CHAPTER 10

Na Lawa (ni Qoli/The Fishing Net) Conceptual Framework and the Institutional Web

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Abstract

This paper uses an indigenous Fijian methodology, Na Lawa (ni Qoli) or The (Fishing) Net that takes a holistic and relational approach, integral to indigenous epistemologies. The "nodes" or knots in the lawa (net) represent traditional and/or modern concepts. The connected nodes represent a network of relationships. Each node represents concepts that can be researched and examined to clarify the connections and to highlight what is relevant to, or what impedes, ako/vuli/learning, and what adaptation or intervention might be needed to improve ako. Using as a grid the institutional web of the Vanua, church, and state centering on education, and knots in the lawa to identify issues affecting iTaukei children's ako, the methodology offers a roadmap for researchers, academics, and policymakers as an overview. Identifying IT (Information Technology) as a problem, this paper uses Na Lawa methodology to demonstrate the application of the net and institutional web as a roadmap.

To illustrate conceptual linkages and the social relations that make up the institutional web, the concept of "technology" is used to demonstrate how the web of relations to other conceptual nodes can be strengthened. Using the lawa as a grid to identify each node representing a concept, constructs are inferred, based on the institutional attributes and their contributory roles to strengthening of relationships that build on ako. The nodes are the "talking points" for participants to clarify and identify overlapping issues to research.

The paper advocates a simultaneous effort by all institutions to strengthen relations between nodes to improve ako and reciprocal networking. Indeed, the voice of the community is essential in this approach.

Introduction

Numerous indigenous methodologies have been proposed by Pacific scholars; for example, Kakala by Thaman (1997) or Vanua by Tuwere (2002), adapted by Nabobo-Baba (2008). Koya-Vaka'uta (2017) has provided a summary of a selection of research methodologies for the Pacific, useful to any researcher in the area. A critical aspect of most of these methodologies is an emphasis on Indigenous knowledge and its preservation based on the philosophy of holism and relationship within indigenous epistemology (Ravuvu, 1988; Tuwere, 2002; Nabobo-Baba, 2006). Similarly, the fundamental basis of Na Lawa methodology discussed in the present paper is holism and relationship with methods that can be both interdisciplinary and transdisciplinary. Wilson (2008, p. 39) refers to the multimethod and transdisciplinary nature of such study as "strategies of inquiry" to map how a researcher should arrive at his or her destination.

Using the "connected" twine or string of the fishing net, Na Lawa methodology is a roadmap that guides researchers to achieve their objectives (see Figure 1). While the framework such as vanua or spirituality (see diagram) refers to concepts or ideas that are generalisable, the roadmap notion is more concrete. Roadmap involves constructs inferred from institutions which specifically outline "nodes" that represent phenomena to be researched. A research conducted in its natural setting will require participants' views to identify the characteristics of, to guide and reconfigure how to connect the different nodes. Design-implementation is important. In such a roadmap, the links between issues or concepts should be clear and their relationships should distinguish their different attributes as well as their commonalities, to guide researcher(s) on the most suitable method to adopt. The process also allows change in method(s) to suit the situation in different contexts. In my comparative reading, Wilson (2008) has also used a net metaphor in discussing Indigenous knowledge in Canada, suggesting:

> As long as the methods fit the ontology, epistemology and axiology of the indigenous paradigm, they can be borrowed from other suitable research paradigms.

Epistemology, Methodology, and Method

Epistemology, methodology, and method are intricately connected and influence each other during planning and implementation. Epistemology builds on knowledge and also justifies the knowledge produced from the analysis of the research data. In other words, data derived from methods

are analysed to either justify or evaluate and/or blend knowledge(s), if essential, or to create new knowledge. For example, if a finding from a study conducted in a village school confirms that children traditionally learn through observing, or emulating adults through participating in family or community activities, then the result justifies the old adage, Nomu i qaiqai ga Qei, na noqu i qaiqai, meaning, "How you walk mother, that's how I'll walk" (Nainoca, 2011, p. 151 - A metaphor referring to how a crab walks) . This metaphor from Rewa, a Fijian province, suggests that parents set examples and children naturally emulate and pick up their behaviour. However, other questions may arise. To improve learning in the classroom, can traditional method of learning be blended with other learning methods? Or, if children are not participating in family or community activities, what has affected the "nesting" relationships between children, parents, and the community? Should these relationships be strengthened and how? These questions may lead to another study or studies and will all impinge on the epistemology. It is the theory of knowledge, or how we know that we know something, that is axiological (value-based) which guides the methodological choices (Carter and Little, 2007, p. 1316). Gegeo and Watson-Gegeo's statement on epistemological process is pertinent:

> As a concept, indigenous epistemology focuses on the process through which knowledge is constructed and validated by a cultural group, and the role of that process in shaping thinking and behaviour. It assumes all epistemological systems to be socially constructed and (in)formed through socio-political, economic and historical context and processes. It also recognises that culture is variable, an ongoing conversation embodying conflict and change. (Gegeo and Watson-Gegeo, 2001, p. 59)

Methodology is defined as a "theory and analysis of how research should proceed" (Harding, 1987, cited in Carter and Little, 2007, p. 1317) which simply means that the methodology prescribes the research methods. Methodology is selected on the basis of its epistemology, so that an appropriate research method is chosen. The process also allows for adaptation, multimethod, or blending of approaches. There are obstacles and constraints in the blending of approaches or knowledge(s) (Christie, 2006) but it can be achieved (Botha, 2011; Cottrell, et al., 2012; Goulding, et al., 2016). In Na Lawa methodology, involving the community as participants in the research is an essential step towards consultation, corroboration, interpretation, and analysis (Bishop, 1998; Zavala, 2013).

A critical aspect of this methodology is involving community members – who can be non-academics or non-indigenous – as participants in conducting research, and in analysing, interpreting, and filtering the findings to arrive at a consensus. Indigenous projects can involve both indigenous and non-indigenous researchers. A project that consulted an indigenous community at every step, involving both indigenous and non-indigenous researchers, found that the approach opened up "new possibilities for meaningful social change" (Goulding, Steels, and McGarty, 2016, p. 783). Depending on the objective of the research, the selection of participants will depend on its "owners". It is also an important step for indigenous groups to work towards self-determination. The fundamental aim of methodology is:

> to describe and analyse…methods, throwing light on their limitations and resources, clarifying their presuppositions and consequences…to help us to understand, in the broadest possible terms, not the products of scientific inquiry but the process itself (Kaplan, 1964, cited in Carter and Little, 2007, p. 1318).

A methodology should be "thoughtful, historically and theoretically situated and flexible rather than dogmatic" (ibid, p. 1318; see also Kovach, 2012). The seven qualities of Indigenous methodology are holistic epistemology; narrative; purpose; the experiential; tribal ethics; tribal ways of gaining knowledge; and colonial influence (Kovach, 2012, p. 44). Indigenous research is historical, locally situated, and based on everyday social reality. Based on the participants' experience, it should be open to flexibility.

Ownership of Knowledge

Knowledge in the iTaukei culture is part of the cosmology. According to Ravuvu (1988), knowledge originates in the context of the Vanua, the "community" which has physical, social, and cultural dimensions all interrelated with animate and inanimate objects. In the iTaukei worldview the social and cultural system includes people, their traditions and customs, beliefs, and values. Vanua in its spiritual dimension is the source of power or mana derived from the world of spirits (Tuwere, 2002). Knowledge in the indigenous worldview is not individual in nature, but belongs to the cosmos which includes people (Wilson, 2008). Knowledge is constructed by communities, and is collectively owned, and the community is the agent (Gegeo and Watson-Gegeo, 2001, p. 58). Arguably, as researchers, we can only play the role of interpreters of that knowledge.

Using the holistic and relational approach to underpin research, whether

the issue is traditional or modern, Na Lawa research methodology can simultaneously map out concepts or issues on restoring relationships, knowledge building, or melding of constructs, whatever the case may be. This means that the metaphor of the net does not change markedly but can "sway" or expand to contain the "catch". Metaphorically when a fishing net is full with its catch, it bulges, swings, and expands to make room for the extra and new content. Putting it differently, the net or methodology can contain and adapt to new knowledge or values through "grafting", or melding or adopting. It also has room to be mended if the connection or twine has snapped. There is "space" to reconnect if the relationship is broken, or needs strengthening if weak.

Na Lawa Methodology

Fishing is a means of livelihood, an everyday activity in Fiji and the Pacific generally. One method is the use of nets. There are three types of net fishing in Fiji: individual, group, and communal. Individual and group fishing is referred to as taraki and communal as yavirau. This paper outlines a research methodology modelled on the yavirau fishing method.

Yavirau is often organised if there is an important function or guest, or during the festive season. Any communal fishing activity can take a week of preparation, from repairing the net to collecting vines and coconut palm leaves to extend the net. Yavirau involves a leader, usually the traditional head of the fisherman clan (gonedau) to plan, organise, and select a location for the fishing drive, in consultation with community members. Yavirau fishing can take the whole day, depending on the timing of low and high tides. As the community members go out into the water, the leader gives instructions and directions to the group from a canoe or punt as they form a horse-shoe shape and move to cover the area, manoeuvre the net and the catch towards the designated spot, usually a shallow pool close to the beach. Fishing can start at high tide or just before, when fish are expected to be swimming in. As the community forms a circle covering a wide area, they make a slow and deliberate orchestrated move to close the gap at the designated pool. The participants in the yavirau are carefully chosen and organised: the weaker and younger participants remain close to the shore or in shallow waters while the stronger, older swimmers move to the deeper end. They will pull and push the net according to instructions, dive to check that the net is intact and slap the water to keep the catch in. It can be an exhausting but also a rewarding exercise, because it is also a social activity.

By the time the participants arrive at the designated pool, it should be

around low tide. Everyone now helps in selecting the catch, leaving behind the nonedible ones such as poisonous or small sized fish. On land there is another sorting, from delicacies such as turtle meat to those items to be baked in lovo (earth oven) or those suitable as raw dishes and those to be prepared with vegetables. At the end of the day, the catch is shared equally amongst community members.

The fishing net metaphor illustrates the different role each part of the net plays to contain, or adapt or sieve "foreign" values and/or knowledge. The steps involved in yavirau fishing demonstrate the process of conducting research. The open end of the net circle has "floaters" (la), which keep the upper edge of the net floating while the bottom edge has heavy shells that weigh it down to keep the fish in and control it. Metaphorically, the open end represents the entry point for changes, new values, and knowledge from outside. From the fishing preparation to the harvesting of the product, there are four steps, each involving everyone. The first step is to consult important people in the community, such as the chief and gonedau. The second step is the preparation of the tools: repairing the net (the damaged twine, replacing broken shells or floaters), while the third step involves collecting vines and leaves (coconut) from the forest. Coconut leaves and vines are used as an extension to the fishing net if the net is too short to cover the designated spot. Because the net is often heavy, young and strong community members are chosen to stand close to each other and pull the vines and leaves towards land. Both the leaves and the closeness of the fishermen help to keep the fish at bay. The last step involves communal fishing and sharing of the catch. The metaphor represents the research process from the designated pool to preparation, selection, and analysis in relation to who shares in the catch, how it is prepared and for whom. Depending on the purpose of the yavirau, whether it is a social or communal/family function, the products are shared accordingly. In research terms, data analysis is shared with stakeholders. The iTaukei protocol prior to conducting research, discussed in detail by Nabobo-Baba (2008), involves seeking authorisation, observing rituals, and reciprocation.

Na Lawa (ni Qoli)/The (Fishing) Net Metaphor

The diagram below is a close-up image of the net with knots or nodes holding the corners of each square and showing the connections between each node. The nodes in a traditional net are pieces of bamboo with the twine strung around them to hold the corners together as a gauge before it is passed to the next node. The pieces of bamboo hold the net together

and when the twine, made of either sinnet or vau (hibiscus tiliaceus) string, becomes damaged, it is repaired by the traditional fishermen or women. In the net as metaphor for conducting research, the nodes represent the connectivity of each concept in real life and how important it is to keep strengthening the twine that holds all the knots together to make up the whole net. Each node stands for a concept or theme, principle or issue, and its relationship to other concepts/issues.

Figure 1. Na Lawa ni Qoli (The Fishing Net) Conceptual Framework
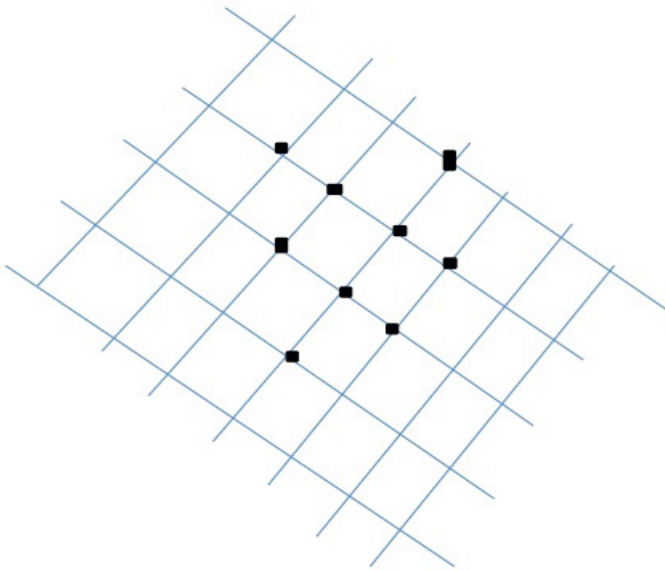
Nodes in a traditional fishing net

The net metaphor represents the fundamental underpinning of Indigenous research: the holistic relationships that hold the community together. Wilson (2008, p. 120) has made similar use of a net metaphor. He elaborates:

> You could try to examine each of the knots in the net to see what holds it together, but it's the string between the knots in the net that have to work in conjunction in order for the net to function. So any analysis must examine all of the relationships or strings between particular events or knots of data as a whole before it will make any sense.

The knots or nodes are "talking points" for the research community to identify and address the issues, and how each institution (see illustration) impinges on them. This should help in the selection of research method(s). It is at this point, too, that participants identify the relationships between

the nodes which may need further scrutiny to evaluate whether to strengthen or "repair" the damage. It is also here that the idea of melding of knowledge or values can arise. The choice of the method or methods to implement at this point can also be the outcome of the discussion.

The Institutional Web

The diagram of the institutional web (see page 8) helps to clarify research concepts or issues and their complexities where institutions overlap. This overlap represents several institutions that shape the lives of children's ako or learning as well as community members and their social environment. For example, if evening church services in villages are mostly attended by parents, how much of their time is devoted to homework supervision? Or in urban village environments, how much quality time do working parents spend with their children? The institutional web clarifies the different issues and how each institution impinges on them. Some issues may come under the influence of two or more institutions which can help the researcher identify the variables and the most suitable method(s) to apply. As a hypothetical case, take the abuse of IT as a problem amongst students, identified in a talanoa (Tunufa'i, 2016) session with an iTaukei informant:

> Era suka mai, luva na unifomu curu e loma ni qara, tu ena internet shop me yacova na ciwa na kaloko me ra qai lako. Me sogo sara na internet shop. Sa vesuki ira sara tu ga na ka ya. O ira na gone lalai tu kina… Sa lailai na gauna vata na tubutubu kei na luvena. … Suka tu na gone ya me qai yaco tu yani e vale ena ciwa sa sega ni tarovi ni sa cakava tiko e veisiga (Tuidraki, September 28, 2017).

> (They knock off, take off their uniforms and put them in the hole, they remain in the internet shop till 9 o'clock. Until the internet shop closes. They are addicted. Even small kids…There is little quality time with their parents…. Kids knock off and get home at nine, its beyond control since it's happening every day).

Mapping can start from the centre (see below) with IT in schools as a node. If the use of IT is now a problem, how can curriculum or school pedagogy address it? Should themes such as responsible behaviour and attitude be incorporated into the curriculum? Other questions and ideas can link to another node such as policy area in state institution. The grid can also move to the overlap between the "state and vanua" with institutions such as the Ministry of Education collaborating with the Ministry of iTaukei to develop a non-formal programme to address the nodes (see Varani-Norton,

forthcoming). An off-shoot of this development for the Vanua institution could be an informal programme on parenting skills.

Figure 2. Institutional Diagram – Adopted partially from Niukula (1995)
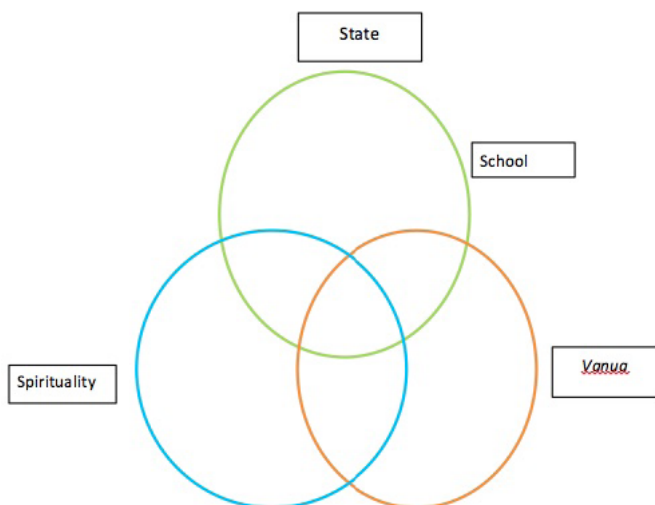
The institutional web consists of the state, represented here mainly by the Ministries of Education and iTaukei Affairs, the Vanua, and the church (which I have broadly classified as Spirituality). Spirituality is defined as "the way we live out our relationships with our environment and with other people as well as with our secret selves (Episkenew, 2012, p. 2).

The institutional diagram above depicts these three institutions focusing their role in facilitating, improving, creating, and implementing sustainable programmes that contribute positively to children's ako or learning. These institutions overlap, all impinging on the ako/vuli or learning of the child. Mapping holistically is critical to afford an overall view of concepts or issues that impinge on each other and of the various contexts that can influence children's ako or learning. If the approach requires melding or building of knowledge, the onus is on the two ministries to work collaboratively to ensure the links between the "knots"' are clear, strong, and sustainable. IT can promote learning as well as potentially create behavioural problems. In this particular situation, addressing the quality of parent-child relationship needs urgent attention. Since the knots in the grid (net) represent connected concepts or themes/issues that become the "talking point" for researchers, the community can more readily have a holistic view of priorities needing urgent attention: relationships that require reconstruction, repairing or building to strengthen the fundamentals

of children's ako, both within and outside schools. Research questions, future deliberations, and other research activities should be part of this holistic approach.

Using IT as a research theme and using the net as a grid, with the institutional web to clarify the contexts, the logistics can cover formal, informal, and non-formal education within and outside schools. How can these educational approaches, centred on IT, for example, contribute to the building of relationships between the school, children, and parents; between children and parents; between community and parents; and relationships within the (village) community? Should new knowledge be incorporated as an "outcome" of such relationship building and will it require blending? These are guiding questions for mapping out the research grid using Na Lawa methodology. Building and strengthening relations at all levels is critical to the well-being of a child psychologically, socially, spiritually, culturally, and physically. More importantly, relational building is the warp and weft of the child's ako and outlook in life.

Conclusion

In an indigenous community, traditional knowledge is constructed and owned by the community. Researchers are only in a position to interpret that knowledge. This conflicts with the Western notion of individual ownership of knowledge. Gaining authorisation to blend or graft new knowledge in a traditional community will need the community's consent. A participatory involvement of community members, particularly indigenous community, can decide what should be investigated, collected, interpreted, selected, and analysed because it is in the community's interest to confirm, meld, or create new knowledge as part of their epistemology. The involvement of community members in implementing Na Lawa methodology also means that participants will be at liberty to meld different methods, if appropriate, and engage non-indigenous and non-academic researchers to achieve their objective. Essential to this approach is the mapping of different but related issues to help researchers identify the context of each issue and how, and to what extent different institutions impinge on the issues so that the researchers have a holistic understanding of the study, and can select appropriate methods. The outcome of the study will justify traditional knowledge, or encourage change to blend the old with the new, or create a new knowledge as part of their epistemology. Underpinning Na Lawa methodology is the fundamental basis of Indigenous knowledge: holism and relational, the warp and weft of iTaukei community.

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