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Knowing in Being: An Understanding of Indigenous Knowledge in Its Relationship to Reality Through Enacted Curriculum

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What Is Curriculum?

As organisational structure, curriculum determines how students move through their education, how they learn, where they learn, what counts as learning, and most importantly what counts as effective and successful learning. Moreover, "what knowledge is selected, how it is taught and evaluated in schools goes to the very heart of issues of individual and social identity" (Atweh & Singh, 2011, p. 189). In western schooling, students learn knowledge about the world outside the school, and most

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learning is theoretically based (Harrison, 2022). Learning and teaching are representational, and curriculum more generally is a 'stand-in' for 'reality'. Students are expected to learn about this world inside the classroom if they are to be successful at school, and teachers devote enormous amounts of time to planning how best to scaffold these stand-in concepts for students. Osberg and Biesta (2003) assert that western curriculum is governed by a representational epistemology:

> In modern, Western societies schooling is almost invariably organised as an epistemological practice. Educational institutions present knowledge about the world 'outside' and for that very reason they rely upon a representational epistemology. This is an epistemology which says that our knowledge 'stands for' or represents a world that is separate from our knowledge itself (p. 84).

Knowledge and its referent ('reality') are conceived in western epistemology as separate insofar as we can know the world from a distance, and reality can be represented as an objective entity (Green, 2018). It thus paves the way for students learning from books *about* life. This is a *representational epistemology*, and governs how students learn in schools and how teachers teach (Osberg & Biesta, 2003). However, *representational epistemology* works successfully for some students, but not for others. Other forms of knowledge are marginalised, even to the extent that

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emotional (Ahmed 2004), artistic (Massumi, 2002) and the metacognitive (Ellsworth, 2005) are structured and organised as an explanatory "instrument" (Green, 2018) of western thought and its reality. This leads Osberg and Biesta (2003) to explore an alternative understanding of this western relationship to reality. They argue that 'knowledge' and 'the world' should not be understood as separate systems which somehow have to be brought into alignment with each other, given they are part of the same evolving complex system.

How curriculum is organised in western schools then will always suit some students, but others less so. Past research (Green, 2018; Harrison, 2022) demonstrates how the organisation of the curriculum in Australia (not just the syllabus) not only disadvantages Aboriginal and Torres Strait Islander students, but also fails to produce the promised outcomes (e.g. a job). The object of curriculum is not only the student, but it is also the promise of something better. For learning and teaching to be successful in western classrooms, students must have faith in a prior body of knowledge being taught in Australian schools, and they must have faith in the capacity of teachers to represent this knowledge. Students must believe that the knowledge will be of some use to them.

Throughout this chapter, we apply the term *Country as curriculum* to refer to how the stories of the land and its history, the changes in seasons, plants, and trees are learnt by the younger generation through the social practices of life, rather than through a didactic form of classroom teaching. This is *knowing in being*, without the separation of knowledge and reality.

Curriculum Organisation

A western curriculum is usually organised in three ways. First, it consists of a prior body of knowledge; second, it depends on a *representational epistemology* to 'bring' the world out there into the classroom; and third, it is motivated by a promise. We can gloss this third point as the teacher's promise to students that if they accept the teacher's approach, they will get what they want at some point in the future. Students must believe in this promise in order to succeed, and Indigenous students in particular

must put aside their experiences of colonisation and invasion in order to believe that the promise will come true for them. Curriculum is thus organised as an *approach* to learning prior knowledge, and it represents *the promise* of a better future, or at least a more enlightened one.

Both Grumet (2014) and Green (2018, 2022) add to this conception of curriculum order. Grumet proposes that curriculum scholarship should contain three themes: "curriculum as autobiography", because we are all situated in the curriculum that has shaped us, and that we in turn, would shape; "curriculum as phenomenon", because there is no neutral knowledge and every discipline is saturated with its cultural history; and "curriculum as event, because curriculum … is not a state of things, but a happening" (Grumet, 2014, pp. 87–88). Like Osberg and Biesta (2003), Grumet (2014) identifies an alternative understanding of knowledge as event, as well-being representational of some object outside itself. Green (2018) builds on this idea of curriculum "as the worldly interplay and (con)fusion of subject and object, as transaction and as relationality" (p. 15). We can refer to Green's insightful conception of curriculum in two ways, namely teaching and learning as *doing* (western transactional), and teaching and learning as *being* (interactional).

Following Osberg and Biesta (2003), Grumet (2014), and Green (2018, 2022), the focus of this Systematic Literature Review (SLR) is on exploring possibilities for an alternative understanding of knowledge in its relationship to reality. We explore alternative understandings of how curriculum knowledge can be organised in ways that better align with the learning of Indigenous students. In particular, we seek a conception of curriculum that does not depend on a separation of knowledge and the world, but brings knowledge and the learner together through what we term an *enactment of Country* (a term which is often conceptualised as *land* in North America). The results of our SLR present a method of conceptualising curriculum knowledge as other than representational, and to this end, we find that learning on Country (including land, sea, sky, people) brings into being the interactions of humans and environment. We will find from the research presented in this SLR that enacted curriculum is about practices of knowing in being, where learning and teaching depend on an interactive epistemology, and not only a representational one. The importance of being on Country is to learn from Country,

through *knowing in being*—a practice that cannot be overstated in terms of identifying what constitutes successful learning for many Indigenous students involved in the studies presented here.

Methodology

A positionality statement for each of the authors is provided in the appendix to this book.

Method

This systematic review was conducted through a search of seven (7) databases: A+ Education via Informit online (inclusive of AEI ATSIS Australian Education Index and Theses); ERIC Ovid; PsycInfo via Ovid, Proquest Central, Web of Science, Scopus, and Libraries Australia. While a central string of search terms was developed from the research question and more broadly from the field, variations were required as many of the databases had developed a different thesaurus structure for subject searches. This required to varying degrees, a change in the focus used by a number of the databases.

The search was conducted using three primary concepts: first, identifying the cultural group; second, curriculum; and third, school types such as primary and secondary. Other search strategies utilised during the selection phase included a direct search with key journals identified in the search. These included *Australian Journal of Early Childhood* (where papers related to primary and secondary years of schooling), *Australian Journal of Indigenous Education*, and *The Australian Educational Researcher*.

Research items were included in this review on the following basis: (1) peer-reviewed and published, including NGO reports, if they were primary sources; (2) Australian-based research in schools; (3) research based in Australian schools that focused on evaluating school-based policies, practices, interventions, or programs including some form of data analysis and literature review analysis; (4) explicitly linked to Aboriginal and Torres Strait Islander students and their education; (5) set within the

primary and secondary years of schooling, and (6) published during the period 2006–2017. The date 2006 was identified as the limit because research conducted prior to 2006 was deemed to be 'out of touch' with contemporary approaches to learning and teaching in Indigenous education. Following a strict set of review protocols (see Harrison et al., 2019), the initial 886 studies identified for review were reduced to a final total of 29 studies.

Understanding Indigenous Knowledge

This SLR focused on what we could learn from the literature published in the field of Indigenous education about possibilities for an alternative understanding of Indigenous knowledge in its relationship to reality. We were looking for alternative conceptions of knowledge. We documented above how western curriculum can be understood as first, a prior body of knowledge, second, as an approach to representing knowledge of the world to students in schools, and third, curriculum as a promise, even as a fantasy designed to motivate students to learn. But we also emphasised how difficult it is for many Indigenous students to believe in this (western) fantasy in the face of the ongoing effects of invasion.

Two key findings relating to the organisation of curriculum arose from our SLR. First, the research shows that what counts as knowledge for Aboriginal and Torres Strait Islander people is enacted through place-based relations of Country. There is an overwhelming sense that Country *is* the curriculum for students, teachers, and researchers involved in these studies. Second, the SLR reflects on the very nature of learning and its purpose for Indigenous people—as *knowing in being*, rather than knowing for the future, or learning through theory. The importance of being on Country to learn from Country—*knowing in being*—is what constitutes successful learning for many Indigenous students involved in the studies presented here. This second finding, *knowing in being* will be addressed in the second section below. We now turn to the 29 studies identified in this SLR.

Country as Enactment of Place-Based Relations

Country is the teacher as Harrison (2013) suggests, but not through a representational epistemology. Country is itself an enactment of place-based relations between animals, plants, and humans, and students will learn if they have the skills to listen and recognise these agentic relationships. Agency is applied here as an enactment rather than something that somebody or something has (Barad, 2007). Aboriginal children learn through being on Country. Country is the enactment of curriculum when we decentre the role of the human individual in learning, where the student is expected to be far less manipulative in his or her interactions with others (also see McKnight, 2016a, b).

In northeast Arnhemland, Guyula (2010) notes that we (Yolŋu) have never learned in classrooms, and we have never asked questions about what we want to learn. Our children have just participated in normal lifestyles for how to survive in hunting and living in the bush, to be able to grow up and get the knowledge, and then as they grow up, they are ready for another level of education in the bush, according to the old men, the wise men, and the land and the trees, and the birds that talk with the land. Guyula notes how Yolŋu students learn out there under a tree, highlighting that the hills, trees, the land, the air are always communicating, teaching you. Children learn through being on Country. Yolŋu students are not told what to learn, and unlike Balanda, they don't choose what they want to be when they grow up.

Rioux (2015) explores the effectiveness of the Montessori method in teaching zoology to Year 8–9 students in an Indigenous independent high school at Koora in Queensland and develops a theory that explains the impact of the approach on their learning about vertebrates. The echidna and other animal narratives in the curriculum have reconnected students to their forebears, and to a kinship alliance with the Elders and with history (Rioux, 2015). Culturally appropriate stories, locally produced and inserted in the school curriculum, govern engagement and learning of Indigenous students. Students are learning through the place-based relations of Country (Sofa, 2014). Country is teaching students through enactments of these relations. Interactional epistemology drives the learning.

Using a land education approach, Calderon (2014) argues colonialist ideologies such as the British 'settled' the land are pervasive in the social studies curriculum in Australia, noting that such ideologies must be made explicit for students in any attempt to decolonise the power relations that underscore pedagogical approaches in schools. For Calderon (2014), making colonialist ideologies explicit for students implies a commitment to land education, where students learn about their historical relations to place and Country. However, she adds a disheartening rider that dominant settler epistemologies leave little room for Indigenous epistemologies and little to no possibility for decolonising work in education. Calderon (2014) emphasises that land education must start from the supposition that all places were once Indigenous lands and continue to be, and moreover, that one's identity is constructed from and within place. Atweh and Singh (2011) remind us that "what knowledge is selected, how it is taught and how it is evaluated in schools goes to the very heart of issues of individual and social identity" (p. 189). Identity grows out of and is produced through interactions on Country.

Disbray (2016) focuses on 'two-ways or both-ways strong', where students are balanced in both worlds, strong in their western knowledge and English and strong in their own identity, cultural knowledge, and language. In *Both-ways* curriculum, the home language is positioned as essential rather than optional for learning in and through a second, additional language. It also creates space to recognise the role of Aboriginal teachers in their children's education. Importantly, Disbray (2016) identifies in the study a fundamental divergence between top-down and local formulations of just what constitutes educational attainment, failure, and success with respect to languages and goals of education. Guenther et al. (2015) argue that Aboriginal and western curricula are largely irreconcilable because of the ways in which concepts such as *success* are defined and applied in Aboriginal and western contexts, with Verran (2010) reminding us that curriculum is not only about new forms of cognition, it presents us with new ways of seeing, new structures, and new ways of feeling. Yet in recent years, assessment has become increasingly focused on standardised outcomes, thus privileging learning through doing rather than being, and knowledge as representational rather than interactional.

McNamara and McNamara (2011) report on a study designed to document and synthesise local knowledge of environmental conditions, including seasons and climate, and transfer this to the younger generation in the local primary school. This research project sought to document, collate, and analyse local knowledge from Elders into a seasonal calendar specifically for Erub Island, located in the eastern group of islands in the Torres Strait. The knowledge was gathered through a number of in-depth, unstructured interviews with Elders on Erub Island. The knowledge collected ranged from information about wind directions, wet and dry seasons, patterns in bird migration and nesting, and plant and cropping cycles. Moreover, knowledge about major totems, and other plant and animal species that are seasonal indicators have also been important inclusions in the final seasonal calendar, as their inclusion provides a more holistic understanding about Islander knowledge of their environment. The collected knowledge was then transcribed, collated, and synthesised into tables, with the final product being a seasonal calendar.

Reading seasons and environments has been a long-held practice for Torres Strait Islanders through their close relationships with their islands and seas. This research project with Elders on Erub (Darnley) Island documented and synthesised their knowledge of seasonal patterns and indicators, and climate change. This knowledge varied from details on the migration and nesting patterns of the main totem birds, to the movement of the Tagai star constellation, to the onset of wind patterns indicating certain planting or fishing cycles. The importance of documenting and transferring such knowledge is that it continues the task of generating interest among the younger generation to 'read' their landscape, which is especially pertinent given the projected impacts of climate change. The ability of Islanders to identify indicators and 'read' their country is an important tool in monitoring and adapting to environmental change, as well as maintaining culture, livelihoods, and environment.

Important and ongoing research (McNamara & McNamara, 2011; Ewing, 2014; Verran, 2013) demonstrates how *Country is the curriculum* for many Aboriginal and Torres Strait Islander people. Country tells stories of the land and its history, the seasons, the plants and trees and transmits these to the younger generation through the social practice of life,

rather than through a didactic form of classroom teaching. This is knowing in being, without the separation of knowledge and reality. Learning takes place quite simply through the social practice of life.

Knowing in Being

In her research, set in a Torres Strait Islander community in Australia, Ewing (2012, 2014) explores parents' understandings of mathematics and how their children come to learn mathematics. A *funds of knowledge* approach is used in the study and is based on the premise that people are already competent and have knowledge that has been historically and culturally accumulated into a body of knowledge and skills essential for their functioning and well-being. Ewing (2012) emphasises how learning can be rich and purposeful when it is situated within that which already exists, namely the culture, community, and home language of the group. Indigenous epistemology is described by Ewing (2014) as relational and interconnected because meaning is produced in context. Students are learning through everyday life, through their cultural and linguistic interactions with others.

Teachers need opportunities where they can engage with parents to learn what funds of knowledge exist among their students. Knowledge is something that is shared and exchanged rather than disembodied and commodified. Keddie (2014) presents an epistemology where community, kinship, and family networks are at the centre of all relations, reflecting an ethos around a stable identity, and providing a cultural anchor that reflects the shared beliefs and behaviour of the Indigenous community (Burgess et al., 2019). Curriculum is viewed as social practice, where knowledge is produced through social interactions.

Treacy et al. (2014) focus on western mathematics to note how it has its origins in the autonomous existence of concepts and is oriented by a valuing of separation and objectivity in relation to the world. By contrast, an Indigenous world view generates a mathematics that is "characterised by a very personal view of the universe in which humans are seen as united with nature rather than separate from it" (p. 264). People themselves are situated within the curriculum, and become the curriculum

story. To recall Grumet's conception of curriculum as autobiography, "we are all implicated in the curriculum that has shaped us" (Grumet, 2014, p. 87). Relations are enacted through the production of curriculum knowledge. Knowledge and knowing arrive at the same time. This is *knowing in being*, with little sense of knowledge existing prior to learning (Whitehouse et al., 2014).

Western approaches to teaching and learning are focused heavily on engaging students to speak abstractly about the world outside the classroom, but rarely are these students encouraged to situate themselves in the world itself (Treacy et al., 2014; Harrison, 2013; Yunkaporta, 2009). Rather than relying on students learning an abstract body of knowledge, an Aboriginal pre-schooler might be involved in a real-life event such as finding his or her way home (Treacy et al., 2014). This is performative learning, being on Country, and learning from Country. There is no promise here that knowledge will become useful in the future, or that theory will eventually become practice.

Interactional Epistemology

We have identified above how western curriculum is organised in three ways, as a prior body of knowledge, as an approach to representing knowledge of the world to students in schools (representational epistemology), and third, as a promise that this knowledge will become useful and meaningful at some point in the future (and therefore the student should accept the approach in order to receive the knowledge). It should also be emphasised how difficult it is for many Indigenous students to believe in this promise, both in the face of the ongoing effects of invasion (e.g. trauma), and in the context of the continuing and increasing gap in economic, social, and educational opportunities (Australian Government, 2020) available to Indigenous Australians after years of failed promises.

However, the curriculum in most schools is working against Indigenous students, even before the class begins. Representational epistemology calls upon all students, including Indigenous students to be self-motivated and outcome oriented in how they learn (Osborne & Guenther, 2013). It also expects all students to accept a prior body of scientific

knowledge, largely as it is represented in the classroom by mostly non-Indigenous teachers. The SLR highlighted how all students are expected to learn a body of knowledge that is usually presented out of context, with numerous studies (Guenther et al., 2015; Guyula, 2010) highlighting the difficulties of this approach for Indigenous students.

We have sought an alternative understanding of knowledge in its relationship to reality. This SLR has reviewed 29 studies which bring knowledge and the learner together through what we term an *enactment of Country*. When Country is conceived as the 'enactment' of curriculum, students are learning through place-based relations, that is through their interactions with the seasons, winds, tides, and with other animals. The various studies highlight how Country is conceptualised as the enactment of curriculum when the role of the human individual is decentred, and learning is viewed more as being rather than doing, as interactional rather than representational. Knowledge and learning in this context are not something that a student has or does. Barad (2007) reminds us that "we don't obtain knowledge by standing outside the world; we know because we are of the world" (p. 185). We are situated in the very curriculum that shapes us (Green, 2018; Grumet, 2014; McCarthy, 2010), just as we are always situated within the Country that shows us what to do, and when. The learner is of Country.

One's learning is always the learning of another, where students are bound to others and their lives are intertwined with others. This means that practices of knowing and being are mutually implicated, with Barad (2007) highlighting how "practices of knowing in being" (p. 185) is an alternative way of understanding knowledge in its relationship to reality. This is an alternative to standing outside the world, as students so often do in western classrooms (with even the non-Indigenous students telling their teachers how boring this is!) The curriculum relationship in an interactional epistemology is not about subjects and objects, rather it brings into being the interactions and interdependency of humans and animals, and plants, the seasons, and so forth. Thus we can say that enacted curriculum is about the interactive practices of *knowing in being*, rather than knowing through the knowledge that is taught by teachers and learnt by students. Both constitute very different relationships to knowledge.

Of course the question of how these two very different understandings of curriculum organisation can be brought together for the benefit of all

students (Bat et al., 2014; Fogarty, 2010) is the ongoing dilemma for governments and communities alike. We have identified two very different forms of knowledge production (interactional and representational) and two even more diverse ways of passing-on the knowledge (as being and doing), approaches which are evident in both western and Indigenous curricula. While it would be a mistake to identify these differences as exclusively Indigenous or non-Indigenous, western curriculum nevertheless privileges one way of representing knowledge to children in schools, and one way of learning this knowledge. Our dilemma is how we can bring both epistemologies together in a conception of both-ways curriculum so that the promise of something better is more than an empty promise for Indigenous students.

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