Flexible Learning as a Means to Increasing Access to Higher Education in PNG

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Abstract

This paper argues that flexible learning is an appropriate vehicle to increase access to higher education in Papua New Guinea (PNG). Flexible learning needs to be understood within the context and limitations of the situation and hence flexible learning in PNG needs to take on special characteristics in order to benefit learners and to not create a new level of educational disadvantage. The article develops a model, based on the evolving experience of Divine Word University (DWU), to better understand what flexibility means and how to ensure the provision of flexible structures and processes for learners. Ultimately, flexible learning needs to be at the service of the learners and for the sustainable development of the nation.

Key words: flexible delivery, equity of access, adult education, higher education.

Introduction

Papua New Guinea faces a number of educational challenges. There are multiple challenges for elementary, primary and secondary education in terms of access, funding, resourcing and supply of quality teachers. To compound the problem of access to basic education, school fees apply even in primary schools. There is no free educational provision ('Schools urged to register students with partial fees', 2007). Higher education, or post compulsory education, faces even greater hurdles as higher eduction does not even feature in the Medium-Term Development Strategy (Department of Planning and Development, 2004). University costs are only partially subsidised by government (Anis, 2007) and average incomes of families are low. Papua New Guinea is a country divided by geographical, linguistic and economic barriers. To compound these difficulties, the level of education of many adults is low. Even more worrying is the overall low rate of effective school attendance (Education and Policy Data Centre, 2005), despite the compulsory nature of education up to primary levels. The effective attendance of primary schools was recently reported to be about 32% nationwide (Kombra & Webster, 2006).

Despite the challenges existing in school education, there remains a strong desire for post-compulsory education. Every year the newspapers report how many more students desire undergraduate university places than can be accommodated (*Post Courier,* 2007a, 2007b). Furthermore, large numbers of organisations – government, companies and not-for-profit organisations – need their employees to access and employ skills acquired through higher education.

This is the situation that universities face today in Papua New Guinea. This paper sketches the outlines of a philosophy of approach to respond to these challenges. This paper addresses these issues through a discussion of 'flexible' and what flexible learning means within the present context of Papua New Guinea in the university sector. Essentially, this paper claims that equity and access issues can best be addressed through flexible access, and 'flexible access' has a number of implications for the students and, more centrally for this paper, for the university as a learning organisation.

Flexible learning in higher education

This paper is directed towards adult education in the context of higher education. Hence it is not directly concerned with school students or those young people of near school age. This paper addresses issues of educating adults who have some workforce experience and who will profit from further skill development. Fundamental to this approach is the belief that maximising the potential and capacity of those already in the workplace is one way to build the economic and social fabric of Papuan New Guinean society. Increasing the capacity of the present workforce is understood to result in direct increases in the capacity of that workforce to engage more workers and continue to build the economy and social fabric by including ever more people in the market economy and waged participants in society.

This article develops earlier ideas about the role of flexible learning (Vallance & Bugg, 2006). It is important to note that 'flexible' has a number of different connotations, and indeed at the 5th Huon Conference (Lahies, 2006) university educators continued a discourse of standards based on entry requirements that students must attain to gain admission. This point will be directly addressed in the later section: 'appropriate and transparent standards'. By describing the Divine Word University (DWU) model of flexible learning, it is hoped that the model might provide the basis for a discussion of the most appropriate flexible learning models for PNG today.

What flexibility means

Flexibility means different things in the context of educational provision. Certainly, flexibility does not pertain simply to attendance or modes of learning. Flexibility, is it argued, needs to be employed in order to maximise student engagement, especially when in PNG potential students face many challenges in terms of traditional educational accomplishments. It is argued in this paper that flexibility must include a majority of a number of parameters. To claim 'flexibility' in one aspect and maintain a more traditional rigidity in others is actually a contradiction and indicates a lack of essential flexibility. Hence, an organisation needs to commit itself to a creative approach that maximises flexible thinking in meeting the real needs of its students (Donnelly, 2004).

The conservative mindset that suggests that students need to conform to the rules of the institution if they want to join the higher education institution ignores the social imperatives of our times and the needs that have up to now been unfulfilled. Furthermore the conservative mindset will perpetuate the educational gap between provision and needs. The following discussion of necessary flexibilities is ordered on a chronological order as the new student is likely to encounter demands and requirements of the learning situation.

Flexible entry

Papua New Guinea has a population that is growing quickly. While 37% of the population is under the age of 14 years (CIA FactFiles, 2006), 85% of the population live in at least a partially subsistence manner. Since rates of school are low (Education and Policy Data Centre, 2005), the traditional expectations of Year 12 schooling for entry into higher education automatically excludes many adults who may have successful work histories and employment records. A simple recognition of prior learning (RPL) alone does not offer access to the usual tertiary avenues of diplomas and bachelor degrees.
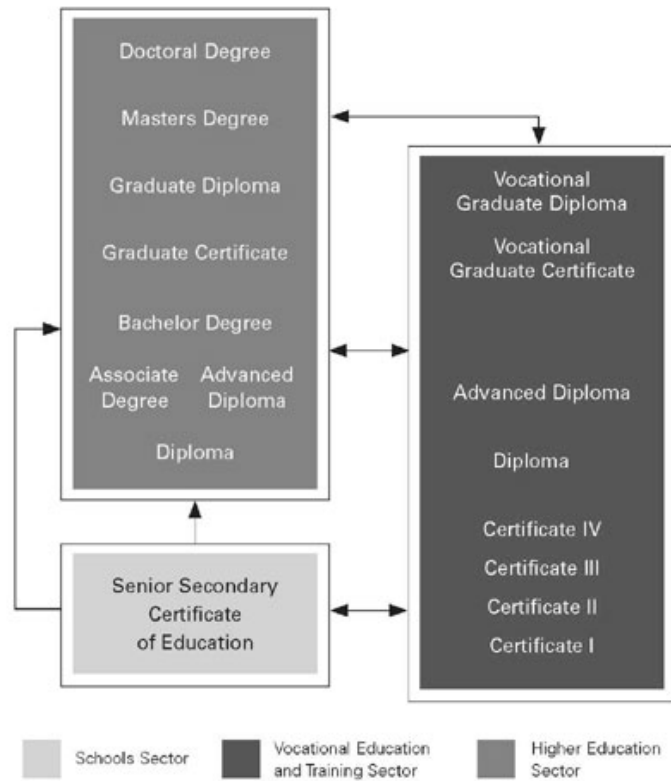
Figure 1 Qualification pathways (Australian Qualifications Framework, 2000)

Flexible entry means that intending students can access appropriate training through short courses, certificates and workplace oriented training. (The word 'training' is used here because 'training' is current in workplace management and competency materials, especially those recently coming from Australia.) Not only is it important that intending students can access these workplace oriented training courses, but it is vital that a means of articulation into the more 'academically' oriented diplomas and bachelor degrees be provided. This articulation requires each institution to think seriously about how advanced standing provisions can be used to recognise competencies achieved in short courses and lower level certificates.

Within the Australian context there exists a diversity of educational pathways (Figure 1) and blends of the mixture of vocational versus theoretical preparations (Australian Qualifications Framework, 2000). The Australian Qualifications Framework (AQF) was devised in 1995 and fully implemented with broad cross-governmental and commercial and industrial sectoral support in 2000. Hence, all State and Territory educational systems, both school and Vocational Education Training (VET), and the universities support this Framework.
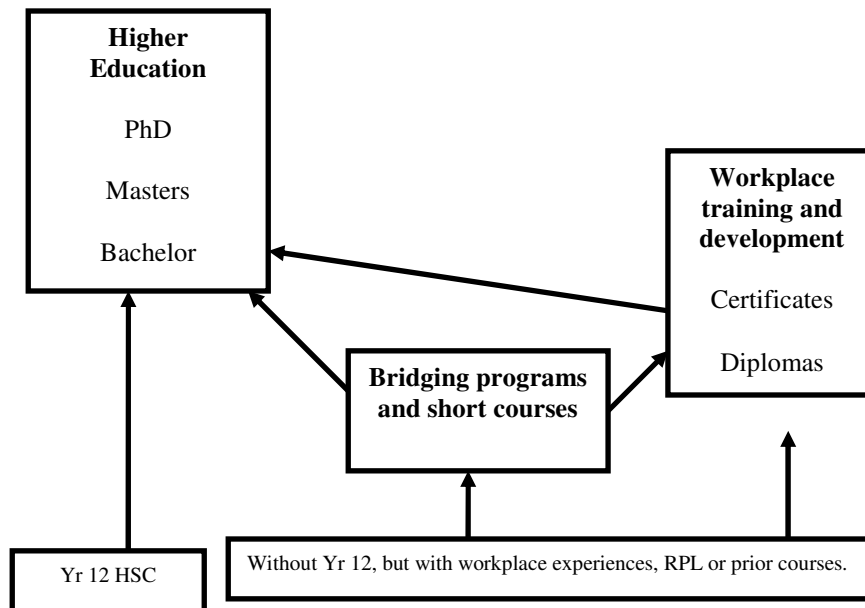

Figure 2 Cross-sectoral linkages and pathways with the Faculty of Flexible Learning at DWU

Within the educational context of PNG, DWU attempts to facilitate flexible entry (Fig. 2). Through the Faculty of Flexible Learning (FFL), DWU provides a range of programs for those who cannot attend full time classes. Indeed, in recent years, FFL has expanded its role to include a range of postgraduate

programs including the highest academic award of the Doctor of Philosophy (PhD). DWU is pioneering the part-time PhD for those who need a flexible approach to this research degree. The necessarily cross-disciplinary nature of the research of many professionals engaging in these degrees requires another dimension of flexibility: that of flexible supervision structures (Malfroy, 2005).

The similarity between Figures 1 and 2 is not accidental. FFL is attempting to facilitate flexibility in terms of entry, as well as in terms of course mode, for the benefit of PNG citizens. Figure 2 shows that Yr 12 entry is possible to all programs. Without Yr 12 and with suitable results in studies, entrance to the higher education stream is possible via short courses and via workplace training and development achievements. These latter pathways are recognising RPL in lieu of the formal year 12 certificate. Within a developing economy, RPL has been found to be a significant factor in increasing the flexibility of education access (Cretchley & Castle, 2001).

In practical terms, flexible entry means that the intending student has a pathway to argue for competence and suitability. This argument might include the successful completion of a number of workplace oriented short courses; or it might include experiences that have not been formally assessed but in which increased competence and capacity is indicated. Clearly, any such argument will need to provide evidence appropriate to the field of study that is being requested: success in First Aid, while in itself is admirable, might not be a strong argument for entry to management courses.

Flexible structures

'Flexible structures' is a term that is used to describe how the student interacts with the teaching and learning paradigms of the courses. Flexibility in structure recognises that the participants are adults. These adults have families and family responsibilities as well as employment responsibilities. As part of their social fabric, many intending students have social responsibilities and relationships that are vital parts of their self concept and persona. To diminish or threaten to diminish these relationships raises the levels of difficulty for many adults and increases the stresses involved in study (Plant, 2005). It is hardly likely that many employers will support their workers in study if that study dramatically decreases their time and energies on the job for which they are being paid. Employers will often relax some job requirements so that study options can be completed for the mutual benefit of both the company and the employee, but it is not usual that companies can provide large amounts of release time.

Flexible structures ensure that students can maintain their commitments of family, employment, other social obligations and relationships. Flexible structures mean that the adult learner can construct study as not being a choice between 'study' or 'having a life' but rather 'study and learning is part of my life'.

Flexible structures in FFL include flexibility in the rate of study, so participants are not bound within cohorts. This flexibility allows for changes in life circumstances. Also, opportunities are offered within a cycle and the cycle moves opportunities around within the annual calendar, so that particular times of the year might not become problems for participation.

Flexible modes of delivery

At first glance, it does seem that the university sector has embraced flexible delivery. Yet flexible delivery usually means online or digital delivery of course information. Table 1 shows that flexible delivery methods offer different models and possibilities of teacher and student interaction, yet almost exclusively in the higher education literature flexible delivery has come to indicate electronic delivery by one means or another (Beattie & James, 1997). For the reasons already elaborated above, it is unlikely that online delivery will significantly increase access for most Papuan New Guineans, especially those outside the major urban areas.

Table 1 shows that the delivery mode that offers most potential for interaction remains the most traditional classroom based models. Maximum flexibility for students in terms of location and time imply the distance models involving electronic or printed media. The present model of flexible delivery at Divine Word University includes both aspects by providing printed materials that are taught and scoped in block residential periods and then used as resources for assessment completion while students are back in their own places.

Flexible attendance

Flexible attendance is a difficult aspiration. While all might sympathise with the student who needs to fit study demands around a variable and often unpredictable personal schedule, institutional demands and the need to work with cohorts of students often frustrate a university's best intentions. While electronic delivery might be a developed world ideal, the practicalities of uncertain and uneven power supply, where it is even provided, the low rate of telephone access and the relatively high cost of telephones, as well as the low bandwidth offered by many landline services, all combine to make electronic access impractical for most.

Any effort to increase access by pushing towards internet mediated electronic access is destined to decrease equity and further disadvantage those potential students in rural or remote areas, and to even further disadvantage those with modest financial resources. Little literature explores the pragmatically well-founded experience that e-learning students usually suffer high drop-out rates due to the lack of social interaction and social reinforcement (McGivney, 2004; Plant, 2005). Recent models of student retention involved in online courses show that the indicators of high retention rates are all opposed to the characteristics of the new learner: previous high levels of academic success in the course; high levels of high school grades; high number of completed classes; and being older than the cohort median age (Morris et al., 2005).

Having multiple cohorts increases flexible attendance. In the Faculty of Flexible Learning at DWU several cohorts exist in most courses. This means that a student who misses a block session in one semester can join another cohort at a later time to complete that required unit. It is usually possible that the student can carry the 'missed' class over to the end of the period for social reasons so that the student can maintain the relationships already established in the cohort with which she/he started the course.

Table 1 Teaching and learning characteristics of delivery methods

	Delivery mode	Potential flexibility		Potential interactivity		Teacher's role
		Location	Time	Teacher-Student	Student-Student	
I	Conventional classroom Block attendance	—	—	√√	√√	Subject expert and classroom facilitator. Learning is guided on-the-spot by the teacher.
	Teleconference, Audiographics, Video conferences	√	—	√	√	
II	Computer mediated communication /internet/electronic bulletin boards	√√	√√	√	√	Subject expert and facilitator or instructional designer. Learning is guided on-the-spot by the teacher or by pre-packaged materials.
III	Computer based instruction interactive media	√√	√√	√	—	Subject expert and instructional designer. Learning is guided by pre-packaged materials.
	Printed Materials Audio/Videotapes	√√	√√	—	—	
	Broadcast television & Radio	√√	—	—	—	
IV	Experiential workplace-based projects	√	√	√	√	Colleague and critical advisor. Learning is provoked by practical problems and guided by action and reflection.
	Personal journals	√√	√√	√	—	

— = low or minimal level, √ = moderate level, √√ = high level

(After Beattie and James 1997)

Flexibility of resources

Flexibility of resources means more than being able to provide different functions for teaching and learning. Usually, resource flexibility is understood to mean access to libraries, computer rooms and tutors. While necessary, such access is not sufficient. True flexibility implies that the resources are themselves relevant to student needs and adaptable to different circumstances. Such flexible resources are most commonly employed in problem-based learning. Resources on CDROM offer increased flexibility since real-time electronic access to the internet is not required, and the options for student divergent interests are wider than can be practically provided for with printed materials. Currently, DWU is providing CDROM reading resources and interactive 'web-on-a-disk' CDROM to students enrolled in some certificate courses as well as providing laboratory access to sets of CDROM training materials during block experiences. Block experiences feature significant computer skills training which includes internet access and use.

DWU's strategy is not to emphasise any one delivery mode (Table 1) but to offer choices of delivery modes that reflect student needs and potentials.

The next step in this evolving flexible delivery model will be to provide increased access to all students to learning courseware on the university intranet and to provide 'web-on-a-disk' versions of this learning courseware to students who are studying off campus. While this 'web-on-a-disk' model still requires access to a computer, experience is showing that many students have or can negotiate access on a laptop so that power fluctuations are not as critical or on work machines for job related learning activities.

DWU has evaluated Moodle (Dougiamas, 2006) as the courseware platform and has progressed towards offering a number of units in this learning management software. Currently, internal undergraduate programs are moving to provide resources via Moodle for on-campus and residential study. Within the limits of PNG's telecommunications, Moodle will also offer off-campus resources via a secure login.

Increasing use of full text databases, including remote access, is proving a valuable resource for research oriented students. While these resources are commonplace in developed countries, access to these resources in PNG is limited by bandwidth and telecommunication reliability. Both issues are challenges within PNG at the present time.

Appropriate and transparent standards

The preceding pages have emphasised flexibility. This flexibility has been discussed in terms of the flexible processes of the university. This flexibility requires an equal commitment to work and performance from each student. This matter of student performance is addressed here under the somewhat traditional term 'standards'. The focus in this section of the paper is on

workplace training and short courses (Table 1) rather than the academic streams. This focus is justified by the fact that the workplace training and short courses are the routes whereby non-traditionally qualified students gain access to the academic streams. While the spirit of academic advanced standing and RPL applies in the academic streams, the workplace training side of FFL most clearly demonstrates this application.

The word 'standards' is used here deliberately. Accepting that the term carries some traditional and even defensive overtones, it is important to say that standards are important. It is also important to say which standards are important.

The standards fallacy

There is a fallacy in the language of standards that suggests that 'standards' are maintained by having high entry criteria. This fallacy makes a mockery of education; which ideally should mean that those who come into education with little knowledge and few skills leave the education process with increased knowledge and skills. Hence, standards are not about entry criteria but are actually about exit or graduation criteria.

In many ways, what skills and knowledge the student lacks on entering a training program, matters very little. Those skill and knowledge deficiencies do need to be identified and resolved. What matters are the competencies with which the student exits the course or training. To be sure, large gaps in knowledge and skills may indicate lack of ability, or may indicate excessive amounts of remedial work on the part of the intending student and the teachers that are in practice beyond what is possible. Those issues can be identified and explained, and it is not suggested here that everyone can nor should access university education. But ultimately it is about the intending student's ability, willingness to work hard and reach identified standards. To this end those standards must be clearly identified and the nature and possible difficulty of the tasks do need to be explained to all students.

This is one thing that the focus on outcomes based education (OBE) has taught us: that what can be achieved at the end of the course of instruction is what is important and the rest is of little importance. This is not to say that only performance is important. OBE, properly understood, also addresses skills, values and the affective domain.

Understanding that academic standards are about appropriate exit criteria should reduce anxieties about RPL, articulation from non-academic routes of entry into undergraduate courses and advanced standing procedures. Transparent standards mean that the course assessment policies must be relevant to learning materials and processes, applicable to the students' circumstances, and fair in terms of levels of difficulty.

Appropriate standards

So what does appropriate and transparent standards really mean? Such standards are tightly involved with assessment. Assessment must be workplace relevant. The assessment must directly address the core competencies that the student has enrolled to achieve. These competencies must be explicitly detailed at the beginning of the learning experience and reinforced during the learning so that the ongoing relevance of the learning is highlighted. This does not mean that the student must always 'see' how each point directly relates to his/her work performance, but it does mean that the valid argument is made frequently. At times this argument may only be accepted in hindsight, but that may be sufficient to establish a pattern of relevance.

Transparent standards

Transparent standards refer to those standards of which the students can readily see the validity. In other words, the assessment derives directly from the learning activities and relates directly to the workplace competencies that they have decided to acquire. Transparent assessment usually implies continuous assessment, is problem based and competency driven and hence is often criterion referenced rather than norm referenced. As the front-line management literature speaks of 'see-try-apply', competency assessment is based on the process 'try-apply-do'. Transparent assessment does not require a large emphasis on summative, paper-based exams. Similarly, transparent assessment may not require long assignments that are more geared towards meeting academic expectations of literacy in the academic forum.

Flexible assessment

The point has already been made that assessment needs to be transparent and appropriate. Assessment also needs to be flexible. Flexible assessment does not mean variable outcomes nor does it mean lowering of standards. For these reasons, this section on flexible assessment is located within the discussion on standards. Flexible assessment means more than simply being flexible with regards to assessment submission dates, although this flexibility is reported to make a significant contribution to student satisfaction as well as higher levels of attainment (Patton, 2000).

Competency levels and outcomes of workplace based training do not always require high levels of written standard English. Certainly there are some workplace training units that do require high level of spoken and written English expression, and when these outcomes are required they should be explicitly stated. Where such high levels of English are not required, the assessment should not unnecessarily require them. This generally applies to written expression, so assessments might encourage more modalities of communication: verbal; pictorial; role-play and performance; and presentations both oral and via other media.

Workplace training also implies and is well suited towards workplace assessment. Flexible learning at DWU is transferring what has been learned about mentoring in teacher education to workplace training (Jones, 2000; McNally & Martin, 1998). To this end, workplace mentors and a learning contract that explicitly involves the workplace mentor in the ongoing assessment are formal parts of flexible learning at DWU. The learning contract requires an explicit commitment from a workplace mentor to be involved with and monitor and assist in on-the-job learning and application of skills learned in block periods. Feedback to date has been strongly positive from workplace supervisors.

Workplace mentors are one form of support that flexible learning employs. Other supports include regular contact and follow-up. Not only if assessment dates are missed but also when performances are below expectation or when information comes that a particular student is not travelling well or is experiencing difficulties, then phone contacts are initiated by the flexible learning administration, the learning tutor or both.

Regular mailings are another form of support, as is the routine communications for ongoing enrolments, forthcoming learning block periods, delivery of materials and the prompt return of marked assessment items.

Equity

Equity of provision is the main aim of the flexibility offered within DWU. By equity is meant that intending students are able to access learning resources in ways not influenced by gender, lack of previous opportunity, or distance from social amenities. We have a way yet to go, and resources are constantly being stretched by the ambition to offer more. And, sadly, the economic climate of the day in Papua New Guinea means that there are inevitable financial costs associated with any form of study.

That said, many organisations, government and companies both for-profit and not-for-profit, are seeing immediate benefits from raising the levels of training and skills of their employees. Some of the indicators of the success of this approach are the high levels of return from organisations who want similar and also further courses run for their employees; high rates of student re-enrolment towards higher degrees; and the bottom line of high completion rates in courses.

Equity, unfortunately does not yet mean everyone with the ability may engage in university education. Equity does mean that university education can be accessed by those with the ability and drive, even in the event of less than optimal formal schooling. Equity means making education accessible so that family circumstances need not deter intending students, and even issues of geographical isolation from amenities can be ameliorated so that student success is possible.

A possible way forward

There are ways towards increasing equity of access and provision in PNG. Figure 3 attempts to describe the ways forward chosen in the Australian context to increase the equity of access.
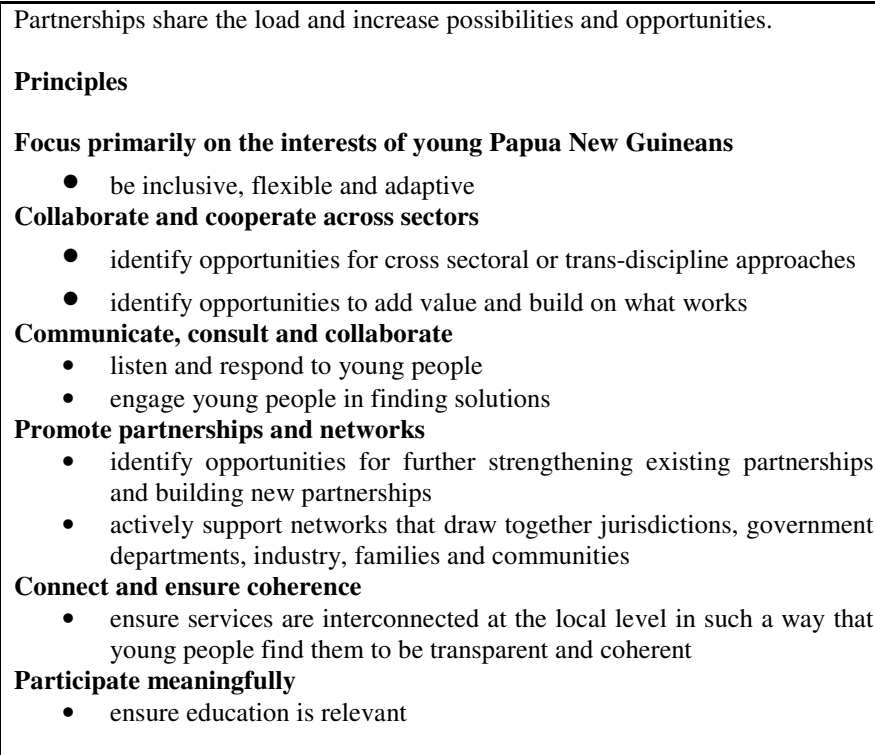

Partnerships share the load and increase possibilities and opportunities.

Principles

Focus primarily on the interests of young Papua New Guineans
- be inclusive, flexible and adaptive

Collaborate and cooperate across sectors
- identify opportunities for cross sectoral or trans-discipline approaches
- identify opportunities to add value and build on what works

Communicate, consult and collaborate
- listen and respond to young people
- engage young people in finding solutions

Promote partnerships and networks
- identify opportunities for further strengthening existing partnerships and building new partnerships
- actively support networks that draw together jurisdictions, government departments, industry, families and communities

Connect and ensure coherence
- ensure services are interconnected at the local level in such a way that young people find them to be transparent and coherent

Participate meaningfully
- ensure education is relevant

Figure 3 The way forward. Adapted from 'Stepping Forward' (MCEETYA, 2001)

While it is unlikely that the Australian context is directly transferable to Papua New Guinea, it is likely that we can discern some useful directions. Clearly, the concept of partnership is central. It is argued that a similar approach, albeit with more modest resources, is suitable for the educational requirements of PNG. Indeed, given PNG's current limitations and provisions in the National Goals for higher education, it is not too strong a statement to claim that Figure 3 outlines a necessary plan for PNG's higher education sector. The Faculty of Flexible Learning in DWU is proceeding within the following outline as its chosen means of best offering educational opportunities for national development.

Partnership implies flexibility since partners must adjust and adapt to the needs and capacities of the other. In the PNG context the way forward to increase equity is likely to involve and require:

- Increased flexibility of access so that those able students who do not have the orthodox qualifications or matriculation may be able to engage in appropriate adult learning
- Development of workplace related programs that increase the capacities of the present workforce
- Increased flexibility to encourage those students who are not close to academic institutions or whose other obligations require flexible attendance patterns to engage with university learning
- Increased creativity with universities to respond to the real needs of people in social and economic spheres.

Conclusion

This paper has described some of the forces that impinge upon university uptake and student engagement. These forces are not static nor are they irresistible, but they are powerful social, economic and geographic realities. It is argued that universities need to develop an increased flexibility in order to respond creatively to the challenges within the content of higher education in Papua New Guinea today.

Increased flexibility will increase equity of access and provision. Flexibility will encourage those citizens with the ability and desire for education to take up the opportunities available. Increased flexibility will encourage organisations, whether these be government, non-government organizations (NGOs) or companies, to increase the capacities of their employees by funding appropriate workplace related training which can be provided within the university sector and this flexibility should articulate into further university courses. That workplace training becomes the entry to bachelor or master degrees and research degrees can be seen to be an ideal to be encouraged rather than an exception to a rule.

Increased flexibility will increase the personal, social and economic capacities of Papua New Guinea and that increased capacity must be the shared aim of all universities and citizens of PNG.

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