Goodall, S., Nicoll Antipas, P., Higgins, J., & Cann, R. F. (2022). The buddy bench and beyond: Exploring complexity-informed approaches to wellbeing education. *International Journal of Wellbeing*, *12*(4), 86-101. https://doi.org/10.5502/ijw.v12i4.2133

ARTICLE

The buddy bench and beyond: Exploring complexity-informed approaches to wellbeing education

Suskya Goodall · Philippa Nicoll Antipas · Joanna Higgins · Rachel F. Cann

Abstract: Enhancing wellbeing in educational settings is a challenging endeavour as wellbeing education is inherently complex. This interdisciplinary conceptual paper aims to bridge the gap between psychological interventions and educational contexts by adopting a complexity lens to consider the puzzle of wellbeing in educational settings. We draw on the fields of positive psychology, educational theory, complexity thinking, and indigenous worldviews to conceptualise wellbeing education and illustrate the need to weave approaches together. Embracing a complexity lens, we offer ways of prompting emergent wellbeing change: incorporating diverse perspectives, trialling nudges, and attending to interactions across the system. We argue that complexity-informed approaches to wellbeing education have the potential to create emergent change in and across complex educational systems.

Keywords: wellbeing, education, complexity thinking, systems

1. Introduction

Wellbeing is an increasingly ubiquitous term in both public and political spheres. In 2015, the Organisation for Economic Co-operation and Development (OECD) launched their project *The Future of Education and Skills 2030*. The project maps out global education trajectories that are laden with wellbeing priorities. Physical, mental, social, and emotional elements of wellbeing are anchored in the project's foundations and transformative competencies (OECD, 2018). Further, wellbeing is an implicit or explicit aspect of education systems around the globe. However, this focus on wellbeing is not a new direction in education and, in one form or another, has been espoused by educational scholars for decades (Joseph et al., 2020; Trask-Kerr et al., 2019). Recently, the positive education movement has reinvigorated the interest in foregrounding wellbeing in educational settings (M. E. P. Seligman et al., 2009).

Educational contexts have been influenced by conceptualisations of wellbeing from a range of perspectives including: positive psychology (Seligman & Csikszentmihalyi, 2000); ecological theory (McCallum & Price, 2016; Paterson & Grantham, 2016); and indigenous worldviews (Fleming & Manning, 2019). As the field of positive psychology has matured, conceptualisations of wellbeing have evolved in a series of waves, from a focus on the positive, to nuancing to the negative, and recently to a call to embrace the complexity of wellbeing (Lomas et al., 2020). Digging deeper into the concept of complexity, we distinguish between the use of complexity in everyday parlance, and its conceptualisation in the literature of complexity thinking (Cilliers, 2002). Complexity thinking sees the world as interconnected, dynamic, adaptive, and giving rise to emergent phenomena, and therefore affords nuanced insights into wellbeing in education.

As education researchers, being immersed in a nuanced view of wellbeing has motivated us to explore the complexity of wellbeing across educational settings, with applicability to early

Suskya Goodall
suskya@gmail.com
Victoria University of Wellington

Copyright belongs to the author(s)
www.internationaljournalofwellbeing.org

childhood, primary, secondary, and tertiary contexts. The authors of this paper are strongly influenced by our backgrounds as teachers and leaders in the education sector in the bicultural nation of Aotearoa New Zealand. This bicultural education context is based on Te Tiriti o Waitangi, a treaty signed in 1840 that intended to form a partnership between Māori, the indigenous people of Aotearoa New Zealand, and non-Māori peoples. Our perspectives have been shaped by a holistic view of wellbeing in education that has been reflected in curriculum policy and practice for over 25 years (Ministry of Education, 1996).

In this conceptual paper, we seek to explore the potential for perceiving wellbeing in education from a complexity perspective and stimulate interdisciplinary conversations between educators, positive psychologists, leaders, policy makers, and other interested parties. With a future focus, we argue that complexity-informed approaches to wellbeing education illuminate new perspectives of wellbeing, shine light on pertinent ideas that may have fallen into the shadows, and propose diverse pathways forward.

2. Exploring wellbeing

What is the good life? What does wellbeing mean? For centuries, humanity has grappled with these questions. Rather than wellbeing definitions converging, the conceptual waters remain murky. A ubiquitous yet complex term, wellbeing or well-being boasts a myriad of specific definitions rather than interdisciplinary acknowledgement and convergence (Paterson & Grantham, 2016). The following section illustrates key perspectives and constructs of wellbeing, before turning to an exploration of wellbeing in educational contexts.

Psychological research into wellbeing has been largely influenced by two perspectives on the good life: the hedonic view and the eudaimonic view (Oishi & Westgate, 2021). The hedonic view that the goal of life is to maximise experiences of pleasure, is often associated with the concept of subjective wellbeing. Measures of subjective wellbeing often capture three aspects of an individual's feelings: life satisfaction, high levels of positive emotions, and low levels of negative emotions (Hefferon & Boniwell, 2011; Ryan & Deci, 2001). In contrast, the eudaimonic view of life that true happiness is achieved through living a virtuous life, informs the concept of psychological wellbeing, often perceived as an individual's appraisal of how well they are functioning in life (Ryff & Singer, 2008). These two views of wellbeing combine into a broad definition of wellbeing as "feeling good and functioning well" (Keyes & Annas, 2009, p. 197). Goodman et al. (2020) explicitly link different perspectives of wellbeing, suggesting they fall under an umbrella of "general wellbeing defined as *perceived enjoyment and fulfillment with one's life as a whole*" (p. 3, emphasis in original). Such a diverse range of perspectives on wellbeing has led to researchers publishing in excess of 100 self-report wellbeing measures (Goodman et al., 2020). However, in order to understand how individuals can enhance their wellbeing, an exploration of the elements that constitute wellbeing is needed.

Seeking to conceptualise and enhance wellbeing, researchers have created numerous wellbeing models, each comprising a variety of elements or dimensions. The Five Ways to Wellbeing model was developed based on evidence of actions that increase wellbeing (Aked et al., 2008). The PERMA model, developed by Seligman (2011) using concepts from the field of positive psychology, outlines five elements of wellbeing: positive emotion, engagement, relationships, meaning and purpose, and accomplishment. The PERMA elements are not seen as an exhaustive list, for example health, vitality, and responsibility are possible additional elements (Seligman, 2018). Gallup has also developed a model of wellbeing with five elements: career, social, financial, physical, and community, which it uses as a basis for regular analysis of

wellbeing in the United States (Rath & Harter, 2010). These models focus on highly specific elements or dimensions, rather than taking a holistic view of wellbeing.

Various theorists foreground the ecological or holistic nature of wellbeing. Moving beyond the individual, the wellbeing of one's family, community and even society, can influence one's wellbeing (La Placa et al., 2013). In addition, Paterson & Grantham (2016) discuss the idea that "wellbeing seeks to connect mind, body and spirit – thus rejecting the compartmentalisation of people's lives" (pp. 90-91). This holistic and interconnected view of wellbeing is evident in the Māori worldview of wellbeing (Durie, 1985). From a Māori worldview, wellbeing is intricately connected to the notion of wairua, which can be translated as a spirituality that permeates all existence (Valentine, 2009). As Valentine and colleagues (2017) explain, "without wairua, there is no well-being" (p. 70).

Furthermore, in the bicultural context of Aotearoa New Zealand, collective wellbeing has been characterised through a variety of holistic models (Authors, in press). An indigenous Māori model of holistic wellbeing, Te Whare Tapa Whā, (Durie, 1985) has been adopted within New Zealand health and education contexts. The model is visualised as a house with four walls, each representing a dimension of wellbeing: taha tinana (physical wellbeing), taha hinengaro (mental and emotional wellbeing), taha whānau (social wellbeing), and taha wairua (spiritual wellbeing). Resting on the foundation of the land, each interdependent dimension requires balanced development to metaphorically hold up the roof. This model contributes to the burgeoning myriad definitions, descriptions, characterisations, and explorations of wellbeing, weaving a complex web of intricacy around the construct.

3. Introducing complexity thinking

Complexity thinking offers a way to describe the nature of complex systems, and thus to consider the inherent complexity of wellbeing in education. Complexity is used across multiple fields in a multitude of ways, from the mathematical to the metaphorical. We intentionally use the terms 'complexity' or 'complexity thinking', rather than 'complexity theory' to reflect that there are currently two main views of complexity. One takes a mathematical, scientific or computational view and often seeks to create non-linear models of complex systems in order to understand them (Alhadeff-Jones, 2008; Cilliers, 2002). The second view, which has influenced my approach, is grounded in the social sciences (Hetherington, 2013). This view "argues that complexity theory does not provide us with exact tools to solve our complex problems, but shows us (in a rigorous way) exactly why these problems are so difficult" (Cilliers, 2002, p. 257). Because of these two views, some writers argue that the ideas around complexity have yet to be sufficiently described to constitute a fully-fledged theory (Alhadeff-Jones, 2008; Gilbert, 2019; Kuhn, 2008). One way complexity thinking has been used is to explore simple, complicated or complex situations. Table 1 (below) explores the nature of these simple, complicated and complex situations.

Table 1 suggests that simple situations are essentially straightforward and that finding a solution to them is a matter of drawing a linear connection between cause and effect. Baking is one such example: provided the recipe is followed accurately, a decent, standardised product can be expected every time. A complicated situation is more challenging and requires thorough analysis. There may be several moving parts, each of which may need consideration. Sending a rocket to the moon, for example, is an exercise in this analytical approach. There are multiple factors that need to be minutely aligned in order to safely launch a rocket, however with the appropriate expertise, it is highly likely that the feat can be accomplished.

Table 1. Simple, complicated and complex situations.
Influenced by Garvey Berger & Johnston (2015), Snowden & Boone (2007), and Snyder (2013)

	Simple	Complicated	Complex
Definition	A routine situation with a straightforward, discernible answer.	A difficult situation which requires in-depth analysis and/or expert help. A 'tried and true' formula is likely to be ineffective.	An interconnected, interdependent, and knotty situation which is in a constant and unpredictable state of flux. Small changes may have disproportionately large effects.
Exemplar scenario	Following a recipe.	Sending a rocket to the moon.	Raising a child.
Relationship to cause and effect	There is a direct relationship between cause and effect (linear).	Cause and effect are not immediately apparent, but may be gleaned through analysis.	Cause and effect are unrelated, and may only be discerned in retrospect (non-linear).
Response	Following a formula is expected to lead to generally standard and predictable outcomes. Response is framed as best practice.	Through analysis and careful thinking, approaches can be identified, and this is generally able to be replicated. Response is framed as good practice.	Seek to see the system by hearing from multiple diverse voices to inform a series of small nudges which increase interactions. Notice, learn from, and respond to the emerging patterns. Response is framed as emerging practice.

A complex situation comprises multiple, interconnected fishing lines each tangled with itself as well as being tangled together. Untying one knot may result in one section of the line being untangled but may tangle another line up further. Hence there is a non-linear relationship between cause and effect, which may mean that small adjustments can have disproportionate consequences. The joy and frustration of raising a child is used as a metaphor for a complex situation. Children do not come with instruction manuals. The shelves and shelves of parenting advice books offer the illusion of 'best practice'. Therefore, raising a child is an exercise in adopting holistic, learning-focused approaches which accept the given context and adapt in response: "Complexity diverts emphasis away from ... 'solutions' and 'evidence-based practice', to accepting the radical contingency of practice itself" (Fenwick, 2012, p. 157). Expanding beyond Snowden and Boone's (2007) framing of simple, complicated and complex problems, emerging practice for wellbeing in education suggests seeking to understand a situation deeply before considering possible approaches to nudging a complex system in a desired direction. However, success is far from guaranteed.

Zooming out to consider complex systems holistically, as befitting wellbeing in education, a complex system comprises agents which are connected and interact in a non-linear fashion. Agents are influenced by feedback, which includes previous experiences as well as current circumstances, which inform their decisions and actions (Holland, 2014). Open to influence from external factors (Gilbert, 2019; Heylighen et al., 2006), complex systems are adaptive, dynamic (Holland, 2014), and self-organising (Capra, 2015). Complex systems exhibit emergence (Mason, 2008) which is to say that they are more than the sum of its parts (Snowden & Boone, 2007). For instance, each individual person is their own complex system: their physical bodies; their culture; their experiences; their families and friends. Secondly, the classroom is situated within a specific school environment, and within an education system. Finally, a complex system is interconnected with, and nested within, other complex systems (Davis & Sumara, 2006). It is indeed possible to see why Richardson et al. (2001) can argue that perhaps "there is only one complex system" (p. 9). To further consider the perspective complexity thinking might afford wellbeing education, we explore pertinent characteristics of complex systems, including diversity, non-linearity, and emergence.

Diversity within a complex system allows it to be resilient and adaptive. In a human social system this means attending to multiple voices (Cilliers, 2002; Garvey Berger & Johnston, 2015). The goal of diversity is not to reach a consensus, but to strengthen a complex system's ability to respond and adapt to change (Capra, 1997; Cilliers, 2002). In fact, Capra argues that "contradictions within a community are signs of its diversity and vitality, and thus contribute to the system's viability" (1997, p. 295). In essence, a robust complex system is a diverse system.

Complex systems are non-linear (Gilbert, 2019). A complex system is not a machine: it cannot be broken down into its constituent parts to be analysed and understood (Byrne, 1998). Because the diverse agents within a complex system are interconnected and autonomous, small changes may produce disproportionately large effects, and vice versa (Holland, 2014).

The concept of emergence is pivotal to an understanding of complexity thinking (Ell et al., 2019; Hetherington, 2013). Broadly speaking, when complexity literature speaks of 'the whole being more than the sum of its parts', it is referring to emergence. What is meant by this is that what organically arises, or emerges, from the non-linear interactions within a complex system cannot be predicted from an understanding of the system's constituent elements (Jacobson, 2020; Mason, 2008). A prototypical example of emergence is water (Holland, 2014). Water consists of two parts hydrogen to one part oxygen: H_20. However, knowing what comprises a water molecule does not lead to an understanding that water is wet. This 'wetness' of water is an emergent phenomenon. Considering the differences between simple, complicated and complex situations is a useful starting point to grapple with the complexity of complexity thinking, however understanding the holistic, dynamic and emergent nature of complex systems brings fruitful perspective to wellbeing in education.

4. The complexity of wellbeing in educational settings

Reinvigorating the interest in the relationship between wellbeing and education, positive psychologists proposed the concept of positive education, championing the teaching of wellbeing and achievement (Seligman et al., 2009). As a movement, positive education has been the subject of academic discourse ranging from complimentary to critical, regarding both positive education and the implementation thereof (Ciarrochi et al., 2016; Halliday et al., 2019). Common critiques of positive psychology include: content over context (Ciarrochi et al., 2016; Halliday et al., 2019); individual over collective (Kern et al., 2020; Lomas et al., 2020); positive

psychology over educational theory (White, 2021). These critiques often frame constructs in binary opposition.

To disrupt notions of binary relationships, complexity thinking offers a fruitful perspective beyond these reductionist framings with the potential to bridge the gap between psychological and educational spheres. With a heritage in the social sciences that links to philosophies such as postmodernism and poststructuralism (Cilliers, 2002), complexity thinking tends to reject binary oppositions (MacLure, 2010) as reductionistic (Capra, 1997; Heylighen et al., 2006). Instead, relationships between constructs are considered to be interwoven and dynamic. This nuanced view suggests a dialectical relationship.

In order to illuminate dynamics between constructs, we now explore the critiques of content over context, individual over collective, and positive psychology over educational theory as dialectic relationships. Tobin (2018) explains that "the dialectic relationship cautions that constructs considered in this way are inseparable constituents of the whole in which all postulated components presuppose the existence of one another" (p. 33). The sheffer stroke (|) indicates a both/and relationship rather than an either/or. The one mutually reinforces the other in an irreducible way. Framing constructs as dialectical affords opportunities to acknowledge, respect and value global indigenous worldviews.

4.1 Content | Context

The dialectic of content | context signals the importance of existing research alongside contextual conditions to promote wellbeing in educational settings. Positive education programmes have been critiqued for a reliance on content over context (Ciarrochi et al., 2016; Halliday et al., 2019), leading to a gap between research findings and successful implementation in schools (Conoley et al., 2014). To address this limitation, there is a move within positive education to recognise the importance of context, acknowledging that a range of external factors influence student wellbeing (Allison et al., 2020).

Drawing on implementation science, Halliday and colleagues (2019) highlight a number of factors to consider when implementing positive education programmes including: recipient, provider, organization, intervention, and socio-cultural and political contexts. Recently positive psychology literature has outlined the need to consider context and systems (Lomas et al., 2020; Kern et al., 2020). Positive psychologists nod to the complexity of wellbeing, yet this commentary seeks to interrogate concepts such as emergence and holism from a complexity thinking perspective.

Commentators often espouse 'universal claims' around successful positive education programmes based on Western assumptions, values, and contexts (Kern et al., 2020). The historical one-way flow of Western 'expertise' needs to shift to an environment that respects and values indigenous knowledge (Maree Kopua et al., 2020). In Aotearoa New Zealand, education policy and practice seeks to embrace indigenous perspectives on holistic wellbeing promotion: "Students' wellbeing is strongly influenced by ... where they come from, what they value and what they already know" (Ministry of Education, 2013, p. 17). Contextually-responsive and complexity-informed approaches to wellbeing in education settings are strengthened by valuing indigenous and local perspectives, knowledge and practices.

4.2 Individual | Collective

Individual and collective approaches to wellbeing are intricately intertwined, each of value, and informing one another as a whole. The field of positive psychology has advocated for a move beyond the current focus on individuals to consider social contexts and wider systems (Kern et

al., 2020; Lomas et al., 2020). Whole-school wellbeing approaches call for the consideration of students, staff, parents, and the wider community as nested systems (Davis & Sumara, 2006; Hoare et al., 2017; White & Murray, 2015). Collective wellbeing can be viewed as broader than whole-school approaches, to embrace ecological and complexity perspectives including wider educational systems (Authors, 2021) and beyond to humanity and the planet (Buchanan & Greig, 2021).

In contrast to the individual focus that dominates positive psychology, collective wellbeing is a foundation of many indigenous worldviews, stemming from relational and collectivist perspectives (McCubbin et al., 2013). Indigenous community wellbeing is seen as a web of interdependent, interconnected and balanced interactions, relationships, and obligations (Pitama et al., 2002; Royal, 2005). From an indigenous New Zealand perspective, "the Māori approach to life is holistic" (Royal, 2003, p. 33). A Māori worldview is reflected through the inclusion of Te Whare Tapa Whā (Durie, 1985) in education policy (Ministry of Education, 1996). An individual | collective approach to wellbeing acknowledges and embraces a range of indigenous and western perspectives.

4.3 Positive psychology | Educational theory

A power imbalance is central to understanding the dialectic of positive psychology | educational theory. Traditionally, experts or leaders of positive education programmes held positions of power (Buchanan & Greig, 2021); strategies to lessen resistance to change were provided (Hoare et al., 2017); and educational theories were largely overlooked (White, 2021). Understandably, this situation could be interpreted by educators as a disregard for their expertise. Alternatively in some educational settings, inclusive wellbeing approaches explore power-sharing, communities of practice (Buchanan & Greig, 2021), appreciative inquiry (Waters et al., 2021), and systems-informed practices (Kern et al., 2020).

The limited integration of positive psychology with educational theory and practice creates situations where wellbeing interventions, at times, create tensions with the given educational contexts. For instance, fidelity in implementing programme content may overlook the nuances of specific educational contexts. As Halliday and colleagues (2019) observe, "even as fidelity matters, there is always some degree of adaptation needed" (p. 3). In contrast, emerging educational practice urges a response to student needs, highlighting the importance of adaptive expertise (Le Fevre et al., 2016). Educational research shows that teaching strategies effective in one context are not necessarily effective in other contexts (Sinnema & Aitken, 2014). Therefore, teachers practise adaptive expertise by consulting research; evaluating its applicability to their context; combining it with evidence from their own contexts; and drawing from their professional expertise to inform their practice (Le Fevre et al., 2016).

A multitude of factors influence the effectiveness of wellbeing initiatives, some of which could be optimised through drawing on existing effective practices within education that incorporate complexity thinking. When the dialectical relationships of content | context, individual | collective, and positive psychology | educational theory are viewed as complex, interwoven and interdependent, potential abounds for camaraderie, collaboration and co-evolution.

4.4 Wellbeing education

Drawing on the authors' experiences as educators and academics, we adopt the emerging term 'wellbeing education' (Buchanan & Greig, 2021; White, 2021), to call for a collaborative coalition between positive psychology, educational theory, and wellbeing theory. Springboarding from

Konu and Rimpleä (2002) notion of 'well-being in schools', wellbeing education is an inclusive term that builds on positive education while highlighting the association between positive psychology and education-specific underpinnings (White, 2021). Arising from academic research, practitioner commentary, and indigenous constructs, wellbeing education is challenging to formally define. Inspired by various ideas from the fields of complexity, psychology, and education (see: Buchanan & Greig 2021; Capra, 1997; Gilbert, 2019; Kern et al., 2020; McCallum & Price, 2016; White, 2021), our emerging conceptualisation of wellbeing education is as follows:

> Wellbeing education is a diverse and evolving notion. We perceive wellbeing education as situated in complex informal and formal learning contexts for individual and collective growth. Wellbeing education acknowledges and values whole people: our physical, emotional, mental, social, cultural, and spiritual wellbeing, including our thoughts, feelings, hopes, values, strengths, shadows, and their interconnectedness with the community of life. The interconnected community of life includes the wellbeing of families, schools, communities, organisations, cultures, humanity, and the planet as an undivided whole. Furthermore, the interconnectedness moves beyond a fixed point of time towards honouring the gifts of previous generations as well as championing the wellbeing of those yet to come.

Our conceptualisation is intentionally broad, complex, and holistic, providing opportunities for interpretation and contextualisation across a variety of learning environments. Although wellbeing has been a feature of educational landscapes for some time, complexity thinking affords us the opportunity to appreciate wellbeing education as being as complex and intricate as raising a child.

5. Beyond the buddy bench

To adopt complexity-informed approaches to wellbeing education is to relinquish the linear framing of cause and effect, problem and solution, and binary thinking. Rather, it is to call for holism: attempting to seek the system to the greatest extent possible; acknowledging the diversity of agents and the multiple ways they can interact; understanding that the whole is greater than the sum of its parts; and appreciating the myriad contexts that influence the system both internally and externally. A complexity-informed approach to wellbeing education offers a wider view. There is an appreciation of how systems are interconnected and nested; of how internal and external influences shape and morph a complex system; and that nonlinearity can account for unintended or unforeseen consequences.

In the spirit of George Box, who claimed that "all models are wrong but some are useful" (1979, p. 202), in this section we draw on our collective experience as educators to create a scenario whereby Maia, a principal of an Aotearoa New Zealand primary school, is grappling with a wellbeing-related situation. This scenario is then unpacked to explore what one possible complexity-informed approach to wellbeing education might be. We acknowledge that, as appropriate from a complexity thinking perspective, that there are myriad approaches. In fact, further than this, we reject the notion that there can be 'one way' as the very nature of complex systems is that they are nested, contextual and dynamic. This one complexity-informed approach

is chosen to support further discussion and practical implications, as well as to explore possible dimensions and characteristics of such an approach.

Buddy bench scenario

Maia sighed and put the telephone down. Ms Whittaker again. That was easily the third time this term. Maia knew Ms Whittaker's child well. He was a quirky and sensitive wee soul. Maia was worried: Ms Whittaker was right, Sam was vulnerable and didn't seem to have many friends, but she could hardly force kids into a friendship, could she?

Suddenly Maia remembered something she'd seen ages ago, back when she was a new teacher: a buddy bench! A colourful bench in the playground where anyone who needed someone to play with during a break could go and sit, and then someone else would see them on the bench, and invite them to join in their game. Brilliant!

Maia's mind started racing with the possibilities. There was that old bench in the storeroom that could be repurposed. The caretaker could work with a group of kids to prep and paint the bench. She could call it an 'extension group'. The Parent-Teacher Association group would lap that up and might even give some money for the project…

Maia paused for a moment. She was getting carried away here. What else might she need to consider, she wondered. Sure, Sam didn't have that many friends, but maybe he's fine with that. Perfectly happy in his own little world. Perhaps the school should check to see if the kids would even want a buddy bench. No point going to all that effort if it's just going to sit there and collect cobwebs. And perhaps, if the kids did want a buddy bench, the school should talk about what it is and how to use it. Maia thought she could ask Mr Maniapoto if his class would perform a little role play in a school assembly...

Actually, thought Maia, maybe there's even more here to think about. We should check in with the kids, but also the teachers. And the non-teaching staff - they notice what's going on for kids too. A whole-school survey might be the ticket. And maybe a buddy bench isn't the right solution. She'd just leapt onto that as the first thing that had occurred to her. What if we asked the kids to form a group to brainstorm ideas with a couple of teachers once the survey results were in, pondered Maia. If it is a buddy bench, all well and good. They could trial the buddy bench for six weeks, and ask kids and teachers to notice what happens with it over this time.

School culture, nodded Maia to herself, that's partly what this is about. We need to make it safe for kids to say they're lonely, and to be brave and sit on a buddy bench, if that's what we collectively decide to do. We also need to make it safe and brave for a person to collect a new friend from the buddy bench. There was a wry smile on Maia's face. These things are always more involved than you think. She reminded herself to slow down to hurry up.

This scenario illustrates what one complexity-informed approach to a wellbeing-related situation might offer. Maia's mind runs through the gamut of possibilities to the concern presented to her by Ms Whittaker. She realises that when she pounces straight onto a potential solution, that of the buddy bench, she is adopting a binary approach. Maia comes to understand that while the issue is about Sam's relationships, as a crucial lived experience for him, it is also one of exploring and understanding the culture and practices of the school. This is far more complex, in-depth and wide-ranging than initially thought.

The approach Maia moves towards in the scenario is then one of exploration, curiosity, and holism. A complex system is a learning entity (Ell et al., 2019). This means understanding that the situation is not just about one child, but also the nested complex systems of his peers, the staff, the school's values and structures, the community, and so on, that swirl around him.

Appreciating that these nested systems are interconnected and intricately interwoven affords Maia the opportunity to be curious and open to the possibilities of learning for her, and for others.

To step into this space of learning possibilities, Maia plans to attend to multiple and diverse voices. She contemplates what might need to happen around a possible plan in order to bring it to fruition. Thus Maia takes a holistic view whereby the potential buddy bench solution becomes positioned as a nudge in order that she and others can notice what emerges and how the system responds. Through this particular complexity-informed approach, Maia understands that there can be unintended consequences because of the non-linear ways in which individuals and systems interact. The buddy bench could be a roaring success. It could be an abject disaster. It may be useful for some. There is no way to predict. One can only nudge, watch, and learn.

6. Adopting a complexity-informed approach

Telescoping out from this scenario, we appreciate that wellbeing education is inherently complex and that supporting desired change to emerge from across a complex system is challenging. In acknowledging that this may appear as a truism, we now integrate theory and practice further by offering practical suggestions for educators, psychologists, leaders, and practitioners. A complexity-informed approach to creating desired wellbeing emergence comprises dimensions, characteristics and prompts. When seeking to create system-wide change a complexity-informed approach to wellbeing education suggests two interwoven dimensions. One is to seek to nudge the system in a desired direction (Garvey Berger & Johnston, 2015; Gilbert, 2019). The other, enfolded, dimension is to increase interactions across the system in order to stimulate emergence (Gilbert, 2019; Snyder, 2013). In these complementary dimensions, the focus is on the system as a whole, rather than on individual elements (Gilbert, 2019). Further, we provide characteristics of a complexity-informed approach with prompts for reflecting deeply on these dimensions.

6.1 Dimensions of a complexity-informed approach

Nudges are safe-to-fail probes with the purpose of learning about the dynamics of a complex system. If a nudge is not having a desired effect, it can be stopped without causing harm. On the other hand, if a nudge is having a desired effect, it can be scaled up into a wider project. This is the 'safe-to-fail' nature of the nudges (Snowden & Boone, 2007). We offer the following thoughts as suggestions for practical application. To create possible wellbeing education nudges, we might seek to see the system in its complexity: its interconnected, relational and diverse agents, including people, context, environment, policy. With an open and curious mind, we might ask questions of multiple voices, attending thoughtfully to what people say. For instance, exploring what wellbeing means to various members of the educational community. We might invite a diverse group to co-design multiple streams of possible nudges, including considering what already works in the organisation that could be amplified. With nudges in play, the focus then moves to noticing how the system responds. For example, we might observe how information flows through the system and see what emerges. Alongside this, we might consider what constitutes a 'desired effect' and how this may make itself known or seen. Complexity-informed approaches continually notice and adapt to how a system responds to nudges: amplifying or dampening them down accordingly.

The second dimension of increasing the interactions within and across a complex system is enfolded within the dimension of the nudge. Interactions between agents keep energy, information and emotion flowing and evolving within and across a system. They are the lifeblood of a complex system. Whilst the understanding that relationships between people is

fundamental for wellbeing in both educational and psychological research, complexity-informed approaches go beyond this. The importance of relationships is embraced, but goes further to include interactions between various agents, which may be people, but also the physical environment, objects, and wider context in a radically holistic fashion (Fenwick, 2012). Moreover, by stimulating these dynamic and non-linear interactions between agents, the conditions for emergence are created, which enables change in complex systems. For example, we may see the buddy bench itself as an agent - thus to sit on it is to interact with it. The act of sitting on the bench may create meaning for the person sitting and for those who notice the person sitting; and resonates with and from the relationships and culture of the system. This web of interactions gives rise to emergent phenomena, such as a culture of wellbeing.

6.2 Characteristics of a complexity-informed approach

In addition to the dimensions of a complexity-informed approach, we offer the following characteristics. These characteristics are intended as suggestions for actions that might be taken in order to create the conditions for emergent wellbeing change. Further, Garvey Berger & Johnson (2015) call on us to ask different questions and to hear from different voices in order to better grasp a sense of a complex system. With this in mind, we offer questions asked from a perspective of "empathetic wonder" (Kern et al., 2020, p. 712), as prompts for reflection and action when considering a complexity-informed approach to wellbeing education.

Table 2. Characteristics of a complexity-informed approach.

Characteristics of a complexity-informed approach	**Prompts for reflection and action:**
Understanding the nature of complex systems: that they are dynamic, adaptive, interconnected, relational, and nested.	In what ways is your educational setting complex? • Who are the people involved? • What influences your day-to-day reality? (e.g. policy, community dynamics, curriculum, physical environment, etc.?) If you were to imagine your education setting as a series of concentric circles, what might this look like?
Appreciating that expectations of direct cause and effect are problematic. Rather, the whole is more than the sum of its parts, and the system gives rise to unpredictable emergent phenomena.	Bringing to mind a time where there was a much bigger (or smaller) reaction to a change in your educational setting than was anticipated, • What was this reaction attributed to at the time? • Adopting a complexity-informed perspective, what other factors might you now identify as being in play? • In hindsight, what have you and others learnt from this experience?
Seeking to understand a situation deeply before considering possible nudges.	Thinking about the situation at hand: • What are people saying? • What do you think? • Who else might have thoughts on the matter? • How might you learn more?

Characteristics of a complexity-informed approach	**Prompts for reflection and action:**
Attempting to 'see' the complex system to the greatest extent possible by seeking multiple perspectives from the diversity of agents within and without the system.	Consider a time when members of an educational setting have wrestled with a complex situation: • Who might you usually ask? • Who else might you ask? • Who might be surprised to be asked? • Are there external experts who might provide insight?
Co-designing small nudges that can be amplified or abandoned as required.	How might you gather a small but diverse group of individuals from across your educational setting and wider community to discuss approaches to the situation? • What has worked well previously? • What is feasible? • What might make enough of a difference? • What might a novel approach look like?

Adopting a learning perspective: be curious to notice how the system responds to small nudges.	With a nudge in play, what do you notice and therefore do in response?
	• How might I embrace curiosity to approach the nudge itself and people's response?
	• How do different people respond to the nudge?
	  ○ Who is pleased?
	  ○ Who complains?
	  ○ Who does not notice?
	• How will you gather feedback and monitor changes?
	• What questions are worth asking, and to whom?

7. Concluding thoughts

Complexity-informed approaches to wellbeing education have the potential to create emergent wellbeing change in and across complex educational systems. Bridging the gap between psychological interventions and educational contexts, a complexity lens supported reconsideration of previous sites of contention as nuanced dialectical relationships. The notion of emergence provides a new way to conceptualise wellbeing education. Appreciating that the whole is greater than the sum of its parts, our conceptualisation strives for the inclusion of diverse perspectives, indigenous peoples, marginalised groups, and western perspectives, while providing opportunities for global insights. Reframing the discourse around wellbeing education, a complexity-informed approach illuminates the importance of nudges and interactions to support desired change across a complex system. Additionally, the characteristics of a complexity-informed approach with prompts for reflection are intentionally broad in the hope it may hold relevance across educational, psychological and organisational fields. Overall, we contribute this conceptual paper as a nudge, inviting a conversation about the opportunities complexity thinking affords in the wellbeing education space. We call for an interdisciplinary coalition that strives for camaraderie, collaboration and co-evolution. See you on the buddy bench.

Conflict of interest statement

The authors report no conflicts of interest.

Publishing Timeline

Received 10 December 2021
Revised version received 20 January 2022
Accepted 17 March 2022
Published 1 November 2022

References

Aked, J., Marks, N., Cordon, C., & Thompson, S. (2008). *Five ways to well-being: The evidence*. New Economics Foundation.

Alhadeff-Jones, M. (2008). Three generations of complexity theories: Nuances and ambiguities. In M. Mason (Ed.), *Complexity Theory and the Philosophy of Education* (pp. 62-78). Wiley-Blackwell.

Allison, L., Waters, L., & Kern, M. L. (2020). Flourishing classrooms: Applying a systems-informed approach to positive education. *Contemporary School Psychology*, 1–11. https://doi.org/10.1007/s40688-019-00267-8

Box, G. E. P. (1979). Robustness in the strategy of scientific model building. In R. L. Launer & G. N. Wilkinson (Eds.), *Robustness in Statistics* (pp. 201–236). Academic Press. https://doi.org/10.1016/B978-0-12-438150-6.50018-2

Buchanan, A., & Greig, J. (2021). Shifting mindsets: Transforming self, school, and society. In M. L. Kern & M. L. Wehmeyer (Eds.), *The Palgrave handbook of positive education* (pp. 493–524). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-64537-3_20

Byrne, D. (1998). *Complexity theory and the social sciences: An introduction*. Routledge.

Capra, F. (1997). *The web of life: A new synthesis of mind and matter*. Flamingo.

Capra, F. (2015). The systems view of life: A unifying conception of mind, matter, and life. *Cosmos and History: The Journal of Natural and Social Philosophy*, *11*(2), 242–249.

Ciarrochi, J., Atkins, P. W., Hayes, L. L., Sahdra, B. K., & Parker, P. (2016). Contextual positive psychology: Policy recommendations for implementing positive psychology into schools. *Frontiers in Psychology*, *7*, 1561. https://doi.org/10.3389/fpsyg.2016.01561

Cilliers, P. (2002). Complexity and Postmodernism: Understanding complex systems. Routledge.

Conoley, C. W., Conoley, J. C., Spaventa-Vancil, K. Z., & Lee, nna N. (2014). Positive psychology in schools. In P. A. Alexander, M. J. Furlong, R. Gilman, & S. Huebner (Eds.), *Handbook of positive psychology in schools* (pp. 497–506). Routledge.

Davis, B., & Sumara, D. J. (2006). *Complexity and education: Inquiries into learning, teaching, and research*. Routledge.

Durie, M. H. (1985). A Maori perspective of health. *Social Science & Medicine*, *20*(5), 483–486.

Ell, F., Cochran-Smith, M., Hill, M., Haigh, M., Grudnoff, L., & Ludlow, L. (2019). Complexity theory as a guide to qualitative methodology in teacher education. *Oxford Research Encyclopedia of Education*, 1–16. https://doi.org/10.1093/acrefore/9780190264093.013.523

Fenwick, T. (2012). Complexity science and professional learning for collaboration: A critical reconsideration of possibilities and limitations. *Journal of Education and Work*, *25*(1), 141–162. https://doi.org/10.0180/13639080.2012.644911

Fleming, C., & Manning, M. (2019). *Routledge handbook of indigenous wellbeing*. Routledge.

Garvey Berger, J., & Johnston, K. (2015). *Simple habits for complex times: Powerful practices for leaders*. Stanford University Press.

Gilbert, J. (2019). Is complexity thinking a useful frame for change-oriented educational research? In V. Reyes, J. Charteris, A. Nye, & S. Mavropoulou (Eds.), *Educational research in the age of the anthropocene*. IGI Global.

Goodman, F. R., Disabato, D. J., & Kashdan, T. B. (2020). Reflections on unspoken problems and potential solutions for the well-being juggernaut in positive psychology. *The Journal of Positive Psychology*, 1–7. https://doi.org/10.1080/17439760.2020.1818815

Halliday, A. J., Kern, M. L., Garrett, D. K., & Turnbull, D. A. (2019). Understanding factors affecting positive education in practice: An australian case study. *Contemporary School Psychology*, *24*(2), 1–18. https://doi.org/10.1007/s40688-019-00229-0

Hefferon, K., & Boniwell, I. (2011). *Positive psychology: Theory, research and applications*. Open University Press.

Hetherington, L. (2013). Complexity thinking and methodology: The potential of 'complex case study' for educational research. *Complicity: An International Journal of Complexity and Education*, *10*(1/2), 71–85.

Heylighen, F., Cilliers, P., & Gershenson, C. (2006). Complexity and philosophy. http://arxiv.org/abs/cs/0604072

Hoare, E., Bott, D., & Robinson, J. (2017). Learn it, live it, teach it, embed it: Implementing a whole school approach to foster positive mental health and wellbeing through positive education. *International Journal of Wellbeing*, *7*(3). https://doi.org/10.5502/ijw.v7i3.645

Holland, J. H. (2014). *Complexity: A very short introduction*. Oxford University Press.

Jacobson, M. J. (2020). Complexity conceptual perspectives for research about educational complex systems. *The Journal of Experimental Education*, *88*(8), 375–381.

Joseph, S., Murphy, D., & Holford, J. (2020). Positive education: A new look at Freedom to Learn. *Oxford Review of Education*, *46*(5), 549–562. https://doi.org/10.1080/03054985.2020.1726310

Kern, M. L., Williams, P., Spong, C., Colla, R., Sharma, K., Downie, A., Taylor, J. A., Sharp, S., Siokou, C., & Oades, L. G. (2020). Systems informed positive psychology. *The Journal of Positive Psychology*, *15*(6), 705–715. https://doi.org/10.1080/17439760.2019.1639799

Keyes, C. L., & Annas, J. (2009). Feeling good and functioning well: Distinctive concepts in ancient philosophy and contemporary science. *The Journal of Positive Psychology*, *4*(3), 197–201. https://doi.org/10.1080/17439760902844228

Konu, A., & Rimpelä, M. (2002). Well-being in schools: A conceptual model. *Health Promotion International*, *17*(1), 79–87.

Kuhn, L. (2008). Complexity and educational research: A critical reflection. *Educational Philosophy and Theory, 40*(1), 177-189. https://doi.org/10.1111/j.1469-5812.2007.00398.x

La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on wellbeing in research and practice. *International Journal of Wellbeing*, *3*(1), 116–125. https://doi.org/10.5502/ijw.v3i1.7

Le Fevre, D. M., Timperley, H., & Ell, F. (2016). Curriculum and pedagogy: The future of teacher professional learning and the development of adaptive expertise. In D. Wyse, L. Hayward, & J. Z. Pandya (Eds.), *The SAGE handbook of curriculum, pedagogy and assessment* (pp. 309–324). Sage.

Lomas, T., Waters, L., Williams, P., Oades, L. G., & Kern, M. L. (2020). Third wave positive psychology: Broadening towards complexity. *The Journal of Positive Psychology*, 1–15. https://doi.org/10.1080/17439760.2020.1805501

MacLure, M. (2010). The offence of theory. *Journal of Education Policy, 25*(2), 277-286. https://doi.org/10.1080/02680930903462316

Maree Kopua, D., Kopua, M. A., & Bracken, P. J. (2020). Mahi a Atua: A Māori approach to mental health. *Transcultural Psychiatry*, *57*(2), 375–383. https://doi.org/10.1177/1363461519851606

Mason, M. (2008). What is complexity theory and what are its implications for educational change? *Educational Philosophy and Theory*, *40*(1), 35–49. https://doi.org/10.1111/j.1469-5812.2007.00413.x

McCallum, F., & Price, D. (2016). Teacher wellbeing. In F. McCallum & D. Price (Eds.), *Nurturing wellbeing development in education: From little things, big things grow*. Routledge.

McCubbin, L. D., McCubbin, H. I., Zhang, W., Kehl, L., & Strom, I. (2013). Relational well-being: An indigenous perspective and measure. *Family Relations*, *62*(2), 354–365. https://doi.org/10.1111/fare.12007

Ministry of Education. (1996). *Te Whāriki: New Zealand Early Childhood Curriculum*. Learning Media.

Ministry of Education. (2013). *Ka Hikitia–Accelerating success 2013–2017: The Māori education strategy*. https://www.education.govt.nz/assets/Documents/Ministry/Strategies-and-policies/Ka-Hikitia/KaHikitiaAcceleratingSuccessEnglish.pdf

OECD. (2018). *The future of education and skills: Education 2030* (OECD Education Working Papers).

Oishi, S., & Westgate, E. C. (2021). A psychologically rich life: Beyond happiness and meaning. *Psychological Review*. https://doi.org/10.1037/rev0000317

Paterson, A., & Grantham, R. (2016). How to make teachers happy: An exploration of teacher wellbeing in the primary school context. *Educational and Child Psychology*, *33*(2), 90–104.

Pitama, D., Ririnui, G., & Mikaere, A. (2002). Guardianship, custody and access: Māori perspectives and experiences. *Australian Indigenous Law Reporter*, *7*(4), 80–89.

Rath, T., & Harter, J. (2010). The five essential elements of well-being. *Gallup*. https://www.gallup.com/workplace/237020/five-essential-elements.aspx

Richardson, K. A., Cilliers, P., & Lissack, M. (2001). Complexity science: A 'gray' science for the 'stuff in between'. *Emergence, 3*(2), 6-18.

Royal, T. A. C. (2003). *The Woven Universe: Selected Writings of Rev. Māori Marsden*. Printcraft '81 Ltd.

Royal, T. A. C. (2005) *Māori - Pre-European society*. Te Ara - the Encyclopedia of New Zealand. http://www.TeAra.govt.nz/en/maori/page-2

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, *52*, 141–166. https://doi.org/10.1146/annurev.psych.52.1.141

Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, *9*(1), 13–39. https://doi.org/10.1007/s10902-006-9019-0

Seligman. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.

Seligman, & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*(1), 5–14. https://doi.org/10.1037/0003-066X.55.1.5

Seligman, M. (2018). PERMA and the building blocks of well-being. *The Journal of Positive Psychology*, *13*(4), 333–335. https://doi.org/10.1080/17439760.2018.1437466

Seligman, M. E. P., Ernst, R. M., Gilham, J., Reivich, K. J., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education*, *35*(3), 293–311. https://doi.org/10.1080/03054980902934563

Sinnema, C., & Aitken, G. (2014). Teachers' use of research to improve practice: Why should we, how could we? In S. Brown & J. O'Neill (Eds.), *Facing the big questions in teaching: Purpose, power and learning* (2nd ed., pp. 146–153). Cengage Learning.

Snowden, D. J., & Boone, M. E. (2007). A leader's framework for decision making. *Harvard Business Review*, *85*(11), 1–10.

Snyder, S. (2013). *The simple, the complicated, and the complex: Educational reform through the lens of complexity theory*. OECD. https://doi.org/10.1787/5k3txnpt1lnr-en

Tobin, K. (2018). Methodological bricolage. In S. Ritchie & K. Tobin (Eds.), *Eventful learning: Learner emotions* (pp. 31–55). Brill Sense Publishing.

Trask-Kerr, K., Quay, J., & Slemp, G. R. (2019). A Deweyan positive education: Psychology with philosophy. *Oxford Review of Education*, *45*(6), 786–801. https://doi.org/10.1080/03054985.2019.1625761

Valentine, H. (2009). *Kia ngāwari ki te awatea: The relationship between wairua and Māori well-being: A psychological perspective*. Massey University.

Valentine, H., Tassell-Mataamua, N., & Flett, R. (2017). Whakairia ki runga: The many dimensions of wairua. *New Zealand Journal of Psychology (Online)*, *46*(3), 64–71.

Waters, L., Cameron, K., Nelson-Coffey, S. K., Crone, D. L., Kern, M. L., Lomas, T., Oades, L., Owens, R. L., Pawelski, J. O., & Rashid, T. (2021). Collective wellbeing and posttraumatic growth during covid-19: How positive psychology can help families, schools, workplaces and marginalized communities. *The Journal of Positive Psychology*, 1–29. https://doi.org/10.1080/17439760.2021.1940251

White, M. A. (2021). A decade of positive education and implications for initial teacher education: A narrative review. *Australian Journal of Teacher Education*, *46*(3), 74–90. https://doi.org/10.14221/ajte.2021v46n3.5

White, & Murray, A. S. (2015). Well-being as freedom: Future directions in well-being. In White & A. S. Murray (Eds.), *Evidence-based approaches in positive education: Implementing a strategic framework for well-being in schools* (pp. 167–175). Springer. https://doi.org/10.1007/978-94-017-9667-5_9