



Collaboration and Partnership: Indigenous mathematics and promoting Justice.

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We want to invite you into a shared understanding, that we have grown together over time. To invite you in, we will tell our story, and stories, which are interwoven with our understanding(s). Our understandings are growing and changing even as we share them, partly because we imagine how they might look to you. The understandings that you develop won't be exactly the same as ours, since you bring your unique experiences and insights, but as we all converse together, we create a collective larger set of related ways of seeing.

Here's a story that became a touchstone for both of us. Michael's grandmother used to go fishing on Gumbaynggirr land along the Nambucca river, and she used to throw a line straight off the bank, which the current ran close alongside. She used to make a good catch, from right there off the bank, within the wider body of water. Nowadays the watercourse has changed, due to building of a wall. The main current now runs way out in the middle. You can still feed the family with fish, but now you need a boat to take you out to where they mainly swim.

Michael told the story to Judy-anne at a time when she was trying to more fully grasp and express the idea that knowledge changes as the landscape changes, since knowledge is held in the landscape. This idea had been shared with Judy-anne by another long-time collaborator in the "Indigenizing University Mathematics" (IUM) project, Jade Kennedy, in a conversation in which he had talked about his people in the Illawarra, precontact, making purposeful seasonal journey down through the landscape from mountains to sea, following literal streams that were also streams of knowledge.

Here we come to the idea that Knowledge Systems are more than bits of knowledge; and that *understandings* are also more than concatenations of knowledge. Water is a pertinent metaphor, because water is flexible, adaptable, changeable and unstoppable: water always finds a way. It is possible to be *in relationship* with knowledge. From each of our perspectives, Michael's as an Indigenous person with a background in primary school teaching and health, and Judy-anne's as an Anglo-Australian mathematician from a farming community, we feel that it is more than possible but actually necessary to be in relationship with knowledge.

What does it mean to be in relationship with knowledge in the context of Indigenous Knowledge and Mathematics? What does it feel like, look like? We posit that in a meaningful and useful sense, it is like being in relationship with a person; and that it is mediated and enabled by relationships between people. For Judy-anne, the first part of this insight grew from conversations with mathematician Edward Doolittle of the Kanyen'kehake (Mohawk) nation; and the second was fostered and grown with the encouragement of Michael Donovan's frequent phrase "partnerships are a must". We share principles and protocols that support relationships.

Viewed from the perspectives of relationships, and of justice, the task of Indigenizing Mathematics as we see it is not one of incorporating bits of knowledge from one into the other, but rather of bringing two Knowledge Systems into relationship with each other, and people into respectful relationship with each. That takes time, and care.