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Weaving knowledges: the development of empowering intercultural learning spaces for smallholder farmers in Papua New Guinea

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Since the early 1970s there has been increasing interest in effective adult education systems and practices as a core foundation for capacity building in developing countries. This paper presents the philosophy behind the concept of an “intercultural learning space” and argues its relevance for such adult learners. Drawing on work in Papua New Guinea, I use a series of stories to illustrate some of the complexity of creating an empowering adult learning environment for smallholder farmers working with outside experts; a process I have named as “the weaving of knowledges”. This concept uses the metaphor of the traditional patterned bag made in PNG, the bilum, to represent the process by which an empowering intercultural learning environment can be developed: that is we must identify the range of people who hold different knowledges (the range of coloured yarns) and then provide an environment for the diverse participants to identify and share the knowledge they bring (recognising there is a place for each colour) in order to produce a local outcome (the bilum) that is a new creation made up of the collaborative inputs of all.

Keywords: farmer learning; learning environments; adult learning

This paper presents the philosophy behind the concept of an “intercultural learning space” and argues its relevance for adult learners, especially for those in developing countries. Drawing on the experience of working as an adult learning facilitator and researcher in the developing country of Papua New Guinea (PNG), I then use a series of stories to illustrate some of the strategies and the complexity of creating an empowering adult learning environment for smallholder farmers¹ working with outside experts, and conclude with the benefits of the process I have named as “the weaving of knowledges”.

To illustrate the concept of the weaving of knowledges, I use the metaphor of the PNG bilum. These traditional bags from the Highlands areas of PNG are made by women originally using coloured string made from dyed bark, and today are made from cotton or nylon yarn. The patterns are regionally specific and use three to five colours which when worked together form impressive geometric patterns. Each bilum is unique but patterns from various regions can be identified (Garnier, 2009). The image of the patterned bilum represents the process by which an empowering intercultural learning environment can be developed: that is we must identify the range of people who hold different knowledges (the range of coloured yarns) and then provide an environment for the diverse participants to identify and share the knowledge they bring (recognising there is a place for each colour) in order to produce a local outcome (the bilum) that is a new creation made up of the collaborative inputs of all.

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Figure 1. Western Highlands bilum. (photo: author)

The rationale for intercultural learning in developing countries

Since the early 1970s there has been increasing interest in effective adult education systems and practices as a core foundation for capacity building in developing countries. Key to this is the concept of lifelong learning, which acknowledges that learning occurs across all stages of life, from “cradle to grave” or from “womb to tomb”. The concept of lifelong learning has also been expanded to include life-wide learning and life-deep learning (Pamphilon 2005). Life-wide learning acknowledges that people learn across a number of settings such as family, cultural institutions, community and work whilst life-deep refers to the reflection on the meaning of learning through frameworks such as those of spiritual and/or personal development.

Lifelong learning has now been adopted by the United Nations as an organizing principle for the development of more equitable and just societies and provides an important platform for global activities such as the Millennium Development Goals, Education for Sustainable Development and pro-poor initiatives (UNESCO Institute for Lifelong Learning 2015). This can be best illustrated by the sequential series of UN reports, which have developed and expanded the concept of lifelong learning. The Faure et al. report (1972) stressed that the development of lifelong learning should be universal and not restricted to any one age or social level and should be extended to marginalized groups in a society. The Delors et al. report (1996) argued for learning societies where people have the opportunity to learn in ways and places that suited their individual needs. Key to the Delors report is the four pillars of learning: learning to know, learning to do, learning to live together and learning to be. In 2000, the Dakar Framework for Action was premised on the principle that lifelong learning is key to individual empowerment, the elimination of poverty at a family and community level and central to the economic and social development of a nation. This led to the UN Decade of Education for Sustainable Development (2005–2014) with its focus on the development of core skills for sustainable living across the 21st century. The Belem Framework for Action (2009) continued to promote the place of lifelong learning to address the global and local challenges for education systems.

Whilst the policy direction and principles of these UN documents are significant, effective nation-wide implementation of programs to support learning across the life span

are not yet evident in developing countries. However Hasan (2012) argues that a lifelong learning system is crucial to developing countries as it complements actions for improved socio-economic development, and is a key part of system level educational reform as it can strengthen the demand side of education. As Amutabi and Oketech (2009) emphasize, a lifelong learning approach makes visible traditional wisdom and informal knowledge that are important resources to support socio-economic activities, as well as strengthening moral values, which underpin social cohesion and mutual understanding.

In considering adults' life-long learning, it is important not to create an artificial dichotomy between adults and children. It is certainly clear that much of what children learn is a first "learning of" or "learning about", however I would argue that no-one comes to a learning opportunity as an "empty vessel" (Freire, 1970). Both adults and children are immersed in specific life-worlds and socio-cultural contexts, which they bring to the learning experience. Their learning is situated: in a culture, in a life stage and in a historical time and place. However, for adults who are further through the lifelong learning journey there will have been a greater number of experiences that inform their understanding of themselves and their knowledge (or lack of), which in turn will inform how they see themselves as "learners". In developing countries, many adults' learning orientation is informed by "limited" and indeed "limiting" education, and they have little awareness of the many knowledges they have developed through informal and incidental learning. This is the primary reason that my focus is on the "learner" and the "learning space" rather than the "education".

The "intercultural learning space"

In choosing to use the term "intercultural", I acknowledge that "multi-cultural" or "cross-cultural" are more commonly used. However, I would argue that implicit in both these terms is a static notion of knowledge as something out there, owned and created by the "other", in this case either in country A or country B. Cross-cultural education suggests that as learners and teachers we need to be able to cross between our cultures in order to best support learning. Multi-cultural education suggests that to do justice to education we must acknowledge differences and wherever possible incorporate these "other" knowledges into our "many cultures" program. Let me say that the notions of multi- or cross-cultural education are very important moral and ethical transition points from the "colonising education" of the last century. I do not need to remind any of us of the overt colonising education project of the last century where the First World of England and Europe brought "enlightenment" and "civilisation" to their colonies (see for example O'Donoghue, 2009). Whether it be the colonising of local spiritual beliefs through teaching the Christian "truth" or the teaching of new agricultural "truths" in techniques and products for commercial profit and export by the coloniser, what is clear is that there was little interest in "crossing between cultures" or in any examination of the multi-cultural context.

In arguing for the development of an intercultural space, I am foregrounding the need to create a space "between", one that resists hierarchies of knowledge and disrupts the "our knowledge" and "their knowledge" dichotomy. Aslin and Brown (2004) provide one useful framework that illustrates the value of creating a space in which different knowledges can be named and indeed be harnessed. Their Australian example focused on the Murray-Darling river system which has experienced significant damage from both human interference and climate change and where scientific advice on the best way forward had little uptake or impact on the local community. This is what has been labelled a "wicked problem", that is a problem that is beyond the capacity of any one organisation to under-

stand and respond to, and where there is often disagreement about the causes of the problems and especially the best way to tackle them (Brown, Harris, & Russel, 2010). However Aslin and Brown (2004) note that wicked problems can be addressed by acknowledging and utilising the fact that adults do bring knowledge, experiences, and understanding, which together form their knowledge system. In the Western world, the common knowledge systems are:

- local knowledge: the local reality based on lived experience in the region, built through shared stories, memories of shared events and locally-specific relationships between people and places
- specialised knowledge: the collected advice from a wide range of experts, including geologists, ecologists, economists, engineers, sociologists etc., each constructed within a particular knowledge framework or paradigm
- strategic knowledge: the tactical positioning of people and resources for future action within given political and administrative systems (Aslin & Brown, 2004, p. 7)

When working to create community change, each of these knowledge systems has something valuable to offer. When the knowledge of the dominant culture is privileged, it intensifies the one-way dynamic of learning. No one knowledge system has the answers for today's development needs. Wicked problems are those complex issues that are apparently intractable and in which single paradigm responses are inappropriate and ineffective. They typically involve multiple stakeholders with multiple views of what the problem actually is (see for example Brown, Harris, & Russel, 2010). Whether it be in rural or urban development, it is crucial to harness the power of different knowledges by creating an intercultural and interdisciplinary learning space that overtly values the range of different knowledges. As Aslin and Brown (2004) note this has the potential to lead to the development of the fourth knowledge system: "integrative knowledge: the mutual acceptance of an overarching framework, direction or purpose, derived from a shared interpretation of the issues" (p. 7).

The empowering potential of an intercultural learning space emerges from the dynamic created when there is an overt acknowledgement of the contribution of each of the different knowledges that are brought to a learning situation. For example in our work in developing countries in the Pacific, we acknowledge that Western scientists bring potentially useful knowledge, such as new varieties of crops, soil management, post-harvest storage and the like. But equally importantly our village participants bring generations of indigenous knowledge about planting, management and harvesting of crops, which may complement or even contradict the knowledge of the scientist. Hence I use the term "intercultural learning space" to draw attention to importance of deliberately creating a learning environment that focuses on surfacing and harnessing the multiple knowledges available when people with different knowledge backgrounds come together.

An intercultural learning space aligns with participatory learning models. Although there is no agreement on the boundaries of the new participatory approaches to education in developing countries, such as participatory learning and action research, participatory technology development and farmer field schools (Braun, Jiggins, Röling, van den Berg, & Snijders, 2006), today they typically focus on capacity building in which "technology transfer" is just one factor. Within the intercultural learning space, the dominant understanding of learning from the individualised, behaviorist perspective (Davis, Sumara, & Luce-Kapler, 2000), and the consequent focus on the education of the individual learner, is also challenged. In the developing world considerable attention has been given to teach-

ing people the skills they need to improve their well-being, health and family livelihoods. Such activities are typically delivered in a Train the Trainer format in which groups of local trainers are provided with manuals and training materials to deliver a package of information to village members. This one-way model focuses on the transfer of knowledge from the knowing expert to the less knowledgeable village individuals. The focus of such education is to teach the individual what is wrong and show them how to improve. There are two major issues here. First as an adult the learner is neither empowered or affirmed but positioned in a discourse of individual deficiency. Secondly, any knowledge or contextual wisdom that s/he brings to the problem at hand is denied as the learner is asked to cross over to the cultural space of the expert and learn from them. In contrast, in arguing for an intercultural learning space, I support Lauzon (2013) who emphasises that "...we, as professionals who aspire to work with others and to assist them in living full and rich lives must also enter into intimacy—intimacy with the people and contexts in which we work—and do so with an openness and freedom where we are willing to be changed too" (p. 264).

In creating an enabling intercultural learning environment, we are harnessing the notion of "situated" learning; that is we acknowledge that learners make meaning from their interactions in their own social world and that world is culturally, linguistically and place-specific. A learning environment that is place-informed recognizes that people's lives are shaped by the places they inhabit and that their learning is linked to their lived experience. Spatial thinking (space and place) acknowledges local demography, economy and geography as well as the more macro social dimensions (Roberts & Green, 2014). It is important to note that place is not a singular, geographic entity but is one created and constructed by individuals and collectives through relationships with the natural world, through time, space and cultural reading (Coughlin & Kirch, 2010).

Jara (2010) alerts us to the crucial role of a liberatory pedagogy which provides an environment for adult learners to critically examine their own contextual knowledge in a way that enables all learners to see and name the hierarchies of knowledge and the power dynamics at play in the construction of such a hierarchy. Through engaging in such an environment, as learners critically examine their own situated learning, transformative learning and social change become possible (Taylor, Duveskog, & Friis-Hansen, 2012). Hence an intercultural learning environment is informed by a synthesis of both critical and place-based pedagogy and one that is rooted in what is local—the unique history, environment, culture and economy of a particular place.

As we work to create an intercultural learning space we, (the outsiders who bring knowledge and processes in), enter that environment ready for our knowledges to be challenged, adapted or adopted. By understanding learning as a holistic organic process rather than from the individualistic and behaviorist machine metaphor (Davis, Sumara, & Luce-Kapler, 2000), an intercultural learning environment aims to facilitate dialogues that will enable a co-construction of meanings across the learners as a group and between the facilitators and the group. It uses a constructivist approach to the collaborative building of knowledge: from inside and outside as well as within and across the learning group. In this process, the knowledges of both groups are surfaced and valued and both facilitators and learners become open to other ways of knowing.

By rejecting any dichotomous sense of knowledge, it is paramount to note that knowledges in both developed and developing countries are not homogenous but rather are highly localised and dynamic (Smucker, Campbell, Olson, & Wangui, 2007). Hence in an enabling intercultural learning space all participants are invited to enter with the orientation that they are bringing "provisional knowledge". Importantly building from Freire's (1970) *conscientizacao* (conscientisation) an intercultural learning environment

invites learners *and* facilitators together to interrogate the social worlds in which they live and where together they focus on the problem at hand. Hence the aim becomes to provide a facilitated process in which the problem is collaboratively considered and multiply named so that different knowledges about that problem can be surfaced. It is only from that point it will become possible to weave together the different knowledges in a collaborative learning environment.

Developing an intercultural learning space in Papua New Guinea

The following section draws on a participatory action learning research project² conducted in PNG by researchers from the University of Canberra, Australia, in partnership with researchers from the Pacific Adventist University, PNG. The project is located in six village “places” in three regions: Baiyer Valley (Western Highlands), Gazelle Peninsula (East New Britain) and Kairuku-Hiri district (Central Province). The project began in 2011 and is examining, developing and facilitating ways to build the business acumen, skills and knowledge of women subsistence farmers who increasingly need to engage in the cash economy to improve their family livelihoods. The research focuses on understanding the gender, cultural and regional barriers and enablers faced by these women farmers. Research methods include a livelihood survey, community history, village assets mapping, agricultural products and marketing analysis, and gender specific group work to explore gender roles in family and farming life, and the banking, saving and spending patterns of both men and women. Additional research activities have been designed to include women with low literacy. These include photo elicitation, family farm mapping, role play construction and analysis, the ten seeds technique, and as described below adaptations of the World Café. The research and training is conducted by teams comprising Australian and PNG academics, a regional team leader and a village team leader, which enables activities to be completed in English and Tok Pisin (the two national languages) and in Tok Ples (the local language).

Underpinned by asset based community development (ABCD) principles and utilizing participatory methods in both research and development activities, the orientation of the project reflects a strengths based philosophy that understands individuals and local communities as resilient and resourceful. While the focus is on women, the project works with both men and women to ensure the support and engagement of men who are culturally the family head. The project provides activities and forums for community members to identify and build on the assets in each community as a key resource (Green & Haines, 2012).

The project has collaboratively designed and trialled a number of learning activities for women and their families, especially for those with low literacy. To date, nearly 500 smallholder farmers have engaged in the learning activities, which are provided in their own village by teams of village community educators (VCEs) who are trained and mentored as part of the project. The VCE strategy aims to develop the capacity of selected local people (at least 60% women) as facilitators of learning, rather than just as people who deliver course content. The approach uses the experiential learning cycle, a learning and people centred approach, rather than the knowledge transfer model typically seen in the Training of Trainers model. Workshop content is built up from material provided from both the project team and from the VCEs’ local knowledge, observations and practices as farmers themselves. This place-based process is designed to empower the local facilitators as experts on their own community, as well as supporting them to use the insights from adult learning principles to adapt activities to suit local people, a process that aims for a co-construction of the curriculum (Pamphilon, Mikhailovich, & Chambers, 2014). This

project encourages VCEs to become a “community of practice” (Wenger, 1998) that will hopefully enable them to continue their development in an on-going way through peer and action learning.

The place: Papua New Guinea

Papua New Guinea is a developing country to the north of Australia. It has approximately 7.32 million people (United Nations Development Program, 2015), and is one of the most linguistically diverse countries in the world with 836 distinct indigenous languages, with English and Tok Pisin as the official national languages (World Factbook, 2014). Economically, Papua New Guinea can be described as a two countries in one. One “country” is engaged with PNG’s rich mineral resources and the development of the mining industry. Much of this ‘country’ is serviced by transnational companies, however only 30,000 full-time and 80,000 casual workers are employed in this sector (PNG Chamber of Mining and Petroleum, 2014). In contrast, the rural agriculture sector is the other “country” within PNG where the majority of the population live and work. Here rural poverty is a significant issue with over 90% of the nation’s poor living in rural areas and over 80% of the poor being rural based subsistence smallholder farmers (Asian Development Bank, 2012). Rural livelihoods, predominately in agriculture, support the majority of the PNG population. Hence, the PNG economy is highly dualistic, with a formal sector focused on export and an informal sector dominated by subsistence and semi subsistence activities.

Typically referred to as a “fragile state”, PNG faces formidable development challenges, ranking 157 out of 187 countries on the Human Development Index (a composite measure of health, education and income) and 157 of 187 for gender inequality (United Nations Development Program, 2015). Progress towards meeting the Millennium Development Goals has been slow due to significant challenges from population growth, rural populations spread across difficult terrain, land shortages and conflict over customary land, high levels of crime and violence, low levels of school completion, high maternal and child morbidity and mortality and the growing prevalence of HIV/AIDS (Anderson, 2010; Asian Development Bank, 2012; Lakhani & Willman, 2014; McCalman, Tsey, Kitau & McGinty, 2011). In light of median years of education at 3.9 years (United Nations Development Program, 2015) and the consequent low literacy and numeracy, many PNG villagers would self-identify as Freire’s “empty vessels”, albeit not using those words. Hence it is essential to build an enabling intercultural learning environment from the first point of engagement.

Developing an intercultural learning space

As will be outlined in the following section, developing an intercultural learning space is not a simple instrumental activity. It requires significant reflexivity and consideration of issues such as the positioning of the facilitator/researcher and the power, gender and cultural dynamics between the facilitator and the group and across the group itself. Further, before engaging with the range of participants, it is important to understand participants’ previous experiences of learning environments, especially for those with limited education and literacy.

Reflexivity in the intercultural learning space

As researchers and educators, we were deeply aware that before engaging in any activities, we needed to first consider our own positioning. The Australian team was aware that as white,

Western feminist women, there would be many tensions as we tried to build an intercultural learning space. As Linda Tuhiwai Smith (2006) reminds us, it is not enough to acknowledge our privilege and our difference, but we must work to create a de-colonising methodology that does not construct those we work with as simply “other”. She notes that “the issue of diversity is not just about people who eat differently and speak another language; it is about people who think differently and who know differently” (2006, p. 551). Smith’s work challenged us to consider if our approach was *post*-colonial or merely *neo*-colonial.

Chilisa and Ntseane (2010, p. 625) provided an important touch-stone for our work when they named post colonial methodology as a methodology of ethics. We shared their position that what is needed is:

knowledge production approaches that are multiple, interconnected, sensitive and engaging the researcher with ethical issues [and] that position the researcher as healer where the healer engages with community to assist others to heal and to build harmony and bring about social transformation.

It was from this position that we determined we wanted to create a gender-inclusive and family strengthening intercultural space that would ultimately benefit women. We held that by working collaboratively with PNG women and men to understand the complexity of the lives of women farmers and their families, together we could identify the range of valued knowledges that could weave harmony and healing.

Weaving knowledges: a “story” of an intercultural learning space in Papua New Guinea

This final section is told as a “story”. It has been constructed from what women farmers and our regional leaders told us of their experience and observations of previous training. In telling the story, we share some of the practices and lessons that we have learned as facilitators and researchers who seek to develop an effective intercultural learning space in PNG.

***Imagine this:** you get up at dawn to prepare food for your husband, your elderly mother and your five children. While they are eating you walk for 30 minutes down to the river to get 2 buckets of water for your new cucumber seedlings that you hope will survive this dry weather. As soon as the children go off to school, you quickly wash, put on a clean dress and head off to the local bus. It is a 40-minute walk but you do it quickly as this time you are on your own. The mini-bus is full but you manage to squeeze in and 50 minutes later you are in the town. Already sweaty and tired from the travel and the heat, you quickly walk the 20 minutes to the Training Centre. You step in to the training room where the course on improving food crop production is being held. You stop. The room looks like a school room with people sitting quietly in rows. A white man is standing at the front. He must be the teacher. He points to some handouts on a table. You pick up the set of 10 – they are all in English. Your heart sinks. Perhaps you shouldn’t be here – you only finished Grade 3 - why did you ever think you would be able to learn about how to improve your vegetable production?*

This type of story plays out for PNG women farmers in many locations. It has been estimated that of PNG smallholder producers 85% are women (Peter, 2011). Food crops are important to PNG households, and women are the primary growers and sellers. As in most developing countries, in PNG at the smallholder level women are key players as they produce both subsistence crops as well as crops for cash to pay for education, health, daily

living and cultural obligations. However as many of these women have very low levels of literacy, this significantly impacts on their engagement in conventional adult learning opportunities. According to the Asia South Pacific Association for Basic and Adult Education (ASPBAE, 2012), nationally only 50.9% of women reported they could read and write. ASPBAE's research has indicated that such self-reported literacy does not match functional literacy levels which are considerably lower. In one of the project provinces, the Western Highlands, female literacy rates of 32.6% have been recorded (ASPBAE, 2012).

Simple as it may seem, creating an empowering intercultural learning space begins with providing a physical space that minimises power dynamics and maximises the opportunity for the involvement of diverse groups of people who can contribute to multiple knowledges. This woman farmer potentially brings deep local knowledge of traditional practices, adaptations to climate change, family farming skills and crop observations but as she "reads" the learning environment she already has begun to feel vulnerable as a learner. How different would it be if the organisers had asked the professionals to drive to a closer location, if the room was set up with cool drinks and some food, if the chairs were set out in learning circles and the handouts translated into local language and given out one by one during the relevant session.

Imagine this: you have just finished a major research project in PNG trialling more effective ways to grow food crops in the Highlands regions. You are very pleased to have been invited to a day workshop for local farmers to present your major findings and you spend a day preparing your PowerPoint and handouts, You make sure that you include graphs and statistics from the valuable evidence you have found and you prepare 10 instructional handouts so that you can be sure that the farmers have clear directions on how to grow key vegetables the correct way. The room is well-set up in rows and you use the first 40 minutes to present your PowerPoint. At the end you ask for questions. There is silence. Thinking quickly, you instead ask for comments. There is silence. At last one man stands up, "Sir, thank you for this information. We did not know this. We will change our ways". People clap. You then give out the first instructional handout. Everyone is quiet as they carefully read it. You ask for questions. Again, silence. You ask for comments. Again, after a long silence, the same man stands up, "Sir, thank you for this information. We did not know this. We will change our ways". People clap. But you are unsettled. Something is not quite right.

We can all immediately recognise the didactic one-way transfer of learning that underpins the practice of this agricultural scientist. No doubt his crop research had value and indeed his findings may help the farmers in the regions. No doubt his handouts were as concise and accurate as he could make them. He has brought to the workshop specialised knowledge (one of the needed bilum yarns) but what he has not acknowledged is that there will be equally important local knowledge (another needed yarn), perhaps held by the tired, quiet and frightened looking woman sitting at the back of the room.

And who was the only man who made the comment. No doubt he was a community leader who had the cultural authority to speak on behalf of the group. Until he spoke, it was most unlikely that others of lower status would speak, especially in such a formal environment. It is essential to know such cultural protocols and cultural norms to ensure the most effective learning environment is developed. This leader is a door to the wider community and if properly engaged will be willing and able to support and guide agreed change in his community. He is the one who has strategic knowledge (a further bilum yarn).

In this setting, it would be unlikely that a woman would speak up in the large group. Many male farmers would also be unlikely to speak. But this does not mean that PNG village members are unwilling to engage in learning and share and exchange knowledge.

Therefore one major factor in an intercultural learning environment is providing opportunities for dialogue, discussion and mutual exploration. To enable such an environment, different processes are needed for those who share similar backgrounds to the women farmer, those bringing scientific knowledge and those who have the authority and skills to instigate and support change. If the scientist had been guided to provide his findings in practical ways, using local photographs, stories and demonstrations, he would have more effectively linked to the practical knowledge of the farmers. If had had presented his findings as provisional knowledge and sought to hear about similar or differing knowledge from farmers, he would have created an opportunity for mutual sharing and knowledge exchange. He could have stated from the start that he brings only part of the solution and that he looks forward to hearing the other knowledges that will contribute to the way forward.

The woman and other farmers may not even know that they hold knowledge that may be key to the topic. One way to support this group of knowers is to provide time in small groups that are led by a local person in local language and in which the discussion is led towards surfacing and naming traditional knowledge, local practices and indigenous ways of action. We have found that using “Talking Tables” (based on the World Café) has been an effective way to engage farmers in defining and sharing their knowledge. Talking Tables is a discussion process that draws out individual and collective knowledge through “conversations that matter” (Brown & Isaacs, 2005).³ When people work in like groups (young men, young women, older men, older women) power dynamics and cultural protocols of who can speak are minimised. As people sit together and talk and write on the table paper they draw out what is often to them taken-for-granted knowledge. When they move on to the next table, other people’s ideas are already on the table paper so that can trigger further ideas or they can build on what is there. Alternatively they may challenge the ideas, or add practical extras or local constraints. In this way, the men, women and youth contribute different knowledge, (more of the bilum’s coloured yarns).

The choice of leaders for the facilitation of dialogue and activities in an intercultural learning environment is key. When there is a leader who speaks the local language as well as a leader using the national language, in our case English, it signals from the start that the two linguistic cultures are valued. On a deeper level, each language brings with it specific constructions and expressions of knowledge that are not always apparent through simple translation. Two co-leaders, each of whom have a deep understanding of their mother tongue, can recognise valuable yarns and maximise the weaving together of knowledges. Their leadership will enable a more effective move towards a synthesis of ideas.

It is important to note however that it can be challenging to be a facilitator in this environment. Very often the discussion and exchange can appear rambling and messy or even seem irrelevant as new yarns are put into the mix. It is tempting for the facilitator to address this by stopping the discussion by asking people to come back to the topic, for example. However, it is important to consider that perhaps there is something emerging that the facilitator cannot yet see or just does not understand. By trusting the process of learning in an intercultural space, a facilitator can ask group members to summarise the important points for them and from that may then see the yarns that can be woven. S/he can ask “what should we take from this discussion?” and this may provide very new knowledge, or indeed it can show that the ideas were beginning to be off track and a new activity was needed. This is the art of the “weaver” facilitator seeking to create an intercultural learning space.

Final thoughts on intercultural learning spaces

An intercultural learning space is an intentional learning space. We ask everyone to enter the space committed to not just sharing their knowledge but to intentionally be open to new knowledge. Our practices seek to enable everyone to see the power of weaving knowledges. Just as in the PNG bilum, some coloured yarns (knowledge) are more dominant as that knowledge is core, but unless it is woven with the minor colours, from other knowledges, we will not have a strong and effective product. In an intentional intercultural learning space, we create an environment and process where all can share what they know and learn from others: from those who come from outside with expert knowledge, from those from inside who bring similar knowledge and those whose experiential knowledge challenges both the expert and the taken-for-granted knowledges.

An intercultural space is a place for learning exchange. We ask everyone entering the intercultural learning space to share their knowledge as provisional. We then seek to work together to identify new ways of working, being and/or thinking. As Sabourin (2013) reminds us, there are complex learning dynamics and relationships inherent in adult settings and although relationships may be reciprocal, such reciprocity may indeed be asymmetrical. The role of the learning facilitator is to recognize this dynamic and consider how to engage people in a collaborative process of the co-construction of knowledge. The end product will no doubt be one where certain colours need to dominate but holding these together are the yarns of other knowledges that when woven together create a new pattern that all agree represents a new synthesis of knowledge that can guide feasible and locally relevant future actions.

Post-script: after participating in an intercultural learning space

Imagine this: the women farmer gets back on the mini-bus to return to her village. She is tired, proud and excited. It was so hard at first to talk with the agricultural specialists from Australia but after discussing ideas with other women first she realised they had things to share. She was so proud that every-one wanted to know more about what she had noticed on her cucumber plants in the early morning after overnight rain. She was excited about the new things she would add to what she was already doing well. She knew she could keep talking with other women who had been at the workshop as they trialled these new ideas. Her garden was going to be even more productive.

Imagine this: the agricultural scientist is tired, proud and excited. It was hard to work in a bi-lingual environment but his co-leader had so many insights about how to present ideas and how to help the village farmers identify the important things they knew and did. He was proud that the results of the many years of trials had produced ideas that the farmers agreed would help with production and he was thrilled that the photos he used of the local crops to present his major findings created immediate impact with the farmers. It was worth getting up early to harvest some vegetables with the typical problems he had researched, a great starting point for discussion. And he was excited that the shy, tired woman who sat at the back mentioned her observations of her cucumbers in the early morning. He would be emailing his colleague immediately. Time of day observations might be the key they had overlooked. He would be visiting her garden as soon as he could.

Imagine this: the community leader is tired, proud and excited. He had attended the first session of the day to show his support for the outside donor as he welcomed anything that might help his community. He had planned to leave after that session but he could see that his ideas were needed, and that his understanding of the community dynamics, family

roles and farming work were of value. He was proud of the way the farmers, especially the women and youth, shared their knowledge of traditional ways of farming. Indeed, he wished his wife had come because even though she had not gone to school she would have had a lot of ideas to share. He is excited. The members of his community who attended now really have strong ideas about how to improve their crops: weaving together the scientist's ideas and the traditional ideas had provided a new knowledge base. As he walks home he thinks, "it is almost as if we have a new pattern for a bilum, woven from all our ideas".

Notes

1. The definition of a smallholder farmer differs by country, however, in the PNG areas of this study a smallholders' garden or block (the local terms for cultivated land) typically ranges from half a hectare to five hectares.
2. The project was funded by the Australian Centre for International Agricultural Research [ASEM/2010/052] and conducted by the University of Canberra in partnership with the Pacific Adventist University, Baptist Union PNG, and the National Agricultural Research Institute of PNG. <http://aciar.gov.au/project/ asem/2010/052> and <http://pngwomen.estem-uc.edu.au/>.
3. According to the amount of time available, four or five tables can be planned. Each table has a different question. On each table there is a large piece of paper and a number of pens to enable all participants to record their ideas on the paper. Ideally all participants should have a pen each and record their ideas as they go, however in settings where there is low literacy participants often prefer to have one person act as the scribe. On the first table or rotation the group wrote down all their ideas regarding the question on that table/paper. After ten to fifteen minutes people move as a group on to their next table/paper where they add to, challenge or extend what has already been written on the sheet. After a further ten to fifteen minutes people again move and continued to add, challenge or extend comments. On the third and fourth table, people are encouraged to look for patterns, insights and emerging perspectives; that is *they* begin the data analysis. On the last table each group nominates a rapporteur to report back to the large group, which enables the large group to hear and discuss the cumulative findings and emerging themes.

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