Towards Papua New Guinea's first vocational education degree: reconciling modernism and cultural sustainability

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Abstract

The paper outlines outcomes and issues generated from a partnership between Charles Sturt University (CSU) and the University of Goroka (UOG) to develop Papua New Guinea's first vocational education degree. The partnership, funded through AusAID's Primary and Secondary Teacher Education Project (PASTEP), examined the transfer capacity of CSU's Vocational Education and Training (VET) courses to Papua New Guinea's Technical Vocational Education and Training (TVET) environment. An extended site-visit and consultancy period revealed both compatibilities and challenges. While Papua New Guinean TVET programs are being progressively re-modelled on the Australian VET system, increasing the capacity of Australian materials to meet local TVET trainee-teacher needs, there remain 'gaps' generated by the tensions within and between the needs of an emergent 'modernist' economy and the desirability and reality of cultural sustainability. A suggested solution to these potentially conflicting demands has been the adaptation of CSU's materials to include additional content-based contextual and traditional craft-training and associated business and entrepreneurial subjects. It is anticipated that TVET teacher graduates will then be better prepared to work with students through developing both 'modernist' trade skills while preserving and developing traditional craft skills. Given that eighty per cent of PNG's population live and work in the 'informal' or traditional economy, the proposed CSU-UOG cross cultural model should meet urgent national needs related to economic survival, as well as providing options for entering the capitalist cash economy.

Introduction

Papua New Guinea (PNG) is often colloquially spoken of as 'the land of the unexpected'. More strongly, perhaps it should be called 'the land of contradiction'. PNG is the world's second largest island after Greenland, but has few public roads. Its population of 5.2 million shares a Melanesian heritage but filters it through eight hundred language groups. It has abundant natural resources and is the largest recipient of Australian aid (A$100 billion since 1970) but per capita annual income sits at A$1340 (Hughes 2003: 8). Its people prize formal education but schooling averages 3.3 years for men and 2.4 years for women (Windybank and Manning 2003: 1, 3). It has been described as a 'weak state' (Dinnen 2002: 14) but has survived as a robust if 'disorderly' democracy since independence in 1975 (May 2003). And, it actively pursues the creation of a capitalist economy but total national employment includes only 65 000 public sector and 70 000 private sector jobs (Hughes 2003: 8), leaving population participation rates in the informal or traditional rural economy greater than 88 per cent, with significant urban unemployment (Guy 1999: 2).

This quixotic Pacific Island Nation (PIN) (Thaman 2002: 135), it appears, sits uneasily between two distinct discourses, one of future possibilities, the other of valued realities. The former may be framed as the discourse of 'modernism', the latter the discourse of 'cultural sustainability'. Both discourses are 'owned' by vested interests, each seeking advantage over the other in contested arenas, including education. Within PNG vocational education provision choices exist between education and training for an imagined PIN post-colonial capitalism and education and training for a burgeoning and currently self-sustaining traditional economy. Both must be considered in the construction of vocational teacher education programs, and within school-based vocational curricula.

The paper is divided into four sections. First, the authors contextually map the discourses of modernism and cultural sustainability. Second, an outline is given of the development of PNG education, with emphasis on the confused state of vocational education. The third section considers a partnership between Charles Sturt University (CSU) and the University of Goroka (UOG) to enhance UOG's existing program of vocational teacher education training through the provision of a Bachelor of Education (Technical Vocational Education and Training), or BEd(TVET). Fourth and finally, the authors discuss implications for the completion and delivery of the BEd(TVET) through the outlined discursive lenses.

Modernism

The discourse of modernism assumes two forms, one weak and a post-colonial legacy (Rushbrook 1974), the other more emergent and strident, driven by the forces of global neo-liberalism. In 1974, prior to independence, the then PNG Minister for Finance, Julius Chan, published his 'Eight Point Plan' for PNG's post-colonial economic development (Chan 1974). The Plan incorporated the principles of self-reliance, rural improvement, reduction of inequalities, and decentralisation. Self-reliance meant the control of foreign investment through policies of localised employment and industrial development, increased contributions to government revenue and considerations of environmental impact. Large-scale mining projects such as Bougainville were regarded as the balancing adequate returns for investment with national income. Such income growth, it was argued, would lead to the reduction of reliance on foreign aid. Rural improvement and reduction of inequalities went hand-in-hand as a strategy to build agricultural development, village industries and associated rural infrastructure through increased expenditure by local government. This would be balanced with policies of wage restraint in urban awards, leading to even national development. Environmental considerations would need to be factored at all levels of proposed national development, and in particular with the unrolling of mining projects (Threadgold 1975).

Chan's Plan was expressed in the language of orthodox post-colonial development theory, best represented in the work of WW Rostow who wrote of 'progress' from 'traditional society' through 'the pre-conditions for take-off', 'the drive to maturity', and 'the transformation of…traditional society such that it can exploit the fruits of modern science…and…enjoy the blessings and choices opened up by the march of compound interest' (in Barnes 1972: 6-7). More than two decades after Chan's speech, the principles outlined remained as challenges. For example, in May 1997 a review of Australian Aid (Ausaid), the Australian government's primary international

aid vehicle, suggested the agency's primary goal of 'poverty reduction through sustainable development' should be directed to where its potential for success is greatest: 'health, education, infrastructure, rural development and, latterly, governance' (Mullen 1999: 31, 35). Several years later, a stronger model for PIN capitalist transformation was put forward to address these issues, to cries of national pain.

During May 2003 the *Papua New Guinea Post-Courier* blazed with rumours that Australian 'donor' aid, which currently underwrites PNG's economy, was under threat. The rumours were fuelled by coverage of a report published through the Centre for Independent Studies, an Australian conservative think tank. The report's author, Helen Hughes, claimed that 'the failure of the Pacific economies to grow and develop has prevented the transition from traditional self-sufficient agriculture to modern well-being', a consequence of which was the creation of a PIN 'arc of instability' (Hughes 2003: 21). Hughes's solutions to the 'problem' of PIN modernisation are radical, including the withdrawal of foreign aid (citing the success of Asian nations after aid was removed), the privatisation of traditional land (stating that no country has ever developed on the basis of communal land ownership), the creation of a culture of competitive individualism (clan loyalty, or the *wantok* – 'one talk'- system, is regarded as 'inappropriate for a high income modern society'), and the reduction of endemic government corruption through the development of a stronger private sector. Further neo-liberal solutions are also suggested through challenging the '1950s' PIN welfarist concepts of publicly owned infrastructure, agricultural protection and an 'inappropriate industrial relations' system (Hughes 2003: 10-14). Hughes's work drew from an earlier report by Windybank and Manning (2003) who similarly concluded that the 'Advocates of a "Melanesian way" try to have it both ways, telling citizens that they can "go back to the land" and enjoy the material benefits of modern statehood when present trends suggest that rather than having both they may risk having neither' (Windybank and Manning 2003: 13).

The PNG modernist project, then, consists of a well recognised and practised set of assumptions and policies that underwrite post-colonial development, but given its perceived lack of success may increasingly be contested by its more 'strident' neo-liberal counterpart.

Cultural sustainability

The discourse of cultural sustainability directly challenges modernism in both its weak and strident forms. Jucker (2002) argues that 'sustainability' as a global ecological responsibility must address the four 'unsustainable core characteristics of our times' if it is to succeed as a modernist alternative. First, *'eco-illiteracy'* or poor public perceptions of sustainability and its practice beyond lip-service must be overcome through expansive public education programs. Second, there is need for protracted public engagement with the *'unsustainable "metanarratives"'* that promote, among other things, unlimited global economic growth, a linear model of material and scientific-technological progress, and, echoing Rostow, 'Western' development as the desirable future for 'undeveloped' nations (four more planet earths would be required to meet this claim). Third, twenty years of 'neo-liberal dogmatism' and its effects on national and regional *'loss of freedom'* or political autonomy, particularly through the hegemonic effects of transnational corporations,

must be brought to public consciousness and reassessed. Fourth, greater public awareness must also be created of the reality of global *'ecological degradation'*, a debate manifested in many forums, and in particular through the issue of global warming (Jucker 2002: 11-12).

Perhaps the greatest advocate for PIN cultural sustainability is Konai H Thaman (2002), of Fiji's University of the South Pacific. Thaman regionalises and contextualises many of the 'unsustainable core characteristics' outlined by Jucker. Sharing Jucker's commitment to the Earth Charter to work towards a shared conservation ethos as a primary aim of sustainable development, she reads cultural heritage as consonant with natural heritage, given their melding within Oceanic world views (p. 133). Her definition of 'sustainable development' is simple: 'moving towards something that is going to be reproducible in the long term, not just for a few moments' (p. 134). Such development she continues, must include PIN cultural values of 'trust, reciprocity, creativity, restraint, compassion and their interdependence (p.135). Again echoing Jucker, she posits that the advocacy of PIN culture challenges Western assumptions of material progress, privatisation, globalisation, the inviolability of science, and the 'transfer' value of its education models (pp. 136-8). In arguing for a 'move to reclaim indigenous knowledge systems' as integral to PIN sustainable development efforts she concludes that to 'see development in our region only through the eyes of Western rationalism and corporate culture is to do a grave injustice to our ancestors and our cultures, not to mention that it is anti-educational and misses the whole point of development altogether' (p. 140).

Hughes's and Windybank and Manning's expression of strident modernism on the one hand, and Jucker's and Thaman's of environmental and cultural sustainability on the other, appear to offer an 'either/or' choice for PNG's future. The reality and messiness of lifeworld practice, however, suggests the co-existence of both discourses as tensions within daily activity, with an attempt at accommodation, in spite of evident contradictions. Nowhere is this more evident than in PNG's education system (Demerath 2003), and in particular within its vocational education sector.

Educational context

PNG prepared for independence in 1975 on the crest of its underwriter's flirtations with human capital theory as an 'answer' to increasing national productivity through education and skills training. While Australia's Kangan and Cochrane reports (Rushbrook 1995: 242-293) were formulating their versions of profit through skilling, Australian and PNG bureaucrats had already concluded the way ahead for PNG was to offer an education system that 'should supply manpower at appropriate levels of general education and in sufficient numbers to meet the requirements of training institutions and employers in both the public and private sectors' (*The Development Programme Reviewed* 1971: 83). The *Programme* concluded that however difficult, policies including the 'mobilisation of human resources…are by far the most important instrument of all forms of development' (p. 70). Critics of the period claimed that in the absence of an adequate transition period to 'modernist industrial development' Western values were incorporated into indigenous cultures and were sometimes re-presented as 'cargo cults' that dissociated the means for acquiring Western wealth from their symbolic representation, leading to counterproductive conflations of indigenous and Western values (Sharp 1972: 62-63). The modernist

education system provided fertile ground for such conflation: it was seen as a 'magical way of acquiring cargo' (Botsman 1976: 137; Swatridge 1985).

Over the next twenty-five years the independent government of PNG produced more than twenty reports that wrestled with the dilemmas posed by modernism and cultural sustainability. Perhaps none was more influential than the Matane Report (1986). Reflecting an approach that eschewed the elitist model of its former colonial masters, Matane promoted the 'ultimate goal' of a PNG philosophy of education as providing the right 'for every person to receive an education which results in integral human development' (Matane 1986: 6). In keeping with the National Constitution, the Report also promoted 'equality and participation, national sovereignty and self reliance, natural resources and environment and Papua New Guinea ways' (Matane 1986: 7). Primary education for all and 'vernacular' teaching in the first years of schooling were further emphasised, building on the work of the 1974 Tololo Committee (*The state of education in Papua New Guinea* 2002: 2).

PNG's post-independence pre-occupation with universal basic education (O'Donoghue 1995) marginalised the development of vocational education, which remained (and remains) haphazard. Work-related skilling, though present in the primary sector, is concentrated mainly within the small secondary sector (including several purpose-built technical colleges) and the country's 115 post-Year 6 vocational centres (Guy 1998; Guy 1999; *The state of education in Papua New Guinea* 2002: 92-101) which cater to the needs of 14 000 students (*The state of education in Papua New Guinea* 2002: 93). Given low apprenticeship participation rates, with employers preferring in-house training, most vocational preparation occurs within vocational centres (Guy 1998: 116). The centres developed from pre-colonial junior technical colleges, receiving their current title in 1968. Poorly resourced, they have variously been part of PNG's national education department and local, or provincial, governments. They are considered sites of 'last chance' education for underachieving post-primary and lower secondary students, preparing them for semi-skilled urban and village-based occupations (Guy 1998: 119), though over the years a range of reports have vacillated between their urban and rural functions. Guy succinctly summarises their evolved and confused function, reflecting a range of modernist and cultural sustainability experiments:

> Vocational centres were initially established to 'train for jobs', then to train for 'back to the village' then to train for both; they were first part of the formal education system then included under non-formal education only to return to the formal system. Vocational centres have, from time to time, been committed to adult education, extension programs, the development of workshops, the provision of short courses, village-based training for adults in the centres or in village communities, and the provision of formal and informal skills training for grade 6 school leavers (Guy 1998: 119).

Reform over the past five years is attempting to rationalise PNG education and training. The P-Y6 (primary), Y7-Y10 and Y11-Y12 (secondary) school model is being replaced with a P-Y2, Y3-Y8, Y9-Y12 model that hopes to avoid previous selection 'bottlenecks' at the conclusion of primary schooling (*The state of education in Papua New Guinea* 2002: 26). Vocational centres will become post-Y8 institutions and post-Y10 vocational colleges (for example, the Goroka Business College) will

become post-Y12. Vocational education is now managed within the national Technical Vocational Education and Training Division (TVET - established in 1999). A TVET *National Skills Plan* is progressively introducing Competency Based Training (CBT) trade and business programs modelled on the Australian Vocational Education and Training (VET) system (*The state of education in Papua New Guinea* 2002: 92-94). All schooling, however, remains non-compulsory and fee-paying.

The Bachelor of Education (Technical Vocational Education and Training)

The reform program (known as the Education Reform Agenda) has generated challenges within PNG teacher education. This is particularly manifested in a need for professional development upgrade programs to match the planned increase in primary, secondary and vocational student participation rates, increased upper level secondary enrolments, and higher entry level requirements for vocational centres and vocational colleges (*The state of education in Papua New Guinea* 2002). A PNG government and Ausaid response has been the Primary and Secondary Teacher Education Project (PASTEP). PASTEP is managed through a consortium consisting of a consulting company, GRM International, and a range of education organisations: Charles Sturt University (CSU), the NSW Department of Education and Training, Queensland University of Technology, and Education Queensland. A significant component of PASTEP is a staff 'twinning' arrangement permitting interorganisational exchanges (Bablis, Mileng and Reeves 2003). One such exchange enabling the examination of cross-country vocational education teacher provision, with possible PNG applications, has been between Charles Sturt University, arguably Australia's largest provider of VET teacher education programs (*Charles Sturt University Undergraduate Handbook 2003*: 309-313), and the University of Goroka (UOG), PNG's only public provider of secondary and vocational teacher education programs (Guthrie 2001).

The development and implementation of an upgrading four-year secondary vocational teacher education degree is currently expertly managed within UOG's Home Economics and Design & Technology Department (HED&TD). The existing undergraduate diploma and proposed pre-service degree programs include curricula that balance modern and traditional practical skills (for example, nutrition and family and community studies, and wood, metal, welding and handicraft practice) as well as provide students with an appropriate range of school and classroom management skills (University of Goroka HED&TD course documents 2003). HEDT&D provision for upgrading vocational centre teacher education is less developed, however, due to a perennial lack of staffing and resources.

The State of education in Papua New Guinea report (2002) mentions the 'severe problems in attracting, and then retaining, suitably qualified Papua New Guinean staff to serve as lecturers in Technical and Business Colleges' (p. 99). Within the less prestigious vocational centres there are equivalent problems. Teaching staff generally have a trade or semi-skilled background with a primary or lower secondary education. UOG currently offers a 'sub-graduate' Diploma in Teaching (Technical/Business Studies Education), or DipTeach(T/BSE) as an entry-level teaching qualification (Guthrie 2001: 3; *The State of education in Papua New Guinea*: 99-101). Students generally are 'mature-age' adult learners. In the late 1990s only eight students a year were graduating when fifteen were needed. *The State of education in Papua New*

Guinea report believed 'The problems faced at the University included the lack of qualified lecturers and outdated curricula' (p. 101). The changing of vocational centre student entry requirements to post Y8 and possibly Y10 suggests a reconsideration of the teaching diploma and its inclusion within a four-year 'upgrade' degree, bringing vocational centre teacher education in line with other UOG programs. The program would also have further applicability to vocational college teacher upgrade and preparation.

The upgrade proposal incorporates the principle of 'contextual sensitivity', taking into account an observation drawn from the study of comparative education that

> Too often we have evidence of unsuccessful efforts to transfer fashionable Western theory, policy and practice through the work of international development agencies and consultancies…This is not to imply that we cannot learn from the experience of others, but it is to reaffirm our knowledge of the subtleties involved, and of the importance of contextual sensitivity in the process (Crossley 2000: 324).

Perhaps contextual sensitivity is nowhere more evident than in modernist Western approaches to classroom preparation and delivery. Methods involving student-centred, small group and resource intensive classes managed by a learning facilitator, for example, are generally economically, and occasionally culturally, difficult to transfer to the PNG environment. Realistic alternatives are 'formalist' or traditional teacher-centred environments where investment in teacher skills alone provides a better return for the limited resources available (O'Donoghue, 1995: 84). This debate, however, remains contentious, with some researchers arguing that formalism may lead to 'a technical, rationalist, mechanistic view of teaching that does not augur fair for reform', particularly in the light of Matane's inclusive philosophy (Zeegers 2000: 150).

The proposed Bachelor of Education (Technical Vocational Education and Training), or BEd(TVET) builds on the DipTeach(T/BSE) through incorporating elements of CSU's distance education Bachelor of Vocational Education and Training (Stream 3), or BVET(Stream 3), a trade-entry stream (*CSU Undergraduate Handbook 2003*: 310). Additional, locally developed content-based subjects have been included to 'round-out' students' existing skill and knowledge base, both modernist and traditional. These include computer and business skills. CSU subjects will be modified according to the principles of contextual sensitivity, although many of the incorporated 'modernist' curriculum technologies (for example, CBT) are transferable because of their increasing currency in the PNG training environment. Discussions with informal focus groups consisting of the 2003 DipTeach(T/BSE) class, staff from the Goroka Business College, members of UOG's HED&TD, and in-country CSU colleagues gave the proposal an informed shape. Continued discussions will refine the final program. The proposal has passed through UOG's Faculty of Science Board and is expected to receive Academic Senate approval for implementation from mid-2004. Figure 1 outlines the program and its relationship with CSU's VET program. Figure 2 details the proposed course subjects (Wanigasekera 2003).

Figure 1: Schematic representation of UOG TVET and CSU VET programs

Level	University of Goroka: BEd(TVET)	Charles Sturt University: BVET(Str.3)
1	Trade studies or equivalent (including traditional crafts from the informal economy)	Trade entry or equivalent (eight units credit)
2	DipTeach(T/BSE)	
3	BEd(TVET): Six units distance education, with a two week on-campus Lahara (summer) program	Eight units distance education
4	BEd(TVET): Six units distance education, with a two week on-campus Lahara (summer) program	Eight units distance education

Figure 2: BEd (TVET) program detail (* = CSU-derived subjects)

LEVEL 1	ENTRY REQUIREMENTS (trade and content studies)					
LEVEL 2	**DIPLOMA IN TEACHING (TECHNICAL / BUSINESS STUDIES EDUCATION) (professional studies at the University of Goroka)**					
	Unit No	Semester 1 - Course Unit	Credit Points	Unit No	Semester 2 - Course Unit	Credit Points
	HLAN 114	English for Vocational Purposes	03	SMAC 001	Information Technology	1.5
	EPG 210	Introduction to Education Psychology	03	ETE 001	Educational Technology	1.5
	ETE 120	Basic Teaching Skills and Methods	03	EPG 311	Introduction to Guidance and Counselling	03
	ETE 491	Microteaching	03	ETE 492	Teaching Practice*	06
	STVE 211	History and Development of TVET in PNG	03	STVE 224	Philosophy of Technical and Vocational Education	03
	STVE 291	Curriculum Development in TVET using CBT Format*	03	STVE 292 STVE 225	Special Methods of Teaching TVET subjects Independent project	03 03
		Total Credit Points	**18**		**Total Credit Points**	**21**
LEVEL 3	**BEd (TVET) TRAINING – YEAR 1 (OFF CAMPUS AT THE UNIVERSITY OF GOROKA)**					
	Unit No	Semester 1 – Course Units	Credit Points	Unit No	Semester 2 – Course Units	Credit Points
		Written Communication (General and Academic)*	03		Curriculum and Assessment*	03
		Work, Learning and Society*	03		Training in PNG Organizations*	03
		Entrepreneurial Skills	03		Advanced Teaching Skills in TVET 1*	03
		Total Credit Points	**09**		**Total Credit Points**	**09**
LEVEL 4	**BEd (TVET) – YEAR 2 (OFF CAMPUS AT THE UNIVERSITY OF GOROKA)**					
	Unit No	Semester 1 – Course Units	Credit Points	Unit No	Semester 2 – Course Units	Credit Points
		Accounting for Business / Mathematics for TVET	03		Small Business Management	03
		IT in Industry (CAD, CAM)/ IT in Industry (Excel/MYOB)	03		Technical / Business Project	03
		Advanced Communication in Industry*	03		Advanced Teaching Skills in TVET 2*	03
		Total Credit Points	**09**		**Total Credit Points**	**09**

Conclusion

Papua New Guinea vocational education exists in interesting times. The assumptions underlying the creation and implementation of the BEd(TVET) in many ways reflect the wider dilemmas, choices and contradictions confronting the nation and its future. Reconciling the discourses of modernism and cultural sustainability remains a primary challenge. Though researchers and commentators tend to position the discourses as opposites the lived reality of Papua New Guinea is to accommodate both, however uneasily they sit together. Greater than eighty per cent of PNG's population will remain in the informal and traditional economies for decades to come. Vocational education turned to addressing wealth creation through cultural sustainability, whether rural or urban, is one way of addressing this reality. Global ecology also suggests this may be the only sustainable future given growing populations and a declining natural resource base. Modernism and developing a Western-style industrial base and its concomitant vocational skilling regimes must remain a viable PNG option as a return to a romantic notion of traditional village life is unrealistic in an all-pervasive global economy. Vocational education, though chronically under-resourced and undervalued (a dilemma not peculiar to PNG), may be part of an organic solution to this challenge. The proposed BEd(TVET), through including both modernist and culturally sustainable elements, occupies a unique position through its graduates' capacity to reach most sectors of the country through community-based vocational centres and vocational colleges. The authors of the program hold great hopes for its success. A future evaluation will confirm or deny this optimism. We march on…

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