Care and teacher education for a sustainable future:
A critical survey of the literature

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Abstract

The research focus of this literature survey is to critically investigate the relationship of care to teacher education for a sustainable future. The challenge for teacher education for a sustainable future is to ensure graduating teachers are ecologically literate insofar as they understand the need for change to a sustainable way of living and teaching, have the will, capacity and knowhow to put it into action and are ready, willing and able to affirm sustainable actions in others, particularly their students. The goal therefore is to establish the conditions under which caring-for a sustainable future can flourish. According to Noddings (1992) care theory provides the infrastructure for ethical decision-making in education. Care is central to the cultivation of a caring society and a necessary pre-condition 'for' education as well as an essential ingredient 'in' education. This is because it bestows nourishment for a sustainable future. Care starts at home where we learn to 'care-about' through the experience of being 'cared-for' and continues into education. Care is most often identified by pre-service teachers as their principal reason for choosing to study education, their motivation to become teachers. Care in education involves receptive attention, motivational displacement and mutual gain. It has four components, namely: modelling, dialogue, practice and confirmation. For teacher educators to be able to model, dialogue, practice and confirm a pre-service teacher's "better-self", they too must feel like they work in a caring environment, one where their supervisors care about them, want the best for them and are invested in their success. This paper questions whether neoliberal instrumental forms of teacher education that use prescriptive standards, dominant accountability measures and micromanagement strategies risk over-focusing on education for the head but offer little more than benign neglect for the heart and soul, the homeland of education for a sustainable future.

Keywords: Teacher education, education for sustainability, care, care theory

Introduction

This survey of the literature critically investigates the relationship of care to teacher education for a sustainable future. Sustainability essentially refers to the capacity to endure, to have the ability to be maintained into the future. The proposal for teacher education to adopt education for sustainability as both policy and practice is now well accepted in Australia and throughout the world. The challenge for teacher educators as to how such a proposal might be actioned is less clear.

Sustainability

Sustainability as an identifiable global concern emerged in the 1950s with some countries introducing national legislation e.g., USA Air Pollution Control Act 1955. By the 1960s environmental education had became a popular subject in schools, tertiary institutions and the media. Then in the 1970s the UN started holding international gatherings on issues related to sustainability with two standout meetings being the 1990 Montréal Protocol on Ozone Depletion and the 1997 Kyoto Conference on Global Warming.

Over the years sustainability has come to more specifically refer to human sustainability on earth, with particular reference to three areas, namely environmental, economic and social. This refinement of meaning led to the UN (1987) definition of sustainable development as: "development that meets the needs of the present [human population] without compromising the ability of future generations to meet their own needs".

Education: Problem and solution

By the 1990s education was dually identified as both a cause of the problem of sustainability and a potential solution. A pioneering leader in this line of argument was David Orr. Orr (1992) coined the term 'ecological literacy' and linked what he described as the crisis of sustainability with a crisis in education (Trainer, 1997; Orr, 2004; Williams, 2008). There is a paradox of education. Those with more education and higher incomes consume more resources. According to Orr (1991) education provides "no guarantee of decency, prudence or wisdom". Furthermore, he warned, continuation of the "same kind of education will only compound our problems". He therefore strongly advocates for education to produce: "role models of integrity, care, thoughtfulness".

Uhl, Kulakowski, Gerwing, Brown and Cochrane (1996, p. 1311) further highlighted the dilemma when they wrote:

> At a time when all the world looks to the United States as a role model, they see a country drunk on consumption, a country whose people are often apathetic, imagining that citizenship requires little or nothing of them. If US universities are to truly fulfil their responsibilities of education, research, and leadership, they must (1) begin producing students who are ecologically literate and who understand both the demands and power of an active citizenry; (2) take a proactive role in convincing public and private sector funders to support research on pressing sustainability-linked issues; and (3) operate according to sustainable practices. They must, in short, take courageous steps to prepare students for a world founded on sustainable practices and not on the impossible dream of perpetual growth.

The authors' disquiet at the mismatch between rhetoric and reality at all levels of school education continues to be a major issue of concern in the literature today (Stevenson, 2007a, b, c).

For Stevenson (2007b) the problem relates to a disconnection between what is taught and how it is implemented. Sustainability does not fit neatly into the kinds of discipline and curriculum boxes used by educational institutions (Wheeler, 2000). As Williams (2008) explains: "With the compartmentalisation of disciplines into various subjects … children are initiated into a worldview based on technocratic and mechanistic frameworks" (p. 42). This approach however is thought to be counterproductive because education for sustainability relies on a holistic message, one that is astutely aware of the complex interrelationship of interdependence within the whole.

Ecological literacy

Literacy refers to the knowledge and skills a person has to communicate in ways that enable them to take part in society. Ecological, eco or sustainability literacy "involves understanding the underlying scientific and technological principles, societal and institutional value systems, and the spiritual, aesthetic, ethical and emotional responses that the environment invokes in all of us" (Environmental literacy, 2003, p. 2). A sustainability literate person therefore will:

1. Understand the need for change to a sustainable way of doing things, individually and collectively
2. Have sufficient knowledge and skills to decide and act in a way that favours sustainable development
3. Be able to recognise and reward other people's decisions and actions that favour sustainable development. (Forum for the Future, 2004, p. 9)

Teacher education

The challenge for teacher education for a sustainable future is to ensure graduating teachers are ecologically literate insofar as they understand the need for change to a sustainable way of living and teaching, have the will, capacity and knowhow to put it into action and are ready, willing and able to affirm sustainable actions in others, particularly their students. The goal therefore is to establish the conditions under which caring-for a sustainable future can flourish.

Over time the call for teacher education to play a more proactive role in delivering the sustainability message has spread to all levels of school education (Tilbury, Coleman & Garlick, 2005). Said, Ahmadun, Paim and Masud (2003) for example argued that schooling has the potential to help in the formation of positive attitudes. The core business of teacher education is to prepare teachers to facilitate learning with students from early childhood through to late adolescence. The school years are widely espoused as a time when students develop key understandings, which help to shape their behaviour as adults. Furthermore being aware of a wider temporal, socio-cultural, geographical context has long been central to the discipline of education's activities. This makes it well placed to nurture a culture of sustainability and to ensure that pre-service teachers become ecologically literate.

According to the literature, at a time when few teacher education courses include information on education for sustainability, pre-service teachers themselves seem to have limited knowledge and understanding (Taylor, Nathan & Coll, 2003; Miles, Harrison & Cutter-Mackenzie, 2006; Kennelly, Taylor & Maxwell, 2008). Ferreira, Ryan and Tilbury (2007) campaign for education for sustainable development to be embedded in all pre-service teacher education policies. They also review models to achieve the goal in teacher education programs: "Collaborative Resource Development and Adaptation Model, the Action Research Model and the Whole of System Model".

Scott (2009) however invites us to reflect more deeply on our own priorities. He recommends we enquire: "What are you really most interested in: educational or social outcomes – what learners learn, or what they do?" (p. 33). He quotes Fish (2008) when he poses the question: "Are you asking academic questions or are you trying to nudge your students in some ideological partisan direction?" (p. 38). One such ideological direction is neoliberalism.

Neoliberalism

The goal of neoliberalism is to reduce the role of government while increasing the role private business plays. When applied to education neoliberalism adopts the language and strategies of the market place to emphasise efficiency and consumer choice. Molner and Garcia (2007) explain how this is evidenced in the use of national testing and school league tables where the "acceptance of a test score as the "bottom line" for school quality allows education policy-makers to propose and implement policies that mimic business practices (p. 20). As Jones (2007) reminds us, the "for-profit motive" is not necessarily ethical. According to Gabbard and Atkinson (2007) neoliberalism aims to restore "total class domination" (p. 105), which leaves little room for social justice measures. Parenti (1996) goes even further arguing that with neoliberalism, the problem is not only limited to the demise of the state school education system "When the power of capital is increasingly untrammelled, all of us are put at risk: the environment … ordinary people" (Parenti, 1996).

Neoliberal approaches are increasingly more evident in teacher education programs throughout the western world. The entire spring edition of the 2007 *Teacher Education Quarterly* for example was devoted to this issue. Neoliberal approaches to teacher education in universities include prescriptive standards (Queensland College of Teachers), dominant accountability measures and micromanagement strategies. Furthermore: "In a culture of 'performativity' research into 'education' is often avoided" (Webster, 2004, p. 22) with "A common justification for placing an ever-increasing emphasis upon the technical and instrumental aspects related to learning and skill development [as] … to meet the perceived challenges of globalization and economic utility" (pp. 22-23).

Clandinnin, Downey and Huber (2009) agree. They report how Noddings' words "affected us deeply and we often ask ourselves: What really matters? … [In our research] One of the answers we can live with is when we answer in terms of trying to create more educative spaces for teachers, children, youth and families" (p. 152).

Care theory

Care theory offers a different approach to education, one that pays particular attention to authenticity. According to Noddings (1992) care theory or the ethics of care provides the infrastructure for ethical decision-making in education. Focusing on the ethics of care enables us to think about what makes certain behaviours right or wrong. For this reason care theory is regarded as a normative ethic i.e., it concentrates on the practical means of coming up with a specific course of action. A particularly relevant aspect of the ethics of care to education for sustainability is its attention to relationships, especially with those who are most vulnerable and powerless. In this way care theory bestows nourishment for a sustainable future. The "greatest obligation of educators" Noddings (1984) concludes: "is to nurture the ethical ideals of those with whom they come in contact" (p. 49).

Care, Noddings (2002) argues, is central to the cultivation of a caring society and a necessary pre-condition 'for' education as well as an essential ingredient 'in' education. Care starts at home where we

learn to care-about through the experience of being cared-for and then continues into formal education. Caring begins with one's parents and family. It is the "original condition" (p. 121). As Bergman (2004) explains: "To be cared for, to be the recipient of the complete and single minded attention of another, simply because of our need for such attention, is to be initiated into and invested in the moral life" (p. 151). At home the child learns what it means to be cared for. From this the child learns what it means to care for and to care about, which in turn provides the foundation for a sense of justice. Noddings (2002, p. 24) continues: "Those who care about others in the justice sense must keep in mind that the objective is to ensure that caring actually occurs. Caring-about others is empty if it does not culminate in caring relations". Care theory therefore emphasises the importance of ensuring the child's home life is adequately resourced. It similarly links home life to school life by stressing the significance of designing pedagogy to be like that used in the best homes. Thirdly it links school life to home life by making certain what is done in school compliments home life.

The pedagogy of care

According to Noddings (1995) the pedagogy of care comprise teaching strategies that are similar to those used in the home. These include receptive attention, motivational displacement and mutual gain. Receptive attention or engrossment is achieved when the teacher is open and able to accurately take on board what the student is expressing. This is because the teacher reflects on, and checks the message. Motivational displacement occurs when the teacher's behaviour is shaped by the needs of the student. This results in mutual gain, where both teacher and student benefit from the interaction, thereby cementing the caring relationship.

The pedagogy of care has four components, namely: modelling, dialogue, practice and confirmation. Modelling refers to the way we represent something in our own behaviour. Noddings (1995) argues: "We have to show in our behavior what it means to care". As teachers we "do not merely tell them [our students] to care and give them texts to read on the subject, we demonstrate our caring in our relations with them" (Noddings, 1995, p. 190). The next step involves dialogue. According to Noddings (1992) dialogue is part of the lived experience of caring, where we exercise our engrossment. Through dialogue we model caring communication. Being bidirectional at the same time the student gets to practice what the teacher is modelling. "All students should be involved in caring apprenticeships" (Noddings, 1984, p. 187). The goal of this communication is to reveal to the student something to nurture, an ethical ideal. "When we attribute the best possible motive consonant with reality to the cared-for, we confirm [the student]" (Noddings, 1984, p. 193).

A caring university

Care is most often identified by pre-service teachers as their principal reason for choosing to study education, their motivation to become teachers. Care is what drew them to the profession. Marshall (2009) for example cites five research studies to support her conclusion that "most preservice teachers (Sinclair, 2006; Young, 1995), including second-career teachers (Chambers, 2002; Gordon, 1993; Serow, 1993), have identified altruistic factors such as a desire to help people as most important to their decision to teach" (p. 27). Care was similarly identified as the most important characteristic of a good teacher (Marshall, 2009).

Given the weight Noddings (1984) attributes to modelling coupled with the value preservice teachers ascribe to it, it is reasonable to ask whether university based teacher education programs that follow neoliberal approaches are able to talk the talk and walk the walk. This brings us back to Orr's paradox where education is both the problem and potential solution, providing it is able to produce "role models

of integrity, care, thoughtfulness" (Orr, 1991). In asking the question 'What is wrong with education?' Orr (1991, p. 52) quoted Nobel Peace Prize winner Elie Wiesel's assessment of the pre-Holocaust German education system: "It emphasized theories instead of values, concepts rather than human beings, abstraction rather than consciousness, answers instead of questions, ideology and efficiency rather than conscience". Orr went on to claim that more of this kind of education will only compound our problems, particularly in relation to teacher education for a sustainable future. These criticisms still apply to teacher education practices today.

Conclusion

For teacher educators to be able to model, dialogue, practice and confirm a pre-service teacher's "better-self", they too must feel like they work in a caring environment, one where their supervisors care about them, want the best for them and are invested in their success. The challenge here is how to build a caring environment that is able to authentically model education for sustainability. This paper questions whether neoliberal instrumental forms of teacher education that use prescriptive standards, dominant accountability measures and micromanagement strategies risk over-focusing on education for the head but offer little more than benign neglect for the heart and soul, the homeland of education for a sustainable future.

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