Sustainable Wellbeing, Creativity and Innovation

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Abstract

Creativity, innovation, and entrepreneurship have steadily gained ground in education transformation discussions. Proponents of 21st century learning (C21, 2012; P21, 2011) have recognized the value of developing competencies relevant to these three inter-related areas. The rationale offered for doing so range from enhancing individual wellbeing to securing national prosperity (Kelly, 2012; Kelley & Kelley, 2013; Robinson, 2009, 2011; Wagner, 2012; Zhao, 2012). Additionally, on a global level, the staggering level of youth unemployment poses a pressing challenge for educators to re-evaluate the purpose of education, and ultimately how we should endeavor to meet our global learning needs (Zhao, 2012). Enterprise education is viewed by many as a vital contribution to this repurposing of education (European Union, 2013; Rae, 2010; Zhao, 2012). This paper proposes a vision of education that integrates the most promising recommendations for transforming education, firmly anchored in a vision of wellbeing for all, sustainably (Hopkins, 2013).

Keywords: Sustainability Education, Wellbeing, New Pedagogies, Flipped Learning, Real-world Project-based learning, Entrepreneurship, Global Citizens

Introduction

Considering the ponderous pace of change in formal education, shifting towards learning that fosters creativity and innovation, dislodging it from the 'factory model' that moves students along the conveyor belt of schooling through successive grades of prescribed content, is a formidable task. On a very practical level, trying to infuse creativity, innovation and entrepreneurship into existing education structures that favour conformity is destined to mute the potential positive impact of doing so. Ultimately, as Fullan (2013) has suggested, what is required is an extensive makeover of education systems. One element of that makeover process, he proposes, is the use of 'new pedagogies.' This makes sense if we are to learn from the great hopes and expectations associated with updating education through greater use of technology – applied to conventional teaching practices. Simply adding technology to existing practice hasn't been nearly as transformative as expected (Bain &Weston, 2013). Rather, Information Communications and Technology (ICT) will be more effective when utilized with 'new pedagogies.' Moreover, the new pedagogies and makeover need to be associated with a coherent vision of education that has challenged outdated assumptions about the very purpose of education.

Zhao (2012) advocates the benefits of developing an entrepreneurial mindset but, similar to the pitfalls of adding technology to encrusted modes of teaching, he questions whether an entrepreneurial mindset can be nurtured in a traditional school environment. Along with many others, he calls for a paradigm shift in education.

> The vast majority of children in the world today still attend schools that attempt to instill in them predefined knowledge and skills in a lock-step fashion.
>
> Worse yet, we are moving backwards. […] the world is moving toward more curriculum standardization as a way to fix the traditional paradigm. (Zhao, 2012, pp. 157-158)

Despite this severe critique of traditional schooling, Zhao believes that constructive change is possible and that taking the following measures will help: provide a school environment with more freedom and flexibility for students to develop and follow their interests and passions, create opportunities for students to be decision makers, offer diversity in physical space and access to learning facilitators (i.e. teachers facilitating learning and students also interacting with talented mentors outside of the school environment). Additionally, he discusses the importance of designing learning experiences to develop a sense of agency in students as they take more responsibility for their learning and to express their unique voice in the world. This points to a crucial role for students as change-makers, not only as future global citizens but also as vital contributors to the makeover of education. Can we assume, though, that any makeover is inherently good and at the very least will not increase harm to others and the environment? It has been questioned, for example, whether education is part of the problem or the solution to meet our global learning needs.

We are faced with a paradox: Is education the problem or the solution in working toward a sustainable future? At current levels of unsustainable practice and over consumption it could be concluded that education is part of the problem. If education is the solution then it requires a deeper critique and a broader vision for the future. Thus, whole systems redesign needs to be considered to challenge existing frameworks and shift our thinking beyond current practice and toward a sustainable future. (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2005, p. 57)

Optimistically, educators seem to be more open than ever to the realization that conventional education is outdated and diverse 'alternatives' are demonstrating fresh new directions: expansive education, flipped learning, competency-based learning, and the gamification of learning, to name just a few. This is also a time in which various recommendations for transforming education are being offered beyond creativity, innovation and entrepreneurship. Recommendations vary from simple modifications for delivering existing content, to "add on" programs/toolkits, to complementary programs, to significant revisions of both curriculum and content, to abandoning formal education altogether with unschooling. For instance, in addition to competencies included within the various 21st century learning lists, there are advocates for greater attention to sustainability education/Education for Sustainable Development (ESD), social and emotional learning, Health Promoting Schools, enhancing student connections with Nature, and positive education (CASEL, 2008; Hopkins, 2013; JCSH, 2008; Louv, 2012; Morrison & Peterson, 2010; Seligman, 2011; UNECE, 2011). What is lacking at this time is a coherent vision of education that has the capacity to integrate the strengths of all of these recommendations while setting the foundation for a truly innovative approach to learning that will enable us to meet our global learning needs, sustainably (O'Brien, 2014). Hopkin's (2013) view that repurposing education with a vision of *wellbeing for all, sustainably* will assist us with reframing our discussions.

Wellbeing for all, sustainably brings forth two key perspectives that are often absent in the innovation, creativity, entrepreneurship, and 21st century learning literature: sustainability and wellbeing.

Why Sustainability?
As a world community, we have a pressing time sensitive dilemma to resolve. On a global scale, our societies are on an unsustainable trajectory that must be radically altered. Orr (2012) suggests that the timeline is shrinking to address the extensive challenges that humans have set in motion and that "we have good reason to believe that this will be the closest of close calls" (Orr, 2012, p. 48). The United Nations Secretary-General's report, *Resilient People, Resilient Planet: A Future Worth Choosing* (2012) noted that "progress has

been made, but it has been neither fast nor deep enough, and the need for further-reaching action is growing ever more urgent" (p.6).

Where is education in this picture? More than twenty years ago, Chapter 36 of *Agenda 21* (United Nations [UN], 1993) outlined a plan of action regarding education and sustainable development. Progress in Education for Sustainable Development (ESD) has been very slow. A particular concern is that formal education is not modeling sustainability principles nor addressing the unsustainable practices of our consumer societies. Therefore, adding innovation and entrepreneurship to existing programs, without a sustainability perspective, could potentially accelerate the development of products and services that are depleting scarce resources, damaging the environment that sustains us.

Furthermore, in order for innovation, creativity, and entrepreneurship to realize their fullest potential for education transformation and student success we need to shrug off the national-silo notion that primarily seeks innovation and creativity in order to establish an economic competitive advantage of one nation over another. Ideally, our young entrepreneurs will learn how their wellbeing is intertwined with the wellbeing of other people and the planet and may be inspired to apply their entrepreneurial mindset to create positive change – perhaps even changing education.

Implications for Innovation, Creativity and Change

The rationale given for why education should be concerned about creativity, innovation and entrepreneurship range from helping people to be more fulfilled, discovering their sense of purpose in life, to contributing to an economy that is increasingly dependent on innovation. More specifically, the following kinds of statements are made that associate creativity, innovation and entrepreneurship with economic prosperity:

- unemployment is a worldwide problem and will continue to rise unless new kinds of jobs can be created;
- conventional economic activity is not sustainable and new approaches to economic growth are needed;
- business leaders state that in order to be competitive they need employees who can generate creative solutions and innovative products;
- the ability to lead in innovation is a matter of national security.

Many of the arguments in support of innovation and entrepreneurship build on the premise that the most innovative countries are also the most economically competitive; hence the need for education to shift from contributing to the older industrial model of economic development to the modern era where the knowledge economy is paramount. Discussions rarely make the connection to sustainability. Tony Wagner is an exception.

What we urgently need is a new engine of economic growth for the twenty-first century. The solution to our economic and social challenges is the same: creating a viable and sustainable economy that creates good jobs without polluting the planet. And there is general agreement as to what that new economy must be based on. One word: innovation. (Wagner, 2012, p.2)

Sustainability and wellbeing are fundamental to this view of innovation. Otherwise, education will continue to evolve and appear to transform but it will fail to play the leadership role that is so desperately needed for an increasingly fragile ecosystem. To illustrate, a white paper prepared by the Finnish national research body, Sitra, recommends that Finland should adopt a "well-being oriented national vision" which would set it at the forefront of endeavors for sustainable development and wellbeing (Hämäläinan, 2013). In view of Finland's leadership in education, it bears noting that the Sitra recommendations are influencing the current Finnish curriculum reform (Hopkins, 2013).

New Pedagogies and Wellbeing for All, Sustainably

Two pedagogies stand out as promising for transforming education and are adaptable to a 'wellbeing for all' vision: Project-focused, real-world learning and flipped learning. Project-based, real-world learning (Claxton, Chambers, Powell, & Lucas, 2011; Zhao, 2012) offers one valuable mechanism for developing student competencies and mindsets that will serve them well in a rapidly changing world. Moreover, encouraging students to understand how their wellbeing is intertwined with other people and the environment provides the kinds of systems thinking and values that are more likely to contribute to sustainable wellbeing. The following story by Peter Senge (2014) about a twelve year-old student, Analise, gives us a glimpse of what is possible.

There were 250 people gathered to hear about student sustainability projects. Analise represented her young group and briefly described the wind turbine project that she and her peers had created at their middle school. Installing the wind turbine involved many of the steps that Zhao outlines for product-based learning, including a presentation to the principal, the town's mayor, as well as garnering expertise from parents to explore engineering and investment options. The scope of the project itself is impressive. Even more impressive is her wisdom and courage to challenge the adult audience. Senge tells us that once her presentation was finished,

Analise set aside her notes and standing calmly, some 75 pounds of fierce determination said, "We children are often hearing that 'you children are the future.' We don't agree with that. We don't have that much time. We need to make changes now. We kids are ready, are you?" (Senge, 2014, p. 328)

Flipped learning is an intriguing adaptation of the original flipped classroom innovation (Bergmann & Sams, 2014). Initially, flipped classrooms involved simply reversing the usual teaching pattern of providing content at school and 'homework' outside of school.

Subsequently, Bergmann and Sams realized that they could deepen learning and engage students more fully through flipped learning. This personalizes learning and assists students to learn how to learn. Bergmann and Sams developed The One Question to continually challenge themselves and to support teachers to do so as well: *What is the best use of face-to-face time with students?* A worldwide learning community of practitioners has been established and shares their experience through the Flipped Learning Network (see flippedlearning.org). Bergmann and Sam's concept of flipped learning aligns with Zhao's avocation of a learning environment that creates opportunities for students to become global citizens. Flipped learning supports students to become facilitators of their own learning, establishing opportunities for students to follow their interests and passions.

Lucas, Claxton, and Spencer (2013) have found that teachers are a major obstacle to change in schools. "Many teachers are naturally conservative and, once habituated into ways of doing things, can be extremely reluctant to shift their practices" (p. 173). Bergman and Sams, (teachers themselves), concur. They have been asked to identify the biggest hurdle in implementing flipped classrooms. Their response: "flipping the minds of teachers." However, they find that once teachers give flipped classrooms a try, this becomes an entry point to experiment with other teaching strategies.

> A lecturer of 20 years cannot be told that tomorrow he must now teach using only project-based learning. A teacher cannot make such a significant transition overnight. Those making a change need a desired location, a roadmap to guide them, and time to travel […] Freeing teachers from old patterns is the key. (Bergmann & Sams, 2014, p. 18).

Fullan (2013) suggests that part of the whole system reform of education involves redefining the role of teachers, and "equip[ing] them to be the orchestrators of learning and change agents required for learning to flourish" (p.69). In fact, through pedagogies such as flipped learning and project-based, real-world learning teachers are redefining their roles and developing confidence as agents of change. Equally important, so are their students. Applying these pedagogies within a framework that embraces both sustainability and wellbeing could accelerate education transformation in directions that are truly innovative and enable us to thrive, individually and collectively - sustainably.

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