

Literacy and numeracy education in schools in Pacific Island states: Solomon Islands and Tuvalu

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INTRODUCTION

Primary school education, particularly in literacy and numeracy, provides the foundation for children's future success in further education and employment prospects (at home and internationally) – increasingly important in the context of climate change risks in the Pacific as migration and out-of-country employment is becoming more prevalent and required.

The education outcomes for children in Pacific states should be equal to what is achieved in developed countries to avoid limits on children's further education and employment choices.

The Australian aid programs in school education discussed in this paper were designed to address the UN Sustainable Development Goal 4. The focus of SDG4 shifted in 2015 to delivering free, equitable and quality education to support all children reaching effective learning outcomes by 2030.

Pacific Island children's learning outcomes are measured primarily through PILNA (Pacific Islands Literacy and Numeracy Assessment) testing which measures learning against standards based on the current ten participating countries' curriculums.

PILNA data from 2018¹ show children's improvement from the 2012 initial data sets, but a significant proportion of students still failed to attain the minimum standard in the Year 4 and Year 6 testing. And if we are to provide quality education with equitable learning outcomes for Pacific Island children in a global context, then the minimum PILNA standards will need to be raised to a higher level.

To move towards achieving the SDG4 2030 goal, we need to focus on how to progress a low performing system into a high performing system with raised student learning outcomes.

The key question is what to tackle first.

This paper reports on learnings gained from programs implemented in Guadalcanal Province in Solomon Islands and in Tuvalu, for which the quality of teaching and curriculum development were given particular attention, for the following reasons.

Quality of teaching

The quality of teaching is the factor which has the most significant and direct impact on learning outcomes in school education.

¹ Pacific Community. (2019). PILNA (Pacific Islands Literacy and Numeracy Assessment) 2018 Regional Report. Educational Quality and Assessment Division (EQAP), Pacific Community. https://eqap.spc.int/resources/publications/pilna-2018-regional-report

The quality of teaching is even more important when children come from disadvantaged backgrounds (see for example the Mirage Report, 2015² and Darling-Hammond, 2006³). To improve quality of teaching, teachers must be given knowledge of what best practice teaching looks like and have a safe opportunity to trial new teaching methods that enable change.

Strengthening the quality of teaching is challenging, and requires a multi-faceted long-term plan. Improving initial teacher training is essential. This starts with the selection of students for pre-service training, building in, where necessary, ways to develop teacher's own literacy skills. Courses of high standard across the different training institutions are needed.

Currently, practicum placements, if offered, do not always provide teachers with access to exemplary teachers, and modelling of practices that align with the curriculum. Teachers' ongoing professional development to improve and sustain good practice throughout their careers is not routinely planned or available.

The situation is often exacerbated because teachers work in isolation from central department support. The small size of some schools and their geographic remoteness, and poor internet connectivity, limit opportunities to share good practice. Instability within the teaching force adds another complexity.

Curriculum development

Curriculum design, content and accompanying resources, along with teacher training in the use of the curriculum and application of teaching methods, also have a big impact on determining what happens in the classroom. Curriculum content in English literacy does not vary greatly between developed countries.

However, curriculums in some developing countries only cover the development of basic skills, with higher order critical thinking and analysis skills not addressed, and expected attainment standards set low.

The curriculum, with supportive teaching guides which include details of effective teaching strategies that are well understood by teachers, can bring about change in learning outcomes in a relatively short period of time.

From this start – better quality of teaching and a well-designed curriculum – we can then progress and implement, in a series of interlocking steps, additional processes, that spiral upwards to a fully developed system of highly trained teachers, established structures, and

² TNTP. (2015). The Mirage – Confronting the Hard Truth about our Quest for Teacher Development. The New Teacher Project (TNTP). https://tntp.org/publications/view/the-mirage-confronting-the-truth-about-our-quest-for-teacher-development

³ Darling-Hammond, L. (2006). Constructing 21st-century Teacher Education. Journal of Teacher Education, 57(3), 300–314. https://doi. org/10.1177/0022487105285962

policies and procedures that facilitate consistently high standards of learning. Quality outcomes for all students then become possible. Achieving this takes years and staying the course to embed change is critical.

THE GUADALCANAL PROVINCE EXPERIENCE

Guadalcanal Province Education Authority (GPEA) Model Schools Program (MSP) was my assignment as an Australian volunteer. MSP was a literacy-focused program, piloted in five village schools (Makaruka, Mboeni, Lambi, Nguvia and Rate). The scope of the assignment was to design, develop and implement the pilot program.

The MSP's central goals were to improve student learning outcomes through student-centred learning, strengthening teaching practices, and enhancing the classroom environment. A gradual release of responsibility approach to teaching was introduced, along with increasing understanding of the English curriculum in Years 1-6, and professional development that built on the curriculum work undertaken by the Solomon Islands Ministry of Education.

The program aimed to demonstrate success within the five selected schools, using the practical approach of working with school leaders and teachers. The plan was then for each school, in Stage 2 of the design, to share their learning with schools within their cluster of surrounding schools.

The scope of the brief required time well beyond the one-year allocation. GPEA tried in the following year to continue to implement Stage 2. The sharing of practice, within and between schools, was important to them and suited their setting and preferred mode of operation.

Lessons learned from the MSP

We learnt from this program that in-class modelling and side-by-side teaching was particularly effective in showing what a specific teaching practice looks like. In supporting teachers to change their practice, a culture of sharing by teachers within the school makes a difference.

The timeframe for this program was not sufficient to ensure a level of training to GPEA staff and school leaders that would embed sustainable change into practice. Nor was there sufficient time to develop support materials to reinforce and provide ongoing training to new teachers.

THE TUVALU EXPERIENCE

In Tuvalu, government, parents and the community value education highly, and children have a strong interest in learning (PILNA 2018 data). Relatively low PILNA results highlighted the need for changes in practice.

Whilst Tuvalu was interested in and valued the experiences learnt by other Pacific countries in curriculum and teacher development process, they expected the program of work to value their prior curriculum journey and their country's specific needs. A 1999–2002 Australian aid program remained well regarded because of the involvement of Tuvaluan teachers, and acknowledging this work and showing respect for the system's history was important.



Figure 1: Teaching strategies

We referred to Hattie's work (2008; 2015)⁴ to guide some decisions in the design of the program. Eight teaching strategies that accelerate children's learning were agreed on.

These strategies were designed to fit the context of the Tuvaluan system. Professional development modules expanded on what each strategy stood for, and we incorporated the use of these strategies during modelled lessons and side-by-side teaching (see Figure 1).

Curriculum development

We built onto the core beliefs and teaching approaches in the 2002 English curriculum,⁵ but added content and changed emphases to reflect current best literacy teaching practices and to address areas of need identified in data sets. This approach immediately built teachers' confidence and interest in the new curriculum.

Our approach addressed the Department of Education's three key requirements for development of the new curriculum:

- A literature-based design with a shared reading text to be used as a vehicle for teaching weekly curriculum content. To ensure learning was contextualised and relevant to the children, we carefully selected reading texts and included as many Tuvaluan bilingual texts as possible.
- **Detailed daily lesson guides to explain the weekly unit of work.** These guides were required to address explicitly the teaching of content and how to use the eight teaching strategies and a range of pedagogical practices.

Using a direct instruction strategy – which greatly improves and accelerates student learning outcomes, as identified in Hattie's work – we designed a structure for the daily lesson guides. Each lesson links from and builds on prior learning. Curriculum learning outcomes that are challenging for English-as-a-foreign-language learner, were identified and given additional learning time. We avoided the limiting and negative structure of scripted lessons that has become associated with commercially packaged direct instruction programs.

Lesson guidelines were supportive of developing teaching practice providing structure and guidance to cater for the range of learners within the class. Key features of the lessons included clear learning outcomes, and steps for the explicit teaching of content in

⁵ Tuvalu Department of Education. (2002). English Curriculum & Syllabus Outline, Volume 1 Classes 1–4 and Volume 2, Classes 5–8. Tuvalu Australia Education Support Project (TAESP).

⁴ Hattie, J. (2008.) Visible Learning – A synthesis of over 800 Meta Analyses Relating to Achievement. Routledge; Hattie, J., Masters D. & Birch K. (2015). Visible Learning into Action – International Case Studies of Impact. Routledge.

a making-meaning model, with activities to support consolidation of skills and opportunities to extend learning.

Most teachers are female, with important responsibilities to fulfil within family and community that take time away from lesson preparation which can only be done outside teaching contact time. Basic resources to support lesson preparation were limited. It is challenging for teachers to adopt new ways of working, without planning time and access to resources. Provision of lesson guides, and resources that matched lessons, helped overcome this barrier.

• Involvement of teachers in the writing and reviewing of units of work. This requirement had three main purposes: to build teacher understanding of the lesson content and teaching methods that were incorporated; to strengthen understanding of the curriculum and content of all the syllabus documents; and importantly, through their input, to build ownership of the documents.

Extensive trialling throughout 2021 of all units of work gave teachers and department staff time to reflect on and review the changes. Feedback was then incorporated into the final units of work and ensured content appropriateness and readability.

Importantly, whilst the curriculum and syllabus documents were being developed and trialled, we

- designed and delivered an intensive school support and professional development program, which included classroom modelling and side-by-side teaching
- designed and provided training on using a teacher observation checklist
- supported schools to develop with their staff and community a school literacy plan, and
- developed assessment tools and set up a data tracking program with schools so that each child's attainment level and rate of learning could be monitored.

At the end of 2021, we were able to show that change in both teaching methods and learning outcomes was underway (see Table 1). Being able to see change happening reinforced commitment to persist and to progress to the next set of goals in the development of a highly effective education system.

Department staff reported that during Terms 1 and 2 of 2022, teachers' use of the curriculum modules was continuing and strengthening.

Table 1: Data showing improvement in one school in Tuvalu

	Year 1		Year 2		Year 3		Year 4	
	2020	2021	2020	2021	2020	2021	2020	2021
Sight words	8%	20%	16%	44%	Not available	51%	62%	66%
Writing	NA	NA	29%	67%	25%	66%	50%	81%
Reading level	Not available	24%	Not available	20%	Not available	34%	Not available	45%

Head teachers monitored teacher practice using the teacher observation checklist. They reported that 85% of teachers had demonstrated improved teaching practices during 2021. All teachers reported that in Term 4 2021 they were using the units of work, and observations of lesson delivery by education department officers showed new content and strategies were being implemented. Mapping of children's learning showed an increase from 2020 to 2021 in the number of children who reached the expected year level attainment standard in reading and writing.

CONCLUSIONS

Whilst the UN Sustainable Development Goal 4 may not be fully realised in many Pacific Island countries by 2030, there is still time to ensure that the most progress possible is achieved.

Quality of teaching

To improve school education, we need to focus initially on what matters most – quality of teaching.

The Guadalcanal and Tuvalu experiences have demonstrated that support provided within the school setting is more effective for developing knowledge, skills and implementation of new pedagogy, than delivery from a distance.

Extensive ongoing support and readily available guidance is required for consolidation of change in teaching practice, especially when the 'step-up' is substantial. This avoids the pitfalls of incomplete implementation of practices. An instructional leadership mind frame among the school leadership team helps to lead and embed change in teaching practice.

Teacher training is a long-term goal and avenues for achieving the best pre-service and inservice training need exploration and development. It would be worthwhile thinking outside the traditional practices, and looking at other collaborative ways this can be done.

Curriculum development

Provision of a clear curriculum with supportive teaching guides is effective in delivering initial change in teaching quality and building teacher skills.

Curriculum design that is understood by the teachers and has been done in a highly consultative manner is more likely to be used. Learning from and sharing programs operating in neighbouring countries has merit, but countries respond best when work is designed specifically to meet their needs and aspirations and builds on previous work and current teacher understandings. Trust and commitment to undertake change is then achieved.

Detailed teaching guides to help teachers deliver effective lessons – with recommended teaching strategies that cover new content – can go a long way in bringing about improvement in teaching and learning. When done well this intervention lays a solid foundation for building a highly skilled teaching force. Such teaching guides should include direct instruction on units of work which supports teachers who currently have limited teacher training. Over time, when quality and extensive teaching training is made available, the reliance on these detailed lesson plans will reduce.

Regular reviews of learning attainment standards are also required. These will avoid the setting of overly ambitious standards in the medium term whilst enabling increases to standards to meet long-term goals. Standards set too high in the early stages will cause failure for large cohorts of students.

Change takes time and requires persistence and consistency of approach to achieve sustainable quality outcomes. Coherence within the long-term plan is essential. Open and productive reviews of program goals, with flexibility in design, will ensure that the momentum and work of change continues at a high level.

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