

Sustainability, Happiness and Education

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Abstract

Seventeen years ago, Chapter 36 of Agenda 21 (United Nations [UN], 1993) outlined a plan of action regarding education and sustainable development. However, progress in Education for Sustainable Development (ESD) has been very slow and the United Nations declared 2005-2014 as the UN Decade for Education and Sustainable Development (UN, 2002) to draw greater attention to the essential role that education should play in improving the quality of life of current and future generations.

In a survey of current practice, a UNESCO report questioned whether education is the problem or the solution (United Nations Education, Scientific and Cultural Organization [UNESCO], 2005a). The same report recommended reorienting teacher education to sustainability. Informing teachers and students about sustainability is essential. A further substantial aim is to introduce education that fosters sustainable behaviour and motivates teachers to integrate sustainability into their personal life and classroom. An ideal place to start is with a topic that has universal appeal to educators and students: happiness.

The burgeoning field of positive psychology and happiness studies have remarkable implications for sustainability education and education as a whole. One of the most intriguing outcomes from research on happiness is that authentic happiness has very little to do with material wealth and over consumption. Thus, through happiness studies we have an opportunity to introduce principles and practices that also align with sustainability education.

A new concept, sustainable happiness, was developed by O'Brien (2005) to merge principles from sustainability and findings from happiness studies. It is defined as "happiness that contributes to individual, community and/or global well-being without exploiting other people, the environment or future generations." The concept extends happiness research and reinforces the relationship to sustainability and our interdependence with all life on the planet. Furthermore, it underscores the fact that each of us may contribute positively or adversely to the well-being of others and the natural environment. Sustainable happiness can be incorporated into any area of the curriculum as well as school policies and practice.

Sustainable happiness is a course in the teacher education program at Cape Breton University (Canada). Elements of the course are presented and discussed.

Keywords: Sustainable happiness, teacher education, sustainable behaviour

Sustainable happiness is happiness that contributes to individual, community and/or global well-being without exploiting other people, the environment or future generations. (O'Brien, 2005)

More than two decades have passed since the Brundtland Commission published the comprehensive document, *Our Common Future*, that linked economic development with environmental conservation and defined sustainable development. (World Commission on Environment and Development [WCED], 1987). By 1992, world leaders gathered in Rio de Janeiro at the Earth Summit, the first United Nations conference that combined issues of environment and development. The 40-chapter Earth Summit document that emerged, *Agenda 21* (UN, 1993), presented challenges and plans for action around biodiversity, trade, debt, deforestation, poverty, education, agriculture, desertification, human settlements, consumption, and much more. Chapter 36 of *Agenda 21* is devoted to the role of education for sustainable development.

Progress in Education for Sustainable Development (ESD) has not kept pace with the need to mobilize the global community towards actions that will substantially shift our unsustainable trajectory. In a survey of current practice, a UN report questioned whether education is the problem or the solution. "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" (UNESCO, 2005a, p. 59). This is not meant to suggest that we have been idle in Canada and elsewhere. York University (Toronto) hosts the UNESCO Chair on Reorienting Teacher Education to Address Sustainability. Environmental education programs are offered at many universities, and topics related to sustainability have been incorporated, sometimes sporadically, into elementary and secondary curriculum (Canadian Council of Ministers of Education [CMEC], 2007; Working Group on Environmental Education [WGEE], 2007). Students are introduced to topics such as climate change, energy conservation, recycling, cultural diversity, and human rights. There is a rich array of non-formal education resources and web sites for teachers to access. Despite many exemplary achievements worldwide, sustainable development and sustainability are not well understood by many educators, regardless of whether we are referring to elementary, secondary or post-secondary levels of education (UNESCO, 2005a). Furthermore, even though many high school graduates have been introduced to environmental education, the information alone is not sufficient to foster sustainable lifestyles and livelihoods. We would be deluding ourselves if we were to assume that current efforts to integrate sustainability into elementary and high school curricula is adequate in an era of climate change (Intergovernmental Panel on Climate Change [IPCC], 2007), massive environmental deterioration, and escalating loss of non-renewable resources.

This paper introduces the concept of sustainable happiness, which despite its apparent "lightweight" significance in the context of extensive human suffering and environmental degradation has a remarkable potential for contributing to sustainability education. In addition, it outlines a course in sustainable happiness that is assisting students to embrace opportunities to live and work more sustainably.

Education and Sustainability

2005 marked the beginning of the UN Decade of Education for Sustainable Development (2005-2014). The rationale for this is contained in the following words:

There can be few more pressing and critical goals for the future of humankind than to ensure steady improvement in the quality of life for this and future generations, in a way that respects our common heritage – the planet we live on. . . . Education for sustainable development is a life-wide and lifelong endeavour which challenges individuals, institutions and societies to view tomorrow as a day that belongs to us all, or it will not belong to anyone. (UN Decade of Education for Sustainable Development, 2005-2014, 2005b, p. 8)

One of the goals of this designation by the UN is to reinforce efforts to integrate sustainability into formal and non-formal education. The Decade “aims to integrate values, activities and principles that are inherently linked to sustainable development into all forms of education and learning” (UNESCO, 2007, p. 5).

Gardner (2006) acknowledges that the education sector is very conservative and slow to change. This can be both a strength and a barrier to progressive transformation. As educators, we would not serve society nor our students well if we reacted to every new educational trend. The drawback, of course, is that education systems are not very adaptive to societies and environments that are experiencing rapid change. These systems are also challenged when confronted with concepts that are inherently interdisciplinary. It is perhaps a reflection of our resistance to change that the term “early adopters” (UNESCO, 2005a) has been applied to educational institutions that are incorporating ESD, despite the lapse of more than twenty years since the Brundtland Report (WCED, 1987). And yet, our education systems *must* play a pivotal role in ensuring a sustainable future for all. How can we become part of the solution? What further steps are needed to create an education process in the 21st Century that accepts its share of responsibility for sustainability – shifting out of the comfort zone that is satisfied with school recycling programs and environmental clubs? Answers to these questions range from reorienting teacher education, to lowering the ecological footprint of schools (sustainable schools) and integrating sustainability topics across the curriculum. The following sections address teacher education.

Reorienting Teacher Education

A seminal document on ESD is the *Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability* (UNESCO, 2005a) prepared by the UNESCO Chair and the International Network of Teacher Education Institutions. The authors note that it is essential for pre-service and in-service teachers to understand sustainability and how to integrate topics and principles into the curriculum. It is also incumbent on teacher education institutions to reflect sustainability in policy and practice, including striving to have a sustainable campus. See Box 1 for a list of recommendations for teacher education. The concept of sustainable happiness fulfills many of these recommendations.

Box 1. Recommendations for Teacher Education

- Require interdisciplinary coursework on sustainability for student teachers and make materials available for student teachers on local and global sustainability issues.
- Demonstrate pedagogical techniques that foster higher-order thinking skills, support decision-making, involve participatory learning and stimulate formulation of questions.
- Emphasize to student teachers that citizenry in a sustainable community requires active participation and decision-making into their classroom procedure and curriculum.
- Discuss social equity (e.g. gender, racial, ethnic, and generational) with student teachers and identify ways in which the local community exhibits social tolerance, societal intolerance, equity, and discrimination.
- Request that student teachers analyze the mandated curriculum they will be teaching to identify topics and themes related to sustainability and those that are linked to local sustainability issues.
- Provide student teachers with opportunities to explore their own values and attitudes towards local sustainability problems and those of the surrounding region.
- Promote understanding of global sustainability in order to encourage critical thinking and decision making that influence personal lifestyle and economic choices.
- Develop specialized ESD programs for student teachers (e.g. mini-courses) with certificates of completion, so that student teachers can include them in their resumes for seeking employment.
- Promote graduates with ESD specializations, who are knowledgeable in ESD and its contribution to society.
- Place graduates who have completed courses in ESD in key schools and ministerial positions to help influence and bring about change.

Positive Psychology and Happiness Studies

A considerable challenge for sustainability education is to move beyond raising individual awareness and toward fostering sustainable behaviour. This is particularly difficult in Canada and many industrialized countries, where students and educators live in a social and cultural milieu of the consumer society. Worldwatch President, Christopher Flavin (2004), states that “the drive to acquire and consume now dominates many peoples’ psyches, filling the space once occupied by religion, family, and community” (p. xvii). An antidote may be found, however, in positive psychology which offers some intriguing opportunities for sustainability education. Positive psychology emerged over the last decade as a new field within psychology. It takes the refreshing view that understanding what contributes to and sustains happiness and life satisfaction can be applied to enhance individual well-being. Seligman (2002) sees positive psychology as the study of positive emotions, positive traits and positive institutions. Some work is also looking at national well-being indicators, and differences in life satisfaction across nations (Canadian Institute of Wellbeing [CIW], 2009; Diener, 2006). We are learning that happiness skills can be taught and that this has implications for emotional, physical and spiritual well-being (Seligman, 2002).

Happiness and Health

Happiness is defined by Veenhoven (2006) as “*the overall appreciation of one’s life-as-a-whole*, in short, how much one likes the life one lives” (p. 2). This is often measured through tests of subjective well-being and life satisfaction. While definitions of happiness may vary, researchers have demonstrated that one’s subjective experience of happiness corresponds with numerous positive health outcomes (Seligman, 2002; Steptoe, Wardle, & Marmot, 2005), including lower blood pressure, the inclination to seek out and act on health information, and more robust immune systems than those of less happy people. Veenhoven (2006) completed an extensive survey of studies regarding the relationship between happiness and physical and mental well-being. The evidence “implies that we can make people healthier by making them happier” (Veenhoven, 2006, p. 6). Diener and Seligman (2004) are more tentative in their conclusions, noting that positive states of well-being generally correlate with better physical health (p.13), but research results are mixed and the variables linking physical health and well-being require further investigation. However, Diener and Seligman note that the study of well-being and physical health is important for both research and policy “because it signifies quality of life, but it also is important because of its implications for health and health care costs” (p.13). Even for those whose interests don’t extend to sustainability (yet), these studies have applications for student and teacher health and well-being. Research from happiness studies and positive psychology could be incorporated into many areas of the curriculum including health, social studies, language arts and science.

Happiness and Sustainability

In a world where global warming has begun (IPCC, 2007) and climate scientists are investigating both mitigation measures *and* adaptations measures, where human suffering has reached almost unfathomable levels, a focus on happiness could appear to be a diversion from the hard issues of sustainability. On the contrary, there is a natural connection between sustainability and positive psychology. Happiness is at the heart of who we are and what we do but in a consumer society, where consumption and happiness are inextricably linked, individuals confuse the “path to the ‘good life’ as the ‘goods life’” (Kasser, 2006, p. 200). Our unbridled pursuit of happiness is often at the expense of other people and the natural environment. However, happiness research suggests that this unsustainable pursuit of happiness is flawed. To differentiate between some popular notions of happiness and happiness that is associated with positive health and well-being, Seligman (2002) uses the term “authentic happiness.” Authentic happiness is derived through relationships with family, friends, meaningful work, and engagement in our community rather than through a relentless striving for material possessions. Several studies indicate that individuals who are less materialistic tend to have higher self-reports of happiness and are more inclined to engage in environmentally friendly behaviour, such as cycling and recycling (Kasser & Sheldon, 2002; Richins & Dawson, 1992; Sheldon & McGregor, 2000). Brown and Kasser (2005) concluded that “the pursuit of happiness does not appear to require consumption-based, environmentally damaging activity” (p. 350).

There is also evidence that once basic needs are met, substantial increases in income do not translate into substantial increases in happiness (Diener & Seligman, 2004; Stutz, 2006). Thus, for many of us in the West, time spent to earn more money to buy more things may be a

very inefficient and misguided pursuit of happiness (Litman, 2007). It seems that the over consumption of consumer societies is neither the ultimate path to authentic happiness nor the path to sustainability. More than that, over consumption, particularly of non-renewable resources, is unsustainable.

In short, we have a consumer society whose default informal education process tends to reinforce individual lifestyles that are unsustainable *and* less likely to lead to authentic happiness and overall life satisfaction. We have education systems that have not fully embraced ESD, educators who are not well informed about sustainability (and possibly not very interested in the concept), and educational institutions that are often not models of sustainability. It would seem that unless the education sector is able to provide a counterpoint to over consumption it is part of the problem, and not part of the solution.

Sustainable Happiness

The concept of sustainable happiness was developed by O'Brien (2005) in order to draw attention to the consequences, both positive and adverse, of how individuals, communities and nations pursue happiness. In a globalized world, everyone's actions have repercussions on distant lands and people. Some impacts are immediate and short term while some have enduring effects. Thus, further aims of combining the two terms are: to link happiness to sustainability, now and into the future; to emphasize the reality of our mutual interdependence; and to generate discussion regarding the potential for making substantial contributions to sustainability efforts through research from happiness studies.

Sustainable happiness is a concept that can be used by individuals to guide their actions and decisions on a daily basis; at the community level, it reinforces the need to genuinely consider social, environmental and economic indicators of well-being so that community happiness and well-being are sustainable; at the national and international level it highlights the significance of individual and community actions for the well-being of all – now and into the future.

As a demonstration, consider the momentary pleasure of drinking a cup of coffee. Benefits of attending to and being mindful of our sensory experience have been discussed by Brown and Kasser (2005) and Kabat-Zinn (2005). Viewed through the lens of sustainable happiness, this momentary pleasure can be placed in a wider context. Individuals can also attend to whether that cup of coffee is fair trade coffee, which means that workers in the coffee plantation have been paid fairly and the coffee was grown with regard for the environment. It is important to reflect on whether the positive emotion derived from the coffee, (or anything else for that matter), has come at the expense of other people or the natural environment. The conditions under which clothes are manufactured, how far our fruit is transported, the pesticides that are sprayed on the local golf course, all have some impact on, and connection to, how individuals pursue happiness. On a daily basis, there are countless choices that individuals, organizations, and governments make which could contribute to sustainable happiness, whether we look at an individual's commute to work, an organization's procurement policies, or a nation's foreign trade policies.

Sustainable happiness reinforces the fact that we are interconnected and interdependent with all life on the planet, even life that is yet to be born. It can also be used to foster sustainable behaviour. Our natural desire for happiness can become the entry point for discovering that our well-being is inextricably linked to the well-being of others and the natural environment. It can

also dispute a common misconception that living sustainably will lower our quality of life. Brown and Kasser (2005) suggest that “as long as environmentally responsible behaviour is framed in self-sacrificial terms, individuals will be faced with tough choices about how to act” (p. 349) because such behaviour is assumed to detract from happiness. Sustainable happiness offers a fresh approach that invites reflection on sustainability issues coupled with opportunities to enhance our quality of life *and contribute to individual, community, and global well-being*. It also may be used to motivate behaviour change through compassion for others and the environment that sustains us.

Individuals, communities, and organizations that investigate sustainable happiness begin a process of deconstructing happiness and sustainability. For example, there are many daily activities that bring an experience of pleasure, but are not contributing to our overall well-being, or are detrimental to the well-being of others or the environment – this would include the consumption of products that have been made in a sweat shop or that have severely degraded the environment. Additionally, there are socially acceptable behaviours for dealing with stress. One of these is “retail therapy” which involves shopping to making oneself feel better, regardless of the potential adverse impact this consumption may have beyond the shopper. Through an exploration of sustainable happiness we can “delink” happiness from consumption and discover ongoing opportunities to enhance well-being *and* sustainability.

Thus, sustainable happiness is a superb approach for introducing sustainability to teachers, motivating student teachers to become models of sustainability and exciting them to integrate sustainable happiness into their teaching practice.

Sustainable Happiness and Teacher Education

Sustainable happiness is an elective course in Cape Breton University’s Bachelor of Education program (Nova Scotia, Canada). It is also cross listed with Communication. The historic first offering of the course occurred during the Spring/Summer term of 2009. Thirty-three students enrolled: nineteen education students and fourteen communication students. They learned about the research results from happiness studies and the association with sustainability. Weekly activities prompted students to examine the relationship between their daily activities and the impact (positive or adverse) on themselves, other people and the natural environment. Some of these activities included the completion of a ‘baseline chart,’ reflections on genuine wealth, reducing consumption of non-renewable resources, drawing an ‘interdependence map,’ expressions of gratitude, ‘happiness literacy,’ and a sustainable happiness project.

Baseline Chart

At the beginning and end of the course, students completed a “Baseline Chart” that involved monitoring their behaviour and experience for one day and indicating what impact their activities had for themselves personally, for other people and for the natural environment. They were also prompted to consider what opportunities they have for making different choices that may improve their own well-being, community well-being and the well-being of the natural environment. See Appendix A for a sample chart. The Baseline Chart is a preliminary step that reveals patterns to each individual. Through this activity they are able to see that some of their activities (drinking coffee that isn’t fair trade coffee) may bring a fleeting experience of pleasure, but that this has adverse consequences for others. They also see that activities that

contribute to their own well-being (physical activity) may also have other benefits, such as reducing their use of a motorized vehicle, motivating them to spend time with a family member, or reducing stress so that they relate to others in a more balanced way. After twelve weeks, every student made changes in his or her lifestyle and priorities, and expressed a desire to continue to apply lessons learned in the course.

I am trying very hard to purchase locally grown produce when possible and I have also started buying my coffee from the Bean Bank café in Sydney more often than Tim Horton's because it serves fair trade coffee and Tim Horton's does not. I have started to incorporate more physical activity into my days and although this is a hard thing to get used to, I have succeeded in walking about three times per week after supper and doing some strength training on the alternate nights. I believe I am contributing more to the well-being of others ever since I completed the sustainable happiness assignment. I am trying to do more self-less acts for people ... Overall, there are aspects of my life that have changed for the better since the onset of this course such as my physical activity levels, my eagerness to purchase local and fair trade products, and my outlook on life and the well-being of others.

Student comment on her behavior change during the sustainable happiness course

Genuine Wealth and Reduced Consumption

The topic of genuine wealth (Anielski, 2007) was introduced to prompt students to explore the non-material wealth that comes from relationships, the beauty of their natural environment, trusting neighbours, and meaningful engagement with their studies. Students identified their own genuine wealth and opportunities to increase it and/or reduce their consumption of non-renewable resources. This section of the course assists students to become more aware of what they are consuming and whether this consumption is supporting their genuine wealth. Several of the self-identified “shopaholics” in the class spontaneously devised their own strategies for determining the difference between ‘wants’ and ‘needs.’ One student realized that if she paused for ten seconds before making a purchase, asking herself if the product she coveted was a want or need, then the impulse to buy would diminish and she regained a sense of self-control. Full time students often feel stressed from financial pressure and many commented that acknowledging their genuine wealth improved their experience of well-being and sustainable happiness.

I must admit that I have lain in bed a few Sunday mornings wondering what life would be like if I won the 649[lottery]! I thought about paying off all our debt, buying a new home, giving money to my family and those in need, and traveling. After reading our articles this week, I think that 'day dream' would play out differently now. My measure of true happiness is ensuring I sustain solid relationships with my husband and children and maintain my health. Material items have been displaced further down the list.

Student comment after completing genuine wealth activity

Interdependence Map

Each student completed an Interdependence Map to chart the web of interconnection between themselves, other people, their natural environment, the resources they use, as well as historical and cultural events that have shaped who they are today. A simple way to imagine an interdependence map is to consider all of the factors that influenced the existence of a piece of paper that you have in your office or classroom. If the paper was made from wood pulp, your map would include natural resources such as the sun, wind, soil, water, as well as inventions that affected our use of paper (printing presses); machines that were created to harvest trees, transport logs and convert the wood into paper; the human resources along all the stages of creating and transporting the paper to the place where you or your organization purchased it. This interdependence map for paper is only a tiny part of the web that students create. The assignment helps them to realize that their life touches and is touched by others both near and far on a daily basis. Changing one thing in that map, therefore, can have far reaching results. Students discovered, for example, that by switching to drinking fair trade coffee, they were “touching” people in distance lands. The interdependence map exemplifies John Muir’s famous quote that “when one tugs at a single thing in nature, he finds it attached to the rest of the world.”

Being a university student, I don't have a whole lot of disposable income, but taking a closer look at the purchases I do regularly make (coffee, groceries, gas, etc.) was very interesting. ... looking back now I'm realizing that I actually have made some changes in my spending habits. Some of these were intentional (like getting into the habit of asking myself if I REALLY need to take the car out of the driveway), but others (not stopping at Tim's [Tim Horton's coffee shop] every time I leave the house, choosing recycled printer paper, etc.) just sort of happened as a result of becoming more aware of my purchases and their effects on the world around me.

Student comment on Lessons Learned from the Sustainable Happiness Course

Gratitude and Appreciation

Gratitude and appreciation are associated with positive well-being. Students were frankly astonished with repercussions of simple gratitude activities, such as writing a letter to express appreciation, making a point of thanking people for simple things, counting blessings or an artistic expression of appreciation. This unit also highlights that appreciating what we have now rather than striving for more “things” can offset the tendency that Hamilton and Denniss (2005) describe as ‘affluenza,’ where having too much is never enough. Thus practicing appreciation through the activity of their choice was also intended to reinforce genuine wealth.

The lesson that stands out for me is how easy it is to spread happiness and gratitude. I always tried to think of elaborate ideas to thank someone or try and make someone happier. In this course I have learned that it takes very little effort to accomplish these goals. A simple gratitude letter showed us that it can make a huge difference. ... It then makes you want to spread that happiness and gratitude in any way you can.

Student comment on Lessons Learned from the Sustainable Happiness Course

Happiness Literacy

One unit of the course explores the social and culture influences on our view of happiness. We consider who or what teaches us about happiness and what we are learning. Students interviewed the happiest person they know to discover what contributes to that person's happiness, how they have dealt with adversity and what lessons the student may draw from this. There were thirty-three interviews with people ranging from eight years old to senior citizens. Students discovered that every single "happy" person valued family, friends, community, and meaningful work. None were overly materialistic.

Students also analyzed a television commercial, magazine advertisement or popular song that portrays happiness to determine the overt and underlying messages about what brings happiness. This unit is a further step towards establishing new perspectives on happiness, and becoming more aware of marketing messages that aim to associate happiness with the advertised product.

Sustainable Happiness Project

Each student was required to complete a sustainable happiness project. There were few parameters other than the fact that the project had to reflect sustainable happiness and contribute to personal well-being, community well-being and/or environmental well-being. Approximately one third of the students selected projects that addressed areas that they had identified for improvement through the completion of their Baseline Chart. Reading about these projects was an exercise in sheer delight. One student decided to reduce her use of plastic water bottles. She purchased a reusable water bottle and calculated how many plastic bottles she would no longer use, the energy savings and her personal savings which amounted to more than \$800/year. Several students shifted to sustainable modes of transportation: walking, cycling, transit and carpooling. One young man decided to build a new porch for his mother and recycled all of the old lattice wood for kindling. The physical exertion from making the porch (which had also involved some of his friends) prompted him to join a gym and to improve his eating habits. Several students chose to clean up their neighbourhood. One woman involved her children and members of the community, all girls, and decided that they would be 'Girls Against Garbage,' or GAG. They followed their community clean-up with a social gathering at the student's home. Several students introduced recycling to the organizations where they work. Being a summer course, some students chose to plant a vegetable garden, and discussed the personal benefit and the positive environmental impact.

A particularly zealous student decided that he wanted to shift his over consumption habits. He began with his BMW. He felt that he was too attached to his BMW, spending free

time cleaning and caring for it rather than socializing with friends. He had also felt stressed by his preoccupations about dents and scratches. He traded his car for a more modest vehicle and increased the time he spends with friends. He also developed a strategy to interrupt his consumption habit of randomly purchasing products online. Every time he feels the impulse to buy something that is not a basic need he waits one day to allow the impulse to subside. If he still feels inclined to make the purchase after 24 hours, he begins to research where the product is made, and the possible human and environmental impact. He also investigates options for a more environmentally friendly product. If he still feels that he wants to make the purchase he defers it for a month with the aim of losing interest in the purchase altogether.

Table 1 outlines the kinds of activities that students chose for their sustainable happiness project. Three categories are used: activities that contribute *primarily* to individual well-being; activities that contribute primarily to community well-being; and activities that contribute primarily to global well-being. Some activities belong to more than one category but were placed according to the motivation that the student identified. For example, “walking for short trips” was placed in the “Global Well-Being” category because the student was interested in reducing CO₂ emissions. However, some students who wanted to increase physical activity chose to walk more often. There are more activities listed than the total number of students because many students engaged in multiple activities. It should also be noted that even if enhancing community or global well-being was stated as the primary motive, every student found that their own well-being was improved through their project.

One of the course objectives was for the students to embrace sustainability and link it to well-being, recognizing the capacity they have to contribute to global well-being on a daily basis. Subsequent steps for education students involved examining opportunities to bring these realizations into the classroom.

Table 1
Sustainable Happiness Projects

Type of Project	Description of Activity	Number of Students Who Named One of These Activities
Individual Well-Being		
Increased Physical Activity	Joined a gym Began walking to more destinations Began regular exercise routine	5
Healthy Eating	Made healthier food choices, reduced use of caffeine Brought own lunch to school, purchased more local and organic food Reduced consumption of fast food and bottled drinks Expanded or started a vegetable garden	6
Self Care	Reduced stress through better time management (was working 3 jobs and reduced to 2) Increased time for self – (time affluence) Decreased involvement in unhealthy relationship	2
TOTAL		13
Community Well-Being		
Increasing Genuine Wealth (usually focused on relationships)	Increased time with family Brought foster child into family Turned off TV for a week during dinner time to increase family conversations, established games night to replace watching TV Spent more time with mother Rebuilt relationship with mother-in-law	5
Helping Others (relatives)	Planted a garden for sister Built front porch for mother Bought more chickens and gave extra eggs to relatives	3
Giving to the Community	Taught Mi'kmaq language to children after school Initiated community clean up with friends Developed happiness project for Sea Cadets Cleaned home and gave clothes away Wrote a song about happiness Ten days of self-less acts for community or environment (got parents and brother involved) Initiated youth oriented activities in community park Created after school program with focus on global citizenship	10
TOTAL		18
Global Well-Being		
Reducing Car Travel	Carpooled, used transit, walked for short trips	3
Recycling, Reducing Waste	Recycled more at home Initiated recycling at place of work (2) Composting	6
Reducing Consumption	Reduced use of plastic water bottles and electricity Purchased rain barrel to harvest rainwater Reduced consumption of non-essential items Switched from paper towels to cloth napkins	5
TOTAL		14

Sustainability Education and Sustainable Happiness

Sustainable happiness is a concept that can be integrated into all aspects of teacher education and adapted for every grade level. It assists students in understanding the relevance of sustainability education and the capacity that they have to contribute to global well-being on a daily basis. Integrating sustainable happiness into teacher education meets many of the recommendations that have been outlined by UNESCO (Box 1). The key recommendations met are:

- Require interdisciplinary coursework on sustainability for student teachers.
 - Course readings drew from a variety of disciplines
 - Readings from positive psychology were applied to education
 - Education students were grouped with Communication students who came from diverse fields – science, arts, and business.
- Demonstrate pedagogical techniques that foster higher-order thinking skills.
 - Each of the weekly activities required students to reflect on their experience and consider options for enhancing their own well-being without harming others or the environment
 - Students had a range of activities to choose from – modeling assignments that foster higher-order thinking skills while providing flexibility for diverse learning styles.
- Emphasize to student teachers that citizenry in a sustainable community requires active participation and decision-making in their classroom procedure and curriculum.
 - This was one of the particular strengths of the course. The realization of the seamlessness between one's personal and professional life became apparent in the student discussions. Discussion also focused on applications of sustainable happiness to their future classroom.
- Discuss social equity with student teachers.
 - Social equity is integral to the concept of sustainable happiness. It emphasizes the value of sharing the earth's resources with current and future generations. It underscores the perspective that the well-being of individuals, communities, organizations and nations should not depend on exploiting other people and the environment.
- Provide student teachers with opportunities to explore their own values and attitudes towards local sustainability problems and those of the surrounding region.
 - Discussion prompts and weekly activities were designed to create this awareness through each unit. The sustainable happiness project provided the forum for students to move from exploration to action.
- Promote understanding of global sustainability in order to encourage critical thinking and decision making that influence personal lifestyle and economic choices.
 - Assigned readings covered sustainability topics as well as topics from positive psychology and happiness studies. Weekly activities created the framework for applying these lessons in their personal lifestyle choices.

Lessons Learned

The sustainable happiness course appeared to lead to many fundamental changes in student perspectives and shifts towards sustainable behaviour. The course was not designed as a research study so baseline data was not collected. It would be valuable to follow up the course with a study that investigates whether behaviour that was initiated during the course (drinking fair trade coffee, using reusable water containers, monitoring consumption, using cloth diapers, etc) persisted six months and twelve months after the completion of the course.

The interdependence map was a valuable activity for demonstrating the interrelationships that each student has with other people and the environment. Future offerings of the course will require students to refer back to their map to consider how shifting one behaviour can influence various “threads” in their map. Another application of the interdependence concept would be to “map” the links between one new sustainable behaviour and its effect in the community and/or globally. This may help to reinforce the new behaviour.

The course was structured to permit students to work with the concept of sustainable happiness in ways that felt valuable to them personally. Each activity had sufficient diversity to meet the needs of various learning styles. More importantly, students could select from a range of activities and determine which ones were most interesting for them. Some students candidly stated that they sometimes selected an activity that they thought would be “easy” such as buying nothing for a day. Then they discovered that this was a greater challenge than anticipated, because they unconsciously purchase many products throughout each day. The most surprising aspect of the course for me was that students elected to engage in healthy lifestyles without a great deal of information on the benefits of doing so. It seemed that by exploring readings on happiness and sustainability, they became motivated to take greater care of themselves, their family and friends, and the natural environment.

Perhaps the most compelling and gratifying aspect of this course was the realization that most students voiced at some point in the course that an individual’s actions CAN and DO make a difference. Many students commented that prior to the course they had felt overwhelmed by the enormity of environmental problems and believed that there was little they could do to make a positive change. Through their own activities and the “culture of sustainability” that was created within the course, they witnessed and seemed to integrate the realization that each person has numerous daily choices that can be acted upon to make a difference.

Concluding Thoughts

This paper has outlined the concept of sustainable happiness and its application to education for sustainable development. One of the key drawbacks to the concept is the term itself. The global challenges that threaten life on the planet and wreak untold human suffering can at face value seem unrelated to “happiness.” However, despite decades of environmental education that have attempted to shift policy and behaviour, we have not sufficiently shifted our unsustainable trajectory. Sustainable happiness has the capacity to attract the attention of individuals who might never consider themselves to be

environmentalists or who feel weary of being prodded toward environmentally friendly behaviour through guilt. It also has the capacity to forge a transformational shift for students who internalize the realization that we are interdependent. Further research may help to determine whether it leads to sustained behaviour changes.

Sustainable happiness could complement the environmental education efforts in every nation. The report of the Working Group on Environmental Education (2007) in Ontario has created intended outcomes that include learning opportunities for students to apply their knowledge to real-world situations. Engaging students through sustainable happiness would provide meaningful connections to their personal life, their community and planetary well-being. Practicing teachers would also benefit from professional development workshops on sustainable happiness. These workshops and curriculum resources on sustainable happiness are currently under development.

Education in the 21st century can continue to evolve at a comfortable pace that is entirely out of step with the leadership that is needed to embrace sustainability education. Or we can engage in a “deeper critique and broader vision for the future.” Sustainable happiness provides a concept and process for doing the latter. Our experience with student teachers is that sustainable happiness inspires *them* to become part of the solution.

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