CHAPTER 14

Examining the Potential of Open Schooling to Support Second-chance Education in Tonga

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Abstract

This paper briefly describes several Open Schooling (OS) models used worldwide, and some of the models used in the Pacific, followed by a brief description of an empirical research case study conducted at The University of the South Pacific (USP), Tonga Campus. The study involved analysing both qualitative and quantitative data collected from the 2012-2014 Post School Bridging Programme (PSBP) student cohorts, tutors, Tongan educational managers, USP Tonga campus administrators, and students' parents.

Constructivism Theory was used to frame the study and the Kakala Research Framework was applied as an appropriate methodology to use in the context of the study.

The research findings showed that PSBP Open Schooling model was successful in Tonga. About 73% of the students who completed OS continued on to do USP certificate and degree courses. It was found that the best OS model was for the USP Tonga Campus to continue to offer the programme as an alternative to secondary schooling, and recommended that USP Tonga Campus form partnerships with some secondary schools and technical schools in Tonga. The findings also indicated that the curriculum course materials be reviewed, appropriate pedagogies (that is, both teacher-centred and pupil-centred) be employed, and a range of modes of delivery be utilised. Findings also suggested that the programme would benefit from the use of information communication and technology (ICT) for teaching and learning, and a mixture of different types of assessment (both formative and summative) would better ensure that students are learning actively. Furthermore, and importantly, financial assistance from the government is needed to review the course programmes, to provide more educational resources and equipment, to employ full-time tutors to

avoid extensive staff turnover, and to implement the special training of tutors.

Introduction

The research was designed to examine the effectiveness of the Post School Bridging Programme (PSBP) as an appropriate Open Schooling (OS) model for Tonga. The study was based on the premise that the programme needs to be sustained to meet the educational needs of the students, who, for various reasons, leave school without a formal secondary school level qualification, including school dropouts. It aimed to provide evidence that:

i. this programme enables Tongan students to gain certification to continue on to higher education, or to seek employment in Tonga or abroad

ii. there are various strategies used to upgrade the programme and to inform policy and practice of OS in Tonga, and

iii. financial assistance is required from the Tongan government to ensure that the PSBP OS is sustainable.

The overarching research question was:

What is the potential of using OS as a vehicle for second-chance education in Tonga?

The guiding sub-questions were:

i. What does the literature identify as the best current OS models?

ii. How is OS currently implemented in Tonga?

iii. What are the students', tutors', and educational managers' perceptions of the OS programme?

iv. What are the students' and tutors' experiences of the OS programme?

v. What are the benefits of the OS programme?

vi. What are the challenges of the OS programme?

vii. How might policy related to OS in Tonga be improved?

viii. How might practice of OS be improved in Tonga?

Study Design, Settings, Participants

The research design used a mixed-methods approach, collecting and analysing a mixture of quantitative and qualitative data in a single study site; that is, USP Tonga Campus. A literature survey was conducted. Questionnaire surveys were administered using a large sample which primarily assists with gathering descriptive statistics (demographic characteristics and important relationships of the OS learners, tutors, educational managers, and administrators). These surveys provided the quantitative data. As an example, Table 1 below shows the number of students that responded to the questionnaire surveys that provided this quantitative data. After the data collection, the researcher conducted semi-structured interviews with seven tutors and 35 students; and "talanoa" sessions with 10 students' parents, three USP administrators, and seven Tongan educational managers to provide qualitative data in this research study.

Table 1. Questionnaire Responses from PSBP OS Students in Tonga

Year that OS students started the programme	Number of Females/Males	Total number of returned completed surveys	Percentage Return
2012	10/17	27	90%
2013	11/12	23	77%
2014	15/30	30	100%
2015	36/80	80	80%

According to Thaman (1997, 1988), Manu'atu (2001), and Johansson-Fua (2011), the Kakala Research Method (KRM) can be used by Tongan researchers in New Zealand and the Pacific countries as a theoretical and methodological framework. The researcher chose the KRM as the most appropriate method to be used in this study. The KRM comprises six stages:

• Teuteu – Careful preparation of the research study

• Toli – Data collection through survey, talanoa, and interview

• Tui – Analysis of both qualitative and quantitative data

• Luva – Reporting and outcomes

• Malie – Relevancy and usefulness

• Mafana – Application, transferability, and sustainability

The study was carried out at USP Tonga Campus where this PSBP OS programme was offered to students who were unable to finish their secondary education at traditional or conventional secondary schools (Du Vivier, 2013). This was the first short consultative study that was carried out in this OS programme. The student cohort included single mothers, dropout youths, and early school leavers enrolled in OS as a form of "second-chance" education.

The USP Tonga campus is located at 'Atele, in the Kingdom of Tonga, an archipelago of small islands in the South Pacific region. It has a total land area of 748 square kilometers, spread over 176 islands of which 52 are inhabited. It is made up of six main groups of islands: namely, Tongatapu, Vava'u, Ha'apai, 'Eua, Niuatoputapu, and Niuafo'ou. The 2016 National census reported a total population of 100,651 inhabitants in Tonga, with 74% of the total population residing in Tongatapu; 14% in Vava'u; 6% in Ha'apai; 5% in 'Eua and 1% residing in Niuatoputapu and Niuafo'ou (Tonga Statistics Department census, 2016).

This empirical research study was carried out in two Phases: Phase 1 was the pilot study and Phase 2 was the main study. There were 30 participants in the pilot study. In the main study, 80 former OS students and seven tutors completed the surveys, and semi-structured interviews were conducted with 35 students and seven tutors. The talanoa sessions were carried out with 10 OS students' parents, seven educational managers, and three USP administrators totaling 107 participants.

Findings and Discussion

The analysis identified five themes and issues in relation to the research questions. The themes themes, well supported by literature, showed the potential of OS as a vehicle to support "second-chance education" in Tonga. These are discussed below.

The Participants' Demographics and Profiles

This section considers participant demographics and profiles in relation to the literature. Of the students who participated in this study, 55% were male and 45% female. Rumble and Koul (2007) report that more males than females enrolled in OS in the National Institute of OS (NIOS) in India. Pant (2009) notes that India is the country in the world with the greatest number of students enrolled in OS programmes; that is, 1.5 million students. Similar results were also observed in relation to the students' age distribution. The majority of the students, 93%, who enrolled at USP Tonga

Campus's OS were aged between 16 and 25 years, with many students who had dropped out of secondary schools in Tonga at an early age. 70% of the students were single, 25% were married, and 5% were divorcees and single mothers. Interestingly, most of the married students had better grades in OS than the younger students. Bakalevu (2011) reports similar results in Fiji: most of the students in the OS programme in Fiji were under 25 years old and most were single; however, married students tended to perform much better. She offers the example of a married woman being the Dux of the Nabua Secondary School OS in 2003. This shows the potential of OS as a vehicle to support second-chance education in various countries in the world including the Pacific Island countries.

The best OS model for Tonga

With reference to the findings collected in the semi-structured interviews and talanoa sessions, participants fully supported the notion that PSBP is the best OS model to be practised in Tonga. This aligns with the findings of Abrioux and Ferreira (2009) who report that Papua New Guinea University and National Institute of Open Schooling (NIOS) in India practised this OS model in these countries, while Pant (2009) reports that these two countries practised this OS model successfully.

The majority of the participants of this study – 98% of the students and 100% of the tutors – strongly agreed that USP Tonga Campus should continue to offer the PSBP OS as an alternative to the conventional secondary schools until the government is able to offer it. As one tutor reported, "USP Tonga campus should continue to offer the OS until the government is well prepared to take over in the future, as the USP has all the experiences and skills since it has been offering this programme for five years" (I,T1). Furthermore, both students and tutors felt that if the government was to establish an OS institution, then a private provider such as USP Tonga Campus could administer it independently.

The findings show that 60% of the students and 86% of the tutors strongly agreed with the idea that the University could form partnerships with some schools and institutions in Tonga, and agreed that the USP should form partnerships with a government secondary school to offer the OS. However, the majority of the students (89%) and, tutors (86%) strongly agreed or agreed that the USP should form partnerships with some TVET institutions and secondary schools. This is similar to the MATUA OS programme that is currently operating successfully in Nabua Secondary school in Fiji (Bakalevu, 2011).

Participants' perceptions of the OS Programme

This theme focuses on the OS curriculum course materials; pedagogies and delivery modes; types of assessment; educational resources and equipment; finance and management; policies, staff capacity, and training of tutors.

The results from the surveys showed that both students and tutors liked the PSBP OS curriculum course materials. However, the majority of the participants – 83% of the students and 71% of the tutors – wanted the curriculum to be offered as an alternative to the secondary school curriculum. Both students and tutors agreed that some extra-curricular activities could be included in the curriculum course units. Data from the interviews and talanoa sessions indicated that some of the curriculum course materials need to be reviewed as the participants believed that these are out of date.

The findings showed that both tutors (86%) and students (91%) wanted the tutors to use a variety of pedagogies/teaching techniques. Both teacher-directed and pupil-centred pedagogies were used in this PSBP OS programme; 100% of the tutors prefer to use pupil-centred techniques while 89% of the students prefer the tutors to use teacher-directed approaches. To sum, the tutors and students preferred the tutors to use both teaching techniques. In addition, 97% of the students like the tutors to use face-to-face lectures and tutorials.

Both tutors and students liked the tutors to use different types of assessments: 90% of the students like tests, homework, and practical tasks, while 100% of the tutors either strongly agreed and agreed with the use of tests, homework, and practical tasks.

The students and tutors wanted the OS programme to have more educational resources and equipment such as computers and science equipment. As one student commented:

> Tutors should give us more computer training, especially on how to use online satellite sessions and moodle, as there are gaps when we continue on to do CFS course programmes. We ought to have some training also on usage of various computer programmes such as spreadsheet, paint, publisher, blogs, wiki, and e-portfolio. (I, S78)

With regard to finance and management, both students and tutors expressed that the school fees are fine. However, the majority of the students (95%) and tutors (86%) either strongly agreed or agreed that the government could

fully fund this OS programme. Funds are needed to review the curriculum course materials, for more educational resources and equipment, and for training of tutors. One educational manager said:

> I wish the government would assist us with some funds to develop the course programmes as well as pay the tutors. Self-learning materials need to be reviewed as they are out of date. More computers are also needed in the computer centre to be used by the students. (T, EM 1)

Findings show that participants – 85% of students and 100% of the tutors – think the OS policy should be enforced and ICT policies should be set. In addition, 85% of the students either strongly agreed or agreed that tutors should have some training. However, 71% of the tutors strongly disagreed or disagreed that the tutors should have some training.

Benefits to students of the OS Programme

Various studies conducted in Asia, UK, Australia, Canada, and Africa have shown the huge benefits of OS (Daniel 2012; King, 2012). The OS programmes addressed issues of access and equity by opening up opportunities driven by national goals of work force development. Daniel (2012) argues that widening access and improving participation through OS enables out-of-school youth, working mothers, people of disability, young girls, and those who have been denied the opportunity to continue their education because of geographical location access to higher education. OS has removed most of the restrictions faced by girls and women and improved gender equity on education especially at the secondary schools' levels.

Another major benefit of OS identified by the literature is the extensive use of ICT. Daniel (2013) reports that while OS started as print-based, the introduction of the internet has changed the way it is offered globally. Today, the adoption of technologies such as audio, video, teleconferencing, the internet, and mobile technologies has aided OS to reach large population OS students. ICT is integrated into the teaching and learning at all levels of the education system (Raturi et al., 2011; Raturi, 2014).

A further benefit of the use of digital technology is the production and sharing of Open Educational Resources (OERs) which include lessons, modules, full course programmes, e-texts, articles, videos, multimedia, and other learning materials (Downes, 2007). Mishra (2012) argues that the usage of OERs in OS allows lecturers and tutors more time to engage with students and help them complete their courses on times. Kanwar

(2013) notes that OERs have been used as supplementary textbooks in rural areas with shortages of textbooks, especially in African countries.

Table 2 shows the benefits of OS to students in Tonga. The findings show that 73% of the students continued on to take the University's CFS Preliminary and Foundation course studies. Some of the students subsequently pursued educational pathways locally or abroad, while some pursued various careers and employment locally and abroad.

Table 2 – What students are doing post OS

What students are currently doing	Total Percentage of male/ female participants	Plans for the future
Continuing to do the CFS Preliminary course at USP Tonga Campus	37/46%	15 students will continue to do their Foundation course in Semester 1 2016
Continuing to do the CFS Foundation course at USP	21/27%	4 students will start doing their degree course at USP in Semester 1 2016
Working in a full-time job	8/10%	Work full time as carpenters, or work in hotels etc.
Studying abroad	5/6%	Two students continue on to study in New Zealand universities; one study in the UK, and two are studying in USA
Continuing study in a tertiary institution locally	3/4%	Two students study in Tupou Tertiary Institute intending to work as engineers and one in Fokololo TMPI
Continuing Technical and Vocational study locally	2/2%	One student completed a certificate in Carpentry and is currently doing the CFS course programme
Student returned to study in a secondary school to do Forms 6-7 after the PSBP OS	4/5%	Students were directed by their parents to return to secondary schools due to social problems
Total	80/100%	

Challenges to the PSBP OS programme

The PSBP OS programme faces a number of challenges: high costs, lack of IT equipment and basic infrastructure for the usage of ICT to deliver the OS course programmes, and lack of skills and expertise are the major challenges for the delivery of the OS at the secondary level.

Strong political commitment from the government is needed to ensure the necessary funding and resources for the sustainability of the OS programme

and to remove perceptions that this OS is second rate to conventional secondary schools. In other words, funding from the government has been the backbone of OS and sustainable funding sources for OS needs to be worked out with stakeholders as well. The challenge is for adequate and regular disbursement of funds to deliver the OS.

Another challenge is the determination of the minimum admission requirements to take the OS programme (Okonkwo, 2012).

A further challenge is the absence of a coherent policy on OS programmes. Du Vivier and Ellis (2009) emphasise that there should be a coherent policy development for OS programmes.

There also challenges of access, equity, and quality of education; however, the Tonga Ministry of Education has worked collaboratively with the university to alleviate these challenges.

Financial assistance is very much needed to ensure the sustainability of the PSPB OS in Tonga, and to assist with curriculum review, training of tutors, improving educational resources and equipment etcetera. Full-time staff is needed rather than part-time tutors and extensive staff turnover.

Summary, Conclusions and Recommendations

Between 2012 and 2014 the majority of the students (that is, 73%) who completed the USP Tonga Campus PSBP OS programme continued on to take the USP CFS Preliminary and Foundation course programmes. The benefits of OS include widening access and allowing out of school youths, single mothers, and mature students who left school early to have these educational opportunities. After being awarded with the PSBP OS certificates, many have pursued different educational pathways, careers, and employment, locally or abroad. Some students left Tonga to continue tertiary education abroad in the United Kingdom, United States of America, Australia, New Zealand, and Fiji. Some left the university to seek employment, some continued on to do TVET and VET in local institutions, and a few returned to finish their secondary school education. This shows that the potential of OS as "second-chance" education in Tonga is good, successful, and achievable.

It is important that the government and all education stakeholders are well informed of the outcomes of this research study to convince them there is a great need to continue to offer this course to cater for the educational needs of Tongans, and to ensure the sustainability of this PSBP OS.

Based on the findings it is recommended that:

• The USP Tonga Campus continue to offer the OS programme as an alternative to conventional secondary schooling in Tonga

• USP form partnerships with secondary schools to share their resources and experiences

• MET and USP work collaboratively to set national OS and ICT policies and develop strategic plans with a view to improving policies and practice in Tonga and to the Government taking over the programme in the future

• The usage of ICT be incorporated into the OS and a blended mode of delivery be sustained; that is, face-to-face and online modes be used for the students in the outer islands to have access to the OS programme

• The government provides financial assistance for the implementation of the USP Tonga campus PSBP OS to ensure its sustainability; for educational resources such as computers and science equipment; for ongoing staff development, and for student counselling

• The government include in its strategic plan the establishment of OS institutions to cater for the educational needs of the country, especially to achieve national educational policies to ensure education for all students aged 4-18

• OS national educational and ICT policies be established and enforced

• Scholarships be awarded for those who perform outstandingly to continue on doing tertiary level and degree courses

• That steps are taken to ensure the programme has a stable full-time staff rather than extensive part-time staff turnover

• That the curriculum course materials are reviewed and the modes of delivery and assessment upgraded

• That further research of this kind is funded to investigate the potential future partnership between USP Tonga campus, secondary schools, and TVET institutions for the implementation of the OS programmes

• That similar projects be conducted in other Pacific Island countries to investigate the potential of OS to support second-chance education.

References

Abrioux, D. A., & Ferreira, F. (Eds.). (2009). Perspectives on Distance Education: Open Schooling in the 21st Century. Vancouver, BC, Canada: Commonwealth of Learning.

Bakalevu, S. (Ed.) (2011). Open Schooling as a Strategy for second-chance education in the Pacific: A desk study report. . Vancouver, BC, Canada Commonwealth of Learning.

Daniel, J. (2010). Education for the 21st century: Time for open schools to raise their game COMOSA Journal of Open Schooling, 1(1), 1-8.

Daniel, J. (2012). The future of (open) education Paper presented at the UNESCO Bangkok Special Seminar 2012 (No. IV) Bangkok, Thailand.

Daniel, J. (2013). Education across space and time Paper presented at the Open and Distance Learning Association of Australia 2013 Summit, Sydney, Australia.

Downes, S. (2007). Models for sustainable open educational resources Interdisciplinary Journal of Knowledge and Learning Objects, 3 29-44.

Du Vivier, E. (2013). Open Schooling Programmes for the Kingdom of Tonga – Report of a Short Term Consultancy USP Tonga Campus: COL.

Du Vivier, E., & Ellis, J. (2009). Formulating policies to enable the development of Open Schooling. In D. Abrioux & F. Ferreira (Eds.), Perspectives on Distance Education: Open Schooling in the 21st century (pp. 21-33). Vancouver, BC. Canada COL.

Johansson Fua, S. (2011). Kakala Research Framework – A Garland in Celebration of 'A Decade of Re-thinking Pacific Education, . Paper presented at the Vaka Pasifiki: Celebrating a Decade of Re-thinking Symposium, USP Laucala Campus, Suva, Fiji.

Kanwar, A. (2013). Democratising higher education through Open Educational Resources: What are the possibilities? Paper Paper presented at the International Conference on Science and Technology for Economic Diversification, Port of Spain, Trinidad and Tobago

King, B. (2012). Distance education and dual-mode universities: An Australian perspective Open Learning: The Journal of Open, Distance and e-Learning, 27, 9-22.

Manu'atu, L. (2001). Tuli ke Ma'u Hono Ngaahi Malie: Pedagogical

Considerations for Tongan Students in NZ Secondary Schooling. (Doctoral Thesis). The University of Auckland, New Zealand. ,

Mishra, S. (2012). Openness in education: Some reflections on MOOCs, OERs and open and distance learning. Paper presented at the International Council for Open and Distance Education Standing Conference of Presidents Hamdan Bin Mohammed University, Dubai.

Okonkwo, C. (2012). Assessment of challenges in developing self-instructional course materials at the National Open University of Nigeria. International Review of Research in Open and Distance Learning, 13(2), 1-6.

Pant, M. C. (2009). National Institute of Open Schooling, India: A Case study. In D. Abrioux & F. Ferreira (Eds.), Perspectives on Distance Education: Open Schooling in the 21st century (pp. 111-128). Vancouver. BC. Canada: COL.

Phillips, S. (2006). Exploring the Potential of Open Schooling. Connections 11(1), 8-10.

Raturi, S. (2014). Online tools in elearning in the context of developing countries: A study at the University of the South Pacific. MOOC, Innovation and Technology in Education (MITE), 112-117. doi:10…1109/ MITE, 2014.7020 252

Raturi, S., Hogan, B., & Thaman, K. (2011). Learners' access to tools and experience with technology at the USP: Readiness for e-learning. Australasian Journal of Educational Technology, 27(3), 411-427. Retrieved from http://wwwascilite.org.au/ajet/ajet27/raturi.html

Rumble, G., & Koul, B. (Eds.). (2007). Open Schooling for Secondary and Higher Secondary Education: Costs and Effectiveness in India and Namibia. Vancouver, British Columbia, Canada: COL.

Thaman, K. H. (1988). Ako and Faiako: Educational ideas, culture, and teachers' perceptions of their role. (Unpublished PhD Thesis). USP, Suva.

Thaman, K. H. (1997). Kakala Towards a Pacific Concept of Teaching and Learning. Keynote address. Paper presented at the Australian College of National Conference, Cairns.

Tonga Statistics Department. (2018). Tonga National Population and Housing Census, 2016: Results. Nuku'alofa, Tonga Statistics Department of Tonga.