Local Wisdom in Regenerative Teacher Practices

Sue E. Smith
Charles Darwin University

Jon C. Mason
Charles Darwin University

Majella Bowden
Charles Darwin University

Local Wisdom In Regenerative Teacher Practices

Sue Erica Smith
Jon Mason
Majella Bowden
Charles Darwin University

Abstract: In this article, teacher professional practice is conceptualised within a regenerative framing as a synthesis of intercultural perspectives drawn from wisdom traditions, placing ethics-in-action alongside reflection-in-action. Regenerative practice foregrounds the need for renewal connecting professional learning with lifelong learning. Global sustainability agendas also inform this endeavour, reminding us of our connectedness within living ecosystems while 'local wisdom' is considered a primary source to inspire regeneration. Ecological models of education are therefore explored to determine the nature and scope of regenerative practices. Isolation imposed by the global pandemic provided opportunity to reflect upon our own practices and how these inter-relational constructs, often at odds with competency-based requirements, might nevertheless be integrated into teacher professional development. Three layers of regenerative practice, 'being with ourselves', 'being with nature' and 'being with each other' are presented as integral to a holistic approach that can be aligned with and supported by teacher professional standards.

Keywords: wisdom; local wisdom; reflective practice; regenerative practice; indigenous, teacher education, professional development

Introduction

The focus of this study is on teachers, framed as agents of change in educational evolution, situated in the ecologies of schools, communities, and the natural world. In reconceptualising systems of education as ecologies, we recognise that teachers practice not only within physical environments, but social and mental environments – outer and inner landscapes. Through deployment of ecological principles, we turn towards symbiotic, interconnected, and relational landscapes that nourish and support teacher practice, and away from power-based frameworks, to allow teachers to become more authentic, mature, and wise practitioners. The concept of *regenerative practice* addresses the need for renewal that connects professional learning with lifelong learning and supports teacher development as a process of flourishing. Central to this endeavour is the cultivation of wisdom, for we maintain that higher order perception and ethical activity is required for regeneration to occur. We also consider how 'local wisdom' – specifically indigenous Australian framings – can be used authentically in the regeneration of our shared landscapes through recognising the importance of *place*. We therefore explore ecology models of education to determine the nature of regenerative practices and discuss how these might be integrated

into teachers' professional development. Attention is then placed on teaching practice, and the theories and policies that guide it, highlighting teacher agency and a nuanced discussion surrounding reflective practices. Conceptually, the construct of *regenerative practice* emerged during our conversations as a rich way to respond to the challenges brought about by COVID-19. Mandated isolation provided an opportunity for deeper reflective practice, while broader environmental challenges reminded us of the imperative for ecosystem and social renewal.

Context

As Australia reels from calamitous bushfires in an already drought-stricken landscape and spatial isolation amidst the COVID-19 pandemic, and with a sad irony we sit in isolation *because* we are globally connected, we are moved to consider what responses might be made through education. The reflective time of social isolation has afforded to many a renewed understanding that the sense of personal wellbeing is deeply connected to social and environmental wellbeing. It is a stark and uncomfortable truth that our education systems have arguably contributed to these catastrophes in that they have not prepared our societies with sufficient skills and insight to avert these anthropogenic global problems. As David Orr attempted to convey almost thirty years ago, the ecological crisis we face could be seen as a result of the disciplinary boundaries in education that separate moral education from other disciplines (Orr, 1992). According to Orr all education is moral education. The separation of ecology in particular, as an insular, compartmentalised field of study that defines the ecological crisis as 'a set of technical problems in need of techno-scientific solutions' (Prakash, 1995, p. 3), has led to the initiation of learners into a social system that is incompatible with environmental health. Orr calls us to reconceptualise moral education as ecological education and to open morality towards 'virtues of rootedness', of dwelling in flourishing, self-sufficiency, humbleness, egalitarianism, communal caring and connectedness and through pursuing the ethical ideals exemplified by sustainable cultures (Orr, 1992; Prakash, 1995). Thus, we locate this study in the context of the Northern Territory, informed by local wisdom and during tumultuous global events.

Globally, the United Nations' Sustainable Development Goals (SDGs) offer broader context. As a guiding theme for national and global initiatives until 2030, sustainability is broadly conceived across seventeen SDGs. For the education sector, SDG4 articulates this in terms of quality education that is considered inclusive, lifelong, and responsive to community and workplace needs (Boeren, 2019; Kioupi & Voulvoulis, 2019) and where 'Education empowers people everywhere to live more healthy and sustainable lives' (United Nations, 2020). Sustainability is thus presented as an agenda extending beyond frameworks for 21st century skills and competency standardization that emanate from the earlier Global Education Reform Movement (GERM) influential at the change of millennium. Given global and national calamities in 2020, a question arises: *what changes need to be made to teacher practices to further these agendas?*

As a national response to the GERM, the Australian Institute of Teaching and School Leadership (AITSL) has specified standards of professional engagement for teachers which illustrate how teacher development and reflective practice is framed in Australian schools. Presented as competency statements, three of these standards relate to our discussion on guiding teacher development:

6.2   Engage in professional learning and improve practice – understand the relevant and appropriate sources of professional learning for teachers.

6.3   Engage with colleagues and improve practice – seek and apply constructive feedback

from supervisors and teachers to improve teaching practices.

7.1   Meet professional ethics and responsibilities – understand and apply the key principles described in codes of ethics and conduct for the teaching profession. (AITSL, 2013-2020)

In our jurisdiction, the *Code of Ethics for Northern Territory Teachers* recognises that ethical decisions are made daily. Specific ethical responsibilities are to:

• create learning experiences which engage, inspire, motivate, delight, affirm and challenge our learners
• recognise our shared humanity by acting with care, compassion and empathy
• uphold the rights and responsibilities of self and others
• demonstrate dignity in relationships with others
• respect the uniqueness and diversity of our community

(Teacher Registration Board of the Northern Territory, n.d.)

Such statements provide guidance as well as scope for interpretation. In the following discussion, we recognise the value of these documents while also developing a more holistic framing of teaching practice.

Methodology

The research for this paper developed out of an initial study focused on how wisdom in teacher education might be developed within an Australian context. That study was conceived to involve participation of experienced teachers in several workshops; however, interruptions and constraints due to COVID-19 required that our initial focus shift to a thoroughgoing conceptual investigation. We place emphasis on the iterative nature of this work, and particularly the role that interdisciplinary dialogue has played in maintaining and developing a shared understanding. Pivotal in this dialogue has been the perceived need for regeneration and renewal in education, the concomitant ethical responsibilities of the education system and the determinants that might facilitate wise activity in teacher practice.

In navigating our own renewal in this endeavour, weekly meetings were scheduled in which we had robust conversations, and exchanging ideas and literature became part of an iterative process that lead us to a diverse array of literature and ongoing individual reflexive practice. It was several months before we developed a shared understanding of the connections between land, culture, history, reflective practice and resilience that is described in this paper.

We proceed with an examination of various constructs of wisdom that includes the construct of 'local wisdom' that provides both a real-world counterpoint to global constructs and secondly speaks to the rich cultural heritage in our region. Ecological models of education emerge as central here, steering the research in the direction of transformative reflective practice as an expression of 'vibrant learning that mimics living systems and nurtures learners capacities to care for the world' (Burns, 2015, p. 261). Education systems that enable change in our society, and teachers as agents of change, are fundamental to the regeneration of wisdom in our social and environmental climate. Together with local wisdom, the concept of regenerative landscapes emerges – where the wisdom traditions of local indigenous groups help to counter 'ego-centred' conceptualisations of our place in the environment and restore 'eco-centred' teacher identities (Scharmer, 2013).

Just as ecology permeates science with 'a view of society as part of a web of life within the ecosystem' (Berkes, 2012, p. 3) we seek to reimagine an education system that

embraces a view of 'a universe that is dynamically alive; a whole system, fluid and interconnected' and to rediscover 'a new version of the 'enchanted' world that was part of the 'natural mind' for most of human history' (Berry 1988 in Berkes, 2012, p. 3). Regeneration encompasses an approach that is timeless, simultaneously rooted in the past whilst concurrently futures orientated, a balance of the old and the new. From a futures perspective, Scharmer (2020) describes the evolution of systems moving from an 'outcome and user-centric' model to a 'co-creative and ecosystem-centric' model. Thus, in this investigation, we find ourselves also having engaged in an ecosystem-centric way with one another through our relational engagement as change makers in a 'generative social field' (Scharmer, 2009, p. 187). In this conceptualisation, the individual learner is considered the primary generative social field along with the educator and the environment. It is the *relationship* between these fields that generates learning. Through this process we therefore consider ourselves co-learners, engaged in both personal growth and a dialogic process of generating shared knowings that are documented in this paper.

Recognising that the locus of *reflective practice* in teaching has primarily been with the individual, the imperative for renewal requires a broader scope that includes relationships and systems, and thereby places *ethics-in-action* alongside *reflection-in-action*, and *regenerative practice* alongside *reflective practice* (Schön, 1984). Thus, we explore what teacher practices might be viable to regenerate individuals, societies, and the natural environment.

Constructs of Wisdom

Wisdom in education is generating focused interest from academics and educators globally; however, a broad scan of the relevant literature reveals the concept as deeply 'amorphous and contested' (Kristjánsson, 2020). The polysemantic nature of the word contributes to this and therefore 'not only is the exercise of wisdom intensely personal, but also the concept of what constitutes wisdom is individual' (Rowley & Slack, 2009, p. 117). Difficult to define and measure, wisdom manifests as a form of knowledge and a way of being, as a relationship between knowledge and action, and a meta 'know-how' that guides decisions and action. It has been termed a 'master virtue', orchestrating the mind and moral character (Ardelt, 2018). As such, it is more than a skill; it is a complex personal attribute that is situationally bound, tied to morality and ethics. For Aristotle, exercising good judgments as pertaining to context is an expression of the intellectual virtue of *phronesis,* or practical wisdom. Similarly, Baltes and Staudinger (2000) portray wisdom as 'virtuous excellence' that guides action that provides a rewarding experience for the wise person in terms of wellbeing and growth and, as such, 'the exercise of wisdom is not entirely altruistic' (Rowley & Slack, 2009, p. 112). Wisdom benefits the wise person just as wise action is seen to have positive effects.

To be able to understand what might be 'good' or wise requires discernment across moral, social, and practical dimensions. Evidence of wisdom might be perceived as an expression or realisation of insight, hindsight, or foresight – or some mix of these (Dahlberg, 1979). Cultivating wisdom offers an insightful way of responding to problems and potentially solving them. Problems are viewed by wise people from a broad or long-term perspective and according to the contingencies of context. Wise people can be tentative or swift in their actions and typically recognise the limits of their own knowledge. Conceived holistically, wisdom is therefore both cognitive and affective and 'resides as much in the heart as in the mind' (Rowley & Slack, 2009, p. 113).

In our examination of the literature, we find striking similarities between wisdom

education and sustainability education. Wisdom requires certain conditions for development and is most effectively nurtured indirectly (Ardelt, 2018). Likewise, transmissive models of education are insufficient for teaching sustainability. In the same way that someone cannot be instructed to be wise, developing a sustainable way of being is a complex process. Both require connections to be made between the emotional and the imaginative, the self and society, the physical and the spiritual (Burns, 2015). In educational settings, Hansen Helskog (2019) proposes a framework that such conditions will necessarily be *dialogic*. Transformative learning underpinned by questioning and reframing unconscious attitudes and values is considered an effective and necessary approach for developing communal shifts in sustainable ways of being that are relational, interconnected, place-based and in balance with ecological systems. This also reflects characteristics of reflective practices that can lead to the development of wise ways of being (Burns, 2015; Raus, 2016).

Wisdom also emerges as a central construct within contemporary discourse on a 'practice ecosystem of knowledge co-creation' informed by an 'epistemology of becoming' (Jakubik, 2018). However, due to the exigencies of our time and place and as teacher educators situated in northern Australia, a holistic and synoptic analysis is warranted. Thus, by integrating ecological and spiritual dimensions, we consider insights offered through local wisdom drawn from our region.

Local and Indigenous Wisdom

Local wisdom – learning from lore and locality – is gaining purchase as a construct in education communities in South East Asia (Pornpimon, Wallapha, & Prayuth, 2014; Mungmachon, 2012; Meliono, 2011) and remains a perennial theme called for by indigenous educators across Australia. When we refer to local wisdom here, we point to the practices of indigenous groups underpinned by an eco-centric ontology, characterised by a porous integration of self and environment. Indigenous ways of being in the land provide insights into practices that could help educators attune to this broader sense of identity. Kwaymullina states that 'country is self' (2005, p. 12) i.e. that a self or individual is not conceptualised as separate from the land. This same sentiment is reiterated by indigenous people around Australia, including the *Arrernte* people of Central Australia and the *Yolngu* people of the north (Marika-Mununggiritj, 1999; Turner, 2010). The individual's sense of self is expanded outwards to embrace family, community, and natural ecologies, and reflects inward towards deepening insights. Intellectual, emotional, physical and spiritual understandings are not separate or compartmentalised. As such, 'all learning is shaped by the broader nexus of connections that is the world, and it is by locating the self within this nexus rather than removing the self from it that understanding can be gained' (Kwaymullina & Kwaymullina, 2010, p. 197). The individual is inextricably located within ecological systems. These interconnected systems generate collective wisdom. The apprehension of inter-relational connections impels a moral necessity to contribute to the care of the ecologies as akin to self-care.

A group of *Yolngu* and non-Aboriginal women from North East Arnhem Land (Gay'wu Group of Women, 2019) illustrate this point. Wisdom is held by the elderly and young alike. The women say, 'We nurture them [the children] to take their wondrous minds further' (p. 218), by teaching on the land, learning through what can be seen heard, read and felt in the land and to find the meanings in the stories and the songs. The children are considered as 'keepers of the flame', keepers of 'tomorrow's knowledge' and are valued for their role in keeping their culture alive, especially in these radically different modern

times. It is this knowledge, these flames, that 'hold us, connect us, reach out, across to the horizon, back to our ancestors and on to our ancestors who are still to come' (p. 208). This local wisdom has resonance with Scharmer's (2013) description that learning is the 'kindling of a flame' within the individual and speaks to the intersection of old and new ways of being. According to Scharmer, just as the Gay'wu describe being with elders in the country, being in the presence of those who operate from their 'highest purpose or self', those he refers to as 'change makers', can activate the spark, as can the cultivation of deep listening that allows learners to explore 'deeper sources of knowledge'.

For the Yolngu, connections between lands, waters, peoples, plants, and animals are rejuvenated through dance and song. These 'songspirals' describe the person and the land as one (Gay'wu Group of Women, 2019, p. xvi). The songspirals, commonly known as songlines, traverse the Australian continent and connect people through the generations to their cultural knowledge, those that have been before and those that are yet to emerge (Yunkaporta, 2019; Perry and Holt, 2018; Nicholson, 2007). The songs bring balance and regeneration and the children's participation is integral.

Local indigenous cultures express wisdom as a holistic meta-ethic that is both practical and far-seeing – learning from the past and positing the future. By nature, wisdom is a creative process simultaneously bound to intrapersonal, interpersonal, socio-cultural and environmental ecologies. These principles illustrate that there is no distinction between ecological issues and social issues and that sustainability is not simply something associated with the ecological environment, but with our social environment and our inner selves (Burns, 2015).

An Ancient Model of Ecology

In aspiring to foster wise teachers and wise systems that might include respect for the patterns of nature, we return to ancient ways of being and becoming and draw on sustainable development principles to restore and regenerate teachers as 'whole' persons situated in holistic environments. Patterns of ecology have traditionally been employed to contextualise the experience of the learner in education systems based on *Ecological Systems Theory* (Bronfenbrenner, 1979; Darling, 2007; Wimberley, 2009)*,* 'a theory of human development in which everything is seen as interrelated and our knowledge of development is bounded by context, culture, and history' (Darling, 2007, p. 204). In these models, the learner is at the centre of a set of nested social structures, (Bronfenbrenner, 1979, p. 3) where 'the central force in development is the active person: shaping environments, evoking responses from them, and reacting to them' (Darling, 2007, p. 204).

A regenerative model takes this visualisation further by reconceptualising the place of the individual. A regenerative ecological approach aligns more closely with the ecological model presented by *Arrernte* elder Margaret *Kemarre* Turner (2010) where 'The Country Ground' that consists of all the physical features of the land – the sun, moon and stars, the tracks and paths, the water and the plants and animals – is centred. The individual does not feature in Turner's *Arrernte* ecology but rather is absorbed into the collective identity of 'The People of the Land', a socially supportive integrated system that similarly functions the way trees in an ecosystem support one another. She says 'Like if a tree gets pulled out … let's be as one to support this tree … hold one another to hold this place' (Turner, 2010, p. 18). This ancient view of human society, intrinsically interconnected with the ecological patterns of the cosmos, presents an enticing invitation to revision the work of educators as ethical agents. By positioning teachers as elements of living systems of education, whose roles are parts of a whole, we move from relatively isolated and ego-

centred identities and into an ancient eco-centred landscape. Here there can be no delineation between the self and other, the self and nature, the classroom and the rest of the world.

Education Ecologies

Wise, regenerative education reaches beyond competency-based learning and knowledge transfer through its focus on processes, change, connections, and imaginaries that create spaces for growth. The role of self-reflection is integral to regenerative enactments informed by new learnings and re-learnings, as is engagement in dialogical relationships in the exploration of deeper insights.

The characteristics of biological ecologies can help guide us towards situating teachers within the ecology of education. Weaver-Hightower (2008) defines ecology as a 'system of relationships among organisms and between organisms and their environment' (p. 153). The spaces that teachers inhabit can be conceptualised as ecological landscapes and mapped accordingly (Clandinin & Connelly 1996). This has utility because it 'allows us to talk about space, time and place' and 'it has a sense of expansiveness and the possibility of being filled with diverse people, things, and events in different relationships' (p. 25). Biological ecologies consist of *environments and structures,* as well as *actors, relationships* and *processes* (Weaver-Hightower, 2008). The ecologies that teachers exist within may consist of the teachers themselves, as well as other actors including students and school staff, parents, policy makers, politicians and the media etc. An ecological education landscape also includes the places, traditions, economic and political conditions that are affected by or that influence the teacher (Weaver-Hightower, 2008). The 'interconnectedness of political, social, cultural and economic factors' (Raus 2018, p. 124) places teachers as existing in more than one conceptual landscape, traversing distinct pedagogical landscapes and professional practice landscapes inside and outside of the classroom (Clandinin & Connelly 1996).

How teacher identity is shaped is critical. Raus (2016) too calls for a regeneration of teacher identities that reflect an 'ecological self' as a natural development of the 'whole person'. This requires balance between cognitive development and emotional, psychological, and spiritual development. Education for sustainability, as with regenerative education practice, cannot be taught as 'a set of tools or competencies', but as a 'frame mind' (p. 125). The focus shifts towards teaching teachers to 'become' rather than teaching teachers to 'know'. The concept of the self widens, and ontological boundaries broaden, signaling the re-emergence of an ancient identity, a remembering of our ancestors and of the indigenous people of the world. Raus calls this a 'deepened self' that is developed through a process of 'deep questioning' that transposes to discernment of present and future.

For teachers to exercise wisdom as they navigate these intrapersonal and external ecologies, they require agency. This is a personal and professional process of change that we bid to reconcile with global goals and professional competency-based standards. Teachers as agents influence the ecologies they exist within and contribute to processes and the emergence of new and evolving ecologies of education. Teachers therefore have a powerful role to play if system wide regeneration is to occur.

Bandura (2018) has carefully explicated the core features of human agency, namely, forethought, self-reactiveness and self-reflection. For Bandura 'forethought enables people to transcend the dictates of their immediate environment and to shape and regulate the present to realize desired futures' (p.130) to provide direction, coherence and meaning to

one's life. Self-reactive agents 'respond with positive or negative evaluative self-reactions depending on how well their behavior measures up to their adopted standards (Bandura, 1991a, p.131)'. The third property, self-reflectiveness is a higher level meta-cognitive reflective capability whereby agents 'reflect on their efficacy to realize given challenges, the soundness of their thoughts and actions, their values, and the meaning and morality of their pursuits' (p.131). Bandura has also broadened his view to include a cross-cultural and collective dimension. He states:

> *people act communally in some aspects of their lives and individualistically in many other aspects. Not only are cultures not monolithic entities, but they are no longer insular. Global connectivity is shrinking cross-cultural uniqueness. Successful functioning requires an agentic blend of the different modes of agency (pp.131-132).*

Ecological models provide scope to accommodate individual agents (i.e. teachers) to act effectively within changing, interconnected systems. 'Ecologies allow for agency because of their adaptive decentralisation … ecologies do not have a centralised mechanism of control' (Weaver-Hightower, 2008, p. 156). Teachers can exert the most influence on their environment through the transformation and regeneration of their own practices, and the systems and standards to which teachers are accountable need to support these practices.

Deep Reflection: Transformation and Regeneration

Our global culture has been determined by economies built on the pursuit of growth that fosters a myth of inexhaustible natural resources. This notion has structured our worldviews, values and ways of being (Burns 2015). At this point in time, where so much has been destroyed and will continue to be destroyed, the notion of sustainability seems to have lost its potency. Or rather, it begs the question as to what will be sustained? Regeneration is a more immediate challenge. Within education and other ecologies, we see evidence of *entropy* occurring. Current education systems are becoming disordered as they feed into unsustainable societies. There can be three responses to entropy: *adaptation* (return to equilibrium), *fragmentation* (ecologies split) or *succession* (an entire ecology wiped out and replaced) (Weaver-Hightower, 2008). Teachers require practices that will not only allow them to survive in these environments, but those that will allow them to succeed in re-enlivening the landscapes they exist within.

Careful ethical discernment, and wise action are required to inform the regeneration of the physical, mental and spiritual landscapes of our lives. Central to this challenge is a key question: *What educational practices might be viable to regenerate individuals, societies, and the natural environment?* Regeneration, at both an individual and societal level, can occur through going deeper, in our relationships with ourselves, with nature and through interpersonal and inter-relational experiences that become the embodiment of transformational learning in teacher development (Poutiatine, 2009). Drawing on the wisdom of local indigenous practices alongside innovative approaches to learning, authentic regenerative practices can be brought to life. Revitalisation of teacher professional standards is key to this endeavor.

To regenerate teacher identities as situated agents of change within an interconnected ecology, transformational practice is necessary. According to Jakubik, (2018), 'transformational change or profound change needs deeper social connectivity, deeper understanding that develops through practice' (p. 389). Practice can be understood as an ontology, a practical way of seeing the world, and an epistemology that sees the

physical and the cognitive as inseparable in purposeful human activity. Practitioners are 'actors who shape the construction of practice through who they are, how they act and the resources they draw on'. Knowledge is therefore embedded in practice and 'Action is important because it integrates the body and mind in practice' (Jakubik, 2018, p. 206). This view sees knowledge embodied in people, socially constructed and culturally embedded (Jakubik, 2018). Dominant education systems could be said to have placed an overemphasis on cognitive processes and reinforced a culture of disembodiment in our society. Arguably, even Schön's (1983) notion of the 'reflective practitioner' has been adopted in such a way despite the rich nuance of meaning intended (Glasswell & Ryan, 2017).

Scharmer and Yukelson (2015), call for movement beyond practice based on reflecting on and modifying past experiences, as is the more-often focus of teacher professional development, to the sensing and actualisation of future possibilities (Glasswell & Ryan, 2017). This can be done by activating the power of intention by attending from a generative place, by translating a sense of possibility into an intention and an intention into action. In ecology, a*nticipation* reflects this concept of actualising future possibilities (as an ecological response to entropy) that involves predicting the needs of elements and 'setting out the contours of an ideal situation rather than reacting to present ills' (Weaver-Hightower, 2008, p. 157). Scharmer (2000) calls this 'bringing about the future'.

Teachers who adopt these more expansive, creative, ethically aware and dynamic reflective practices concurrently cultivate wisdom. Birmingham offers a coherent yet multifaceted model of reflection as phronesis based on research into varied perspectives and schools of thoughts as a 'unifying and essential habit of mind' (p. 314), as well as drawing on Dewey's theory of reflection and Schön's concept of *reflection-in-action*. Birmingham situates this discussion in the context of education and the value of conceptualising reflection as wisdom/phronesis for teachers where being reflective is more than reflectively thinking that is predominantly cognitive, rational, systematic and language based. Authentic *reflection* involves a cyclical interaction between thinking and acting. For Birmingham, 'Reflection is built through the practice of reflective actions' (p. 317). Likewise, wisdom is built through wisdom practices. Teachers, as agents within an ecology, hold the key to wisdom through varied reflective practices on their experiences and relationships and the cultivation of environments, such as learning communities, that support this growth (Marshall & Thorburn, 2014).

These are encapsulated in the local wisdom of the indigenous elders of our north Australian region. Indigenous elder from the Daly River region, Miriam Rose Ungunmerr (2017) explains that the strength of indigenous culture is threefold. It comes from the cultural practice of deep inner listening and quiet still awareness, a sacred identity with the land infused with special respect for nature, and a strong sense of community. In summary, she articulates three elements of reflection that provide the backbone of regenerative practice: 'being with ourselves', 'being with nature' and 'being with each other'. We draw on these three elements in exploring further how the Australian Professional Standards for Teachers and Codes of Ethics that pertain to professional learning can be interpreted in a way that supports regenerative practice.

Being with Ourselves

> *6.2 Engage in professional learning and improve practice – understand the relevant and appropriate sources of professional learning for teachers.*

The preceding discussion has highlighted the need for intrapersonal learning as part of teacher professional practice. 'Being with ourselves', is about self-knowledge and awareness. The quest for self-knowledge is at the foundations of religious wisdom traditions, and self-awareness is a timeless indigenous practice (Blair & Collins-Gearing, 2017; Scharmer, 2019) yet all but overlooked in competency-based priorities of teacher development.

Nevertheless, professional supports to cultivate teachers' personal awareness can be construed as a bold pursuit and perhaps delivering incremental effect. These are pursuits that nurture teacher agency and resilience. They are personal activities that would include seeing and feeling intuitively and delving into discomfort, involving present awareness, retreat, reflection and allowing inner knowing to emerge (Jakubik, 2018; Scharmer & Yukelson, 2015). Ungunmerr (2017) calls it *Dadirri* (p. 1). Listening is at the centre of *Dadirri*, which she describes as a deep spring that is 'within each of us' (p. 2). Finding stillness, moving away from cognitive activity, to 'just being aware' (p. 2), listening with the entire body, moves towards Birmingham's authentic reflection and resonates with Scharmer's (2000, 2009, 2019) global analyses.

Scharmer uses the analogy of layers of soil to explain deepening layers of perception and listening. A superficial layer is where perception is on habitual ways of seeing, thinking and listening – a 'downloading' that largely reconfirms habitual judgements. Another layer is a place of open-mindedness where all senses are engaged in perception, but nonetheless remain 'object focused', seeking facts and adjusting schemas. Deeper still is open-hearted, 'empathic listening', that connects directly with another person or living system. The deepest place of attention however is a potentially boundless open space that is vitally present and connects with not-yet-embodied knowledge. This is the landscape of 'generative listening', that affords subtle and profound transformation (Scharmer, 2000; Scharmer & Yukelson, 2015).

Deepening intrapersonal awareness is key to regenerative reflective practices. Attuning to the senses, requires stillness, quiet and space. Stepping into such a transformative state may take many forms and is accessible to practitioners of varying religious or philosophical beliefs. Indigenous self-knowledge reminds us too that this is bound to knowledge of the land. *Arrernte* elder Kathleen *Kemarre* Wallace explains 'Our way of life has all changed, but we can still listen to our ancestors, our elders, our country and our culture' (Wallace, 2009, p.169). The Gay'wu women speak inclusively, 'spirits and spirituality are not about believing in this or that. We are part of the ecosystem, of everything… spirituality is about being, about culture, about love' (Gay'wu Group of Women, 2019, p. 149). While methods are not prescriptive, dedicated attention to intrapersonal development is integral to regenerative teacher professional practice, and forms the basis from which the other elements grow.

Being with Nature

7.1 Meet professional ethics and responsibilities – understand and apply the key principles described in codes of ethics and conduct for the teaching profession

Being with 'Nature's quietness', presents the opportunity for deep listening (Ungunmerr, 2017, p. 2) that is redefining of our relationship with the environment. Scharmer terms this *observing*, by sensing and becoming one with the world (Jakubik, 2018; Scharmer & Yukelson, 2015). This element of regenerative practice brings us face to face with the responsibility of educators to connect their practice with the natural world to

authentically contribute to the regeneration of healthy social and environmental systems. In the practice of stillness and sensing, waiting can be nurtured, allowing things to follow their natural course and attuning to nature's rhythms. Ungunmerr explains by analogy with running water, 'We cannot hurry the river. We have to move with its current and understand it's way' (p. 2). Such practices garnish connectedness, where the individual sees themselves as living as part of the world rather than distinct from it. This is 'new old knowledge' (Blair & Collins-Gearing, 2017), promoting an awareness of ancient understandings that are relevant and applicable in the contemporary globalised digital age but nevertheless sit outside of competency-based assessments.

Blair and Collins-Gearing (2017) see that 'Aboriginal Countrys', the land that all Australians live on, teach this knowledge. Learners experience this teaching through sensing what can be seen, heard, read, and felt in the land, and through respect for the land. Activation of the senses activates the heart and takes the person into deeper emotional and relational awareness (Scharmer, 2019). Land is a teacher. Turner (2010) speaks of an innate way of being, where the Land 'reveals things so that people remember what it is that they've really always known, putting back in what they've forgotten' (p. 210). The ethic is simple. 'You treat the Land good, that Land treats you good' (Turner 2010, p. 115).

Our current time has proffered a renewed sense of how essential our relationship with nature is for our wellbeing, and that cultivating eco-minded sensibilities is an ethical responsibility.

Being with Each Other

6.3 Engage with colleagues and improve practice – seek and apply constructive feedback from supervisors and teachers to improve teaching practices

Regenerative practice also includes collective practices which nourish professional and collegial engagement. Individuals move from standard modes of interactions such as commanding, competing, or even co-operating, to generative co-creating (Scharmer, 2019; Scharmer & Yukelson, 2015). This approach expresses Schön's concept of *reflection-in-action* and Burns' (2016) ecological model for sustainable pedagogy, grounded in principles of living systems – diversity, resiliency, relationships, interconnectedness, creativity, patterns and feedback loops i.e. 'eco-system awareness'.

In *Arrernte* culture, each person offers their unique perspective, and at the same time 'is always part of a team, is held by that team, that group' (Turner 2010, p. 37) When these perspectives interact, culture is enlivened (Turner 2010). According to Yunkaporta (2019) the notion of a sustainable system requires the 'full autonomy and unique expression of each individual part of the interdependent whole'. Interaction provides energy that powers the system and facilitates the 'flow of living knowledge' (p. 89). Yunkaporta also states that as agents within sustainable systems, adaptation is essential, and is dependent on transformation.

For Yolngu people, everyone is encouraged to find 'our own melody' (p. 49), that is each person's way of expressing songspirals. These are expressions of knowledge, 'This is your harmony', done in public as a way of contributing to the wisdom of the collective and 'Becoming together' (Gay'wu Group of Women, 2019, p. 50 and p. 37). Marika-Mununggiritj (1999) also highlights how diverse identities are integral to ceremonial life. The perspectives of the various participants can be shared, explored, and extended together in the enlivening and 'growing' of knowledge in ceremony (Marika-Mununggiritj, 1999; Turner, 2010). Ceremony is simultaneously a creative, reflective, personal and relational

activity that is bound in country and to story.

We can learn too from the *Galtha* and *Garma* ceremonies practiced by the Yolngu people of Arnhem Land that are structured to foster collective and creative engagement. *Galtha* is a process of meeting, discussion, negotiation, planning, agreement, and action. (Marika-Mununggiritj, 1999). The *Garma* ceremony provides an opportunity for cultural exchange. *Galtha* and *Garma* exemplify the concepts of *Common Ground* and the *Cultural Interface* that according to Yunkaporta (2009) have been used by Indigenous people throughout history to maintain a 'dynamic balance', captured in the Yolngu rich metaphorical concept of *ganma* which describes how saltwater and freshwater mix, representing the coming together of different perspectives for the purpose of innovation (p. viii & p. 24). The distinct identities of participants remain integral to this process, much of which relies on deep spiritual connection to country. 'Being with each other' depends on 'Being with ourselves' and 'Being with nature'.

To revitalise professional practice amongst teachers, there are specific group practices that echo the principles of these ancient ways of engaging that can also be utilised. Many such practices are being implemented in organisations (Jakubik, 2018). These dialogic approaches to organisation development 'thrive on diversity' and are designed using the principles of emergence, that is nature's patterns of change 'in which increasingly complex order arises from disorder'. This requires 'the diverse people of a system in focused yet open interactions to catalyze unexpected and lasting shifts in perspective and behavior' (Holman, 2013, pp. 18–19). While all teacher jurisdictions provide guidance through Codes of Ethics, we think revitalisation also requires broader appreciation of the ecologies from which sustainability emerges.

Conclusions

There is power in pause. Finding space for reflection and deep questioning provides opportunities to prune previous growth, to enable regeneration, and facilitate the cultivation of wisdom. Of course, the demands of a busy workplace and busy world presents a major challenge. However, the worldwide lockdown during the pandemic of 2020 has enabled such a pause – on an unprecedented scale. Many people, organisations, and even governments now see opportunities in a *reset* and *rethink*. Nature has reminded us of our biological vulnerability. In such a moment, this narrative emerges as a powerful counterpoint to a world also increasingly calibrated by data and measurement in the pursuit of global economic growth. In nature, growth is seasonal, and regrowth happens within the context of resilient ecosystems.

Situating wisdom within deep ecological sensibilities has been practiced by indigenous Australians for millennia. Reflecting on this can stimulate learning and assist in our renewal and remind us of the value of looking local. For us, the growth metaphor brings with it other considerations – a connectedness to the environment and with others that requires we reflect on the consequences of our practice and opens regenerative potential. As such, we have portrayed wisdom more holistically than Aristotle's cognitive privileging of phronesis.

Regenerative practice takes us beyond the shallow field of awareness and engagement where conditioning and the transmission of content, information, and skills require no fundamental change in mindset. It extends beyond even the place of open-mindedness and open-heartedness. Regenerative practice involves expansive learning, encouraging epistemic change at the deepest level where 'the learner questions the validity of tasks and problems' and 'makes an effort to change the context that posed the problem'

(Jakubik, 2018, p. 383). When teachers apply these principles to their own 'becoming' as agents in the ecology of education, the focus of their practice shifts to their own capacity building, empowerment and action competence. Through a 'holistic process of relating to the real world' (Jakubik, 2018, p. 384), they engage creatively, manage uncertainty, complexity and ambiguity and learn iteratively through real world experience (Sterling, 2014).

Connecting the *local* with the *global* has been an implicit aim of this paper. In foregrounding 'local wisdom' we have sought to identify practices and sensibilities that can guide a regenerative approach that extends and enriches reflective practice. Implicated in this quest has been a dilemma: competency-based frameworks do not explicitly accommodate guidance towards wise action yet any attempt at standardising such guidance collides with the creative agency that is called for. In future research, we aim to gather case-studies and local storytelling that might contribute to resolving this tension. However, our discussion has distilled three orientations to practices: *Being with Ourselves*, *Being with Nature*, and *Being with Others*. These present practical and readily accessible approaches to teacher development that will stand to nourish and regenerate education ecologies.

Furthermore, the local perspectives outlined in this paper demonstrate that the notion of regenerative practice is readily assignable to particular cultures and places and hence extends the possibilities for facilitating professional development. The inter-relational thinking that local wisdom and ecological systems awareness requires guides attention to the dynamic play between what has happened in the past, what is happening in the present, and what might be foreseeable in the future. This exercise in itself highlights teacher agency from which ethical discernments, responsibility and determined action has renewed and practical purpose. These are the foundations for regenerative education that can provide renewal to a global sustainability agenda.

References

AITSL. (2013-2020). Australian Professional Standards for Teachers. Australian Institute for Teaching and School Leadership. Melbourne. https://www.aitsl.edu.au/teach/standards

Baltes, P. B., & Staudinger, U. M. (2000). Wisdom: A metaheuristic (pragmatic) to orchestrate mind and virtue toward excellence. *American psychologist, 55*(1), 122. https://doi.org/10.1037/0003-066X.55.1.122

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes*, *50*(2), 248-287.Bandura, A. (2018). Toward a psychology of human agency: Pathways and reflections. *Perspectives on Psychological Science*, *13*(2), 130-136. https://doi.org/10.1016/0749-5978(91)90022-L

Birmingham, C. (2004). Phronesis: A Model for Pedagogical Reflection. *Journal of Teacher Education, 55*(4), 313–324. https://doi.org/10.1177/0022487104266725

Blair, N., & Collins-Gearing, B. (2017). Reflective Practice: Ancient Wisdom and Practice—Australian Indigenous Reflections in Teacher Education Through Shared Storying. In R. Brandenburg, K. Glasswell, M. Jones, & J. Ryan (Eds.), *Reflective Theory and Practice in Teacher Education* (Vol. 17, pp. 63–83). Springer. https://doi.org/10.1007/978-981-10-3431-2_4

Boeren, E. (2019). Understanding Sustainable Development Goal (SDG) 4 on "quality education" from micro, meso and macro perspectives. *International Review of Education, 65*(2), 277–294. https://doi.org/10.1007/s11159-019-09772-7

Bronfenbrenner, U. (1992). *Ecological systems theory*. Jessica Kingsley Publishers.
Clandinin, D. J., & Connelly, F. M. (1996). Teachers' Professional Knowledge
Landscapes: Teacher Stories. Stories of Teachers. School Stories. Stories of
Schools. *Educational Researcher, 25*(3), 24–30 https://doi.org/10.2307/1176665

Dahlberg, K. A. (1979). Hindsight, Insight, and Foresight. In *Beyond the Green Revolution*
(pp. 217-227). Springer, Boston, MA. https://doi.org/10.1007/978-1-4613-2910-7_7

Gay'wu Group of Women. (2019). Song Spirals – Sharing women's wisdom of Country
through songlines. Crows Nest, NSW: Allen & Unwin.

Glasswell, K., & Ryan, J. (2017). Reflective Practice in Teacher Professional Standards:
Reflection as Mandatory Practice. In R. Brandenburg, K. Glasswell, M. Jones, & J.
Ryan (Eds.), *Reflective Theory and Practice in Teacher Education* (pp. 3–26).
Springer. https://doi.org/10.1007/978-981-10-3431-2_1

Hansen Helskog, G. (2019). Philosophising the Dialogos Way towards Wisdom in
Education: Between Critical Thinking and Spiritual Contemplation. Routledge.
https://doi.org/10.4324/9781351033985

Jakubik, M. (2018). Practice ecosystem of knowledge co-creation. *International Journal of
Management, Knowledge and Learning*, (2), 199-216.

Karunamuni, N., & Weerasekera, R. (2019). Theoretical Foundations to Guide Mindfulness
Meditation: A Path to Wisdom. *Current Psychology, 38*(3), 627–646.
https://doi.org/10.1007/s12144-017-9631-7

Kioupi, V., & Voulvoulis, N. (2019). Education for Sustainable Development: A Systemic
Framework for Connecting the SDGs to Educational Outcomes. *Sustainability,
11*(21), 6104. https://doi.org/10.3390/su11216104

Kristjánsson, K. (2020). An introduction to the special issue on wisdom and moral
education. *Journal of Moral Education, 49*(1), 1–8.
https://doi.org/10.1080/03057240.2019.1705041

Kwaymullina, A. (2005). Seeing the light: Aboriginal law, learning and sustainable living
in country. *Indigenous Law Bulletin, 6*(11), 12.

Kwaymullina, A., & Kwaymullina, B. (2010). Learning to read the signs: Law in an
Indigenous reality. *Journal of Australian Studies, 34*(2), 195–208.
https://doi.org/10.1080/14443051003721189

Lunenberg, M., & Korthagen, F. (2009). Experience, theory, and practical wisdom in
teaching and teacher education. Teachers and Teaching, 15(2), 225–240.
https://doi.org/10.1080/13540600902875316

Marshall, A., & Thorburn, M. (2014). Cultivating Practical Wisdom as Education.
Educational Philosophy and Theory, 46(14), 1541–1553.
https://doi.org/10.1080/00131857.2013.856280

Meliono, I. (2011). Understanding the Nusantara thought and local wisdom as an aspect of
the Indonesian education. TAWARIKH, 2(2).

Mungmachon, M. R. (2012). Knowledge and local wisdom: Community treasure.
International Journal of Humanities and Social Science, 2(13), 174-181.

Nicholson, J. (2007). *Songlines and stone axes* (Vol. 1). Allen & Unwin.Perry, L., & Holt,
L. (2018). Searching for the Songlines of Aboriginal education and culture within
Australian higher education. *The Australian Educational Researcher*, *45*(3), 343-
361. https://doi.org/10.1007/s13384-017-0251-x

Pornpimon, C., Wallapha, A., & Prayuth, C. (2014). Strategy challenges the local wisdom
applications sustainability in schools. *Procedia-Social and Behavioral Sciences,
112*, 626-634 https://doi.org/10.1016/j.sbspro.2014.01.1210

Poutiatine, M. I. (2009). What is transformation?: Nine principles toward an understanding of the transformational process for transformational leadership. *Journal of Transformative Education, 7*(3), 189-208. https://doi.org/10.1177/1541344610385249

Rowley, J., & Slack, F. (2009). Conceptions of wisdom. *Journal of Information Science, 35*(1), 110–119. https://doi.org/10.1177/0165551508092269

Raus, R. (2016). Modelling a Learning Journey towards Teacher Ecological Self. *Journal of Teacher Education for Sustainability, 18*(2), 41–52. https://doi.org/10.1515/jtes-2016-0013

Raus, R. (2017). Student Teacher Ecological Self in the Context of Education for Sustainable Development: A Longitudinal Case Study. *Journal of Education for Sustainable Development, 11*(2), 123–140. https://doi.org/10.1177/0973408218779283

Scharmer, O. (2020). A New Superpower in the Making: Awareness-Based Collective Action Field of the Future Blog by the Presencing Institute. https://medium.com/presencing-institute-blog/a-new-superpower-in-the-making-awareness-based-collective-action-83861bcb9859

Scharmer, O. (2019). *Vertical Literacy: Reimagining the 21st-Century University*. Medium. https://medium.com/presencing-institute-blog/vertical-literacy-12-principles-for-reinventing-the-21st-century-university-39c2948192ee

Scharmer, O. (2013). From ego-system to eco-system economies. Transformation. https://www.opendemocracy.net/en/transformation/from-ego-system-to-eco-system-economies/

Scharmer, O. (2009). *Theory U: Leading from the future as it emerges*. San Francisco: Berrett-Koehler.

Scharmer, C. O. (2000). Organizing Around Not-Yet-Embodied Knowledge. In G. von Krogh, I. Nonaka, & T. Nishiguchi (Eds.), *Knowledge Creation* (pp. 36–60). Palgrave Macmillan. https://doi.org/10.1007/978-1-349-62753-0_3

Scharmer, O., & Yukelson, A. (2015). Theory U: From Ego-system to Eco-system Economies. *The Journal of Corporate Citizenship*, *58*, 35–39. JSTOR. https://doi.org/10.9774/GLEAF.4700.2015.ju.00005

Schön, D. A. (1984). The reflective practitioner: How professionals think in action (Vol. 5126). Basic books.

Senge, P. M., Scharmer, O. C., Flowers, B. S., & Joseph Jaworski. (2008). *Presence: Exploring profound change in people, organizations, and society*. Crown Business: Currency Books.

Sterling, S. (2014). Separate Tracks or Real Synergy? Achieving a Closer Relationship between Education and SD, Post-2015. *Journal of Education for Sustainable Development, 8*(2), 89–112. https://doi.org/10.1177/0973408214548360

Teacher Registration Board of the Northern Territory. (n.d.) *Code of Ethics for Northern Territory Teachers.* https://www.trb.nt.gov.au/system/files/uploads/files/2019/CodeOfEthics.pdf

United Nations. (2020). *Quality Education: Why it Matters*. United Nations Publications.

Ungunmerr, M.-R. (2017). To be listened to in her teaching: Dadirri: Inner Deep Listening and Quiet Still Awareness. *EarthSong Journal: Perspectives in Ecology, Spirituality and Education*, *3*(4), 14.

Weaver-Hightower, M. B. (2008). *An Ecology Metaphor for Educational Policy Analysis: A Call to Complexity. Educational Researcher, 37*(3), 153–167. https://doi.org/10.3102/0013189X08318050

Yunkaporta, T. (2009). *Aboriginal Pedagogies at the Cultural Interface* [Doctoral Thesis, James Cook University]. https://researchonline.jcu.edu.au/10974/
Yunkaporta, T. (2019). *Sand Talk: How Indigenous Thinking Can Change the World*. Melbourne, Vic: The Text Publishing Company

Acknowledgements