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The Risky Socioecological Learner

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Abstract Children and young people flourish when opportunities are provided for scaffolded risk-taking in learning settings. However an overly cautious risk-averse attitude to learning has emerged in many

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schools, one that ironically presents a significant risk to the learning process itself. A fundamental misalignment seems to be developing between the risks schools are trying to ameliorate, and other real risks many students encounter in their wider lived reality. In this chapter we explore the idea that current curricular demands can be met in deeper and more powerful ways by engaging with the principles of socioecological learning, including creating a deliberate space for students to practice autonomy and managing their own risk-taking rather than trying to avoid it altogether.

Keywords Risk taking • Socioecological • Learning settings • Common worlds

Overview of the Chapter

> If we take risk out of education, there is a real chance that we take out education altogether (Biesta, 2013, p. 1).

Chapter 1 explored the notion of common worlds being deeply embedded in our relations with others and with nature, with foundations built on inclusion, and on the somewhat confronting idea of 'more than human others' (Common Worlds Research Collective, 2015). As educators our challenge is to find the place where our thinking and practice converge around this conceptual touchstone, and as Taylor and Giugni (2012) expressed it, to seek pedagogical opportunities for practicing a non-human-centric ethic of inclusion in our teaching and learning practices (p. 108).

Consistent with the common worlds touchstone as explored in Chap. 1 (this collection), in this chapter we argue that when the impacts of risk and risk aversion in learning settings is considered, educational systems, and schools in particular, would do well to consider 'nature-culture' relations in a more nuanced way, and move towards an expanded, multifaceted concept of risk, as opposed to the current narrowly defined version. Further, we explore how school curricula might be delivered in deeper and more powerful ways by applying the principles of socioeco-

logical learning to the design of learning settings. Among other things, this would involve creating autonomous spaces for children and young people to practise managing risk-taking by way of experiential learning (Owen, 2009), as opposed to risk-avoidance. Under such circumstances, an increased focus on learning settings would be better placed to encourage and develop resilience and agency, rather than attempting to prevent all conceivable physical and intellectual risks.

Furthermore, it need not necessarily be the case that educators have to make mutually exclusive choices between 'safety', and 'engaged learners'. In order to expand the literature presented in this chapter, we also offer our collective personal stories as educators, in both secondary and higher education learning in the form of vignette.

Introduction

There seems to be a fundamental misalignment emerging between the 'risks' educational institutions are trying to ameliorate (most notably accident prevention), and the other real risks many students will encounter in their wider lived realities. The latter types of risks involve, but are not limited to, physical challenges and risk-taking in life circumstances. These include travel and the play adventures children experience and the wide range of multifaceted social risks as well as other 'intellectual' or attitudinal risks that can also have long-term negative effects, such as disengagement with education.

Notwithstanding the obvious fact that the physical safety of children in schooling should be of paramount concern, education systems can and do at times demonstrate an overly cautious attitude towards the prevention of physical risk in areas where children gather for social play, children's clubs and school excursions. Where such a risk-averse culture develops in schools, it deserves scrutiny, as this stance is in itself presenting a risk to the quality of learning experiences.

In this chapter we seek to explore some of the ways in which education systems, and schools in particular, are currently manifesting a lack of foresight in their approach to 'risk', and how this position may be impeding the development of important life-long skills that help children deal

with new or challenging situations and navigate their present and future worlds. In educational settings, these skills are acquired when students have the freedom to practise being flexible risk takers and experiment with creative thinking processes.

It is not our intention here to construct a straw-person portrayal of the Workplace Health and Safety (WHS) compliant school. We acknowledge that there is considerable groundswell and appetite for reform, but at the moment, institutionalised structures, such as the WHS conception of risk (as distinct from the school itself) are acting as roadblocks to meaningful and timely reform. For example, the concept of providing the space for young children to develop as confident risk takers through play is being constrained by school safety policy designed to avoid injury. This is compounded by preconceived ideas about safety and possible litigation, which can interfere with important life learning experiences for students (Beate Hanson Sandseter, 2011).

Thus, in this chapter we seek to understand the following:

1. What have been some of the social and economic contexts that have contributed to the emergence of an over cautious risk-averse culture in schools?
2. What have been the resulting impacts on learners and learning settings?
3. What attitudinal shifts might be necessary for schools to move beyond being constrained by an overly cautious preoccupation with risk towards an arrangement where students learn to manage risk instead of seeking to avoid it completely?

The Rise of the Risk-Averse Culture

The term 'risk' can be expressed in various ways, depending on societal, cultural, economic and policy contexts. Giddens (1991) asserted that 'risk' is timeless as a driving force for new discoveries, technological and scientific innovation and market opportunities, while Douglas (2003) characterised 'risk' as being culturally determined through patterns of

historical continuity, couched in terms of enterprise through the transmission of ideas, meanings and values that expand and strengthen social and cultural relationships. Beck (1992, 2013) on the other hand defined risk as being 'synonymous with ambivalence', a condition of human existence that is impossible for individuals to avoid.

The idea of 'risk aversion' centres on avoiding exposure to risks and deliberately choosing less risky alternatives, coupled with opportunities to develop strategic goals (Riquelme, 2007). In a business context, the phrase connotes a safe pathway for investors to reduce the possibility of financial loss, but in an educational context, it is used to describe the ways in which schools seek to "shield themselves from legal exposure" and "attempted to eliminate every conceivable risk" (NewTak, 2013, para 3). 'Risk' has also been linked to the ideology of economic rationalism. Stanford (2010, p. 1066) states that "risk has been cast almost exclusively in economic as opposed to social terms and need has been re-moralised as indicative of individual failure".

Beck (1992) argues that over time society in general has become significantly more risk-averse. Nichols (2000, p. 125) explains this movement as a consequence of an ever-increasing awareness of "risks we feel powerless to control". The idea here is that the current 'plugged in' society is incredibly efficient at making humans aware of risks that lie outside their ability to ameliorate. If we as socioecological learners are not able to offset the increased risk-awareness by reducing risks in other areas, our overall emphasis on safety and risk aversion will inevitably increase.

This mechanism has been used to explain the rise in panic about social issues such as food safety, health and crime risks, which cannot be justified statistically. The result is a pervasive "culture of fear [that] can create an environment where anyone who does not 'subscribe to the religion of safety' will be criticized for putting themselves and others at risk" (Nichols, 2000, p. 128). Once such a culture takes hold, the ability to perceive risk as having both positive and negative outcomes is lost, and risk becomes something to be avoided, rather than balanced. Safety has become a core societal value, so that the concept of risk "positions individuals and governments and citizens in relationships dominated by suspicion, and attitudes and moralities of protectionism and responsibilisation" (Stanford, 2010, p. 1066).

This increased collective social awareness of contemporary risks, especially the ones outside of our control, makes a very powerful contribution to the shaping of public policy. The invisible nature of many contemporary risks magnifies the sense of public insecurity, and as a result, the public looks to governments to protect them from these risks through legislative regulation of various areas of societal life. Huang (2012, p. 1183) explains that hidden risks such as unhealthy diets, environmental pollution and financial crises "not only have a direct impact on most people, but have also become the topic of central debate in forming public policies, both nationally and internationally".

Risk Aversion in Education

The structures described above by Stanford (2010) that have driven the rise of risk aversion in wider society, can be experienced especially sharply in the field of education, where the long-standing concept of *in loco parentis* (in place of the parent) has undergone significant changes in response to the increase in risk aversion in society. Originally conceived as a doctrine to justify and defend disciplining students, *in loco parentis* has evolved over a long period of time, until it has also come to include the idea of protecting students from risks to which their parents would not want them exposed (Stuart, 2010, p. 920). The manifestation of contemporary risk aversion in education has been so pervasive that the concept of 'risk' has been used to effectively subjugate other legitimate needs of the learner in an educational experience. The following section briefly identifies some of the main causes of risk aversion in the field of education.

Causes of Risk Aversion in Education

Neoliberal Governance Structures in Education

Nichols (2000) states that the field of education in particular has experienced increased risk aversion as a result of the dominance of neo-liberal governance structures in school management. Such structures are often

seen as the most effective way of reducing the risk and fear of potential litigation from parents and relatives in the event of a student being harmed. The often uncritical adoption of entrepreneurialism in hierarchical educational institutions has witnessed a rapid increase in regulatory activity across the field of education, such that schools must now demonstrate compliance with myriad policies, procedures and processes. Nichols describes the self-legitimising structures that take root once these regulatory bodies are called into being:

> …because they are self-financing, [they] have to generate sufficient work to pay the wages of their staff. Once established on this financial basis they have a vested interest in increasing regulations, monitoring and enforcement. (2000, pp. 128–129)

The increased focus on regulation and compliance in school governance has also 'filtered down' to have a significant effect on educational pedagogy. In such environments, there is an overwhelming emphasis on being 'risk-led' as opposed to 'learning needs-led' in the way learning experiences are designed. In turn, this has led to an ever-increasing emphasis on the use of positivistic, ontologically monovalent forms of empiricism that focus on metrics and "calculative regimes" in an effort to "offer certainty, facticity, predictability and stability" (Webb, 2006, p. 126). These methods of conceptualising and measuring risk also have the additional function of acting as a 'forensic resource' through which blame can be apportioned when things do not work out (Douglas, 2003). Striving to understand how this position has been arrived at in schools, Phippen (2017, para 3) observed that, "rather than exploring the way the curriculum tackles social development, resilience and emotional wellbeing" school systems in the United Kingdom have become diverted by safety inspections and accident policies.

Gill (2007) has referred to concerns raised by the UK Education Select Committee regarding the unnecessarily detailed duplication of risk assessment practice in schools. This has had the effect of an overblown reaction, creating a sector that is heavily burdened by extreme bureaucracy and blame coupled with "a distorted perception of risk that is not supported by the facts" (Gill, 2007, p. 66).

The media is also heavily complicit in the rise of risk aversion in education by reinforcing the adoption of neoliberal governance structures. The backdrop to this circumstance is formed by a common and perhaps understandable overreaction in the past to some schools failing to perceive safety shortfalls (often through intense media coverage) by a number of small incidents.

The predictable result of educational institutions adopting the above array of neoliberal strategies is that the notion of risk in education has come to be "associated entirely with negative consequences rather than also with the potential to achieve something positive" (Nichols, 2000, p. 121).

Teachers as a Risk-Averse Cohort

A related, but lesser-known contributor to the rise of risk aversion in education is that of the 'risk preferences' of teachers themselves. Bowen, Buck, Deck, Mills, and Shuls (2015) compared the risk preferences of new teachers with people entering other professions, and found that "individuals choosing to teach are significantly more risk-averse" (p. 470), suggesting that "risk-averse individuals are sorting into teaching careers" (p. 472).

Drawing upon the work of Dohmen et al. (2011), risk preference is a personal underlying trait, and because teaching jobs are more likely to have tenure or civil service provisions, employment in education is more secure than employment in the private sector. "Public sector careers are likely appeal to individuals with greater propensities for risk aversion given the reduction in uncertainty even if the expected pay is lower" (Bowen, Buck, Deck, Mills, and Shuls, 2015, p. 471). In fact, other research has corroborated this hypothesis (e.g. Bellante & Link, 1981; Hartog, Ferrer-i-Carbonell, & Jonker, 2002; Masclet, Colombier, Denant Boemont, & Lohéac, 2009). Their results showed "that those who opt to pursue teaching careers are more risk-averse than those pursuing careers in business or law and that this finding is not simply attributed to the teaching profession disproportionately attracting female employees" (Bowen et al., 2015, p. 478). The implications of Bowen's research for the pedagogical and learning reform choices teachers make is obvious, despite the fact that there will always be notable excep-

tions to any general characteristic. It is possible to change the context such that individuals can consciously choose to act independently from their underlying personality traits.

Consequences of Risk Aversion in Education

The unnecessarily risk-averse culture in education created by the above factors manifests a range of negative consequences for students, and influences the quality of learning experiences with which they are expected to engage. We feel the main argument that emerges from the above literature is that there is a need to regain some awareness of the other risks children face as a result of an overly cautious approach to physical risk in education. Rather than continuing to reinforce the current dominant narrow focus on physical risk, as teachers we need to be talking about a wide range of other risks, such as a lack of physical exercise; obesity; a lack of spontaneous play opportunities, and more importantly "reduced independent mobility resulting in a lack of a sense of connection to the local environment and community – a lack of a sense of place" (Tranter & Sharpe, 2007, p. 186). In other words, the current dominant concept of risk in education is myopic, and allows other types of risks to students to go unexamined. The next section outlines some of these consequences.

Disembodied Learning

Recent analysis in childhood studies indicates researchers have readily framed childhood as a social or cultural construct devoid of nature (Wattchow et al., 2014). White (2006, p. 295) has observed that the design of many contemporary playgrounds reflects a preoccupation with "surveillance of children, ease of maintenance and to have a break from the children", with the result being barren childcare environments, "where there is neither shade, shelter nor opportunities to interact with[/as] nature". Similarly, McKendrick, Bradford, and Fielder (2000, p. 295) have observed that because of particular attitudes towards risk, many playgrounds "provide primarily for the needs of adults (for themselves

and with respect to how they want their children to play), and, to a lesser extent, for the needs of children".

Calling for a 'sense of perspective' in relation to risk management in wider social settings, Gill (2007, p. 78) cites a 1999 British Mental Health Foundation report, which warned that concerns about children's safety (governments, parents, various pressure groups), have curtailed vital activities such as outside play and travelling alone on public transport, and have generally diminished the abilities of children to develop their own 'coping mechanisms' and 'to do things their own way'. Tranter and Sharpe (2007, p. 186) have observed that well-meaning 'stranger danger' awareness campaigns have ironically had the collective impact of making "every child worse off, both in terms of traffic danger and stranger danger".

The disembodiment of learning from the natural environment is especially concerning, given that the endeavour of education has its very roots in nature, where over 250 years ago Rousseau recognised nature as the child's best teacher (Taylor, 2013). Caught in the current risk-averse milieux, many educational systems have forgotten these roots in the face of increasing litigation, and educational trends that marginalise the connectedness between nature and children [or children as nature]. This situation is common across many countries where schools, local education authorities and government departments have developed policies and procedures for individual protection purposes, rather than working collaboratively with the school community to mitigate risks in a more holistic and effective way (Hryshko, Luengo-Prado, & Sørensen, 2011; Jung, 2015; Owen, 2009).

How can learners develop, innovate and express themselves and their identity in nature-based settings when 'risks' are positioned as obstacles to nature-based learning opportunities? We argue such an approach disembodies the learning experience, by separating the learner from nature-based and design-based learning activities, thus risking the future of environmentalism, sustainable design enterprise and the planetary health of Earth.

It is not possible to separate learning from the contexts in which it takes place (Wattchow & Higgins, 2014, p. 174), and as a fundamental principle of socioecological learning, place-based education is key. Place-based education, where the students' learning through their own learning

experiences and problem solving is activated, also enables teachers to fashion a "place-responsive pedagogy" (Wattchow et al., 2014, p. 215), vital for the development and nurturing of children and young peoples' connections with/as environment, locality and community.

Disempowered Students

Children and young people need exposure to experiences involving scaffolded calculated risk-taking, as these experiences allow them to improve their "decision making and cope with the unexpected" (Department of Education, Employment and Work Relations, 2009). Without the basic skills of judgement, confidence, creativity and the capacity to embrace failure as a learning tool, young adults will "be a liability in any workplace if they do not have those basic skills to exercise judgment and take responsibility for themselves" (Hackitt, 2016, para 5).

Renaud Gaultier, an entrepreneur, artist and a designer, observed that innovation requires a culture of difference and risk taking, yet the one-size-fits-all approach to learning that results from risk-averse educational policy permeates western education systems from kindergarten through to university (Adieda, 2018). Gaultier discusses the 'zero risk' mentality of French educational institutions that has had the effect of penalising failure,

> We're often surprised at the difficulty of generating innovation but we've never done anything to reward being different and risk-taking, which are two fundamental aspects of innovation. In our education system today we find a … culture where people's ambitions are crimped, where we try to cut students down to size and bring them into line with all the others … where everybody has to learn the same things and imbibe the same knowledge and yet at the end of the day find a way to differentiate him/herself (Adieda, 2018, para 1).

Phippen (2017) warns that secondary school culture has morphed into a cocooned world of cotton wool, eliminating failure in the learning process so as to avoid low self-esteem developing in students, rather than using failure as an opportunity to learn and grow. This cushioning effect feeds risk aversion in students, rather than offering learning experiences

that encompass "resilience and grit" (para 1) through real and imagined risk-related activities. Stanford (2010, p. 1068) claims that in many learning settings, fear and the "undermining of trust and the need to control have overtaken and undermined discussions about the creative impetus and courage required to take risks". This fear and lack of trust permeates the design of many learning activities, especially those requiring teachers to take students "outside the gate, outside containers [schools]" (Bone, 2014, p. 132).

The consequences of students feeling disempowered to take the reins of their own learning process are long-term, and wide-ranging. Among the most concerning of these is the outcome described by Nichols (2000, p. 131) as an overall reduction in "the capacity of young people to take responsibility for themselves in situations that involve real risks".

Vignettes: Risk Aversion and Negative Educational Outcomes

Many classroom teachers will have stories to tell of instances where a risk-averse bureaucracy effectively stifled a meaningful learning encounter with/as nature. The vignettes below are offered as practical illustrations of how the mechanisms and structures described above permeate schools, and impact upon student learning.

Vignette 1: Judith

In a situation experienced by the first author of this chapter, what should have been an opportune moment to see and touch some curriculum content in the real world became a bedraggled trudge to look at dirt in the rain:

> *My senior Geography class was learning about soil profiles and at one point during the lesson I had the great idea to have the students to observe a soil profile in a road cutting located 2–3 metres outside the school boundary. The five-minute walk across the school grounds did not require crossing any roads. However, in order to gain permission for the students to undertake the walk, I was required to fill out five different forms, as the walk was technically an 'excursion' outside*

the property of the school. I had to seek school executive approval via Risk Assessment paperwork, secure signed parental permissions and source a first aid kit, sun protection and protective clothing. Not to be deterred, and for the sake of the students I persisted, following all the administrative requirements. Two weeks later, when the necessary paperwork was signed by all parties, the students were eventually permitted to walk down to the soil profile. The problem was that with the inexorable march of the curriculum, the class was now well past thinking about soil profiles, and had moved on to another subject! Given the amount of time and paperwork involved, to cancel would have been a waste of time, so I dutifully marched the class down to the location (now in the rain), where the excitement of seeing the soil profile was almost extinguished by the delay, the administration, and now also the weather. Are we having fun yet?

An institutional response to the above might be that 'proper' lesson planning would have avoided this situation had the teacher thought far enough ahead. However, this way of thinking does not take into account the nature of the teaching enterprise where 'teachable moments' can arise spontaneously and fortuitously, and then disappear just as quickly. Gill (2007, p. 83) asserts that teacher professional judgements should be informed rather than "undermined by draconian safety initiatives", but in most school systems the latter dominates any trust that might be put in teacher judgement.

Vignette 2: Angela

My teaching expertise is in Design and Technologies. Students who study this subject (whether secondary students or pre-service teachers) are required to be technologically literate, and demonstrate self-understanding as human agents on designing and communicating creative and sustainable solutions to identified authentic problems and situations. To do this, I believe certain types of risk taking are vital for sustaining stimulating imagination and intellectual development. By providing the learner with access to the mental tools based on the principles of socio-ecological learning, a space can be opened up where calculated decisions can be informed by ethics, values, justice and democracy (Keirl, 2006). Thus the touchstone of 'common worlds' is mutually inclusive of human agency –

where students think for themselves and in turn shape their own experiential learning through trial and error learning experiences.

This vignette demonstrates a commonly shared teaching preference toward direct instruction by many teachers, rather than encouraging design through experiential learning where knowledge is created through the transformation of experience (Kolb, 1984):

> *Design and Technologies in NSW, Australia is a discipline learning area across Years 7–12. The subject largely draws on the concept of environmental sustainability, which is embedded across all disciplines as a cross-curriculum priority. Ideally, my subject calls for higher order thinking skills, focused on real world problem solving scenarios, coupled with creativity, innovation and calculated risk taking. However, the subject is constrained in the junior years by over-scaffolded teaching approaches that draw on a formulaic, step-by-step approach. Design in the real world of designers is iterative in nature and where 'risk taking' is aligned with, if not necessary for, creative approaches to design. However, the risk is often seen as too high for the school teacher to manage individual and very different design projects, so it is more manageable for the teacher if students all 'make' the same project. The only glimmer of design autonomy many students have is to add their own logo design to, for example, a small wooden box, a fabric pencil case, an apron or a pair of boxer shorts. These are common projects across most NSW secondary schools that aim to ensure students do not 'fail'. However, because most students have not been exposed to an authentic design process, or experienced learning through a trial and error approach, these projects ironically set the students up for failure in the senior years where they are expected to demonstrate individuality, innovation and enterprise in project work (a core syllabus rationale).*

Both of the above scenarios offer an example of the different ways the learner can be 'bound' by conventional understandings of the learning process and classroom management. The first showed how excessive administrative requirements could kill the spontaneity of the 'teachable moment', and the second showed how the reality of actually delivering a curriculum contradicts the discipline rhetoric that appears in the syllabus. Below we examine the shifts in educators' thinking that may be necessary to challenge such conventional understandings of socioecological learning and learners.

Where to from Here with Risk?

We have argued from the perspective of 'risk' and 'risk-aversion' in schools in Western minority nations. What we are proposing in this context is that a shift is necessary from one of individual responsibility to one of communal responsibility, especially in relation to accountability for the learning process. We are aware that the risks children and young people face in majority nations are far more acute, such as "war; poverty; displacement; access to food and water. These things threaten the very lives of millions of children around the world" (Gill, 2007, p. 23). Such a reality notwithstanding, the effects of risk-averse educational systems on students in developed countries still merits thoughtful exploration.

We suggest that the risk-averse position of schools can be dialectically transposed as an unexamined ontological privileging of physical over intellectual risk. It curtails the intellectual development of students on the basis that the physical risk to the student is unacceptable. This assumption needs to be re-examined. There is no such thing as a learning experience that is completely devoid of risk. In fact, some element of risk is a necessary precondition to learning. Educators need to understand that physical risk is not the only sort of risk that exists when considering socioecological learners and learning. Being unaware of the very real risk of not engaging in certain learning experiences, can itself become an unacceptable risk.

Ironically, we are not arguing for risk in education to be ignored or minimised. Instead, we are advocating for an *expanded* definition of risk to be applied to the field of education in order to avoid other significant risks going unexamined. As an antidote to the narrowly-defined economic rationalist definition of risk in education, we echo Nichols' (2000, p. 123) call to consider Priest's definition of risk in education as "the potential to lose something of value" (Priest, 1991, p. 115). The loss may lead to harm that is physical (e.g. broken bones), mental (e.g. psychological fear), social (e.g. peer embarrassment) or financial (e.g. loss of equipment). This more nuanced, multifaceted notion of risk that we are arguing for is a reclamation of the other, less-emphasised facets of risk.

Students flourish when opportunities are provided for scaffolded risk-taking through the provision of safe intellectual and physical spaces (Vyas & Napoli, 2015). Such spaces act as enablers rather than constraints to socioecological learning. This approach supports students' capacity-building associated with emotional and social wellbeing, and the attendant resilience and cognitive growth as well as the motivation that these attributes bring. Learning settings that encourage a measure of mitigated risk provide opportunities for students to "communicate with others, persevere through challenging tasks and take ownership of their learning" (Vyas & Napoli, p. 28). Furthermore, they demonstrate that challenging, yet safe experiences build the learner's cognitive capacity for the bigger challenges to come or that have already arrived; viz. the Anthropocene. Little and Sweller (2015) note that learning experiences in life nurture a student's place in the world, and how to interact with others through our senses. Our interpretations from those experiences determine our values and shape how we think. Kolb (1984) explored the association between feelings and emotion that students bring with them in the learning activity, for example, personal values, free and informed choice and internal commitment. He viewed these attributes as a part of the learning cycle. However, where there are barriers to learning contexts, factors may inhibit learning and a leaner's ability to reflect rationally with the view to learn from the experience (Boud, Cohen, & Walker, 1996).

We also urge teachers to take risks in their teaching practice if their practice is to expand. Such expansion includes recognising individuals as unique and thus pedagogy can expand around this belief (Koh, Yeo, & Hung, 2015). This approach has profound social, economic and personal benefits given there are risks to the social fabric, to social cohesiveness and to economic activity if large numbers of people are, or feel, disconnected and alienated.

Embracing the risky business of teaching and learning means being able to provide and be provided with flexible yet scaffolded boundaries (Pearson Inc., 2011). It means the ability to conceptualise and apply ideas to unfamiliar settings and flatten boundaries through collaborative problem solving. Such desirable skills also include the ability to identify and exploit cross-knowledge or cross-domain patterns, also known as transfer and abstraction skills (Australian Government Department

Education Science Training, 2003; Fee & Seemann, 2002; Kenway, Bullen, Fahey, & Robb, 2006).

As educators, we need to find better ways to encourage children and young people to confidently connect with their communities and environments, to take 'safe risks' through exercising their judgement about a range of matters and situations (Iveson, 2008; Malone, 2007; Morrow, 2001). Moreover, Iveson (2006, p. 107) proposed that a belief system has been constructed around children and young people in terms of their 'protection' and 'preparation', portraying them as "citizens in waiting". Tranter and Sharpe (2007, p. 191) also express concern about this and predict that, "if we continue to see children as consumers and trophies, or as vulnerable and incompetent", then there will continue to be 'negative outcomes' for children. They argue that children should be theorised as, "competent beings and capable social agents", capable of making "creative 'functional' contributions within environments". James, Jenks, and Prout (1998) also argue that the views of children ought to be listened to, insisting that they are capable social actors in their own right.

A concerning and fundamental misalignment is emerging between the 'risks' schools are trying to ameliorate, and the real risks many students encounter in their wider lived reality (Katyal, 2012). As a result, there is a need for educators and parents to push back against the risk-averse forces characterising bureaucratic policies and procedures, and instead embrace more experiential learning experiences across different discipline and real world contexts. The notion of 'experiential learning' as a critical relationship between physical learning experiences and the mind has been well documented (Owen, 2009). It was Dewey (1938) who hypothesised knowledge was not passive, but perceived through interaction and experimentation using the method of science and ethical, reflective thinking. He argued that the organism (human) interacts with the environment (world) through self-guided activity where sensory and motor responses are assimilated. In this way, it is acknowledged that children and young people are indeed part of nature and the world. For educators this may mean that we need to develop an "explicit philosophy, ethos or set of values about the role of risk, (and) experiential learning and autonomy in children's lives" (Gill, 2007, p. 74), and thereby shift the focus from "adults' duty of care to children's agency" (p. 84).

Whatever direction taken, the current reality that many older students are now navigating between two learning worlds ought not be ignored. They create one learning world for themselves through their own lived experiences and go through the motions to comply with institutionalised conceptions of what education should be in the other world, involving school-based accreditation and compliance (Katyal, 2012). The existence of these two contrasting learning worlds indicates there is a significant disconnect between what students are interested in and want to learn about, and what the educational institution thinks they need to know. We suggest responses such as McAuliffe and Winter's "academagogic" approach have potential here, as they seek to ensure students engage in authentic learning by offering "more deliberate and meaningful learning experiences and opportunities, where students can see the connections between new material and their own experiences and real world applications" (McAuliffe & Winter, 2014, p. 165).

It is precisely this powerful connection that mainstream educational systems are neglecting as they try to ameliorate perceived institutional risks. Too often there is a dissonance between what is important for students and conversely what the school requires of them. The potential risks presented to students' learning via the existence of these two disconnected worlds is far greater than many of the risks schools are trying to address with layer after layer of policy and practice based on 'risk assessment'.

What Can Be Gained from an Expanded Concept of Risk in Education?

Beneficial outcomes for learners can be met in powerful and meaningful ways by deliberately building in scaffolded risk-taking in learning settings, but perhaps we need to first ask ourselves how much we trust our students to take safe risks and make good judgements. Indeed, how much power are we willing as educators, to actually share with our students? (Wattchow et al., 2014).

A completely risk-proof curriculum creates unengaged and passive citizens, an outcome that carries with it negative 'welfare' and 'consumption'

connotations. Children and young people need the freedom, confidence and capability to be able to nurture risk taking in learning settings so as to expose them to, and to learn through failure. In this way we can promote the development of resilience and the agency necessary for making good judgements and a purpose around choice making, as Gill (2007) puts it, "resilience means finding ways to function in a world in which bad things happen" (p. 83).

While the current risk preoccupation persists, the risk-averse stance that accompanies learning activities carried out both within and outside school grounds will continue to negatively impact on designing creative and engaged learning outcomes for students. The difference between the dominant approach to risk, and the one we are arguing for, is that one sees risk as a cancer to be cut out and eliminated completely, while the other sees risk as a necessary generative mechanism for meaningful learning, where there are clear and explicit connections made for the learner between their daily lives and aspirations, and the curriculum.

References

Adieda, K. (2018). *Innovation and education: France has built up a culture of risk-aversion*. Retrieved from https://atelier.bnpparibas/en/smart-city/article/innovation-education-france-has-built-culture-risk-aversion

Australian Government Department Education Science Training. (2003). *Australia's teachers Australia's future: Advancing innovation, science, technology and mathematics. Agenda for Action* (7083schip03A). Retrieved from http://research.acer.edu.au/tll_misc/1/

Beate Hanson Sandseter, E. (2011). *Children's risky play in early childhood education and care*. Retrieved from http://earlyyears.sa.edu.auifilesilinksl

Beck, U. (1992). *Risk society: Towards a new modernity*. London: Sage.

Beck, U. (2013). *World at risk*. Polity Press eBook. ProQuest Ebook Central. https://ebookcentral-proquest-com.ezproxy.scu.edu.au/lib/scu/detail.action?docID=1524292

Bellante, D., & Link, A. (1981). Are public sector workers more risk averse than private sector workers? *ILR Review, 34*. https://doi.org/10.2307/2522787

Biesta, G. J. J. (2013). *Beautiful risk of education*. New York: Routledge.

Bone, J. (2014). Through belonging: An early childhood perspective from a New Zealand preschool. In B. Wattchow, J. O'Connor, L. Alfrey, A. Cutter-Mackenzie, & R. Jeanes (Eds.), *The socioecological educator: A 21st century renewal of physical, health, environment and outdoor education* (pp. 125–136). Dordrecht, The Netherlands: Springer.

Boud, D., Cohen, R., & Walker, D. (Eds.). (1996). *Using experience for learning*. Buckingham, UK: Open University Press.

Bowen, D., Buck, S., Deck, C., Mills, J., & Shuls, J. (2015). Risky Business: An analysis of teacher risk preferences. *Education Economics, 23*(4), 470–480. https://doi.org/10.1080/09645292.2014.96606

Common Worlds. (2015). *Common Worlds Research Collective*. Retrieved from http://commonworlds.net/

Department of Education, Employment and Workplace Relations. & Council of Australian Governments. (2009). *Belonging, being & becoming the early years learning framework for Australia.* Canberra, ACT: Department of Education, Employment and Workplace Relations for the Council of Australian Governments. http://nla.gov.au/nla.arc-109966

Dewey, J. (1938). *Experience and education*. New York: Macmillan.

Dohmen, T., Falk, A., Huffman, D., Planck, M., Sunde, U., Schupp, J., et al. (2011). Individual risk attitudes: Measurement, determinants and behavioral consequences. *Journal of the European Economic Association, 9*(3), 522–550. https://doi.org/10.1111/j.1542-4774.2011.01015.x

Douglas, M. (2003). *Risk and blame: Essays in cultural theory*. London: Routledge.

Fee, T., & Seemann, K. (2002). The knowledge economy. *Curriculum Support, 8*(2). New South Wales Department Education and Training, pp. 1–7.

Giddens, A. (1991). *Modernity and self-identity: Self and society in the late Modern Age*. Cambridge, UK: Polity Press.

Gill, T. (2007). *No fear: Growing up in a risk averse society.* London: Calouste Galbenkian Foundation. Retrieved from https://timrgill.files.wordpress.com/2010/10/no-fear-19-12-07.pdf

Hackitt, J. (2016). *Coping with risk and danger should be part of curriculum* – HSE chair. Retrieved from https://www.theguardian.com/society/2016/mar/27/coping-with-risk-and-danger-should-be-part-of-curriculum-hse-chair

Hartog, J., Ferrer-i-Carbonell, A., & Jonker, N. (2002). Linking measured risk aversion to individual characteristics. *Kyklos, 55*(1), 3–26.

Hryshko, D., Luengo-Prado, M. J., & Sørensen, B. E. (2011). Childhood determinants of risk aversion: The long shadow of compulsory education. *Quantitative Economics, 2*, 37–72.

Huang, T. (2012). Toward the NGO-involved schooling: A study on teachers' risk perceptions and teachings. *Journal of Risk Research, 15*(9), 1183–1199. https://doi.org/10.1080/13669877.2012.713384

Iveson, K. (2006). Cities for angry young people? In B. Gleeson & N. Snipe (Eds.), *Creating child friendly cities* (pp. 49–65). London: Routledge.

Iveson, K. (2008). Planning for recognition in practice. In R. Fincher & K. Iveson (Eds.), *Planning and diversity in the city: Redistribution, recognition and encounters* (pp. 106–118). Basingstoke, UK: Palgrave.

James, A., Jenks, C., & Prout, A. (1998). *Theorising childhood*. Cambridge, UK: Polity Press.

Jung, J. (2015). Does education affect risk aversion? Evidence from the British education reform. *Applied Economics, 47*(28), 2924–2938. https://doi.org/10.1080/00036846.2015.1011313

Katyal, K. R. (2012). Teacher leadership and the Internet: Sowing seeds for lifelong learning. *Leading and Managing, 18*(1), 65–77.

Keirl, S. (2006). Ethical technological literacy as democratic curriculum keystone. In J. R. Dakers (Ed.), *Defining technological literacy: Towards an epistemological framework* (pp. 81–102). New York: Palgrave Macmillan.

Kenway, J., Bullen, E., Fahey, J., & Robb, S. (2006). *Haunting the knowledge economy*. Oxon, UK: Routledge.

Koh, E., Yeo, J., & Hung, D. (2015). Pushing boundaries, taking risks. *Learning: Research and Practice, 1*(2), 95–99. https://doi.org/10.1080/23735082.2015.1081318

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

Little, H., & Sweller, N. (2015). Affordances for risk-taking and physical activity in Australian early childhood education settings. *Early Childhood Education Journal, 43*, 337–345. https://doi.org/10.1007/s10643-014-0667-0

Malone, K. (Ed.). (2007). *Child space: An anthropological exploration of young people's use of space*. New Delhi, India: Concept Publishing.

Masclet, S., Colombier, N., Denant Boemont, L., & Lohéac, Y. (2009). *Group and individual risk preferences: A lottery-choice experiment with self employed and salaried workers*. Retrieved from https://perso.univ-rennes1.fr/david.masclet/JEBO.pdf

McAuliffe, M., & Winter, A. (2014). Using academagogy to meet the needs of millennial learners: A comparative case study. *European Scientific Journal*. Special edition*, 1*, 165–174.

McKendrick, J., Bradford, M., & Fielder, A. (2000). Kid customer? Commercialization of playspace and the commodification of childhood. *Childhood, 7*, 295–314.

Morrow, V. (2001). Using qualitative methods to elicit young people's perspectives on their environments: Some ideas for community health initiatives. *Health Education Research, 16*(3), 255–268.

NewTak. (2013). *Risk and legal fear.* Retrieved from http://newtalk.org/2013/06/risk-and-legal-fear-in-schools.php

Nichols, G. (2000). Risk and adventure education. *Journal of Risk Research, 3*(2), 121–134. https://doi.org/10.1080/136698700376635

Owen, N. (2009, January/February). Beyond four walls: Live and learn. *Teacher*, *198*, 14–17. Retrieved from http://search.informit.com.au.ezproxy.scu.edu.au/fullText;dn=173861;res=AEIPT. ISSN: 1449-9274.

Pearson Inc. (2011). *Understanding intellectual risk taking*. Retrieved from http://assets.pearsonschoolapps.com/playbook_assets/Understanding%20Intellectual%20Risk%20Taking.pdf

Phippen, A. (2017). *Amanda Speilman is right: Our schools are too risk averse.* Retrieved from https://schoolsweek.co.uk/amanda-spielman-is-right-our-schools-are-too-risk-averse/

Priest, S. (1991). The adventure experience paradigm. In J. Miles & S. Priest (Eds.), *Adventure education*. State College, PA: Venture Publishing.

Riquelme, S. (2007, December 6–9). *Slogans and common sense enterprise, risk-taking and reception*. Paper presented at the Philosophy of Education Society of Australia, Creativity, Enterprise and Policy – New Directions in Education, Wellington, NZ. Retrieved from https://pesa.org.au/conference/conference-archive/38-conference-2007-wellington-6-9-december-2007

Stanford, S. (2010). Speaking back to fear: Responding to the moral dilemmas of risk in social work practice. *The British Journal of Social Work, 40*(4), 1065–1080. https://doi.org/10.1093/bjsw/bcp156

Stuart, S. (2010). In loco parentis in the public schools: Abused, confused, and in need of change. *University of Cincinnati Law Review, 78*, 969.

Taylor, A. (2013). *Reconfiguring the natures of childhood*. London: Routledge.

Taylor, A., & Giugni, M. (2012). Common worlds: Reconceptualising inclusion in early childhood communities. *Contemporary Issues in Early Childhood, 13*(2), 108–119. https://doi.org/10.2304/ciec.2012.13.2.108

Tranter, P., & Sharpe, S. (2007). Children and peak oil: An opportunity in crisis. *International Journal of Children's Rights, 15*, 181–197.

Vyas, N., & Napoli, E. (2015). Engaging in safe risks: A way to prepare children for bigger challenges. *Every Child, 21*(1), 28–29. Retrieved from http://search.informit.com.au.ezproxy.scu.edu.au/documentSummary

Wattchow, B., Brown, T., Jeanes, R., O'Connor, J., Cutter-Mackenzie, A., & Alfrey, L. (2014). Conclusions and future directions: A Socio-ecological renewal. In B. Wattchow, J. O'Connor, L. Alfrey, A. Cutter-Mackenzie, & R. Jeanes (Eds.), *The socioecological educator: A 21st century renewal of physical, health, environment and outdoor education* (pp. 205–187–226). Dordrecht, The Netherlands: Springer.

Wattchow, B., & Higgins, P. (2014). Through outdoor education: A sense of place on Scotland's River Spey. In B. Wattchow, J. O'Connor, L. Alfrey, A. Cutter-Mackenzie, & R. Jeanes (Eds.), *The socioecological educator: A 21st century renewal of physical, health, environment and outdoor education* (pp. 173–187). Dordrecht, The Netherlands: Springer.

Webb, S. A. (2006). *Social work in a risk society*. Houndsmills, UK: Palgrave Macmillan.

White, R. (2006). *Young children's relationship with nature: Its importance to children's development & the earth's future*. Retrieved from https://www.whitehutchinson.com/children/articles/childrennature.shtml