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In search of meaningful assessment in the university curriculum: the case for culturally relevant pedagogy

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ABSTRACT

The poor performance of Pacific students at university is a concern for every level of society. Conventional models of teaching, learning and assessment have overlooked the cultural background of students, yet the effects of this oversight have been disastrous, alienating and disempowering. Studies of and developments in education in the Pacific and elsewhere offer opportunities to rethink the methods of teaching, learning and assessment of Pacific students in ways that are congruent with their home culture. Informed by the principle of *so'a lau pule* (the Samoan concept of consensus through consultation and conversation) and ethnographic research methods, this study describes an attempt to rethink ways of teaching, learning and assessing student performance in a third-year course on Resource Conservation and Management in the School of Geography, Earth Science and Environment at the University of the South Pacific. Introduced in 2007, the Student Innovative Contribution to Knowledge (SICK) allows students to participate in key decisions concerning teaching, learning and assessment. SICK is grounded in the principles of inclusiveness and participation. It takes account of the skills and abilities of Pacific students and is aligned with the philosophical basis of Pacific cultures. One hundred and fifty-eight students took part in this study over a 5-year period. Analysis was based on students' written reviews of the semester's work, in-depth conversation with individual students and the end-of-the-course evaluation. The findings show that, while students embrace the need for non-conventional forms of teaching, learning and assessment, the most frequently cited responses for non-participation are poor time management and varying perceptions of what is considered an innovative assessment. This study shows that understanding the cultural background of students is critical to creating culturally inclusive learning environments.

KEYWORDS

Student-focused learning;
Innovative Contribution;
geography; Pacific; culturally
relevant pedagogy;
alternative assessment

Learning is more difficult than teaching; for only he who can truly learn ... can truly teach.
(Heidegger 1967, 73)

Introduction

The lower than average results attained by Pacific students in formal education is a concern for every level of society. Developments in education both in the Pacific (see, for example, Power 1992; Teasdale and Teasdale 1992; Pene, Taufe'ulungaki, and Benson 2002) and elsewhere (see, for example, Erickson 1987; Ladson-Billings 1992; Jacob and Jordan 1993; Demmert 2011) have provided opportunities to rethink the methods of teaching, learning and assessing the performance of Pacific students in ways that are congruent to their home culture. Conventional methods of teaching and learning in the Pacific have overlooked the cultural background of students. The effects of this oversight have been disastrous, alienating and disempowering (Smith 1999). Efforts have begun to tackle this problem. The *Rethinking Pacific Education Initiative for and by Pacific Peoples*, for example, has the goal of embedding Indigenous graduate attributes into teacher education courses and into leadership training programs for young and emerging young Pacific leaders (Nabobo-Baba 2012; Sanga 2012a; Thaman 2013). It is spearheaded by educational leaders at the University of the South Pacific and Victoria University of Wellington. Bridging the home-school cultural gulf provides a step towards improving the educational experience and performance of Pacific students (Thaman 1992, 2001; Sanga and Taufe'ulungaki 2005; Nabobo-Baba 2006; Sanga 2012b).

It was within this context that I embarked on a personal journey to evaluate how I teach and assess student performance in a third-year university course in Geography. I theorised this endeavour within the framework of my own cultural values and, in particular, the Samoan concept of *so'a lau pule*. *So'a lau pule* refers to the processes involved in coming to a decision, whether it be at the village, family, church or government level. As a framework and methodology, *so'a lau pule* is characterised by open consultation and ongoing conversation among interested parties before a consensus is reached. *So'a lau pule* may be translated literally as meaning 'to share your authority with your partner'. But this fails to convey the full sense of the term in the Samoan understanding, in which the sharing role may involve the giving, conferring and delegation of ideas, opinions, power, individual rights and responsibility (Tuisuga-le-taua 2009, 16). Importantly, *so'a lau pule* in all its manifestations is underpinned by human values of *fa'aaloalo* (respect), *va fealoai* (relationship; relational space), *fa'amaoni* (honesty) and *alofa* (love) among the people involved. Similar frameworks and values ground other Pacific cultures (see, for example, Thaman 1988, 1992; Tamasese, Peteru, and Waldegrave 1997; Nabobo-Baba 2006; Naisilisili 2012).

This paper has two parts. In the first, I discuss how I was motivated to rethink my approach to teaching and assessment in GE304,¹ the course I coordinate. Doing this has provided new perspectives and conceptual spaces for lifelong learning. In the second part, I present an alternative approach to teaching, learning and assessing student performance in my course and evaluate its advantages and drawbacks. This approach may be of greatest relevance and value for teaching and learning in the framework of Pacific cultures (in which context it was derived), but it is likely that it may be successfully applied much more widely.

Data for this paper come from my experience of teaching GE304 between 2007 and 2011; intensive *talanoaga* (conversation) with 158 students from a total enrolment of 417 (92 in 2007, 87 in 2008, 99 in 2009, 70 in 2010 and 69 in 2011); a three-page

summary and evaluation of the Student Innovative Contribution to Knowledge (SICK) project that students compiled and submitted, my own journal notes and the students' formal end-of-course evaluation. All students during the study period gave their consent to participate in the project. However, only 158 volunteered for a one-to-one *talanoaga*. In the first year of the study, 38 students agreed to *talanoa* (to talk story), of whom 20 were female. Reflecting on the experience after the first year of the project suggested that 30 students were sufficient for my purpose. Thereafter, 30 *talanoaga* took place each year. At the start of each year, I offered students the opportunity to participate in *talanoaga*. *Talanoaga* with students were held throughout the 14-week semester on a first-come first-served basis until I reached my target of 30: 15 males and 15 females. In total 80 female and 78 male students were interviewed. Students were assured of the confidentiality of their identity and responses. The data were supplemented by the end-of-course evaluations and my ongoing reflection-in-action about teaching and learning for over a decade. Formal course evaluations are conducted centrally by the university and the results sent to teachers the following year.

Talanoa to Vaoleti (2006, 1) is a 'personal encounter where people story their issues, their realities and aspirations. It allows for more *mo'oni* (pure, real, authentic) information to be available to Pacific research than data derived from other research methods'. *Talanoa* was necessary given the need to know students' *mo'oni* views of SICK. In the Samoan language, the terms *talanoa* and *talanoaga* are different but related. The former is a verb which means to talk or to have a conversation with two or more people; the latter is a noun. For this project I made requests to all students to *talanoa* about their views of SICK. Upon agreement, *talanoaga* took place in my office for 30–45 minutes. Information was then transcribed days later. Data analysis is guided by social epistemology (Fuller 1988).

Weaving many beginnings: Indigenous epistemology as teaching and learning spaces

Freire (1970, 1974) and Foucault (1980) have argued that any social or educational change or development that is not anchored in the knowledge and value system of the target population is destined to fail. Gegeo (1998) illustrated this in his research on rural development among his people in Kawara'ae village on Malaita in the Solomon Islands. For long, teaching and learning in the Pacific has reflected the mismatch in power relations observed by Freire, Foucault, Gegeo and other Pacific educators. The result: students struggling to make sense of what they have learned and have been taught in schools. While there are many reasons for this mismatch, a major one is the different worldviews and value systems that underpin the education system on the one hand and the students' home culture on the other (Thaman 1988, 2000; Ladson-Billings 1995; Nabobo-Baba 2006; Kana'iaupuni, Ledward, and Jensen 2010). Battiste (2000, 192) has coined the term 'cognitive imperialism' to describe this: 'the imposition of one worldview on a people who have an alternative worldview, with the implication that the imposed worldview is superior to the alternative worldview'.

UNESCO has defined culture as a way of being, behaving, relating, believing and acting that people live out through a process of change and exchange with other cultures (Tilbury and Wortman 2004, ix). In the Pacific, culture is an all-embracing, holistic concept that

cannot be separated from other aspects of life (Thaman 2010). This is in contrast to the Western epistemology and worldview that considers culture an aspect of life that differs from other aspects such as education, governance or politics. The philosophical difference is enormous. For the Pacific, it is essential that educational processes and structures of Indigenous knowledge systems should be integrated within broader visions of culturally appropriate teaching and learning.

Pacific Islanders are socialised in a community of people (Gegeo and Watson-Gegeo 1999; Nabobo-Baba 2006; Mulaina 2017). In Samoa, every Samoan is a *suli* (member) of an '*aiga* (family), an extended network of kin who are related by blood, marriage, adoption or friendship. A Samoan is a *suli* of two extended '*aiga*: of the mother and father. Samoan poet Figiel (1996, 135) eloquently encapsulated this collectivism when she wrote:

'I does not exist.
I am not.
My self belongs not to me because 'I' does not exist.
'I' is always 'we',
is a part of the '*aiga*, ...
a part of the Aoga Faifeau [Pastor's School],
a part of the Aoga Aso Sa [Sunday School],
a part of the Church,
a part of the *nu'u* [village]
a part of Samoa.

Family (and community) is where teaching and learning (mentoring/apprenticeship) take place. The role of elders is important in the transmission of what is considered useful knowledge for the survival and continuity of community. This body of knowledge relates to farming, fishing, food preparation and preservation, gift exchanges, and ritual and other ceremonial practices. In oral-based societies such as Samoa, knowledge is passed down through *talanoa* (conversation), *tala tu'u* (story) and *fagogo* (storytelling). This process of imparting knowledge is more than an exchange of information. Instead it involves the older generation offering *mana* (a Pan-Pacific word for power) and spirit to empower the next. Because of this, the Pacific knowledge system is alive and connects the past, present and future.

Va (relationship; relational space) is an important value that governs and sanctions interpersonal relations between members of the family, the church, the village or schools. Relationships are cultivated by material exchange and reinforced by other human values of *fa'aaloalo* (respect), *fa'amaoni* (honesty) and *alofa* (love). On another level, *va* informs people's connection to *fanua* (Samoan), *fenua* (Tongan, Tuvaluan), *vanua* (Fijian), *man ples* (ni-Vanuatu)—all terms that describe land or place—and all there is in it. Samoans conceive their link to land in a symbolic act of burial of the *pute* (umbilical cord) and *fanua* (placenta) of a newly born child. It is a spiritual continuity that ensures harmony and respect for the land (Ta'isi 2008, 107); where one was born and to which one returns.

Pacific Islanders' life world is thus part and parcel of living and thinking. What counts as useful knowledge takes place within the cocoon of '*aiga* and community and is transmitted by elders to the young through practice and word of mouth (Gegeo 1998; Nabobo-Baba 2006; Ta'isi 2008; Koya 2013). This ensures the continuity and survival of society's knowledge system and promotes collaboration and relationship building. In such an environment,

teaching and learning are not individual pursuits but, as Figiel (1996) has pointed out, collective ones that involve everyone. In the words of Helu-Thaman (1999, 69):

Pacific peoples ... have their own cultures and associated cultural identities that they perceive to be unique. Their worldviews are closely connected to their *vauua/ples/fonua* concepts, which are inadequately translated to mean 'land' or 'place', but which embody social and spiritual as well as physical dimensions ... Formal education ... continues to reflect the tensions between Western and indigenous knowledge, values, and understandings, creating challenges to educators as well as development planners.

Despite years of contact with the outside world, Indigenous knowledge systems play an irreplaceable role in the Pacific. They cannot be separated either from education or from other aspects of life. 'Traditional knowledge still plays a major part in structuring peoples [sic] lives in the Pacific, and as such is very much a lived experience for many Pacific Islanders' (Synexe Consulting Limited 2010, 34). Ignoring the cultural factor perpetuates inherited deficiencies in the existing education system and exacerbates the marginalisation of Pacific students. Harris (1992) has made similar observations in the case of the Aboriginal people of Milingimbi, Arnhem Land, east of Darwin, Australia.

Is there another way to teach and learn?

The questions posed by the gap between Western and Pacific approaches to education set me searching for an alternative method of teaching, learning and assessing student performance in GE304. My quest was thus partly cultural, but it also reflected my belief that, while teachers learn through 'knowing-in-action', they must reflect upon, rather than react to, the situations they face. Thus, teachers need to be lifelong learners and constant critics of their own practices (McGee and Fraser 2001). Anuik and Gillies (2012, 63) have argued that 'teachers are better able to nourish the learning spirit of students when they understand themselves as lifelong learners, validate and learn from their students and use holistic teaching pedagogies'.

While teaching, learning and assessing student performance had long been preoccupations of mine as a university student, the need to give serious thought to these questions became a matter of urgency when I coordinated the course for the first time in 2006. Feelings of excitement were hard to contain. It was an opportunity to put into action previous ideas about teaching and learning and the experience gained during my 2-year involvement in the course before 2006. The delight faded, however, when faced with the questions: what to teach, how to teach, and how to assess student performance? The assortment of course material left in the office vacated by my predecessor helped with the first question. Experience gained from taking a similar course was useful and influential. Armed with resource materials and a respectable grade, I convinced myself that I knew *what* to teach. A handful of courses in Education and several years' teaching experience persuaded me that I knew *how* to do it. To assess student learning, I wasted no time, but resorted to using the same approaches I had learned while a student, confirming Pajares' (1996) and Herrington and Herrington's (2006) argument that teachers' conceptions of assessment are a product of their educational experiences as students.

My dissatisfaction with existing methods of teaching, learning and the repetitive use of a limited array of tasks to assess student performance developed quickly. As a teacher now, methods and ways of assessing learning seemed to have become frozen in

a mid-twentieth-century time warp. Despite occasional innovative attempts to re-examine student assessment and evaluation in the Pacific (Thaman 2000; Nabobo-Baba 2006), teachers continued to rely on standardised testing procedures (Fasi 1999) and on the traditional approaches of writing essays, making oral presentations and sitting of examinations (Montgomery 2002).

Standardised tests take little time to develop, are inexpensive to administer and their results are easy to report (Nasri et al. 2010). Yet they fail to assess the particular skills and abilities of students in the Pacific. Few efforts have been made to make assessment ‘student-friendly’ and inclusive. Taufe’ulungaki (2002) has argued that Pacific learners are right-brain dominated. They think in creative, holistic, circular and people-focused ways, while conventional methods of assessment focus on left-brained skills. Thus, brilliance in expressive arts, which Pacific students have in abundance, is not integrated into teaching, learning and assessment. Such skills remain undeveloped unless students make an express effort to develop them further.

The exclusive nature of the course design process presents another concern. In universities, the teacher is the expert who designs the tasks and knows the value systems that underpin them. These tasks are then passed into the willing hands of the students, who carry them out faithfully. The transaction is non-negotiable. Professor Thaman (1988, 1992, 2000, 2001, 2003, 2009) long ago recognised this imbalance. She has argued that teaching and learning environments in the Pacific must privilege the contexts within which peoples live, learn and communicate with one another. In her view, ignoring this aspect is culturally undemocratic and problematic. Recognising this, selected schools in Britain have developed interactive ways to discuss assessment criteria with students as a means of redistributing power and establishing more collaborative relationships (Tunstall and Gipps 1996). Shohamy (2001) has argued that schools need democratic models of assessment that follow principles of shared power, collaboration and representation. For education to be student-centred, students’ views matter, and their participation in the teaching and learning process is a priority (Lea, Stephenson, and Troy 2003).

Non-traditional methods of assessment have been referred to by researchers such as Herman, Aschbacher, and Winters (1992), Gronlund (1998), Puhl (1997), Herrington and Herrington (2006) and Keyser (2014) as alternative assessment, authentic assessment or non-traditional assessment. Labels aside, Pantiwati (2013) suggested a range of non-traditional methods of assessment, including portfolios, journal/paper/article reviews, role-playing, presentations and posters. Each in their view has potential to encourage learning and to assess more than students’ head knowledge. Park (2003) and Williams (2006) have spoken highly of journal writing as a non-traditional form of assessment because it promotes critical thinking and personal involvement in learning. Besides journal writing, Worley (2001) has argued that student debriefings, peer conferences, checklists, diaries and portfolios are features of a constructivist classroom. For Jones and Brader-Araje (2002), such a classroom is informed by the work of Dewey, Piaget and Vygotsky, who emphasised that learning is a dynamic process in which students construct meaning for themselves by connecting new ideas with their existing knowledge.

Justifications for the use of alternative forms of assessment are diverse. Brualdi (1996), for example, argued that students learn in different ways, therefore their performance cannot be assessed using a single approach. Because traditional assessment methods assess only students’ knowledge (Rudman 1989), they do not allow them to

practise important life skills, such as problem-solving and decision-making (Brualdi 1996). Students need these skills in the world of work. The University of the South Pacific (USP) (2017) promotes five key *Graduate Attributes*: (1) academic excellence, (2) intellectual curiosity and integrity, (3) capacity for leadership and working with others, (4) appreciation of the cultures of the Pacific Islands, and (5) cross-cultural competencies. It hopes that its graduates will develop these attributes through its academic programs. Each attribute has specific indicators and goals. In my view, with existing methods of teaching, learning and assessing student performance privileging standardised assessment methods, the attainment of these well-intended attributes remains a challenge.

The road to rethinking teaching, learning and assessing student performance

Against this backdrop, I attempted to incorporate features of Pacific life and worldview, such as collaboration and cooperative learning (Teaiwa 2005), into my teaching, learning and assessment strategies. First, I modified my approach to teaching and learning, focusing especially on the twice-weekly 2-hour lecture. The new configuration included game-based learning, in-class debates, tea-talk sessions and forum discussions led by groups of three students. Initiated by students, tea-talks took place twice a semester at times set by the class. Tea-talks provided an avenue for students and the teacher to continue class discussions and to 'break the ice' over snacks, tea, coffee or juice donated by the teacher and students. I likened the tea-talk sessions to what Tharp and Gallimore (1988) termed 'instructional conversations', designed to 'elicit a more coherent version of students' reasoning and relevant experiences' (Shepard 2000, 11) about the course. Tea-talks, debates and instructional conversations became part of the assessment, with students writing reflections in the form of a journal on their value to their learning. As Lowman (1984) has argued, success in the classroom depends on moving beyond the performer-spectator model. The talks gave me the opportunity to reassess the value of PowerPoint slides loaded with pictures and notes, an approach I had unmindfully copied from other teachers. Taken together, these initiatives represented efforts to depart from conventional lecture-style teaching. Interestingly, this was the one reform recommended by all students in the end-of-the-course evaluations.

Secondly, I turned my attention to assessment. Until 2006, the coursework in GE304 was made up of a series of assessment tasks, determined largely by the teacher (Table 1). Students had no input into the design of these tasks, the value systems that underpinned them, let alone how the assignments were assessed.

Table 1. The make-up of course assessment in GE304 until 2006 and since 2007. The remainder of the course assessment was made up of an end-of-semester examination

Until 2006	2007 and beyond
Research (30%)	Reaction to a journal article (15%)
<ul style="list-style-type: none"> • Research proposal (10%) • Research report (10%) • Presentation (10%) 	Summary of week 1–4 lectures/debates (10%)
Field trip (10%)	Quizzes (10%)
Mid-semester test (10%)	Field trip (15%)
Attendance and participation (10%)	<ul style="list-style-type: none"> • Activities before and during the field trip (5%) • Reflection (10%) Innovative Contribution (10%)

As with the teaching and learning process, several changes were made in assessing student performance from 2007. These are set out in [Table 1](#). The shift was marked by a deliberate focus on involving students in assessing their performance and the choices available to them. Collectively, assessments were open and students were encouraged to participate in negotiating the topics on which to base their assessment and the methods of assessment to be employed. To illustrate, students with interests in certain topics were able to suggest a journal article to use as the basis of a written reaction paper that allowed them to share their thoughts with their classmates.

Departing from the conventional paper–pen–test syndrome was another shift. While I use the term quiz (for there is no other), the manner in which quizzes were presented was different. Keeping to small groups, students challenged each other on a topic during a class debate, forum discussion or tea-talk. The focus of these exchanges had been decided between groups prior to the meeting. This shift gave students the opportunity to work cooperatively with peers as well as the space to practise skills in public speaking and debating.

The most significant turn of all was the Student Innovative Contribution to Knowledge (SICK). To an extent, the acronym expresses a personal dissatisfaction with my schooling experience as alienating and disempowering ([Smith 1999](#)), and especially with the conventional ways in which I had been assessed while a student. I attempted to break the impasse; to unfreeze the approaches to assessment. The SICK is rooted in the principles of inclusiveness, open participation and collective ownership of the learning and teaching process. It was intended to get students involved and to acknowledge their rightful place in the learning process; a space for their active participation. Because students come to the course with diverse knowledge, beliefs and prior experiences ([Jones and Brader-Araje 2002](#)), the SICK offers them a space to share these. Sharing not only enriched the course design and delivery, all students benefited from individual sharing of prior learning and experiences. Not tapping into it is a loss.

The SICK represents a purposeful search for a better alternative to assess student performance. Given the undemocratic nature of the previous assessment regime, it reflects a genuine desire for students to participate in and to own the teaching and learning process. To reclaim their education is crucial to ‘an ongoing process of decolonizing higher education in the Pacific’ ([Thaman 2003](#), 13). Similar arguments have been advanced in the USA, where [Ladson-Billings \(1995\)](#) has seen a culturally relevant pedagogy as central to the academic success of African-American and other children whose educational needs are unfulfilled by the school system.

The philosophical basis of the SICK is a prominent feature of Pacific cultures. I used the Samoan concept of *so'a lau pule* as my anchor and point of reference. As a consultative process, *so'a lau pule* ensures that people’s views are sought and any concerns are thoroughly addressed before a consensus is achieved. Implied in this process is that no one is left behind; its essence is that all decisions are made for the collective good. Given its nature, *so'a lau pule* may also be employed to guide the teaching and learning process. When there is no consensus, as happens sometimes, *moe le toa* (postponement or deferment) occurs, allowing people to take time out to reflect, contemplate or seek divine intervention on the best way forward. As a crucial aspect of *so'a lau pule*, time out is necessary if an issue under discussion is sensitive, controversial or needs further discussion. In the case of the SICK, time

out helps students to reflect more deeply and in close consultation with the teacher on a topic of choice and/or what to submit.

Underpinning the *so'a lau pule* process are core values of *fa'aaloalo* (respect), *va fealoai* (relationship), *fa'amaoni* (honesty) and *alofa* (love). *So'a lau pule* ensures that not only are people's views respected, but that lasting relationships are cultivated that are built on trust, honesty and genuine concern for the collective good. These values are also relevant to teaching, learning and assessing students. Relationships between students and teacher are built on trust and a genuine concern to impart knowledge in order to improve students' learning. *So'a lau pule* not only builds the treasured relationships that are important pillars of Pacific societies, but people-to-people connections that are maintained beyond the end of the course and that may even last for life.

Stages and processes of the SICK project

Guided by the teacher, students choose a topic and design an assessable task based on options discussed in the next section. Figure 1 summarises the three-phase cycle of student involvement. Although this framework applies specifically to the SICK project, the same approach may be applied to other assessment tasks and to the course overall.

The first three weeks constitute an *exploration* phase. Besides informing students of the aims and learning outcomes of the course, it reinforces the notion that the purpose of assessment is to enhance learning (Pongi 2004), not ranking. Students brainstorm and refine their choice in an 'Expression of Interest'; former students are invited to share experiences and display examples of their projects to new students. When students need more time to consider a topic, *moe le toa* takes place. This space is most useful for those students who have never previously experienced an open discussion about their learning. By week 3, an agreement is reached on a topic and what to submit. Students are given a guide that sets out the expectations of the SICK project (Figure 2).

The next phase (weeks 4–12) encompasses the development of the SICK and the review of individual progress. Shepard (2000, 10) maintained that 'in order for assessment to play a more useful role in helping students learn, it should be moved into the middle of the teaching and learning process instead of being postponed as the only end-point of instruction'. Mikre (2010) has reminded us that the teacher's involvement during assessment is crucial for student learning. This is where teaching, learning and assessing mesh; their

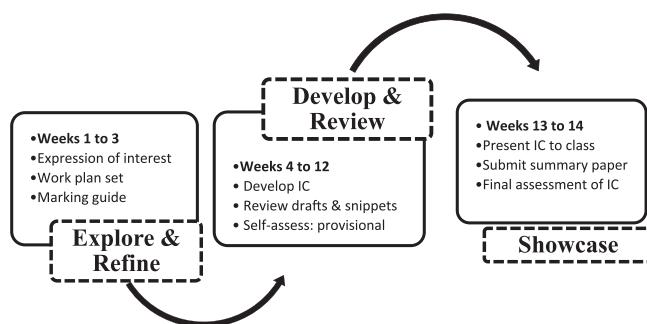


Figure 1. The Student Innovative Contribution to Knowledge: stages and processes.

The IC provides an opportunity for students to develop hidden skills and talents. They may develop these through a negotiated assessment task that contributes 10% to the course work. Through it, students will have a voice; a chance for them to have their say in the design and values underpinning the assessment task in the course. It is participatory, inclusive and empowering. Make your voice count where it matters the most; reclaim it!

FORMAT (3 pages summary)

Introduction (3 marks)

- Introduce your topic/theme for the innovative contribution. Why is it important?
- Provide a plan for the structure of your write up.

Motivation (2 marks)

- What is the motivation for this task? (problem/issue/concern).
- Re-thinking? De-contracting? Re-constructing knowledge? De-colonizing assessment?
- Are there any theories or frameworks from your culture that guide your thinking?

Target audience (2 marks)

- Who is your innovative contribution hoping to influence? Is there a particular group of people you would like to influence/impact? Why?
- How would you like to impact the target audience?

What to submit for marking? (8 marks)

- A written paper.
- Any other form of submission that will enhance the 'impact' factor of your innovative contribution. Your choice depends on your motivation, target audience and your purpose
- Examples – documentary (your own), effective poster, lecture presentation in class, expressive arts (song, dance, drama, poem), art work, portfolio, lesson plans or any combination of these. Note that the submitted material must be guided by the motivations.
- Poems, songs and related submissions must be original. Evidence of authenticity is required.

Lessons learnt (3 marks)

- Challenges related to putting the innovative contribution together; processes of thinking and reflection in action.
- Lessons learnt from the processes involved.

Conclusion (2 marks)

- Summarize the key points of the innovative contribution.

PROVISIONAL MARK

Before submitting the IC, students are encouraged to propose a mark for their work. The purpose is to allow students to assess the value of their work themselves against the criteria. How well and where in the IC have they addressed these criteria? What is the basis for the provisional mark?

Figure 2. The Student Innovative Contribution to Knowledge guide for students.

interaction must be nourished. This phase of the *so'a lau pule* process may parallel what Vygotsky (1978) called the zone of proximal development (ZPD). When students are in the ZPD component of a task, they require assistance and guidance to ensure its completion. Regular interaction at this stage benefits both the students and the teacher, for it provides them with insights to scaffold the next steps (Shepard 2000).

The nature of the interactions between the students and the teacher varies over time. Some students need specific help in developing ideas or directing them to new sources of information. In the process of developing their SICK project, students also submit drafts to the teacher to comment on until the *Showcase*, the last phase of the process. By then, the teacher will have viewed most projects and may have seen some sneak previews. This phase is a celebration too; so fitting for the *so'a lau pule* process and the course

to end in this way; students celebrating their achievements and drawing inspiration from each other's work and experiences.

The *so'a lau pule* process has another dimension. Apart from deciding on topics, students also review the end product. Because they are involved in all phases of the work, they are, as a result, the best co-judges. Thus, students are required to self-assess their work and provide a provisional mark before submission. This should not be a 'wishful' mark, but one that reflects the value of their project against the marking guide.

Allowing students to suggest a provisional mark gives them ownership of their learning. It motivates them to press forward with confidence knowing of their involvement in the project from start to finish. In the words of a female student from Tonga in 2007,

it was a new experience for me to design my own assessment, work towards it and decided what mark I should get. I never experienced this kind of learning at school [primary and secondary] and USP. I enjoyed the experience. This is meaningful assessment to me.

The interim mark also provides a space for the student and teacher to *so'a lau pule*; dialogue openly; negotiate further. It offers opportunities for professional disagreement. For a male student from Vanuatu,

I worked, discussed my work with the lecturer and justified my mark without fear. It was an eye opener for me that I could contribute to determine what mark I should get based on the value of what I produced. I could not ask for more.

The process also deepens relationships between students and teacher. In the view of a female student from the Solomon Islands in 2006, it cultivates 'respect for one another' and allows them to value each other's opinions. It develops mutual connections based on an 'honest and genuine relationship'. This, to a male student from Tonga in 2009, is

true scholarship. I wish this was encouraged in other courses. It got me to think for myself critically ... and it empowered me that my ideas matter in my learning. I did not think that I had an active role to play in my learning all this while. This assignment [SICK] gave me that space. I felt empowered and very excited. It is a new beginning.

Students' SICK projects as windows of learning and new beginnings

Students used one or a combination of these formats—poetry, drama, storytelling, singing, painting, drawing—with resource conservation and management-inspired themes for their project. Taufe'ulungaki (2002) has argued that allowing students to work on expressive arts reinforces cooperative learning, and encourages them to share and complement each other's skills and talents in the design of their work. The project led some students to ask parents and/or grandparents for help. With changes in the ways society values elders, it is time to restore their place in the transmission of knowledge and to return to the practices of the past.

Technologically savvy students produced short documentaries of a resource conservation project of which they were part. This was the case for one male student from Fiji in 2010, a youth leader in his community. In his words:

This project enabled me to produce a documentary on our mangrove conservation project in my community that not only helps our community but has value to my learning at University. The value of this assignment went beyond the University especially to my community, the youths who sometimes see us and our role as not important.

New skills were learnt and the final output often provided classroom material for students who intended to teach or return to teaching. Students also ‘edited’ existing documentaries and presented their own critique. This was the case for one student who learned how to edit a video taken by his elder sibling of the building of a seawall in his village in Fiji.

The making of useful arts and crafts—such as candle stands, photo frames, flower vases and rubbish bins—from discarded music discs, bottle tops, used telephone or recharge cards, ice pop sticks, aluminium cans and plastic bags was brilliant. These works were inspired by the 3Rs—Reduce, Recycle and Reuse. One female student from Fiji noted in a course evaluation in 2010 that the SICK project stands for a shift ‘from wastes to amaze. Amaze because many amazing things can be made from what people considered as waste’. To turn waste into art could see students continue their passion to protect the environment and develop entrepreneurial skills. Given the mismatch between gainful employment and the number of students leaving schools, the SICK could cultivate students’ interests for education beyond the classroom and ‘ignite the entrepreneurial spark’ (European Commission—Directorate-General for Enterprise and Industry 2014, 10).

Some students wrote reaction papers in response to a newspaper article, a press release, a letter to the editor, a news item on the local TV, a speech by a government official, a sermon or a seminar by staff at the university. Finally, a handful of students presented a talk in class on a relevant experience. This opportunity was seized by mature students, priests, nuns and teachers. The themes of these talks were diverse but rooted in sharing and showing off valuable skills, such as mat weaving, boat making and their link to sustainable resource conservation and management in the community. Once the topic of a talk was confirmed, students compiled a PowerPoint presentation that included a collection of personal photographs to showcase on the day. The talk was then aligned to the course content and took the place of the scheduled lecture.

The SICK project experience as a learning site

The experience has taught me lessons. I assumed that final-year students would be receptive to new ideas such as the SICK project. While students were able to select topics with ease, what to submit was a challenge. For example, a female student from Fiji in 2009 ‘found it hard to find a format that [in her view] was innovative’, and because she perceived it to be time consuming, her interest dropped. As a result, she, like others taking this view, preferred to write an essay or sit a test instead, which, she said, was ‘much easier and hassle-free than any new way to assess’. Some students regarded the SICK as hard and time consuming; the most frequent comments being: ‘I do not have time. I have assignments in three other courses to do. I’d rather sit for a test or write an essay to pass the course.’

These views are telling. As Fasi (1999) has noted, Pacific students are not used to being involved in the assessment of their learning. They see themselves as playing no role in the process. Students appeared not to be bothered that the choice of assessment and the value systems that underpin it were being decided for them. Students have come to accept the traditional forms of assessment as if they were set in stone; any attempt to ‘rock the boat’ was quietly frowned upon.

While all students agreed in principle with the motivations of the SICK, they appeared unwilling or unprepared to participate. In a summary by a female student from Tuvalu written in 2008, 'I agreed with the SICK. It would have been a learning experience for me but many things happened during the semester that I had little time for my work.' However, she continued, 'while I did not commit myself to what I signed up for, I learned from the experience. This for me is the best part even if I do not get a grade I would have liked.' Many students wrote similar reflections in their SICK summary and in *talanoaga*. This suggested that the seed had fallen on fertile soil and, given nourishment, will bear fruit some day.

It was unclear which aspects of the SICK project were demanding. During *talanoaga*, it appeared that students' inability to complete their work had less to do with the work than with time management. Although students agreed on what they were to do by week 3, some abandoned the work until a few days before the due date. Despite extensions to the deadline, it was not possible by then to produce a substantial work; and neither the quality nor the quantity turned out as they had wished. A female student from the Marshall Islands wrote in her summary in 2006:

I regretted not using my time wisely. I missed the opportunity ... but I knew that I learned a lot from it. It made me think of my learning in a different way. I felt empowered that I was involved in my learning and assessing of it from the start. I was given an opportunity to be part of something much bigger than I first thought.

Unfortunately, poor planning led to some students requesting to sit a test or substitute the SICK project with an essay. Some resorted to submitting meaningless posters. This is not to suggest that a poster, as Pantiwati (2013) argued above, cannot provide an excellent medium when given thought rather than used as a quick-fix solution. A male student from Fiji wrote in 2009:

I submitted something [a poster] to get a mark. Many of my friends did the same though. It was better to get a mark than not submitting any and received nothing. I needed all the marks to pass the course.

In spite of this, some SICK projects were works of art. Their designers needed little convincing of the value of the exercise and readily embraced the opportunities offered. The submissions were prepared with care and attention to detail and presentation. As a group, these students (50) also recognised that the benefits of this task extended beyond the 14-week course. Some of the arts and crafts (and posters) of SICK have been among the most popular displays at the School of Geography booths at university open days since 2007. Members of the public have been drawn to the colourful exhibitions. Some SICK artefacts have generated interest among high school students keen to study and learn more about Geography at the university.

Secondly, pre-service and in-service teachers in the class who produced poetry, short stories and educational games found the SICK project useful. In the words of a female in-service teacher from Tonga:

I enjoyed the experience. I participated in its [a story book for kids] design, its making and assessment. It gave me ideas of what I could do when I returned to my work [teaching]. I was excited about what I learned. It was a different way of learning. This was one of the best

lessons for me at USP and as a teacher it gave me ideas when I return to work next year [2010].

As a group, these students either used or readapted their SICK project in their teaching and have applied its principles to other suitable contexts.

Thirdly, a number of students developed their SICK projects into postgraduate topics at USP and universities abroad. Concerned with the loss of forestry resources on his island of Tetepare, a male student from the Solomon Islands told me in 2007 that ‘the SICK project got me thinking of my home in a forceful way. It worries me a lot. The logging of our forests has been an ongoing struggle for my people. Our leaders only think of fast money.’ He compiled a list of species, local names, uses and sacredness of plants found on Tetepare into a handbook, which he called the *Biodiversity Bank of the Solomons* (BBS). With the handbook he aimed to convince his clan, his target audience, of the consequences of logging if appropriate actions are not taken. In his summary, he wrote:

this assignment [the handbook] meant a lot to me. It gave me freedom to choose an assignment that has meaning to me. It’s more than an assignment. I was doing something to save my home from unsustainable logging by foreign companies. It [logging] is going to kill my people, my land, my home. I hope I can do something about it now.

The SICK project had also led to the development of new skills and exposed some students to the world of work. For one female student from Fiji, the SICK experience

taught me how to make a documentary. I did not know how to make one before; now I can! I also made friends with staff of the Media Centre who helped me. The SICK project gave me more than I thought. I am happy that I went through the course.

Another male student from Vanuatu wrote in 2010 that the assignment ‘showed me how to edit a video documentary. I learned from other people [Media Centre, USP]. I never thought that through this course, I could learn an important skill for life.’

Finally, testimonies from students’ course evaluations and *talanoaga* pointed to the value of the SICK in learning about local communities’ notions of sustainable living. One male student from a farming background in Fiji wrote in 2009: ‘It [SICK] is like walking back to my roots, to know how my parents, grandparents and great grandparents worked the land in Ba to survive for years.’ The opportunity allowed him to learn from his elders about living life on the farm and understanding the need to look after the land. He added: ‘I once thought of my family’s life as hard work but after this assignment, I now called it, sustainable life.’

Culturally inspired teaching and learning as sustainable life: final thoughts

The lower than average results of Pacific Island students in formal education is a concern. The mismatch between the home and the school cultures is a major contributing factor. The driving force behind the SICK project was my own experience: dissatisfaction with an undemocratic teaching, learning and assessment regime and with an education system that detached me from ‘*aiga*’, as epistemological site. Informed by the Samoan concept of *so'a lau pule*, the SICK promotes consultation and conversation among teacher and students in the teaching and learning process. It is inclusive and culturally democratic. It embraces cooperative learning, a feature of Pacific epistemology

and ontology. What counts as knowledge is passed orally from the elders to the young: exhaling their *mana* and knowledge to the children, ensuring survival and continuity. *So'a lau pule* is anchored in human values of respect, honesty in building *va* (relationship) between teacher and student, and the love of gifting the young with knowledge and skills for the future.

Considered the father of modern education, Dewey (1916) believed that teachers should take time to reflect on their observations, knowledge and experiences so that they can effectively nurture each child's learning. I hope that I have fulfilled that obligation in this paper and that it provides a stimulus for others to develop appropriate, relevant, context-specific and meaningful assessment for their students. If these reflections are a source of encouragement then it will have been worth committing them to paper.

Experiences with the SICK project have been useful. It has not been easy to convince students who have come to accept conventional ways of teaching, learning and assessment. As it turned out, it was the enthusiastic students who took the challenge head-on and expressed personal satisfaction with the learning experience. The experience has also provided a seed for my professional growth as a reflective practitioner, reminding me that learning is a lifelong process. As Dewey (1916) has reminded us, engaging students in new ways of teaching, learning and assessing their performance is crucial for the benefit of all, not just the industrious few. When that is achieved, we can then truly attest that our methods of teaching, learning and assessing are culturally democratic, inclusive and that they empower the people who need it the most. After all, we 'truly learn' so that we can 'truly teach'. Our continuous search for meaningful assessment and culturally appropriate pedagogy has just begun!

Note

1. Resource Conservation and Management is a third-year course in the School of Geography, Earth Science and Environment at USP. It aims to 'examine the principles and problems of resource systems, environmental conservation and resource management with particular reference to the Pacific Island ecosystems' (USP 2017, 286). It is a requirement for double and single majors in Geography, but may also be taken as an elective. It is a compulsory course for many university-wide programs, including the Bachelor of Arts and Graduate Certificate in Education, the Bachelor of Science and Graduate Certificate in Education, the Bachelor of Arts (Environmental Management), the Bachelor of Science (Environmental Science) and the Bachelor of Geospatial Science.

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