

# Environmental sustainability in social work education: An online initiative to encourage global citizenship

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## Abstract

This article explores the impact of an online programme developed to educate Australian social work students about environmental sustainability. Drawing on Hawkins' definition of global citizenship, online workshop activities are used to develop students' knowledge, concern and action about environmental degradation in a global context. A qualitative approach is used to gauge the value of the programme, and outcomes indicate benefits to student learning about social justice issues, particularly in relation to gender, carbon emissions and global impacts. Implications for social work education are discussed, and a framework for future curriculum development is presented.

## Keywords

Environment, global citizenship, social work education, sustainability

## Introduction

The release of the latest International Panel on Climate Change (IPCC, 2014) report provides convincing evidence that, first, consequences of climate change are unfolding at rapid rates and, second, that the major factor in these climatic changes has been human influence since the mid-20th century concomitant with the advancement of the industrial revolution. Consequently, governments, environmental scientists, environmental activists and discipline-based groups are organising themselves to respond to this developing ecological crisis. The question, then, is what can the profession of social work do to contribute to the creation of an ecologically sustainable

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world? This article explores the role of social work education as a vehicle for preparing Australian social work students to becoming informed and active global citizens with regard to environmental sustainability. An evaluation investigates the impact of a pilot education programme on student learning, and outcomes of the evaluation are used as an evidence-base for consideration of a framework for further curriculum development in relation to global environmental sustainability.

## Literature review

Climate change affects us all, but the world's poorest, least-advantaged citizens experience cumulative, disproportionate impacts of environmental degradation on health and welfare (Bell, 2013; Dominelli, 2010, 2012; Kemp, 2011; World Health Organization (WHO), 2005). These groups are the main focus for social work, the profession whose global organisation strives for social justice, human rights and social development (International Federation of Social Workers (IFSW), 2014). In accordance with the *Global Agenda for Social Work and Social Development – Commitment to Action 2012–2016* (IFSW et al., 2012), the disproportionate impacts of climate change on the most vulnerable people in the world constitutes a major social justice issue for social work scholars, practitioners and educators.

As a result, there is increasing urgency for social workers to participate in both proactive and reactive capacities as global citizens to redress adverse impacts on vulnerable groups. While social work literature relating to the natural environment began in the early 1970s by a few social work authors (Germain, 1973; Grinnell, 1973), the term 'environment' has conventionally referred to the socio-cultural environment (McKinnon, 2008). Contemporary authors are now calling for recognition of the natural environment as integral to social work's identity and for a collaborative response to the ecological crisis, particularly anthropogenic climate change (Coates, 2005; Dominelli, 2012; Kemp, 2011). Williams and Tedeschi (2013) identify a need for ongoing development of social work knowledge on issues such as climate change, food, water, over-consumption and social justice impacts on the world's poorest people.

Some progress towards articulating the profession's relationship with the natural environment has recently been made in national codes of ethics, such as those of the British Association of Social Workers (BASW, 2012) and Australian Association of Social Workers (AASW, 2010). For example, the BASW (2012) code of ethics states that 'social workers should be concerned with the whole person, within the family, community, societal and natural environments, and should seek to recognize all aspects of a person's life' (p. 8, Section 2.1). The AASW mentions the environment 10 times, with 5 of these explicitly relating to the natural environment (AASW, 2010). For example, 'Social workers will advocate for and promote the protection of the natural environment in recognition of its fundamental importance to the future of human society' (AASW, 2010: 20, Section 5.1.3, clause m).

It follows then that social work education should directly address the interrelationship between human beings and the natural environment. This is already recognised in some national education and accreditation standards, such as the *Australian Social Work Education and Accreditation Standards* (ASWEAS), which state that 'Australian entry-level professional social work education recognises that social work operates at the interface between people and their social, cultural, spiritual and physical environments' (AASW, 2012: 5, Section 2). However, the term 'physical' is not defined, and the pragmatics of how this occurs systematically across university curricula is uncertain. According to Jones' (2013) content analysis of online curricula from 27 Australian social work courses, there is little evidence of the inclusion of the natural environment or sustainability in curriculum content apart from four universities offering a subject with specific reference to

environmental sustainability. This indicates a need for a systematic approach to the integration of the natural environment and related sustainability issues into Australian social work education.

The integration of the natural environment into social work education is arguably still in the development phase, with some social work authors offering insight into the need for theoretical transformations to take place. This includes recognition of social work's modernist roots and critique of how this has caused an estrangement from the natural environment and from core theory in dominant forms of Western social work (Coates, 2005). Alternative conceptual frameworks have been suggested, including the use of biophilia (Besthorn and Saleeby, 2003; Lysack, 2010), deep ecology (Besthorn, 2012), ecofeminism (Besthorn and McMillen, 2002; Norton, 2012) and post-conventional social work theory (Bell, 2012). Shaw (2013) surveyed 373 social workers in the United States and found strong support among participants for social work to play an increased role in sustainability and social policy. In particular, these social workers wanted more curriculum content on the natural environment, especially in relation to the impacts of environmental degradation and access to safe drinking water for the world's poorest people.

## The pilot project

The authors of this article are part of a group of social work academics employed at Charles Sturt University who share concern about the lack of opportunity for social work students to make meaningful connections between the natural environment and the role of social work in understanding and responding to environmental degradation within a global context. We are also involved in facilitating international field programmes for social work students at Charles Sturt University, and this has also raised concerns about how to avoid perpetuating Euro-Western colonial and imperial values related to modernist thinking, for example in relation to environmental degradation, poverty and gender inequality. And while there is some content relating to sustainability and climate change, this is limited in an already over-crowded curriculum. Examples of existing subject material relating to sustainability and climate change at the university include recent updates to existing subjects and the use of case studies about the effects of severe, adverse climatic events, such as drought and floods, on rural communities. While this approach to incorporating sustainability in the social work curriculum was considered better than nothing, it is *ad hoc* and does little to change fundamental thinking about the relationship between social justice and environmental issues. A much more foundational approach – even a single subject or programme encapsulating sustainability and ecological social work – was regarded by the academics as one way of addressing the identified gap. In efforts to proactively address these concerns, we sought to develop a voluntary and cost-free online programme for interested students to explore issues of environmental sustainability and the ecological crisis as being central to social work.

Jones (2013) describes three approaches to developing a more ecologically informed curriculum, including the 'bolt-on approach', 'embedded' approach and 'transformative' approach (pp. 217–20). The bolt-on approach focuses on adding content relating to ecological sustainability to the existing curriculum, and the embedded approach aims to permeate ecological sustainability throughout the existing curriculum. Finally, the transformative approach seeks to change the fundamental orientation of social work education to reflect a holistic understanding of the place of humans in the natural world. Each approach represents a higher order of integration, and while all approaches represent worthy modifications, the transformative approach indicates a substantial shift in developing deep understandings of the natural world. The key elements Jones describes in relation to a transformative approach include eco-literacy, Indigenous perspectives, spirituality and a critical theoretical approach. Although the educational approach the authors subscribed for the pilot programme considered in this research was a 'bolt-on' approach according to Jones'

classification, it was nevertheless considered a positive, initial step towards recognising the significance of environmental sustainability and climate change in social work education at the university. In the short term, as a pilot programme, it provides immediacy in addressing an identified gap in course content without having to go through protracted university processes for substantial changes to subject content. In the longer term, outcomes from the pilot programme provide an evidence-base for further curriculum development relating to global environmental sustainability in social work at the university.

## Description of the project

The Ecological Social Work Programme was developed as a cost-free, optional, online programme for both distance education and on-campus students within the university's existing online subject delivery system and with aid from a small university grant. Online delivery provides a platform for equitable delivery of curriculum content to geographically dispersed students and is cost-effective from the university's point of view as well as from student-participants' perspectives (Jones, 2010a). Hawkins' (2009) definition of global citizenship was used to frame the workshop content as it identifies the 'moral and ethical responsibility toward human rights, economic fairness, social justice and environmental sustainability ... [and encourages] social work students to make a professional commitment to human rights literacy (knowledge), empathy (concern) and responsibility (action)' (p. 116). The programme was time-limited and ran for 6 weeks in 2012.

Drawing on De Freitas and Neumann's (2007) pedagogical approach to e-learning, the programme incorporates aspects of the Exploratory Learning Model (ELM), which includes five stages: experience, exploration, reflection, forming abstract concepts and testing of ideas. This means that a combination of virtual experiences, exploration exercises, critical reflection and group interaction activities was included in the programme in a non-linear fashion to maximise student learning. The ELM updates and expands on Kolb's (1984) model of experiential learning by extending the experiences to include e-learning and virtual experiences. In addition, a reflective approach to practice was considered in the development of the programme, including Fook and Gardner's (2007: 44) reflective practice model. This model broadly consists of two main stages: the first involves 'unsettling' fundamental assumptions through concrete experience, and the second involves the development of new awareness and subsequent practice changes. Each online workshop followed the following format.

- *Introduction of the workshop theme* – including definitions, key statistics and dot-points to provide a 'snapshot' of the theme;
- *Interactive learning activity or stimulus* – based on the workshop theme (i.e. an online quiz, YouTube clip, images or an article to read);
- *Asynchronous student wiki discussion and reflection* – in response to questions associated with the key theme to provide students with an opportunity for dialogue and exchange of information. The wiki also provided textual data to explore the impact of the programme, as described later.

The programme covered six workshop themes, and the content of each is now discussed. The *global warming* workshop provided an overview of the major impacts of global warming on human health and well-being, with an emphasis on health issues. The learning activity consisted of a quiz to test knowledge of global warming and a quiz on drinking water.

As part of the *global citizenship* workshop activity, participants were given Hawkins' (2009) definition of global citizenship. This definition was chosen because it directly links global

citizenship to social work identity and purpose. The learning activity was based on two images: one of an Indian woman cooking on a small, open fire on the floor of a basic, unadorned dwelling and the other of a Western 'nuclear family' cooking in a modern, fitted kitchen. Students were asked which picture they relate to the most and then challenged to consider the local and global impacts of a privileged consumerist lifestyle.

The *gender, social justice and human rights* workshop highlighted gender as a major factor in conceptualising human rights, social justice and environmental social work issues. Participants were presented with a range of statistics providing evidence of the global disadvantage experienced by women within a human rights framework (see Reichert, 2006). Two further activities were suggested: a reading on women and climate change plus two short 'YouTube' videos depicting how the empowerment of women and girls is central to promoting human rights, social justice and equity.

The *carbon footprints* workshop was designed to develop awareness about the causes of greenhouse gas emissions, for example, through transport, production and consumption of food, manufactured goods and services. In addition to this, participants were provided the opportunity to explore their own individual carbon footprints using an online carbon calculator.

Participants in the *glocalisation* workshop were introduced to the term 'glocalisation' (Hong and Song, 2010: 656) and encouraged to consider the global impact of local activities. Community capacity was also explored, and the Institute for Sustainable Communities (ISC, 2014) website was accessed as an online tool to explore the attributes of a sustainable community.

The final workshop – *ecological social work* – focused on the social work profession's responsibility in making connections between the natural environment and human well-being within the context of a continued commitment to human rights and social justice.

## Methods used to explore the impact of the programme

The aim of this research was to explore the role of social work education as a vehicle for preparing Australian social work students to becoming informed and active global citizens with regard to environmental sustainability. An evaluation investigates the impact of the programme on student learning, and outcomes of the evaluation are used as an evidence-base for consideration of a framework for further curriculum development in relation to environmental sustainability.

### *Data collection and analysis*

The qualitative data consist of textual data from the participants' online wiki posts in response to each of the six workshop themes. At the end of the programme, the research assistant downloaded, de-identified and collated the wiki discussion data into text documents before returning the data to the research team for analysis. The data were then thematically analysed through open coding, axial coding and selective coding (Ezzy, 2002). The data were collated using the workshop theme as the base code, and then each wiki question became a constructed code for initial data organisation. Further analytic, thematic coding within each constructed code was then completed by organising central themes relevant to the purposes of the project. For example, as a workshop theme, 'carbon footprints' represented a base code and the wiki posts were organised into their respective constructed codes. From this, themes emerged from the data, such as the 'barriers' students referred to as restricting them from reducing their individual carbon footprints. Quotations from the data are used to highlight participants' voices and are described and discussed in the 'Findings' section of this article.

## *Recruitment*

The programme was promoted via an online announcement on social work subject sites within the online study environment. Potential participants with an existing interest in environmental matters, as well as students with a curiosity to learn more about environmental issues in social work, were encouraged to participate in the programme. Students who had participated in the social work study abroad programmes were particularly encouraged to participate as a way to highlight the global context of social work as well as the carbon footprint created by international travel. Students were informed of the optional nature of participation and provided with a link to the project's research assistant for further information. Those who responded to the invitation to participate were then given a more detailed information sheet about the project and the consent form. The research assistant retained copies of all completed consent forms. A total of 31 students undertaking a qualifying degree in social work volunteered to participate in the programme. Consistent with our gendered student cohort, 30 out of 31 participants were female.

## *Ethical considerations*

Ethics approval was obtained from the appropriate university ethics committee. Particular ethical considerations included the voluntary nature of participation, the non-assessable nature of participation and the requirement of anonymity for students. An information sheet was provided to each potential participant as they responded online to the research assistant to express interest in participating in the project. The information sheet emphasised the voluntary nature of participation and reinforced that participation or non-participation in the programme did not affect grading in other subjects or overall course progression. Students were also informed that participation involved online 'wiki' discussions and activities and that wiki posts would be de-identified at the end of the workshop programme and used as research data. It was specified that the data would be used to explore student attitudes to environmental issues and to assess the usefulness of online material to enhance student engagement in relation to environmental sustainability. The online programme site was not managed by academic staff; a non-faculty research assistant was appointed for this purpose to maximise participant anonymity.

## *Limitations*

This is an exploratory study involving a small number of participants, and as such, there is no claim made as to the representativeness or generalisability of the findings. The study aims instead to provide potentially indicative, exploratory research on an under-researched topic and to make a valuable contribution to developing teaching in social work.

A possible limitation of the study was the timing of the programme, which may have impacted the capacity of students to participate. The programme commenced towards the end of the academic calendar when other study commitments could have been prohibitive for some students. In order to alleviate these pressures, the programme was designed to be flexible, self-paced and extending beyond the end of semester. The programme was also optional and represented additional workload for students; it offered no reward or recognition (e.g. a grade) for student participation and effort. Given this, it is likely that only students with an existing interest in sustainability issues self-selected to participate. Thus, it is likely the programme did not capture students with a low awareness or concern about environmental sustainability.

## Findings

The wiki data from each workshop theme are now described and discussed with reference to the literature review.

### *Global warming*

Ten participants posted comments in response to this workshop activity, with six indicating they already had a sound knowledge of global warming but had learned a lot more about water than they had previously known. In particular, participants found the material on the importance of access to safe drinking water, effective sanitation, water-borne diseases and ground-water depletion to be informative. Nine comments were posted on what had surprised them (if anything) about the workshop activity, with four indicating 'surprise', 'amazement' and 'shock' at the level of 'unnecessary consumption' of bottled water in countries where households have reliable access to safe tap water, for example: 'I was surprised and saddened by the numbers of people who do not have access to the water that I take for granted'. One participant also indicated surprise at the amount of water it takes to produce one bottle of water. One other participant thought that the number of people without access to safe drinking water would be higher 'given levels of poverty'.

Seven comments were posted in response to the question 'do you think there are any gender issues relating to global warming?'. All seven indicated there are gender issues, with five referring to a need for more information in order to better understand gender issues. One participant said that ecofeminist literature had helped to develop knowledge of the gendered impacts. One other participant thought that the nature of one's employment might impact gendered experiences of global warming, stating, for example, that in industrialised countries men might be hardest hit by drought as farmers are 'predominantly men', while in developing countries, women do most agricultural work and might be the hardest hit. One student stated that because women mostly collect household water 'in poverty-stricken countries', women would be most affected by lack of access to safe water.

### *Global citizenship*

Participants were asked to consider the local and global implications of two 'lifestyle' images (an Indian woman cooking over a fire and a family in a typically 'Western' kitchen) and specifically to respond to the wiki question, 'Which lifestyle depicted in the images is most likely to be more sustainable and why?'. Nine comments were posted, with five stating that the Indian image was likely to be the most sustainable lifestyle. These comments generally related to the simplicity of the image – 'a simple meal being prepared in simple conditions with no hint of any global interference', including the lack of electrical appliances, other consumerist goods and equipment. One participant also commented on the implied small-scale sustainability of the lone Indian woman cooking and of her taking only what she needs to survive, with minimal waste. The second, contrasting image was described in the following terms: 'The second image shows many appliances and goods which would not likely have been produced locally so that labour, transport and exploitation have probably all come into play in setting this 'happy' scene'.

The other four comments relating to this wiki question were much more equivocal and contained reflections on the 'complexity' of whether individual subsistence lifestyles are as efficient as they appear in terms of resource use. One participant commented on the use of the indoor open fire and wondered about air quality and the source of the wood used to fuel the fire. This participant linked the wood-burning fire to deforestation, noting that while wood-burning fires for cooking

may not be the major reason for deforestation, they still contribute to the overall loss of old-growth forests. Another participant described the second image as a representation of how modern, Westernised lifestyles are fundamentally disconnected from the environment. This participant also felt that the first image represented a more ecologically just approach to satisfying her own needs without compromising the ability of future generations to meet their own needs. One participant commented on how the lone Indian woman's energy might be devoted to survival, while the Western family's relative material affluence might allow them the 'luxury of thinking beyond their immediate community'. Participants were also asked, 'What actions might be undertaken by a responsible global citizen to contribute to fairness?'. Five comments were posted, offering macro-level suggestions, plus micro-level, practical actions. For example, macro-level actions included awareness of and educating others about global poverty, making sustainable lifestyle choices, buying 'fair trade goods' and donating to international aid organisations.

### *Gender, human rights, social justice and global warming*

After viewing the video material and reading the 'snapshot' facts, participants were presented with three wiki questions: Why might 'girls be the answer'? What about males? What gender, human rights and social justice issues affect Australians? Eight comments were posted on girls being 'the answer', with all participants commenting on the global/collective impacts of empowerment for women and with one participant noting that 'without equity in decision-making, the decisions will always favour those who make them'. Some participants directly linked the initial textual information provided in this workshop activity to the ideas raised in the videos:

The clips show that if society invests in the future of women, their lives will change for the better ... Closing the gaps between men and women will be a long task to complete however but when reached it will hopefully end the cycle of poverty and disadvantage for women.

Taking on the figures ... at the start of this module, it becomes evident that women are directly affected by climate change though its effects on work, poverty, farming and the cycles of these interactions ... Intercepting the cycle of poverty ... has to have a positive impact on generations ... I liked this campaign, I found it empowering for girls and it made change seem achievable.

All eight comments in response to the question about males related to the existence of male power and privilege; one participant commented on males being potential 'facilitators of change'. One participant commented on the global citizenship responsibilities of educated, Western women: 'I feel it's our obligation as educated women to ensure that women are given equal opportunities and life chances as men and [it is] our responsibility to assist women abroad'. Seven comments were posted in response to 'What gender, human rights and social justice issues affect Australians?'. All comments identified discrimination against immigrants, refugees and asylum-seekers as a 'major' issue. Likewise, gender discrimination against women was identified by all and included workplace discrimination (especially in relation to child-rearing), unequal pay and women's under-representation in leadership roles in politics and business. Six participants identified discrimination against Aboriginal and Torres Strait Islander people as an ongoing issue in Australia. Other issues identified included discrimination against people with disabilities, same-sex couples, rural and remote people, and homeless people (one comment each). The following observation encapsulates the comments overall:

There is still gender inequality within the workplace and politics, although this is changing ... In terms of social justice and human rights, multiple groups come to mind. Aboriginals and Torres Strait Islanders

have poor statistics in regards to health, education, equality, and detainment. Refugees and people from diverse cultures are also often neglected in terms of social justice and discrimination in our society. This is perpetuated by law and mainstream values and norms.

### *Carbon footprint*

A total of 11 participants engaged in the wiki discussion and were asked the following questions: Could you reduce your carbon footprint? What are the practical steps you could take? Could you reduce your energy consumption? Could you offset your car emissions or reduce them? Could you ride a push-bike? Could you reduce your house size to be more energy efficient? Could you increase your tree planting or support sustainable developments and sustainable design?

Participants identified various strategies for reducing their own carbon footprints, including buying locally grown produce, growing your own vegetables, reducing animal product consumption, installation of solar panels, reducing food wastage, energy-efficient means of cooling, using cars less and accessing public transport, planting trees and various other strategies such as reducing plastic bags and wrappings, house modifications, recycling, accessing green energy sources, composting and keeping chickens. Participants also identified strategies that could reduce their car emissions, including car-pooling; planting trees; walking, riding or using the train service; and reducing multiple trips into town. Four participants also agreed they could ride their push-bikes more. The two participants who agreed they could downsize their living arrangements referred to their children having left home to live independently.

Five participants highlighted a range of personal reasons as to why it would not be possible to reduce car emissions, including having no access to public transport in their community, multiple children making it difficult to use public transport and the workplace being too far away to ride a bike. Reasons for not being able to reduce house size included having a small apartment, having a large family, already living in a shared arrangement and a scarcity of rental properties that does not enable a choice in the size of the house. Time and money in relation to increased tree planting were also identified by some as constraining tree planting opportunities.

### *'Glocalisation'*

Four participants responded to five questions on the wiki: In what ways are community capacity building and global outcomes linked? The ISC article says that climate change is one of the major challenges to people's quality of life – do you agree or disagree with this, and why? How do you think making the most of local economic opportunities could lead to a more global, positive effect? Can you think of some examples? What could you do individually, at a local level, which might contribute to a positive, broader outcome? Share some ideas about individual, organisation, or community activities and behaviours which can contribute to a more positive outcome.

All four participants agreed that climate change is one of the major challenges to people's quality of life, and made references to a variety of issues such as poverty, disease, crop failure, widespread hunger and wars as people fight for scarce resources. Three participants also strongly identified an association between community capacity and global outcomes. Two of these participants specifically referred to the capability of communities to address structural inequalities that create and sustain global disadvantage, such as capitalism.

Participants identified a range of possible local activities that could provide economic opportunities, including the development of Indigenous tourism initiatives that values Aboriginal people as our 'first' people as well as provides an economic benefit. Other examples included green energy, buying and selling of local and seasonal foods, sustainable agricultural practices and

building capacity in marginalised farming areas, as well as research into sustainable pastures, which might contribute to solutions in the global south.

Participants identified a range of ideas about the types of individual, organisational or community activities that could contribute to a more positive global outcome. Responses by participants included the following in relation to the individual: becoming informed about sustainability issues, making an informed decision not to buy products that are manufactured under exploitative conditions ( $n=1$ ), reducing water and energy use, and planting trees. At the organisational level, participants identified two initiatives, which involved the monitoring of and reduction in organisational energy consumption and organisational support for a community building project or child sponsorship. At the community level, participants referred to community gardens, monitoring of pollution, healthy living activities and collaboration of community members through community meetings and newsletters.

### *Environmental social work*

Four participants responded to three questions on the wiki relating to professional, practice and personal issues: 'At the *professional* level, what obligations do social workers have towards global citizenship and sustainability?' 'At the *practice* level, what are the most significant sustainability issues social workers should be aware of in their everyday work?' 'At a *personal* level, what changes might you make (or have you made) to your everyday life?'

Three participants identified environmental education as a professional obligation, including the responsibility to develop current theoretical knowledge, to remain informed about local and global issues, as well as the need to share and educate other people about environmental issues. Two participants related to professional ethical obligations of social justice and the need to support like-minded charity organisations with the same aims.

At the practice level, participants made several suggestions each about the significant issues social workers should be aware of, including making modifications to the workplace such as recycling, reducing paper usage and energy consumption. Participants also referred to developing knowledge about local and global issues, having an awareness of initiatives that might improve the lives of community members, educating clients about sustainability and global activism. In particular, one participant framed his or her response by referring to the micro-, meso- and macro-levels of practice, including advocacy, intervention, community development, education, research and policy making.

In relation to the personal level, participants made noteworthy comments about the positive impact that participation in the online programme has had on their personal lives. The participants referred to activities they are already undertaking as well as to activities they will now pursue, for example:

Since studying green social work I have become more aware of the changes that I can make within my personal life. Employing such acts as turning off appliances at their switches when not in use, recycling more often, starting to buy more ethically produced food such as teabags, chocolate and coffee but will look into other products as well and continuing to support the charity organisation Save the Children.

### **Discussion and implications for social work education**

Educators now have a range of communication technologies with which to engage students. Findings from this study reinforce the importance of experiential e-learning activities for maintaining student engagement throughout the programme (De Freitas and Neumann, 2007). Workshop

participation varied according to levels of experiential learning, and participants engaged more actively in workshop topics that provided a visual or interactive stimulus relevant to the theme, such as an online quiz or video. Participants were less likely to contribute to workshop topics requiring large amounts of reading. Further improvement to the programme is needed to ensure each workshop topic commences with a meaningful and attractive stimulus to engage participants at an empathic level, as a foundation to developing human rights literacy and a commitment to global citizenship (Hawkins, 2009).

Outcomes of the research indicate there was some educational benefit to student learning through participation in the pilot programme. Data suggest there was new learning for participants, for example, in relation to gender oppression, water quality and the cost of carbon emissions, as well as the global impacts of local actions in relation to environmental degradation. This suggests the programme developed knowledge and awareness for participants about the impacts of climate change on vulnerable groups, and the inter-related global nature of environmental degradation, highlighting these issues as of concern to social work and a call to action, reflecting Hawkins' (2009) definition of global citizenship.

From the data, gaps in participants' knowledge were also identified, particularly in relation to foundational issues such as social work theory, gender and Euro-centrism. For example, one participant assumed that farmers in industrialised countries are predominantly male, and therefore, men suffer most from climate change. This represents a dominant, oppressive, patriarchal construction of farming. In addition, participants posted many comments on 'privilege', but the focus remained on ameliorating the impacts of 'privilege' on the 'underprivileged', rather than on deconstructing the nature of privilege itself. Without increased emphasis on how privilege is maintained, we are not working effectively for social change, and risk working as agents of social control (Author, 2013b; Pease, 2010). Due to the brevity of the programme, it is unlikely that such constructions can be comprehensively critiqued and challenged; a more sustained and integrated approach is required. This emphasises the need for social work education to include critical reflection and dialogue in order to examine how social work in the context of industrial capitalism is contributing to global and environmental problems for the world's least-advantaged citizens (Coates, 2005; Jones, 2010b). It also reinforces the importance of human rights literacy (Hawkins, 2009) as foundational in social work education for ecological justice and global citizenship.

Responses from participants also highlight the difficulties some individuals experience in adopting environmentally sustainable practices and provide insight into the barriers that impede progress towards individual change. For example, participants noted their reasons for not being able to reduce car emissions, such as a lack of access to public transport and issues of safety on roads for push-bike riding. While individual change is one aspect of sustainability, a focus on individual behaviour modification alone fails to recognise that those who consume most of the resources responsible for causing climate change are the larger industries predominantly concerned with capitalist notions of profit and economic growth (Coates, 2005; IFSW et al., 2012). It follows, then, that an educational approach needs to include a structural analysis to avoid an unreasonable focus on individuals, especially those living in disadvantaged circumstances. This critical theory approach corresponds with social work's existing approach to education and is a key dimension of Jones' (2013) transformative approach to an expanded ecological curriculum.

Outcomes of the pilot programme provide an evidence-base for further curriculum development in relation to environmental sustainability. As a 'bolt-on' approach according to Jones' (2013) classification of curriculum alternatives, results from this research suggest that a more comprehensive integration of environmental sustainability into curricula is needed to enhance social work education. This supports Jones' (2013) argument that a 'transformative' approach to developing an ecologically informed curriculum is ideal for nurturing a deeper understanding of the interdependence

**Table 1.** Transformative curriculum development for environmental sustainability in social work.

Aspects of global citizenship (Hawkins, 2009)	Foundations of curriculum content
Empathy/concern	Provide opportunities for social work students to develop awareness about environmental decline and the impact of personal behaviours within a global context (e.g. self-exploration activities, carbon footprint assessments); Facilitate meaningful and experiential learning activities with the aim of developing concern and empathy regarding global environmental issues (e.g. interactive online and classroom activities involving individual and community-based case studies, group activities); Facilitate a deep understanding of the interdependence and interconnectedness of humans with the natural environment by providing opportunities for students to reconnect with nature (e.g. nature-based activities, field placements, study abroad programmes).
Knowledge/literacy	Nurture an understanding about ecology and the place of people within a natural world, including Indigenous knowledge; Foster a healthy critique of assumptions within core social work theory subjects, including conventional, modernist roots and inherent estrangement from the natural environment; Facilitate ongoing opportunities for critical reflection on social constructions related to environmental sustainability, including gender and privilege; Apply social work values of social justice and human rights to environmental sustainability issues, including consideration of environmental justice.
Action/responsibility	Embed experiential learning opportunities throughout the social work curriculum, including research, study abroad, field education, community action and projects with an emphasis on natural environmental considerations; Facilitate interactive online and classroom activities that combine experience, exploration and critical reflection to encourage student engagement and understanding about environmental sustainability issues (e.g. audio-visual stimuli, news events, asynchronous and synchronous communication activities); Identify strategies throughout the curriculum for day-to-day practice that equip social workers for practising mindfully in an ecologically informed way.

between people and the natural environment, including ‘eco-literacy’ (knowledge of nature’s systems) and ‘criticality’ (critical theory approach) (p. 221). In conjunction with Hawkins’ (2009) definition of global citizenship, environmental sustainability is thus located within a global context that acknowledges the disproportionate effects of climate change on the world’s poorest, least-advantaged citizens. This global framework also acknowledges social work’s commitment to social justice and human rights as ethical and professional responsibilities, in relation to empathy (concern), literacy (knowledge) and responsibility (action). The following model provides a framework for curriculum content and development. This model could be used to ensure that content is woven like a green thread throughout social work curricula and not isolated or ‘bolted-on’ (see Table 1).

Climate change is already having serious effects on people across the globe, including health, emotional, gender, social and economic impacts. It is our view that social work as a collective body has the opportunity to contribute in meaningful ways, as global citizens, to environmental sustainability. Education is a vehicle to ensure social work graduates are informed about issues of

environmental sustainability. Social work graduates need education for sustainable practice in order to respond to the impacts of climate change. Importantly, graduates also need proactive education so that they can contribute to protection of the environment and, ideally, also to prevent further environmental degradation into the future. This is fundamental for social work as a profession with an articulated commitment to human rights, social and environmental justice (Hawkins, 2009; IFSW et al., 2012).

## Conclusion

A major challenge for social work is the comprehensive reconfiguration of the profession's conceptual foundation, in order to transcend the limitations of our modernist foundations. Western social work's relationship with modernism underpins the estrangement between the traditional social work domain and the natural environment. This has obscured the interconnectedness of humans and the natural environment (Alston and Besthorn, 2012; Author, 2013b), and social work education still typically tends to mirror this estrangement (Shaw, 2013). 'Bolt-on' content can play a role in introducing ecological content into social work curricula within a relatively short time frame. It is ideally part of a long-term strategy to embed curriculum content in order to encourage transformative learning in relation to ecological social work and global citizenship.

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