

A literate and numerate society: introducing the book

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A literate and numerate society with citizens well versed in the ins and outs of their indigenous/local cultures and languages, as well as the required life skills to function effectively at home, at school, in the community, nationally and in a rapidly globalising world—this is the ideal picture that Pacific governments and community leaders envisage for their people, for their society, for their country. And yet, sadly, the reality indicates that levels of literacy and numeracy are under threat in Pacific Island countries (PICs), contributing to significant numbers of Pacific students underachieving in English and mathematics.

Literacy and numeracy are contested terms. They mean different things in different contexts at different times. Traditionally, literacy was viewed as the ability to read (and write) although the term used then was ‘reading’, not ‘literacy’. Before the 1970s, the term literacy was used in relation to programmes of non-formal instruction, particularly in relation to adults who were deemed illiterate, and was never used as a ‘formal educational ideal’ (Lankshear & Knobel, 2003: 4). Today, however, literacy permeates formal educational discourse and has become central to educational planning, policy and practice, and also to curriculum development. Similarly, the term numeracy was synonymous with mathematical ability but now it is generally understood ‘as a competence in interpreting and using numbers in daily life, within the home, employment and society’ (Brown, 2005: ix).

Fashionable offshoots of literacy include multi-literacies, bi-literacy, critical literacy, cultural literacy, adult literacy, vernacular literacy, media literacy and information literacy. Vernacular literacy and information literacy are increasingly gaining prominence in the Pacific region, the former because of its socio-cultural significance and the latter for its economic and educational importance.

Pacific vision for education

As used in this book, the term ‘the Pacific region’ includes the fourteen politically independent countries that have membership in the Pacific Islands Forum (more commonly known as the Forum): Cook Islands, Federated States of Micronesia (FSM), Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea (PNG), Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Tokelau is included as the fifteenth country—it is in the process of achieving self-government in free association with New Zealand.

The Forum Ministers for Education met in New Zealand in May 2001, as directed by Forum leaders of government at their meeting in Palau in November 1999, to consider issues of human resource development, particularly the delivery of basic education in the Pacific region. The *Forum Basic Education Action Plan (FBEAP)*, developed at this meeting, has the following as the vision and goals for education in the Pacific:

Vision

Basic education as the fundamental building block for society should engender the broader life skills that lead to social cohesion and provide the foundations for vocational callings, higher education and life long learning. These when combined with enhanced employment opportunities create a higher level of personal and societal security and development.

Forum members recognised that development of basic education takes place in the context of commitments to the world community and meeting the new demands of the global economy, which should be balanced with the enhancement of their own distinctive Pacific values, morals, social, political, economic and cultural heritages, and reflect the Pacific’s unique geographical context.

Goals

To achieve universal and equitable educational participation and achievement. To ensure access and equity and improve quality and outcomes. (Pacific Islands Forum Secretariat, 2001: 1-2)

The Ministers for Education noted, amongst other things, that weaknesses in education systems include low basic literacy and numeracy achievements. While basic education means different things in different contexts, the Forum Ministers for Education have identified basic education as all educational provision: early childhood education, primary education, secondary education, and technical and vocational education and training (TVET) in both the formal and non-formal sectors—everything except tertiary and adult education.

Implicit in the vision and goals as articulated by Pacific Ministers for Education is the need to get the basics done properly—at all levels of schooling, but particularly in the early years of schooling. Literacy and numeracy are inextricably intertwined at all levels of school curricula. And it is important that children and youths are grounded well in the skills and knowledge that will enable them to succeed at each level, including the functional mastery of reading and writing, and competency in using numbers.

The PRIDE Project

The PRIDE Project¹, an initiative of the Forum Ministers for Education, was designed to implement the Pacific vision for education encapsulated in *FBEAP*. Implementation of this project began in 2004 and is expected to end in 2009. Its overall objective is:

To expand opportunities for children and youth to acquire the values, knowledge and skills that will enable them to actively participate in the social, spiritual, economic and cultural development of their communities and to contribute positively to creating sustainable futures (www.usp.ac.fj/pride).

The Project seeks to strengthen the capacity of each of the 15 countries identified above to deliver quality education through both formal and non-formal means in order to achieve its objective. The development of strategic plans for education in

1. PRIDE is an acronym for the Pacific Regional Initiatives for the Delivery of basic Education, a project funded by the EU and NZAID and implemented by the University of the South Pacific. More information is available on <http://www.usp.ac.fj/pride>

each country that blend the best global approaches with local values and ways of thinking is the expected key outcome. Support for the implementation of these national strategic plans is provided by the Project. Sharing of best practice and experience amongst countries is also an important project outcome, evidenced through the development of an online resource centre (see www.paddle.usp.ac.fj).

In relation to literacy and numeracy, the PRIDE Project Benchmarks (see www.usp.ac.fj/pride), a key document that contains 11 benchmarks used to review national education strategic plans, articulates benchmark 2 as ‘skills for life and work locally, regionally, and globally’. The principle states:

The Plan contains strategies for the systematic teaching and learning of literacy, numeracy, ICT, vernacular and English languages, together with life and work preparation skills, within a balanced curriculum framework, to equip all students to take their place, with ease and confidence, in their local communities, regional context, and global world (The PRIDE Project, 2007:2).

Indicators include:

- Clear statements of curriculum outcomes in the teaching and learning of literacy, numeracy, and vernacular and English languages across all levels and integrated across all learning areas.
 - Clear statement on strategies for the development of life and work preparation skills, including TVET programs.
 - Clear statement of promotion and incorporation of information literacy across the curriculum and supported by properly equipped and resourced libraries and learning centres to ensure access to and use of quality information.
 - Clear statement on the integration of ICT in teaching and learning.
- (The PRIDE Project, 2007: 2)

Many Pacific countries have placed an emphasis on a proper grounding in literacy (in both English and the vernacular) and numeracy (or mathematics) in their national education plans and/or curriculum frameworks. Two examples will suffice. In the Cook Islands, one of the ten strategic directions in the Cook Islands

Ministry of Education five-year strategic plan (2002-2006) is ‘strengthening literacy and numeracy, particularly at pre-school and primary level’ by developing, testing, using and monitoring strategies for effective learning (Cook Islands Ministry of Education, 2002: 11). Similarly, in Palau, priority number one has been identified as: ‘Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills’ (Palau Ministry of Education, 2003: 12).

The fifth² PRIDE regional workshop

To illustrate the importance placed on the teaching and learning of literacy and numeracy the PRIDE Project Steering Committee, made up directors or permanent secretaries of education from its 15 participating countries and representatives from donor agencies, the Forum Secretariat, the University of the South Pacific (USP) and NGOs, at its 2005 meeting endorsed literacy and numeracy as a regional workshop topic for the following year.

This book is an outcome of the 5th PRIDE Project regional workshop held in Tonga in May 2006. It was attended by senior curriculum and teacher professional development officers responsible for curriculum development and delivery in the fields of literacy (both English and vernacular) and mathematics at the primary level from 15 Pacific countries.

The aim of the workshop was to engage participants in the process of reconceptualising the way literacy (both English and vernacular) and numeracy is thought about and practised in their own country, and in the region. Part of the process required reflecting on global developments in these areas and examining the implications for the Pacific. The notion of syncretising the best of the contemporary global with the best of the local was central to the workshop.

2. The other four PRIDE regional workshops have included: Planning and Data Management (September 2004), Language Policy in Education (February 2005), Financing of Education (July, 2005) and Teacher Education (November 2005).

Specifically, the workshop:

- explored contemporary global thinking about literacy and numeracy
- examined the implications of these new ideas for the Pacific
- reconceptualised the way literacy and numeracy are thought about and practised in schools, especially from the perspective of local cultures, languages and epistemologies
- discussed literacy and numeracy issues facing curriculum developers and teachers and identified ways to deepen their awareness and understanding of contemporary theorising in these areas
- recommended strategies that will help to revitalise the development and delivery of literacy and numeracy programmes in each country.

Overview of the book

There are three parts to the book: the first contains chapters on literacy (Chapters 1-6), the second on numeracy (Chapters 7-11) with the third part integrating both aspects (Chapters 12 and 13).

In Chapter 1, *Living (in) literacy(ies) in new times*, Marilyn Low takes us on an international journey to provide a global perspective of literacy. She notes that Pacific educators face the challenge of determining how best to address literacy learning in the classrooms, given the profound changes that are taking place in today's world of high technology. She also notes the challenge of making sense of literacy in Pacific schools in these complex times, particularly in cultures that are multilingual.

In Chapter 2, *Between two worlds: taking control of our destiny through relevant literacy*, Lice Taufaga provides an evaluation of literacy learning in the Pacific, identifies weaknesses in the system and offers possible alternatives to enable Pacific Islanders to be competently operational in both the local and global worlds. She begins her analysis by providing a history of literacy, then discusses current practices in literacy pedagogy in the Pacific and moves on to outlining interventions or alternatives for consideration.

Upokoina Herrmann examines issues of access to language in Chapter 3, *Access to language: a question of equity for all children*. Here, she articulates the vision for literacy education in the Pacific as providing all children with the opportunity to be literate in their own language before becoming competent in other languages, including the language of schooling. She also discusses some challenges facing literacy education which include: the disparity between policies and practice both in formal and non-formal settings; inconsistent implementation of language policies; teacher quality; research; isolation; and curriculum. Herrmann argues that the most serious challenges to access to literacy are the myths and misconceptions that abound among Pacific peoples.

Chapter 4 by Maggie Hodges, *Quality of learning (in) languages and literacies*, discusses how to create effective conditions to achieve quality of learning in Pacific schools. Arguing primarily that poor quality of learning is ‘due to education authorities allowing curricula and teaching practice to stagnate’, Hodges goes on to itemise factors that affect the quality of learning (in) languages and literacies under the following sub-headings: physical infrastructure and facilities; curriculum resources; human resources (teachers); parents; and community.

In *Boundary crossing: a question of contextualised management systems in literacy(ies) and language* (Chapter 5), Lucy Nakin discusses the relevance of traditional management systems in formal learning and examines the way current management systems ‘could fuse the local and global literacies in supporting children’s learning (in) literacy(ies) and languages’.

Libby Cass (Chapter 6) makes a strong case for information literacy in *Information literacy: a component of all learning activities*. She discusses the *why* and *how* of incorporating information literacy into curricula, as well as what needs to be done to make this happen. She then discusses the important role of libraries in successful implementation of information literacy. Cass also provides some examples of information literacy across the curriculum.

Part 2 deals with numeracy and begins with Chapter 7, *Liberating developments in numeracy*, where Lesley Lee provides us with an international overview of

developments in numeracy. She traces four paradigm shifts in the fields of mathematics and mathematics education and examines the consequences of each of these shifts. These four shifts are: (a) in the definition or conception of the child-learner; (b) in the field of mathematics; (c) in mathematics education; and (d) in the tools for doing mathematics.

In Chapter 8, *Building bridges: 'at home I add at school I multiply'*, Salanieta Bakalevu presents an indigenous perspective to mathematics and mathematics education with specific reference to Pacific cultures. She also 'draws parallels between the traditional perspective of the home culture and the formal classroom'. Bakalevu describes some representations of mathematics in Pacific cultures in the areas of counting, measurement, locating and designing.

Chapter 9 by Steven Tandale provides a case study from Papua New Guinea (PNG) on the *Application of indigenous mathematics concepts in the elementary syllabus*. Tandale discusses the value of indigenous mathematics, drawing both from international research and the PNG experience where the outcomes-based elementary curriculum has its roots in indigenous knowledge and concepts.

Teburantaake Kaei in Chapter 10 on *Local/indigenous numeracy and its place in Pacific island classrooms* examines the philosophies, principles and values that underpin the teaching and learning of numeracy in Pacific classrooms. Making the point that vernacular languages and indigenous knowledge are needed for constructive and effective learning, Kaei is also cognisant of the fact that the best of local and global ways of doing mathematics should be fused in the curriculum. She then discusses some strategies of incorporating indigenous numeracy and the challenges these pose.

Chapter 11 by John Beuka, entitled *A united front for professional development and training in numeracy*, focuses on the preparation of teachers to develop a pedagogy that integrates global numeracy concepts with indigenous mathematical knowledge and skills. Arguing that the professional development and training of teachers is everyone's business (curriculum unit, teacher training colleges, NGOs, teachers, parents and communities, and local/global experts) Beuka then articulates some

challenges that collaborative partners/stakeholders need to overcome before providing some strategies for overcoming these challenges.

Part 3 contains two chapters. The first, Chapter 12, is a case study on integrating numeracy and literacy by Lesley Lee and Marilyn Low. They make the point that, while mathematics is taught in English, which is a second or third language for many Pacific students, the English of mathematics is not everyday English. In this case study, the authors discuss reasons for integrating numeracy and literacy before discussing a language-focussed approach to improve the learning and teaching of mathematics, based on four key principles. This is followed by an outline of an integrated lesson that puts these principles into practice.

The final chapter by Teweiariki Teaero, Chapter 13 *Eutia moa mai nanao; navigating currents of literacy and numeracy in the Pacific*, provides a succinct and fitting conclusion to this volume. Teaero makes the point that the Sia'atoutai workshop on literacy and numeracy 'represented a significant and complementary part of the broader pan-Pacific initiative by Pacific educators' to engage in re-thinking education in the region 'with a view to embedding it in Pacific values'. He highlights the major issues and challenges pertaining to literacy and numeracy, discusses the implications of these issues and provides some suggestions for the Pacific in the areas of policy development, research, curriculum development and teacher education.

References

- Brown, M. 2005. 'Foreword'. In *Navigating numeracies. Home/school numeracy practices*, eds B. Street, D. Baker & A. Tomlin. Springer, The Netherlands.
- Cooks Islands Ministry of Education. 2002. Ministry of Education 5 year plan (draft June 2002). Ministry of Education, Cook Islands.
- Lankshear, C. & Knobel, M. 2003. *New literacies. Changing knowledge and classroom learning*. Open University Press, United Kingdom.
- Pacific Islands Forum Secretariat. 2001. *Forum Basic Education Action Plan*. Pacific Islands Forum Secretariat, Suva.
- Palau Ministry of Education. 2003. *Education for All National Plan 2002-2010*. Republic of Palau, Ministry of Education.

The PRIDE Project. 2007. *Benchmarks for National Strategic Plans*. Institute of Education, University of the South Pacific, Suva, fourth edition, revised May 2007. <http://www.usp.ac.fj/pride>
