability purposes, and national requirements are stipulated, what can happen is that tasks are simplified. For instance, when the task is generalised and reduced to a generic level, it is no longer as demanding. This is because the serious, specific nature of the task is lost. By way of illustration, the intended processes of critical self-evaluation and reflection integral to the development of certain portfolios could give way to unintended outcomes such as using checklists to ensure that the requirements of a standardised structure are met, thereby reducing the assessment to superficial and trivial purposes.

Another tension that is relevant particularly to the prevailing policy context of England is that the use of portfolios for assessment and learning is neither an easy nor inexpensive option. To implement a portfolio assessment system requires time and considerable funds for teacher and resource development. There is much work required not only on the part of the teacher in terms of change in curriculum, pedagogy and assessment practices but also on behalf of the student. Developing a portfolio of work for summative assessment purposes, for example, requires time and effort for conceptual thinking and metacognitive development. In a climate where quick results in terms of quantifiable outcomes are valued, an expansionist assessment system that values processes *and* products will experience numerous tensions and constraints.

The portfolio is in its infancy and has the power and potential to transform. However, in the promotion of the portfolio for assessment and learning purposes there is the possibility that too much will be promised and in practice a lot less will be accomplished. Yet it is vital that alternative methods are explored fully in the search for improved methods for learning and assessment that empower students to learn, help them manage that learning and develop vital skills for success in the twenty-first century.