

Education for a Vocation or Society? The Dialectic of Modern and Customary Epistemologies in Solomon Islands

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Abstract

Rural Training Centres (RTCs) in the Solomon Islands are community-based initiatives that offer vocational education to men and women. Since the 1960s, RTCs have grown to become an organised movement of 47 centres present almost in every province. Based on learnings from fieldwork in three RTCs, we explore the centres' training model, and the dialectic between indigenous and Western schooling traditions that converge at some points and deviate at others. We argue that the idiosyncratic features of the RTC learning experience can support the acquisition of skills like independent and critical thinking; important for communities to collectively shape their own development. Our research shows nonetheless that increasing influence from external actors is forcing RTCs into a more Westernised study-for-employment model of vocational education. A shift too far in this direction could significantly hinder the potential of these institutions to foster students capable of addressing Solomon Islands' urgent and unique livelihood and environmental challenges.

Keywords: vocational education; indigenous epistemology; Solomon Islands; rural training; Western education

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Introduction

The fragile state of governance in Solomon Islands has meant that economic development and investment has been narrow – so far focused on the extraction of resources, particularly logging and mining (Haque, 2012; UNDP, 2010). These two industries are unsustainable¹ and tainted by corruption and poor outcomes for villages and traditional landowners (Scheyvens, 1998; UNDP, 2010). Solomon Islands is at a tipping point where natural resources are rapidly reaching depletion. Coupled with the catastrophic projections for climate change impacts, challenges faced by Solomon Islands can be expected to abruptly escalate if proper action is not promptly taken (UNDP, 2015). In this complex scenario, education has been held up in Solomon Islands as a national saviour, holding the answers to these challenges. Education has been envisioned as the pathway to social and economic opportunities, to break the cycle of poverty, and to build capacity and improve livelihoods and health (SIG, 2010; MEHRD², 2004, 2010).

The Solomon Islands has one of the highest public investments in education in the South Pacific as a proportion of the overall government budget³. Within all education sectors, Technical and Vocational Education and Training (TVET) has been given a dominant role in the promise of sustained economic growth. This is apparent in two key policy national documents: The Policy Statement and Guidelines for Tertiary Education in Solomon Islands (MEHRD, 2010) and the National Education Action Plan 2013–2015 (MEHRD, 2010).

Solomon Islands' efforts and expectations in education are well-aligned with global development discourses. The United Nations' Sustainable Development Goals, for example, established the provision of education as a top global development funding priority in Goal 4: “Ensure inclusive and equitable quality education and promote life-long learning opportunities for all” (UNDP, 2010). Vocational training was explicitly addressed through the goal's targets.

While the overall goal of the United Nations and the Solomon Islands government is to improve education and employment, education goals in development discourses must be augmented by deeper considerations of what type of education is being promoted, and what achieving such goals entails. The use of an ‘equitable quality education for all’ discourse, with no mention of indigenous knowledge or epistemologies, raises concerns about a possible standardisation of education in ways that may not match local contexts, needs or priorities in Solomon Islands. On the other hand, TVET also needs to prepare young people and adults for the ‘world of work’. The right combination of both approaches is required to prepare Solomon Islanders to address the nation’s unique challenges.

In this article, we explore this tension in policy that at first glance seems to support education, but which may have adverse consequences which only become visible when we take a closer look at implications at the grassroots. We focus our attention on Rural Training Centres (RTC), a community-based initiative that has offered vocational education opportunities to men and women since the 1960s. From a handful of pioneer centres, RTCs have grown to become an organised movement with a network of 47 centres across almost every province.

As community-based initiatives, RTCs evolved from the grassroots through a dialectic between indigenous and Western schooling traditions. Using the results of fieldwork in three RTCs, we argue that this dialectic has resulted in idiosyncratic features in RTCs where both educational traditions converge at some points and diverge at others. Such characteristics of the training model hold the potential for supporting the acquisition of a series of skills in students like independent and critical thinking. These skills are foundational for social

¹ Solomon Islands contains large stocks of standing rainforest (drastically reduced today), valuable migratory tuna fisheries, and undeveloped mineral production.

² MEHRD (Ministry of Education and Human Resources and Development).

³ From 2009 and 2012, Solomon Islands expenditure in education was an average of 25 per cent per year of the national budget (Bateman, Cassity and Fangalasuu, 2015). Spending on education remains nevertheless heavily dependent on donor support (Whalan, 2011).

transformation where communities themselves gain a critical understanding of their environment and collectively act to achieve common goals.

Throughout the first two decades of the RTC movement the centres retained almost complete autonomy. Today, the institutions are increasingly influenced by Solomon Islands government and international donors. External actors have systematically pushed RTCs into a centralised, study-for-employment vocational education model meant to 'sustainably meet [the country's] manpower needs' (SIG, 2010: 23). We argue this threatens to move RTCs' governance away from the grassroots, and eliminate aspects of training that do not comply with conventional expressions of Western education. As a consequence, RTCs' potential for developing skills essential for social change may not only remain underused, but might cease to exist.

We first look at relevant theoretical perspectives describing the role of education in society. We later draw some cautious connections on how such perspectives appear to intersect with different educational traditions in Solomon Islands. Keeping such connections in mind, we offer the reader a condensed exploration of the history of TVET in the country, with a particular emphasis on RTCs. We used results from fieldwork conducted in RTCs in to provide an analysis, which will allow us to promote a better understanding of how these different elements interplay in the learning experience in RTCs. Finally, we review national policy documents and development agencies' reports to explore how external actors threaten to transform Solomon Islands' community-based education initiatives and the consequences of this.

Educational traditions in Solomon Islands

Whatever its final stated purpose, education is a process of transforming individuals and/or collectives (Ahmed, 2010). There are two contrasting directions in which education can channel social transformation. First, a body of literature has explored the power of education for transforming lives and communities in ways that are shaped by learners themselves. Some contemporary discourses around such ideas include participatory learning and action (Chambers, 2007), popular education (Freire, 2000) and transformative learning (Cranton, 1997; 2006; Mezirow, 1991, 2000). These 'radical learning traditions' describe social processes where collectives of people learn together and generate an analysis for groups of people to choose and implement actions together (Campfens, 1997; Westoby and Shevellar, 2012). They emphasise the role of education in re-centring people as active agents making decisions, using their creativity, resources, relationship and intelligence to manage present and future problems. For these radical learning traditions, education is key to social mobilisation and collective action, as it offers the foundations for those who are marginalised to organise together and act, often challenging systemic powers making decisions, allocating resources and controlling agenda (Campfens, 1997). Processes of social change require significant prior work in learning and training where foundational skills can be developed. In this way, radical learning traditions educate through a praxis of learning and action, where critical inquiry and analysis, creativity and innovation are developed in order for people to reflect and analyse problems to make a positive difference. The research of Jack Mezirow, pioneer of transformative learning, concluded for example, that critical reflection was vital for students' transformational process, as it allowed them to begin questioning the validity of their pre-conceived world-views (Westoby and Shevellar, 2012: 33). Through critical reflection, students were able to learn to deconstruct the meanings they have uncritically given to past events and experiences. As demonstrated by the work of Westoby and Shevellar (2012), community-based education initiatives such as RTCs have shown enormous potential and possibilities for facilitating learning experiences that lead to collective action.

A second body of literature, commonly aligned with colonial and post-colonial perspectives, has exposed an opposing view of education as a subjugating technology moulding people and societies to assume subjugated social roles (Goura & Setzer-Kelly, 2013; Kupferman, 2013; Spivak, 1988). Its purpose is to prepare and transform selected individuals from disadvantaged populations to facilitate exploitation (Spivak, 1988). Transformation under these perspectives occurs as a means of installing the norms and expectations of those in power, replacing previous indigenous systems of reference. After the 'colonization of the mind' (Spivak, 1988), the role of education shifts to one of maintaining and strengthening systems of rule and oppression.

John Dewey, the American liberal pragmatist was particularly influential in the debate about vocational education. He recognised the dichotomy outlined above. Early in the 20th century, (Dewey, 1980 [1997]) recognised that the vocational education of his time not only taught skills, but was an instrument for submitting students to workplace social norms: rules of hierarchy, docility, efficiency at work, ‘honesty’, and ‘respect’ towards co-workers. Interiorising such norms came at the expense of divergent skills championed by more radical learning traditions. Critical inquiry and analysis, innovation, or creativity were not only overlooked but also sanctioned. In Dewey's eyes, this made vocational education an ‘instrument in accomplishing the feudal dogma of social predestination’ by domesticating students in preparation for highly authoritarian workplaces, perpetuating social divisions and inequality (Dewey, 1980 [1917]): 328).

Dewey's work was later interpreted and further developed by a range of authors (Garrison, Neubert and Reich, 2015). Particularly relevant was Goura and Seltzer-Kelly's (2013) exploration of the contemporary bondage of vocational education to neoliberalism. The authors evidenced a disciplinary role of vocational education as a State-orchestrated system designed and assessed explicitly in its relation to the market sector. Through a social efficiency discourse, students' learning objectives were defined in terms of economic importance for the broader society, and observable and measurable through standardised objective means (Goura and Seltzer-Kelly, 2013: 55).

Having explored these two contrasting views framing the role of education, we will now create some links between such perspectives and distinct educational traditions in Solomon Islands. We are cautious not to simplify this debate, or break it into simple binaries, but to point out some areas where we noticed these discourses at work and which might serve to inform educational policy in such environments.

Indigenous learning and education

Since the arrival of Europeans in the 19th century, the dialectic between colonial powers and indigenous populations in the Pacific Islands began to take shape in the relationship between political, social and spiritual systems. Today these coexist in some instances (Tonkinson, 1982) and have become integrated in others. Contemporary education and schooling in Solomon Islands reflect a similar dynamic. Similar to other Pacific Islands states, two educational traditions exist; an indigenous tradition and a Western tradition. As argued by Philips (1992), the relation between both forms of education has been largely asymmetrical.

In traditional education, generations of Solomon Islanders taught their children by practice and example the hands-on skills involved in fishing and agriculture, combined simultaneously with the intricacies of social life, including traditions, ancestor worship and gender roles. Indigenous education systems are myriad, so are therefore not homogenous. Nevertheless, recorded indigenous learning systems seem to point towards some similar general principles and methodologies. Several authors have found clearly articulated intellectual traditions informed by complex epistemologies where knowledge is constructed collectively, through a circular approach to thinking, reflection and critical praxis (Gegeo and Watson-Gegeo, 2001; Hviding, 2003; Lauer and Aswani, 2009).

A particularly rich exploration of an indigenous education tradition was recorded in the work of Gegeo and Watson-Gegeo in the *Kwara'ae* region of Malaita province (Gegeo and Watson-Gegeo, 2001, 2002; Watson-Gegeo and Gegeo, 1992). The authors differentiated between two observed complementary components in the traditional *Kwara'ae* education system: the ‘informal’ and the ‘formal’. The aim of the ‘informal’ component (starting at six months of age) was to push children to adult levels of competence and performance so that they may interact and perform a variety of productive work as quickly as possible. ‘Informal’ learning occurred socially and concurrently through the ‘active participation in everyday activities, verbally mediated participation, verbal rehearsal and practice of knowledge through routines’ (Watson-Gegeo and Gegeo, 1992: 13).

In the ‘formal’ component (*fa'amanata'anga*, or ‘shaping the mind’), *Kwara'ae* people were taught to argue and reason. ‘Shaping the mind’ involved regular sessions led by family members, seniors, or invited elders meant to

engage with abstract discussions and to teach reasoning skills. Such skills were developed through question-answer pairs, rhetorical questions, tightly argued sequences of ideas and premises, comparison-contrast, and causal argumentation (Watson-Gegeo and Gegeo, 1992: 14). *Kwara'ae's* 'formal' education assumed that children were already knowledgeable and intelligent, and that their minds needed to be guided rather than forced into 'thinking correctly'. While informal education began at early childhood, it continued throughout life as an adult in activities and events in which intra-familial and intra-village conflicts were resolved, and cultural norms and values taught and revised.

It is not difficult to see the similarities between Watson and Gegeo's exploration of the ideals of indigenous education traditions, and the principles of radical learning traditions discussed above. Similar to popular education or transformative learning, *Kwara'ae's* people seek to develop children's minds and teach them how to think independently and critically. With this intention, they strongly support the acquisition in youth of critical skills, rather than drilling them with factual information unrelated to broader cultural, critical and ethical considerations.

As a contrast we now discuss the development of more Western traditions that have been incorporated into educational systems in Solomon Islands.

Western learning traditions

Western educational traditions were first introduced to Solomon Islands in the mid-19th Century through Christian missionary schooling, whose influence was almost universal in the archipelago. Early missionaries believed that schooling islanders in Western, Christian knowledge would 'raise' the so-called 'heathens', and bring them into 'civilisation' (Jensz, 2012). Missionary instruction sought to create sufficient change to ensure the allegiance of the newly converted faithful and to prevent them lapsing into apostasy (Boutilier, 1992). The colonial government's formal role in the provision of education did not begin until the early 20th Century when there was a greater need from the government for local administrative staff that training by missionary schools could not satisfy (Jensz, 2012). One of the main goals of the colonial government education was to prepare indigenous people in ways that might facilitate the economic exploitation of the colony.

The introduction of Western educational methodologies was hostile to the traditional cultures of Solomon Islands given their incompatibility with indigenous values and epistemologies, particularly the tradition of education for the whole person. The traditional collective, circular learning collided with the Western linear, cause-and-effect teaching based on Enlightenment values (Kupferman, 2013). Theoretical sessions in the classroom detached learning from everyday life and practical experience. Teaching shifted from a community-based learning approach to whole-class lectures relying on experts, strict discipline, dictation, recitation, rote memorisation, and structured chronologies (Boutilier, 1992; Watson-Gegeo and Gegeo, 1992). Curricula focused on basic literacy in English, neat handwriting, and low-level math skills, while virtually ignoring the political and economic environment of the Pacific. Roles were also redefined in such a way that children were framed as victims, culturally deficient and learning disabled. Meanwhile teachers monopolised power over knowledge and became the sole transmitters of knowledge (Philips, 1992). While questions of information from students were allowed, open discussions and debate was prohibited (Watson-Gegeo and Gegeo, 1992: 17). Transformation using these approaches was not ultimately linked to goals of developing people's mind, but with taking and retaining control.

There has been, post-independence, a broad acknowledgement and critique of the pervasive impacts of the introduction of Western education (Bray, 1993; Thomas and Postlethwaite, 1984). However, contemporary mainstream public education continues to play a subjugating role in Solomon Islands. As argued by Kupferman (2013), postcolonial actions that sought to reclaim the schooling system were based on improvement, reform, or adaptation seeking to 'indigenise' school curricula and assessment practices to make them more 'culturally

appropriate⁴, while not completely abandoning the Western model. In this way, post-colonial education was expected to exist alongside the existing Western schooling system. There was little room for an alternative approach that facilitated local and traditional forms of education (Kupferman, 2013: 7).

Schooling in Solomon Islands continues today to reproduce colonial and Western values embodying the 'deep structure' of Western schooling: 'those expectations and practices are so embedded ... in the education system that they can be found in every school; [they] are seldom questioned, and are almost impossible to change' (Tye, 1987: 281). As one example, elements of this deep structure in mainstream public schooling include the retention of an academic, book-based approach with culturally unfamiliar and contradictory content and methodologies for local people. Another example is that, in spite of the broad linguistic diversity in the country, the National Curriculum Statement still mandates children are educated in English⁵ (MEHRD, 2011), even if teachers themselves do not have a spoken or written command of the language (Watson-Gegeo and Gegeo, 1992).

After independence, Western education regained a direct influence over the Solomon Islands education system through international cooperation. Western 'experts' and consultants transferred research findings and best practices from different contexts to inform education policy generally and curricula specifically (Crossley 2010; Crossley and Vulliamy, 1997). Financing of the education sector became dependent on donor funds, which gave cooperation agents a major role in determining the shape and size of education systems (Bray, 1993; Whalan, 2011).

Next, we look at how Rural Training Centres emerged from this interplay and tension between schooling traditions, as a grassroots effort to offer vocational education to rural people in the country.

Vocational education and the rural training centres

The provision of TVET in Solomon Islands has been largely delegated to the Christian churches. While the main purpose of early mission schooling was to teach Bible study and the elements of their own denominational beliefs, churches were also concerned about improving village life (MEHRD, 2004). Thus, missionary education included vocational capacity building in areas like improved farming techniques or carpentry. Missions gave an important emphasis to self-sufficiency, and students were encouraged to learn how to grow their own food, build and repair their own buildings and cook for themselves (MEHRD, 2004; Moore, 2013). The early missionary education model was deeply disrupted by the appearance of the first colonial government schools, whose book-based academic curriculum relegated vocational subjects as minor options (MEHRD, 2004: 46). Early missionary schools gradually decided to shift their curricula to follow the colonial academic model and examination system, and leaving TVET instruction aside.

After the 1960s, the number of students educated in the formal education system increased sharply. In response, the five main churches⁶ decided to significantly consolidate and expand their provision of vocational education as a way of catering for people who otherwise had few alternative opportunities. Under this initiative, the first RTCs emerged, as some Bible Schools were converted to vocational schools teaching practical skills. New training centres were opened and old ones expanded (MEHRD, 2004: 46). After the first RTCs began operating, it did not take long for other communities to join the movement and create their own educational centres. RTCs emphasised training that developed skills for rural living, and enabled some students to gain paid employment in urban areas, especially in mechanics, building and carpentry, or in rural areas with plantations, or logging companies (MEHRD, 2004: 46).

⁴ In Solomon Islands, for example, by the end of the 1980's there was a team of over 50 professional curriculum developers (Racule, 1992 in Bray, 1993: 338).

⁵ In practice teachers often rely on vernacular communication (Lotherington, 1998: 10) and the national recognises that initial literacy is best taught in a vernacular language (MEHRD, 2010: 10).

⁶ Anglican, Catholic, United Church, Seventh Day Adventist and South Seas Evangelical Mission.

RTCs proved to be ‘... effective and remarkably durable institutions ... that have greatly supported rural life in Solomon Islands’ (AusAid, 2006: 15). During the first decades, financial resources were limited and the centres faced constant struggles. Institutions depended exclusively on small contributions from the churches and modest fees from students. In spite of the difficult living conditions and low salaries, RTCs were committed to moving forward, and they assisted each other by creating space for learning best practices from fellow institutions. In 1992, RTCs managed to finally gain a level of legitimisation by establishing the Solomon Islands Association of RTCs (SIARTC), an association that formally represented RTCs and promoted their growth (SIARTC, 2015). Today, there are over 40 organised RTCs operating, graduating a total average of 2,000 to 3,000 students yearly (Close, 2012: 4).

Since 1993, the EU has provided sustained assistance to RTCs in infrastructure, training and capacity building. After the establishment of the SIARTC, a continuous campaign began with the purpose of advocating for official recognition of RTCs by the Solomon Islands Government, and to gain government financial support. This objective was finally achieved in 2003, when the government agreed to continue paying RTC teachers' salaries and to provide a modest annual incentive.

RTCs have evolved in close relationship with Christian missions and missionary schooling traditions. At the same time, as grassroots organisations, RTCs remained grounded to their local context and in direct response to local needs. Through our own research on three RTCs, we will now examine how both indigenous and Western schooling traditions interplay in the training model of RTC using our experience conducting fieldwork in three RTCs in 2015. We later discuss how the increasing influence of external actors is reshaping intrinsic features of these learning dynamics.

Fieldwork

The authors were members of an Australian Centre for International Agricultural Research (ACIAR) project, research social and cultural aspects of sustainable small holder forestry initiatives in Solomon Islands. Our work in RTCs was to gain a better understanding of the teaching and takeup of village level forestry. Our data collection was carried out during field visits to RTCs in early 2015. The Research Team visited three centres:

1. Don Bosco Tere Technical Institute Rural Training Centre: Located in Guadalcanal Province. Don Bosco RTC was established 11 years ago by the Silesian order of the Catholic Church. Today it houses about 150 students aged 20 years or older. Staff working at the centre include 3 Silesian priests, 8 lay teachers and between 16 and 20 lay assistants.
2. Garanga Village Rural Training Centre: Located in the North of Ysabel Province, in a remote setting close to the Garanga River. This is a residential rural training centre, owned jointly by the Ysabel Provincial Government and the Church of Melanesia, Diocese of Isabel. The Garanga RTC has been running for 15 years. Today it houses 260 students aged between 18 and 36 years old. It offers training in carpentry, agriculture, life skills and mechanics.
3. Airahu Rural Training Centre: located in West Kwara'ae, Malaita Province, 30 minutes' drive south of Auki. This RTC was also founded by the Church of Melanesia. It houses 176 students who study life skills, agriculture, mechanics or carpentry.

A range of qualitative research methods were used to examine the learning dynamics at RTCs. Semi-structured interviews were carried out with key staff members of the SIARTC; one of the founding members of the RTC movement; a political leader of the Malaita province; and all principals of the visited RTCs. Focus groups were conducted with RTC teachers, eight (female) agriculture students; and RTC students (approximately 60 students divided into groups of ten). We also conducted transect walks, where participants were encouraged to show the researchers the results of their work, particularly their agricultural work, while we discussed relevant themes

with them. RTC staff provided valuable information on the development of curricula, teaching methods, the history of the RTC movement, and administration of the institutions. Students and alumni shared their learning experiences, views of the future and ability to influence practices at in their home villages.

Results

The RTC training model

Most RTC students board at the institutions during the schooling year given the RTCs are generally located in remote areas and are open to students from across Solomon Islands. Study programs last for two or three years. In Garanga and Airahu, every student chooses an area of specialisation; with mechanics, carpentry, life skills and agriculture the most popular. Don Bosco, in contrast, focuses exclusively on agriculture training. In addition to receiving training in an area of specialisation, students from all three centres engage in complementary foundational subjects that, depending on the institution, include home economics, religion, literacy, English, mathematics and/or business.

Students from different backgrounds, and from all provinces joined the institutions, forming a diverse cohort of cultures and languages. Even if RTCs were initially created to attend the needs of the younger population, we noticed that they welcome people at different stages of their lives who feel the need for education and training. Students' ages in the visited institutions ranged from 18 to 36 years (although the largest cohort of students was in their twenties). Students' level of completed formal schooling also varied, with most students having finished only the first years of primary education.

We found several evident expressions of the 'deep structure' (Tye, 1987) of Western schooling, for example, in the dynamics of lectures which relied on dictation of information by the teacher, and the copying of texts from a blackboard. Classrooms followed a standardised 'four-walls' design with rows of chairs and desks facing the teacher. Time was managed through mainstream schooling schedules, with strict times for class start and finish. In addition, knowledge was measured through standardised tests, which regularly measured theoretical and practical skills in a mark out of ten.

While all these elements matched what could be expected from a centralised public schooling system, we were also able to observe several idiosyncratic features in the RTC training model, which at different levels contrasted with mainstream approaches to public vocational education.

RTCs students had the opportunity at different levels to learn new practices by testing knowledge through hands-on experience and then drawing theoretical abstractions from their practice. This critical praxis was enabled by a strongly practice-oriented training model where, according to SIARTC authorities, about 70% of the RTCs' program is dedicated to experiential learning. Aligned with the 'informal' component of some indigenous schooling traditions as explored by Watson-Gegeo and Gegeo (1992), learning at RTCs was grounded in participation in everyday activities and the practice of knowledge through routines. These included self-organised group based maintenance, gardening duties, cooking, laundry and other everyday tasks. Contrary to the emphasis on individual perspectives and individualism of traditional Western schooling, the learning experience for students at RTCs was supported by vibrant connections to the social environment and to each other.

In Airahu RTC, for example, on a regular day, students attended lectures in the classroom during the morning and then they applied theory in practical sessions during afternoons. Agriculture students had their own agriculture plot, and students from other focus areas practiced at workshops where they could apply and reinforce new knowledge. In Dom Bosco, all students worked daily taking care of communal and personal agriculture plots. Learning was in this way integrated into the 'ordinary cycle of life, work, and leisure' (Eiben, 2002: 66) as students routinely engaged with each other through everyday activities like working in the fields, contributing to the cooking, attending religious services and helping with the maintenance of the RTC. Much

of this was self-directed with more experienced students guiding newer ones. In addition to the regular training, the curricula of all visited RTCs included six months to a year of practical placement. During that time students practiced and developed pragmatic skills by working in companies, *keatom* gardens or other institutions.

The two-year boarding model enabled the reinforcement of teaching through spaces for discussion and reflection. As described by Gegeo and Watson-Gegeo (2002: 398), collective learning is part of some indigenous schooling traditions where, in 'legitimate peripheral participation', critical discussions and reflexive debates of small groups people explore and decide important issues. Collective discussions at RTCs allowed spaces where students could critically reflect on new practices and teachings, creating 'truth' through a process that involved practice, observation, and critical decision-making. This was exemplified by agriculture teachers in Airahu who explained that when introducing new techniques to students, some students argued and disagreed with the teachers referring to their previous (indigenous) knowledge. Teachers suggested that it was necessary for them to convince students with a 'deeper explanation'. But the oral argumentation and theory did not seem to be enough to convince students. Teachers asserted that students were not fully persuaded about the value of a technique until they observed the final results of the harvests. For example, a teacher told us:

For students, this [intercropping] is a new technique. They are focused on the end result and want to know what will happen next, if it will work ... In this [intercropping] the students have been very interested . . . as the crops and trees are growing well.

Key to practical experience was the recognition and validation of the students' indigenous knowledge.. Teachers appeared not to dismiss the basic understanding and experience of students, but wished to build on indigenous knowledge to promote better practices. In Airahu a teacher suggested:

Students might not know the terms or concepts, but they have some good practical skills in these areas [referring to planting trees, rearing poultry, and growing vegetables]. Our role is to support them to increase their knowledge and improve skills and techniques.

In this way, rather than drilling information into students, RTCs seemed to support at different levels, the development of the minds of students through the acquisition of practical and critical skills, respecting the knowledge the students had brought with them. Collectively observing and discussing the results of techniques in the harvest gave students a level of agency over the decision of whether or not a new technique was valuable, and gave better results than their indigenous practices. Learning in spaces that allowed collective argumentation and reasoning seemed to support students to develop the ability to evaluate, (re)adapt and (re)theorise new practices. For example, one student said:

To grow a new sweet potato plant, at home we would normally use up to eight or ten sticks [stems] at once. Yet at the RTC we learned that there is a higher probability of a new plant growing and yielding better if we use only two [as this reduces competition between new plants]. At home, we finally used three or four stems because we thought it worked better. My family is happy with this [technique] and now uses it to plant the sweet potato in the garden.

In spite of assessment methods being deeply influenced by Western schooling traditions, their design also measured some of the students' skills in critical praxis. In this way, theoretical knowledge, practical skills and reasoning were part of evaluations. This was exemplified by a teacher in Airahu:

Students can be asked to collect soil and then mix to prepare for a nursery seed bed or required to demonstrate they know how to germinate seeds. They need to show they can follow the procedures related to these tasks.

Students were required not only to demonstrate the techniques but also to articulate the reasoning supporting why they used specific methods. If students struggled to master the newly introduced knowledge during the regular extent of the training, they would not ultimately fail the program, but continue to be supported to learn until they were ready to graduate.

Knowledge construction in RTCs was nurtured through strong ties to the physical environment. A connection with the land was evident at all RTCs we visited, where students regardless of their specialty engaged at different levels with agricultural activities. In Airahu for example, all students worked in the RTC agriculture fields, even if their field of specialisation was not agriculture. In Dom Bosco (dedicated exclusively to agriculture), in addition to regular work in the fields, every student had to plant five trees when they first arrived to the centre and take care of them during their years of training. The Institution's staff said they wanted to 'make young people fall in love with agriculture'. Harvest of the RTC fields was used in some cases for consumption by students and staff in the centre, and also for sale in small-scale businesses of the RTC. As such, RTCs also nurtured strong ties with the local economy by selling and buying products from local suppliers.

RTCs function through a decentralised system where each centre independently manages its own training programs and its campus. Contrary to centralised models of Western education that reproduce a single educational program, decentralisation has allowed RTCs to evolve responding to their immediate context. Each curriculum department develops its own syllabus, retaining the flexibility to change the curriculum and adapt it according to changing conditions. The Garanga RTC, for example, encouraged by the Church of Melanesia, recently integrated a new HIV/AIDS subject into its curriculum. In another example, the consulted RTC principals want to incorporate an agroforestry curriculum in o their institutions because they consider it is necessary in light of the deforestation crises in Solomon Islands. As an Airahu teacher said:

Every year we [the teachers] look back at the previous year and analyse what didn't work and what could have worked better. We [the teachers] try not to teach something that students would need very specific tools to do, as it would not make sense because chances are low they will be able to find those tools back home.

As such, teachers seem to avoid knowledge that is outside of students' horizons for learning and implementing knowledge. In contrast, they appear to make a conscious effort to transmit knowledge that fits the local context. The same teacher said:

In agriculture, we [the teachers] think about what topics fit in the students' communities. We try to incorporate the most basic knowledge that students will be able to use regardless how different their home environments are.

Interviews in RTCs revealed that the institutions are not only concerned with offering vocational training in an area of specialisation, but understand their responsibility to promote aspects of the 'whole person' such as self-sufficiency, spiritual growth, and 'responsible citizenship'. In Dom Bosco, for example, educational staff said: 'We want to form integral students. We are even concerned with how they sit, talk and walk'. Their teachings of both work and discipline are strongly emphasised through values like patience and discipline. Furthermore, discipline in the institution was supportive rather than punitive, and students who needed to be disciplined were given additional tasks referred to as 'acts of love'. As RTCs are directly connected, and most often managed by faith based organisations, the teaching of values seems to be strongly inspired by (non-denominational) Christian values - which in some ways could now be considered as local values of Solomon Islands (see Douglas, 2002; Pollard, 2000).

Students and teachers (who also live at the institutions themselves with their partners and children) engage with folk cultural expressions and other forms of artistic activities. Garanga RTC for example has traditional Ysobel choir singing while students of Airahu have formed a traditional panpipe band. In Dom Bosco RTC, every student learns how to play the guitar. It is students themselves, not a music teacher, who teach each other how to play instruments.

From skills for rural living to education-for-employment

As a result of RTCs' success reaching out-of-school youth, since the 1990s the institutions have increasingly attracted the attention of external actors, most notably international development agencies and the Solomon Islands government. In spite of recognition of the important role of RTCs played in improving the quality of life of rural people, the institutions were frequently found to be hampered by poor communication, unreliable local funding, poor quality of education and lack of central government support (see Bourke, 2006; Close, 2012). Visualising the potential of RTCs to reach a larger population and increase the quality of TVET services, international development agencies and Solomon Islands government sought to provide support to the institutions at various levels. While support was very much needed by the institutions, these external actors exert a transformational influence that threatens the movement's grassroots nature. International aid agencies have influenced (re)shaping RTCs curriculum, teachings and goals. The EU, for example, since 1993 has invested extensively to provide in-service courses to train teachers, supply tools and equipment, develop a National Qualification Framework, develop infrastructure, and create curriculum and teaching materials (Bateman et al., 2015; MEHRD, 2004). At a policy level, aid agencies also played influential roles in their capacity as knowledge producers (Mehta, 2001). Contrary to RTC's initial emphasis on skills for rural living (MEHRD, 2004), there appears to be a consistent push from international development agencies to encourage a shift of RTCs to instrumental, education-for-employment training (see Close, 2012; DFAT⁷, 2014 for examples).

The World Bank in one of its reports suggests that for a more 'efficient' provision of TVET:

[RTCs] will require as much consolidation as possible to reduce the costs of training in public institutions. This will involve closing small, ineffective programs (based on established criteria) and spending the money saved by these closings on larger, specialized training programs or institutions. Clearly, having a large number of very small training institutions across the nation is a mistake given that resources are scarce The government should identify those RTCS that have the capacity to become 'monotechnics' and help them to specialize in providing high-quality, in-depth training in just one industrial area (or two or three closely related areas) for which there is clear ongoing demand or the potential for expansion in the future (World Bank, 2007: 9-15).

Efficiency, understood in merely economic terms requires, in the World Bank's perspective, the centralisation of RTCs and a shift to specialised 'monotechnic' institutions. The World Bank believes this change would in turn allow RTCs to train young people in the 'relevant' skills needed both by the private sector and by the wider economy, not necessarily those of rural villages.

A similar line of thought is evident in the work of several other development agencies. Australia's Department of Foreign Affairs and Trade (DFAT), for example, sets as one of the goals of its Solomon Islands Education Sector Program that 'TVET graduates have more relevant and higher quality skills and qualifications and contribute to national and provincial economic development' (DFAT, 2014: 15). DFAT additionally advocates a standardisation of TVET provision in the country so that RTCs award Certificate II and III courses in trades, essentially an Australian qualification (DFAT, 2014: 156). Recent government approaches have resolved to play a stronger role in the public provision of TVET. To achieve this objective there is a strategy of integration of informal TVET-like RTCs into the 'formal' sector. For example, the Education Strategic Framework (created with the technical and financial support of the European Union and the New Zealand Agency for International Development (NZAID)) states:

There is a need to integrate TVET more firmly into the formal education system rather than leaving it as a sole responsibility of the 'informal' sector. The desired policy outcome is the development of skills and competencies required for economic and social development in

7 Department of Foreign Affairs and Trade (DFAT).

Solomon Islands, with competent educators delivering high quality, relevant, and cost effective services (SIG, 2007: 49).

This public policy document finds that even when RTCs have developed and delivered structured programs to meet 'perceived' local needs, without an analysis of local economic and commercial needs, the centres ended up duplicating programs offered by other centres and public institutions. The framework emphasises the need to transform RTCs from an efficiency perspective, indicating that available resources must be used to maximise educational outcomes, and that these educational outcomes should meet the needs of Solomon Islands society and economy. The policy even reiterates that the appropriate language of instruction at RTCs is English, and that institutions need to switch away from vernacular languages. Indigenous knowledge is recognised but not indigenous ways of learning.

Discussion

As demonstrated by different radical learning traditions, education can be the key for unlocking people's latent creative and innovate potential for creating social change (Cranton, 1997, 2006; Mezirow, 1991, 2000; Westoby and Shevellar, 2012). Although RTC methodologies and philosophical foundations are not based specifically in these traditions, our research shows that RTC education could offer a great foundation for developing skills involving independent and critical thinking using similar methods to traditional epistemologies. While many features of the learning experience of the visited RTCs reflected characteristic elements of the deep structure of Western schooling, other components contrasted with traditional centralised systems of public education.

We were particularly interested in the processes of collective knowledge production based on critical praxis at RTCs. Teachers said that when they introduced new techniques, the students often challenged them based on students' indigenous knowledge. Teachers then had to respond by 'going further' and deepening their levels of explanation. In the end, it was the results that finally convinced students (or not). As such, teachings became 'truth' at the RTCs through a participatory process that resembled in many ways some Solomon Islands' indigenous epistemological systems (Gegeo and Watson-Gegeo, 2001; Hviding, 2003; Lauer and Aswani, 2009).

In contrast to prescriptive approaches of mainstream education that transfer finite and quickly exhausted knowledge, students appeared to be able to further develop new knowledge and fit it to local conditions. Teachings based on experiential learning and open to critical reflection appeared to give students the skills to (re)theorise, (re)create, and (re)structure knowledge. Evidence was seen in students' explanations of how they adapted knowledge from RTCs. One example was the student who affirmed that when she returned home, she had the confidence to plant a compromise of four stems to grow cassava (instead of two as they had been instructed at the RTC) because she believed this variation would produce better results in the context of her home community.

We also observed that learning at RTCs was further supported by a range of other practices uncommon for most mainstream education systems. For example, education and learning in the institutions was strongly based on spirituality, traditions, and communal activity, and as such knowledge production was anchored to local values and culture. On the other hand, a strong relational component at RTCs and long period of time throughout which knowledge is transmitted (two to three years), created several potential spaces where students could engage in ongoing discussion to collectively evaluate new teachings.

As Westoby and Shevellar (2012: 3) argue, sometimes we hope that people one day will 'wake up' and mobilise into transformative social action. But that kind of transformational change we often hope for does not occur spontaneously. It requires progressive foundations and groundwork in education to assist people to understand their world and gather the collective courage required to act. Even if RTC teachings are not based on radical learning traditions like popular education or transformative learning, the evidence found suggests that RTCs could be a space for people to cultivate the foundations needed for transformative social action.

Instead of being properly supported to fully reach its potential for skills development, what we can sense is a systematic push from external actors to change the nature of RTCs to the detriment of such traits. Both Solomon Island government and international aid agencies seem keen to move RTCs away from their original goal of improving rural life, to implement an education-for-employment model. Furthermore, RTCs are threatened with centralisation under a national framework of education, cutting the vital cord that connects the institutions to the grassroots and that is accountable in many ways for the success of the movement. In an education-for-employment model, the goal of vocational education is to prepare students for formal workplaces through inculcation in western-style work norms. Instead of preparing students for critical inquiry and analysis, innovation, or creativity, RTC training models would reflect the culture of enterprises and urge students to master commercial ethics and rules (Goura and Seltzer-Kelly, 2013). In this way, instead of laying foundations for transformative social change based on local institutions and processes, RTCs working under an education-for-employment model would be preparing people for jobs within the capitalist mainstream (Western) system.

A large number of graduating students, matched with the inability of the public sector to provide sufficient jobs for all, is likely to produce a scenario where private sector employers will find it easy to create and to fill underpaid jobs, with the remainder unemployed. The current unemployment rate of Solomon Islands is 39.8% (Close, 2012) and, given recent global and regional economic trends, it seems unlikely to improve in the short-term. Economic necessity is likely to oblige some students to accept what might have been refused by previous applicants. When they find jobs, they are typically paid less compared to the official wages (Goura and Seltzer-Kelly, 2013). Many students hoping for technical or trade work, gravitate to the capital, Honiara, where unemployment is creating a crime problem, which is following the same pattern, but not nearly as serious yet, as its Pacific neighbour Port Moresby in PNG.

While we are not arguing that vocational education turns its back on the need for skills that support appropriate economic growth in Solomon Islands, these skills do need to be taught as a part of an indigenous learning system that retains the unique and unifying epistemology that is such a strength of the present-day RTC system. The ability to reach a large number of young people across the archipelago and sustain indigenous ways of learning and critique is an invaluable attribute of the RTC movement. The two systems are not mutually exclusive, but care needs to be taken to avoid uncritically accepting a more generic educational template imposed on the Solomon Islands' context. A vocational education system should facilitate democratic life and economic self-sufficiency, rather than perpetuating systems of dependence and inequity. Educators and donors as part of a global institution have a huge responsibility not only to ensure quality education; but also to ensure that its role in the transformation of societies is carried out responsibly.

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