

Chapter 4

Community and School Collaboration: Initiatives that Enable Primary Students to Embed Indigenous Knowledges



Elizabeth Tailby, Susan Whatman, and Alison Sammel

Abstract This chapter shares a reflexive narrative account among the authors of a project whereby Aboriginal and Torres Strait Islander primary (or elementary) school students in Queensland, Australia, modeled relational and respectful engagement between Indigenous knowledge systems and Western science knowledge. We engage in this retrospective conversation in order to highlight the design features of a Government-funded Indigenous student engagement initiative called the *iDream Challenge*, including what made it effective in its approach. This chapter illustrates how the students attempted and succeeded in embedding Indigenous perspectives in Western science education. These students modeled pedagogy that all educators can learn from.

Introduction

This chapter shares a reflexive narrative account among the authors of a project whereby Aboriginal and Torres Strait Islander primary (or elementary) school students in Queensland, Australia, modeled relational and respectful engagement between Indigenous knowledge systems (hereafter referred to as IKS¹) and Western science knowledge (WSK). As a part of a state-wide tertiary aspirations scheme called the *iDream Challenge*, which was in part a university-government partnership scheme, participating students were required to create a multimedia product that integrated the perspectives of local IKS and WSK around a particular topic or issue. This chapter is a retrospective critique from two of the co-creators of the challenge and the Education Department senior education consultant of the way the

¹It exists in relation and sometimes tension with an emerging body of international literature which refers to the knowledges held by First Nations peoples around the world as “Indigenous knowledges.” We use the terms Indigenous knowledges and Indigenous knowledge systems (IKS) to indicate how we believe the work described in this chapter aligns with this international academy—see, for example, Nakata (2002).

E. Tailby · S. Whatman (✉) · A. Sammel
Griffith University, Gold Coast, Australia
e-mail: s.whatman@griffith.edu.au

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Science Challenge in particular unfolded, and of the overall *iDream Challenge* program itself. The *iDream Challenge* invited students to co-research and share stories from their community around animals or “entities” (Martin, 2008) misunderstood by Western society, such as crocodiles, bats, and sharks. The research and dissemination processes and digital artifacts produced by the students in partnership with Elders and other community members show that the students were able to navigate this intercultural terrain and demonstrate how IKS and WKS can co-exist, and complement learning, providing different educational insights in the ways such animals can be understood and valued. These young learners modeled for their teachers how to engage with Indigenous knowledges and find ways to bring them to life in mainstream school learning experiences—in ways that many non-Indigenous teachers are yet to attempt. The narrative approach adapted from the narrative methods of Clandinin and Connelly (2000) in this chapter enabled the reflections of the Indigenous² mentor and non-Indigenous mentors of this project to be interwoven with the analyses of the content of 10 audiovisual presentations featured in the project. A detailed critique of the Science Challenge has been reported elsewhere (Sammel & Whatman, 2018), but this chapter focuses upon the processes modeled within it and their potential for embedding Aboriginal and Torres Strait Islander peoples’ perspectives, histories, cultures, and knowledges. Beth, as Senior Education Officer, was responsible for the strategic implementation of such perspectives and knowledges into school curricula for this particular region of Queensland in which many *iDream Challenge* schools and student participants were located (see Tailby, 2012). As such, Beth was a senior Indigenous curriculum and pedagogy advisor to all the schools and teachers in the region and a critical friend of the project. Susan and Alison were university educators who designed four of the state-wide multimedia challenge topics and the evaluative criteria that encapsulated the requirements to model respectful, relational, cross-cultural teaching and learning approaches when completing the challenge. The chapter includes selected vignettes from this three-way, retrospective conversation to highlight the critical moments that shaped the project and to foreground the commonalities in the approaches taken by students. We engage in this retrospective conversation firstly in order to highlight the design features of the *iDream Challenge* that made it effective in its approach, and secondly, to illustrate how the students attempted and succeeded in embedding Indigenous knowledges in a particular case study here of Western science education in ways from which *all* educators can learn.

²In Queensland, Australia, it is preferable to use the phrase “Aboriginal and Torres Strait Islander peoples” over “Indigenous peoples.” However, for consistency with the use of the term Indigenous knowledges throughout this book, we also will refer to Indigenous peoples, taken to mean Aboriginal peoples and Torres Strait Islander peoples. In this case, our mentor identifies as Aboriginal (Kamilaroi).

Tertiary Aspiration Programs for Aboriginal and Torres Strait Islander Students

Over the last four decades, there has been evidence of increasing policy support and curricular guidance for embedding Aboriginal and Torres Strait Islander peoples' philosophies, perspectives, and knowledges, otherwise known as Indigenous knowledges systems or IKS, in Australian curricula and pedagogy (cf. Berendt, Larkin, Griew, & Kelly, 2012; Bin Sallik, 1990, 2000; Nakata, 2011; Tripcony, 2000; and Whatman & Duncan, 2012) and professional teaching standards (Ma Rhea, Anderson, & Atkinson, 2012). The growing support for embedding IKS in policy and national curriculum texts is reflective of widespread recognition that IKS has been neglected in Western forms of education and should be restored in national curricula for all students (Macfarlane, Glynn, Grace, Penetito, & Bateman, 2008; Ma Rhea et al., 2012; McLaughlin & Whatman, 2015). This has created new impetus for school communities to provide opportunities for students to engage with IKS. It is thus developed from the premise that IKS needs to be centrally placed in all levels of schooling for all students as valuable and legitimate content within the Australian Curriculum. Finding new and innovative ways to embed IKS not only allows Aboriginal and Torres Strait students to see themselves, their knowledge, and their world in their formal learning, but also allows non-Indigenous students to see themselves in relationship with others and the Australian community (Phillips, 2012). However, we acknowledge there are uncertainties and tensions around embedding IKS in schools, and these are founded on historical hegemonic priorities, policies, practices, and experiences. The project shared in this chapter offers one example of how primary school students negotiated these complexities and tensions and blended IKS and WSK in order to better understand a question posed to them in a tertiary pathways program called the *iDream challenge*.

What Was the iDream Challenge?

Susan: What's really interesting I think for you is that you've been around it as someone in the Department, someone working in the academic space *and* reflecting on the project and representing it as a conference paper. So, what did you think was unique or different perhaps about the *iDream* project when you think about all the other things the Department has done before?

Beth: I think, at the time that project was run, they hadn't done anything around ... creating a space where they could use technology to express their identity and then take it back to a school and share it ... and it was run by Aboriginal people. So, at that time, they didn't have anything like that so that was probably what was unique about it. That was good.

Too numerous to mention every initiative here (cf. Burrige & Chodkiewicz, 2015), the Queensland Government most recently implemented the Embedding Aboriginal and Torres Strait Islander Perspectives in schools (EATSIPS) (Department of Education and Training [DET], 2011) policy, from which the *iDREAM Challenge* was developed. The Indigenous Schooling Support Unit for Queensland was responsible for launching the *iDREAM Challenge* in 2011 for Aboriginal and Torres Strait Islander students from year levels 4 to 7. It was designed to support the implementation of EATSIPS by building student capacity to achieve academically by working in teams “to develop skills such as resilience, persistence, creativity, confidence, goal setting and team building while participating in challenges with an Aboriginal and/or Torres Strait Islander perspective” (DET, 2011). The project also aimed to provide clear pathways for Aboriginal and Torres Strait Islander students to university and to nurture high expectations of themselves.

Susan: The *iDREAM Challenge* really appealed to me as someone who has witnessed the launch and demise of many Indigenous tertiary aspiration programs since I started working in Indigenous tertiary education in the early 1990s. This one was different. It seemed to take account for why other programs were unsustainable and returned the decision-making power to students and communities.

Aboriginal and Torres Strait Islander students in this region of Queensland (South East) represent 8.5% of all Aboriginal and Torres Strait Islander students enrolled in Queensland state schools³ (February 2014 data collection; DET, 2014), which is noticeably greater than the proportion of the national population, which stands around 2.8% (Australian Bureau of Statistics, 2016). While many Aboriginal and Torres Strait Islander education projects are often geared toward rural and remote students (cf. Altman & Fogarty, 2010), this program catered for a significant cohort of students in urban and urban fringe areas. In essence, the *iDREAM Challenge* brought primary schools and Indigenous primary school students into communication with universities, allowing universities to deliver a new form of market outreach (universities are *always* interested in attracting more Indigenous students to their campuses), and primary school students the opportunity to form potentially long-term relationships with post-compulsory schooling providers:

Susan: We supplied prizes, we did all the in-kind work for designing challenges and ... you'd hand it back to the people in the university and say “tell us who's won your challenge,” but there was a lot of things about that which I thought were really good partnership approaches, like really making universities, for example, put their money on the table to say “we'll support this initiative in schools.”

Beth: And I think that was the start of that concept around introducing university to (Indigenous primary) students, where it didn't happen before that ... that hadn't happened before that I know of ... they do now but didn't back then.

³State schools are Government funded and operated. A primary school is also known as an elementary school and enrolls students from Prep or Foundation to Grade 6 (typically with students aged 5–12 years). A secondary or high school enrolls students from Grades 7 to 12 (typically with students aged 12–18 years).

The challenges we set for the students over the 3 years of the program (2011–2014) required them to conceptualize, plan, script, film, edit, and submit a short DVD (to a maximum of 5 min) addressing the nominated topic with the support of their school-based facilitator, either a classroom teacher or teacher aide, depending on the resourcing available at the school. This chapter takes a closer look at one of four challenges co-designed by the authors, the Science Challenge of “Misunderstood Creatures.” Students were asked to investigate a Western scientific understanding of an animal/creature which would be hegemonically typical in the Australian Curriculum, and could also draw upon typical media or popular culture representations, and the Aboriginal and/or Torres Strait Islander understanding of that animal/creature, drawn from the knowledge within their community. The aim of this challenge was to encourage students to investigate, value, and respect ways of knowing, of two (or more) knowledge systems.

Alison: We envisioned this challenge to create a place where the epistemologies and stories of IKS and Science could be exchanged, discussed, and co-exist by providing opportunities to explore multiple contextual understandings of phenomenon, rather than just seeking to communicate the “right” Western Science story.

In this particular challenge, the students were invited to choose an animal or creature that normally receives “bad press” and to share local Indigenous knowledge and WSK about those creatures. So, for example, the winning school of this particular challenge nominated the crocodile as their misunderstood creature, critiquing in their video how crocodiles are represented in both these knowledge systems. They scripted a high-quality DVD that included a crocodile dance performance from peers who were given (and included acknowledgment of) permission to share their knowledge of the dance, as well as an intriguing blend of Aboriginal knowledges about the crocodile as a respected entity and non-Indigenous “facts” about the importance of the crocodile to the Australian ecosystem.

The Ethics of Representation

Evelyn Araluen Corr has noted that, since colonization, images of Aboriginal people and Torres Strait Islanders that end up in “the archive” have not served their interests, whereby the “construction and circulation of tropes, stereotypes, caricatures and catalogs since first contact with Europeans denies ... the right to experience and articulate contemporary and ancestral heterogeneities” (Araluen Corr, 2018, p. 487). She also noted that such an archive is potentially a source of family history with a restorative function and often supported by community and government initiatives to reclaim control of Indigenous representation in media (p. 487). The *iDREAM Challenge* was a Government-sponsored, university-community partnership that attempted to hand control of audiovisual representation to Aboriginal and Torres Strait Islander youth and their extended community members. It honored the children’s human rights to represent their views on the topics, but also required the kinds of community negotiation that any educator would also be required to undertake.

The ethical considerations around the reporting of this project are a perfect illustration of the tensions and agency of competing knowledge systems in what Martin Nakata calls “the cultural interface” (Nakata, 2002, 2007), which was explained earlier in Chap. 1. As no actual interviews with people were included in the research evaluation by the university educators, only reviewing of archival footage, our university did not require formal ethical clearance. The development of the program meant that the concept received approval and endorsement from appropriate Indigenous education departments and the Minister for Education. Permissions for interviews with Elders and students to be recorded, and subsequent audiovisual media release permission forms, were handled at each individual school, with consent forms held by the Department of Education. Everything was conducted *ethically* according to the legal and ethical norms of Western education systems. But, would it also meet Aboriginal and Torres Strait Islander protocols? To facilitate the need to address relevant protocols, we added an extra dimension to our challenge criteria based on our understanding, just as Araluen Corr (2018) has highlighted that particular readings of the representation of Aboriginal and Torres Strait Islander peoples and cultures would be enabled by subsequent viewings of the submissions by different audiences both at the time of production and in the future. Thus, each school located in different communities across Queensland was given clear guidelines that their submissions should honor and respect the right for Indigenous people to control their representation, drawing upon broader ethical guidelines in Aboriginal and Torres Strait Islander research, including the right to have their knowledges claimed and identified in wider dissemination (Martin, 2008; National Health and Medical Research Council of Australia [NHMRC], 2003). The first such guideline was that “appropriate Community Elder permission to use terminology and Indigenous knowledge from your local area/country” must be included, via recording in the audiovisual material itself or listed in the credits. From our perspective, documenting community permission to reproduce the story, and to “represent it” in a particular way, was important for future viewings and potential adoption in classroom contexts, indeed, as future family archive resources. However, recording such permission was never a straightforward solution to ensure the Western construct of consent, or to respect protocols, or even honor intellectual property.

Susan: (Do you) think it’s about people being challenging whether or not those children had the right, or those people had the right, to tell those stories or share those stories?

Beth: Sometimes, there would be political tension depending on who that storyteller is, so, there would be fear around that. The other thing is that some of our Elders would like to give the story, give consent, have it written down and that’s fine, but just don’t want to go on camera.... it depends on the region too. Some regions have people in their regional offices who manage *iDream*, and they may have felt like they were gatekeepers of the knowledge (but) they didn’t really have the right.

Thus, it may well be that permission to re-tell the story was given, but the knowledge holder was not actually the one doing the telling. Thus, the assumed reading or representation of that person as the Elder or even as the designated “knowledge

holder,” as defined by Wasyliw and Schaefer in Chap. 3, may not be accurate, which does have implications for future viewing and uptake in educational settings.

One more consideration arises from the Association of Moving Image Archivists (AMIA) ethical guidelines, reminding us that we must “respect the value of moving images for their cultural, historical and/or artistic significance as a primary goal” (Rao, 2010, p. 106). Each stakeholder in the creation of the videos brought a different sense of purpose, and there would always need to be ongoing ethical negotiations arising from community concerns about the future purposes for which these archives may be used. We, as authors, saw their potential as educational artifacts to support embedding Aboriginal and Torres Strait Islander perspectives and knowledges in the Australian Curriculum, which is an expectation for teacher professional practice. The students created the videos to demonstrate their understanding of a key question about misunderstood creatures, using their information technology skills, ultimately to win a competition on behalf of their school. The Elders and knowledge holders who gave consent to record their knowledge may have had multiple reasons for doing so, possibly for regaining control or “sovereignty” (Gaudry & Lorenz, 2018) over the sharing of their histories, cultures, and knowledges as a community resource and re-centering such knowledges in the Australian Curriculum (Phillips, 2012). As productions owned by the Department of Education and Training, the videos remain inside a password-protected learning repository for teachers—a restricted-public archive—which can assist with how ethical use unfolds in the future.

“Practical” Epistemological Analysis of Multimedia Content

Multimedia or video content analyses have been frequently used to examine how images can communicate stereotypes and bias, as well as attitudes toward numerous topics, and they offer a window to watch how participants co-construct meaning by the messages (speech or text) they choose to share and the corresponding images or artifacts they select. Ohman and Ostman (2010, pp. 4–5) argued that the meanings derived from video content analyses are “practical” in the sense that “meaning emerges in the process of doing and undergoing the consequences of action.” Practical epistemological analysis is well used in science education as a way to better understand how learners learn and teachers teach. Wickman (2004) described learning as a series of experiential encounters, or “educational events (which) can be viewed as practices with their own epistemologies (and) such epistemologies that are used in a specific practice, I will refer to as practical epistemologies” (p. 325). Wickman argues that we cannot be inside the minds of learners, so we infer what they are learning from what they say and do. In this project, then, practical meanings were interpreted from the students and teachers’ purposeful construction of multimedia to answer the question posed in the challenge. The sample comprised the 10 multimedia submissions, some as videos and some as animated PowerPoint slides with audio, entered by partner primary schools for the *iDream Challenge*.

The videos were watched once individually by Alison and Susan as members of the design team for the purposes of ranking against criteria for prize allocation. Alison and Susan then discussed our ranking and understandings of why we thought some schools addressed the challenge better than others, ultimately choosing the winner by consensus. At a later time, Alison and Susan reviewed the videos separately again, now with a reflective lens, to come to understand how the students represented IKS and WSK for discussion in this paper. Thus, the earlier ranking process preceded the coding process and, in many ways, oriented our thinking about what each school submission “did well” in crafting a response, which in turn influenced our coding. For example, one of the schools who scored high had a breadth of IKS sources and formats, including recordings of Elders and students sharing stories, either orally or from a book; a welcome/goodbye song in language—Yulu Burri Ba—(c.f. Quandamooka Festival, 2017) and dance performance; art installations; poetry, singing and voice-overs, all in one 5-minute submission.

The analyses of these representations of Indigenous knowledges drew upon social constructivist and interactional/transactional ideas about learning (cf. Dewey, 1929/1984) and practical epistemological analysis (cf. Wickman, 2004; Wittgenstein, 1969) which is commonly adopted for making sense of what is going on in a learning and teaching setting which, in contemporary research, could be from live field observation or recorded observation (Ohman & Ostman, 2010; Ostman, 2010; Quennerstedt, 2011; Wickman, 2004). What follows now is the meaning-making that we as authors and judges synthesized from viewing the student work around the dominant representations of IKS and WKS. This chapter firstly presents what and how IKS and WKS appeared to be, and then, we reflect upon these representations, post-program, in terms of implications for embedding Indigenous knowledges as a means to Indigenize education.

How Did We View Dominant Representations of IKS in the Science Challenge?

IKS as Respecting Elders’ Perspectives and Knowledges

Each school prepared a submission featuring a creature commonly maligned by non-Indigenous society, including crocodiles, sharks, bees, and bats. Six of 10 of the videos represented IKS as “being retold with permission” by a community member who spoke to the class. They achieved this by featuring an Aboriginal or Torres Strait Islander Elder or knowledge holder who was indicated (stated or listed in the credits) as allowed to share the information. Such information could have been in a question-and-answer style session about the creature, reading aloud a published story, or orally reciting a story about the creature. Even though many of these Elders were not formally introduced, the students treated them with deep respect. This respect was represented in the videos by the way the students and Elders were seated—the

students usually on the floor in a semi-circle around the Elder seated on a chair—and how they listened quietly without interruption, which would contrast with the student-teacher behavior in many elementary classrooms. On some occasions, Elders interpreted a painting to the students. Whether the knowledge was shared orally or via text or paintings, the Elder contextualized the local community knowledge underpinning the story or painting. During the instances where the Elders answered questions, they drew upon their own experiences—their perspectives—to provide the students with appropriate answers.

In meaning-making, we drew upon practices and actions we could see in the videos that we would recognize as universal ways to accord respect to someone, such as listening intently, not interrupting, and waiting for permission to ask questions. The seating of the Elders on chairs and students on the floor took particular educational meaning, in that the configuration of the physical space meant the person with higher knowledge status had the chair. Many of the knowledge holders recounted their information without notes—some read stories from publications—so the meaning we inferred was that they deeply knew the information from experience or an educational process, making them the appropriate person to share the knowledge.

IKS as Knowing and Respecting Societal Rules

In some of the submissions, Elders were not recorded reciting the stories in the video, so the students constructed a representation of a Dreaming story in their entry. In two of these videos, the student groups thanked local Elders for permission to share their story on camera, and in one case, in writing, during the credits of the video. One video showed images of an Elder speaking to the students but did not include the audio. As these students told the story with permission, they reflected on the *underlying morality* embedded in the story. For example, one school contributed an oral rendition of Oodgeroo Noonuccal's *Ballad of the Totems* as an authoritative source as to the importance of misunderstood creatures, the opening verse of which is below:

My father was a Noonuccal man and
 kept old tribal way,
 His totem was the Carpet Snake,
 whom none must ever slay;
 But mother was of Peewee clan,
 and loudly she expressed
 The daring view that carpet snakes
 were nothing but a pest
 (Noonuccal & Walker, 1966).

This poem points to the importance of totems, and in this case, a snake, who is considered part of the clan and therefore an equal entity with people and other

entities (such as waterways and skies; cf. Blair, 2015; Martin, 2008). The underlying morality of the poem shared by the students is that the carpet snake has rights and obligations in the clan and deserves respect. Thus, Indigenous knowledges were represented as local, community-held knowledge, which was relational, in that there was a respected “knowledge holder” and the students knew to seek a relationship and negotiate permission to share the knowledge with this keeper in an agreed, respectful way. Similarly, Indigenous knowledges could take the form of story that told of a deeper moral message. While all the entries told a story that included relations with the misunderstood animal, they also focused on a deeper, moral story about what it means to live as an individual or “being” alongside other beings within a community. Thus, engaging with Elders in this relational way enabled a broader understanding of community, and who is in that community, and how they relate to each other.

The representations of misunderstood creatures enabled the students to represent an important and often misunderstood part of Aboriginal identities and Torres Strait Islander identities—that as equal entities among entities, just as the students achieved with their winning composition about the crocodile. Beth attributed this to the administration of the program by Aboriginal people:

Beth: ... the work with community was different, because they (the program administrators) were Aboriginal people, they were able to bring community into help the students to be able to express their identity in different ways.

Susan: And that was just a joy working on those. We had thought—coming up with a criteria that by saying you’ve actually got to include in your reporting, proof of consent of community involvement and show who’s been involved in your project, either on film or in the credits—was a way of recognition ... a way of showing that it was a collaborative in community and with consent, you know, not something that people had no idea was going on.

Dominant Representations of WSK in the Science Challenge

In all 10 videos, WSK was represented as short factoids. These facts were not linked to any community or social construction, as though they were a-cultural. The facts focused only on specific information about the animal in question. Once found or “learned,” these facts seemed to be able to be communicated by any person—they were not represented as cultural property, but rather, as universal truths. As such, these facts were perceived as independent unto themselves and represented the “truth” about that misunderstood animal. Similarly, to IKS, WSK was presented as uncontested:

Alison: WSK presents knowledge that is isolated or divided into bite-size, age-appropriate chunks which are taught as if divorced from everything else. WSK expects mastery of these chunks and assumes students will bring other chunked ideas together to form a more complex appreciation of how larger systems relate. Science education’s focus is on understanding these knowledge chunks rather than understanding how everything is interconnected and related.

In all of the representations, the students combined WSK and IKS to make some kind of social commentary about their misunderstood creature. The Elders, students, and knowledge holders featured in each video addressed the social vilification of their chosen animal and used this combination of knowledges to justify why this should not be the case. This blended justification about the importance of their animals (for example, the crocodile or shark) was claimed both as their perspective and as “scientific fact.” In addition to emphasizing the relational considerations—beings alongside other equally important beings—they also communicated the importance of sharing this information as one way to protect the animal, their natural environment, and, ultimately, themselves as equal beings.

Alison noted that there was little attempt to explore what was learned through the combination of both knowledge systems by regular classroom teachers or teacher aides involved in creating the videos, or the Indigenous knowledge experts who featured in some of the presentations. The teachers may not have wanted to edit the work of the Indigenous guest presenters, in order to present alternative explanations. They may also have not known where and how this knowledge “fitted” in the disciplinary box of WSK, given their own lack of IKS.

Alison: There were aspects of teaching depicted in the videos which would not normally be taught that way from Western Science knowledge perspective but there was no interrogation of this in the creation of the videos. There was a missed opportunity to reflect the learning that could be enabled by generating an understanding of the different ideologies of both knowledge sets.

Susan: Did you get any sense of feedback from people (teachers) that they felt was happening or did they always really just look at it as a student aspiration project?

Beth: I think that’s the problem though ... is that quite often when these projects are ... run for Aboriginal kids, schools perceive them as being an isolated project. They let them go ... “there you go, there’s your little bit of culture” and then that’s it, it’s finished.

Discussion

Students in the *iDream Challenge* represented WSK as made up of objective facts that were perceived as truth and not subjectively constituted or developed. IKS was represented as “belonging to” the local Aboriginal or Torres Strait Islander community that described what it means to be human (a being) alongside and in relationship with their “misunderstood creature” (another being) in a way that celebrated subjectivity. This reflects what many researchers (see Martin, 2008; Nakata, 2002; Nakata & Langton, 2005; Thorpe, 2013; Whyte, Brewer, & Johnson, 2016) perceive as one of the main philosophical differences between IKS and WSK: Rather than devising and testing a theory for the functioning of the universe (as promoted in WSK), IKS invites us to know ourselves as humans in relationship with all aspects of the universe. Baker (2016) suggests that generating literacy in IKS enhances students’ sense of kinship with living and non-living aspects of the biosphere. Rather than being oppositional

or contradictory, the primary school students' videos illustrated how they combined both knowledges as a complementary way to explore their world. In all 10 DVDs, it was the relational understanding of the animal to self, the natural environment, and their society that became their take-home message. The students seemed to find a common goal in highlighting the two differing epistemologies: They reflected on the plight of these animals and made visible the dominant social beliefs that had led to their marginalization. A strong pattern emerged across the projects: the need to become aware of your own thoughts and beliefs, alongside the knowledge base of the community, in order to speak back to moral issues such as marginalization. Rather than focusing on validity, or what knowledge base was more correct than the other, or associated epistemic tensions, the students used what they wanted from both knowledge bases to make sense of their misunderstood creature. All projects modeled how to openly embrace both knowledge systems to generate an advocating stance toward the creature.

The students in the *iDream Challenge* modeled the kind of relational teaching and respectful engagement that all teachers should follow when considering how to embed IKS in their curriculum, as per Australian Curriculum requirements. Even though research into embedding (cf. McLaughlin & Whatman, 2015) highlights teachers' lack of confidence in embedding IKS, reflections on the 10 *iDream Challenge* projects show that students can and did negotiate this space of embedding IKS without the fear of "not doing it correctly" or not being adequately prepared. Specifically, the *iDream* videos illustrate strong examples of student agency, engagement, and enjoyment within their learning journey in this cultural interface.

One of the more frustrating aspects of policy initiatives to support Aboriginal and Torres Strait Islander education aspirations, pathways, and access is that they continually change. For example, the initiative and the entire department which supported *iDream* have been dismantled. For this project, Beth attempted to collect archival data about the success of the initiative. In conversation with Susan, Beth discussed her initial shock and frustration that there seemed to be nothing publicly available about the *iDream Challenges*:

Beth: I asked about the data that was collected for *iDream* and all of our internal database had been wiped from not only *iDream*, but also the entire (Department) has been closed down ... that project's been taken down so it's null and void, basically.

Susan: Well, there's the one issue of collecting data around how successful was that as a program that encouraged students to think about tertiary pathways, I mean that was obviously one of the points of this program, but the other thing is the production of all these knowledge resources that could continue to inform schools and teachers, which is also just as important and potentially has more reach. That's why I'm certainly frustrated ... where did they go, what happened to them, can I put them on YouTube and share them? And I probably can't. It's the idea of this resource, rich resource driven by students and community people not being made more available, especially when we're supposed to be embedding these knowledges in the curriculum.

Beth: With the change of governments and with the change of people in town (Head Office), that's what happens is that things are taken out, people just decide on their own without consultation that something's null and void.

Susan: They come in and they wipe the slate clean and go back to “We’re going to go back to step one, give Indigenous aspiration programs or whatever, and you think ughh! ... I’ve anecdotally seen lots of different versions of things, usually aimed at secondary schools, over the last 30 years, but you can’t find any record of them. They’re gone!”

Political agendas attached to policy funding ensure that replacement governments remove most if not all traces of successful programs which have come before them. Removing all traces of past programs (and successes) is to be able to claim that a new program is “the first of its kind.” Governments are also quick to remove from public view any evidence of their past attempts to address complex problems in which they think they have “failed,” which diminishes the achievements, however small, that people in the sector have made. It is the erasure of successful Indigenous education student initiatives from public record that is the axis around which stories of Indigenous under-achievement are perpetuated. One key consideration about the long-term use of multimedia resources is that of future viewing of deceased contributors. We reflected upon this issue, but returned to the original intent of the *iDream Challenge* design, which was to foreground community permission to share knowledge in the first place and to respect Aboriginal and Torres Strait Islander multimedia protocols, such as warning future viewers that the persons depicted may be deceased (see, for example, National Indigenous Television Special Broadcasting Service [NITV/SBS], 2017):

Beth: I don’t understand why (the Department) would hide these videos. You’re right ... media release has been done, there’s no reason.

Susan: The only thing, I have thought about this later, if they might all need to have an overlay of the warning, the deceased person’s warning on the video.

Beth: That should have been put in anyway ... we have these projects that go through. You can continue that, it’ll never get old, and same with kids’ stories. So, you might use student stories but you may also then in 20 years’ time: use the same student’s stories, where have you been, what have you done? That would have been fantastic! How’s your identity changed? That would have been really nice to do.

This observation by Beth identifies another key consideration also raised by Rao (2010), Thorpe (2013), and Araluen Corr (2018) regarding the temporal mis-readings of images in archival footage: What is an acceptable representation of peoples and views today may not be approached in the same way in the future. Re-purposing the *iDream* videos as curriculum resources for future use by educators would generate a new set of ethical and representational dilemmas and require responses or protocols in place for which the project staff and Department of Education and Training have not been properly resourced.

Conclusion

Our critique of the *iDream Challenge* videos was intended to highlight important lessons for all educators. As Gaudry and Lorenz (2018, p. 223) point out, the students have delivered “affirmation of Indigenous worldviews alongside the practical reclamation of Indigenous educational practices and on-the-land learning,” modeling respectful and relational pedagogies and curriculum development practices. We suggest these practices can assist to decenter WSK hegemonic norms and turn the gaze back upon the disciplines themselves (Nakata, 2007), in incremental ways that can empower Indigenous communities to regain educational sovereignty. The pedagogies to research, negotiate, develop, and produce these multimedia resources modeled what Māori educator Angus Macfarlane and colleagues argue as essential for creating educational experiences, particularly in science education (cf. Macfarlane et al., 2019), that are “holistic, collective, experiential and dependent upon a free exchanging of teaching and learning roles” (Macfarlane et al., 2008, p. 102). Depicting the right of Aboriginal clans to welcome and farewell peoples from visiting their land in a science lesson, as some of these primary students have done, can redress what Moreton-Robinson (2015) described as migrant/settler attachment to Australia as their property which, since colonization, has always sought to deny pre-existing and ongoing Indigenous ontological connection to land, as discussed in Chap. 6. Sharing a performance revering the crocodile, as other students did, centers the worldview that creatures are entities equal, if not superior, to humans—a worldview shared with Canadian Métis, as revisited in Chap. 5.

Our final comment here extends to the fit between the purpose of this chapter, with a retrospective narrative approach to critiquing the learning possibilities of the *iDream Challenge*, and the use of practical epistemologies to unpack the multimedia representations. As Wickman (2004, p. 326) noted, focusing upon the practical epistemologies that appear to be in use in a learning and teaching setting “can be used as an aid toward finding out how simple changes of existing practice might improve teaching.” The additional complexity of *whose* epistemologies are used to make meaning in science education (as discussed in Chap. 6) has been illuminated in the re-telling of these multimedia representations via reflective conversation with Beth as an Aboriginal educator and Susan and Alison as non-Indigenous educators, all of whom were positioned within the midst of the experience (Lewis, Schaefer, & Lessard, 2018; Schaefer, 2018) as curriculum advisor/critical friend, partners, and co-designers of the *iDream Challenge*.

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Dr. Elizabeth Tailby is a deaf Aboriginal Woman (Kamilaroi). Elizabeth was the Principal Policy Officer for Indigenous Curriculum in the South East Region of Queensland which stretches from Logan, out to Aratula and down as far as the Tweed River in Northern New South Wales. Prior to this, she was Principal Project Officer and Advisor for the Queensland Aboriginal and Torres Strait Islander perspectives in Curriculum to Classroom (C2C). Elizabeth now shares her knowledge and skill between Griffith University, schools across Australia, and the Deaf Community.

Dr. Susan Whatman is a Senior Lecturer in Health and Physical Education and Sport Pedagogy at the School of Education and Professional Studies at Griffith University on the Gold Coast, Australia. Susan is a non-Indigenous Australian who was born and raised on Bundjalung/Minjungbal Country and now lives and works on Yugambah/Kombumerri traditional lands. Susan is currently working and researching in curriculum development in Indigenous education, Health and Physical Education, holistic sports coaching approaches, and supporting pre-service teachers in curriculum leadership on practicum. Susan's own Ph.D. research was an investigation into the nature and extent of Indigenous community participation into health education decision-making for Torres Strait Islander girls. Previous research includes mapping parent-school partnerships in Indigenous education and academic support systems for university students. Susan's research has been presented nationally and internationally since 1993, published widely in books, chapters, journal articles, and conference papers.

Dr. Alison Sammel works at the School of Education and Professional Studies at Griffith University on the Gold Coast, Australia, in the fields of Science and Sustainability education. Her research areas include the teaching, learning, and communication of science; authentically Indigenizing science education; and advancing posthumanism and ecological sustainability in science education. She is a non-Indigenous Australian/Canadian who was raised on, and now lives and works on, Yugumbah/Kombumerri traditional lands in Australia. She spent 15 years in the South-west region of the Anishinabek Nation in Canada (Ontario) and five years on Treaty Four lands in Canada (Saskatchewan). In 2008, she was a Smithsonian fellow in Washington, D.C., where she collaboratively investigated Indigenizing science education. Prior to her tenure at Griffith University, she was the chair of science education at the University of Regina, Saskatchewan, Canada. Here she investigated the impact of Whiteness and White privilege in formal education and how it disenfranchised First Nations students. This led to collaborative work with local First Nations communities to co-develop curricular materials that respectfully incorporated local Indigenous ideologies and perspectives in the teaching and learning of science. Her publications include three books, and many peer-reviewed papers and chapters in the field of education, plus two government reports on First Nations science education. Over the past two decades, she has presented more than 50 international conferences and received awards for her teaching. She has been the principal researcher on many successfully completed competitive grants and has supervised many graduate students.