This is an Accepted Manuscript of an article published by Taylor & Francis in British Journal of Educational Studies on 06 Apr 2021, available at https://doi.org/10.1080/00071005.2021.1897519

THE FEASIBILITY OF INTEGRATING INSIGHTS FROM CHARACTER EDUCATION AND SUSTAINABILITY EDUCATION – A DELPHI STUDY

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ABSTRACT Although fostering values is promoted within sustainability education (SE), many educators appear concerned or conflicted about how, or whether, to approach values education. An interdisciplinary research project sought to draw on insights from character education (CE) in order to explore the problem. Using the Delphi technique, 12 CE and SE experts were gathered, via email, to explore their perceptions regarding the feasibility of integrating theoretical/practical insights from the CE and SE fields. Experts rated their agreement and made comments on 41 statements. 14 statements reached 'consensus'. Thematic analysis revealed experts' agreement on an ethical base of SE providing practical application of CE; a perceived tension between democracy, pluralism and normativity; reservations about the individual nature of CE; the need for CE, and SE, to more actively foster awareness of self as part of nature; a desire for holistic and interdisciplinary education; concern regarding exam-driven education and agreement on the need to re-examine the purpose of education. The findings reveal common ground between the two fields, as well as indicating where differences could be bridged and misunderstandings addressed, suggesting avenues for future collaboration and potential integration – possibilities that it would be fruitful to pursue through further interdisciplinary research.

Keywords: sustainability education; character education; Delphi study; values education; interdisciplinary studies

1. INTRODUCTION

Since the 1960s, when it became a distinct discipline, environmental education (EE), and subsequently sustainability education (SE), has undergone several changes in approach (Gough, 2013; Tilbury, 1995), moving from a focus on imparting knowledge, to behaviour

modification, to a more critical approach, to education for sustainable development (ESD) (Breiting, 2000; Gough, 2013; Stevenson et al., 2016; Tilbury, 1995). Throughout these changes, values education has been considered a component to a greater or lesser extent (Scott & Oulton, 1998). However, values education is highly contested ground.

Educators have been shown to be unclear or conflicted on how, or whether, values should be approached or taught, with many teachers reluctant to address controversial issues in the classroom, uncertain of how self-disclosing or judgemental they should be, and concerned about indoctrination (Althof, 2012; Aðalbjarnardóttir, 1999; Halstead and Pike, 2006; Halstead & Taylor, 2000; Kristjánsson, 2013; Kopnina, 2012, 2014; Scott & Oulton, 1998; Shephard, 2008). There is an on-going tendency for values education to be viewed as instrumental, un-democratic, or incompatible with a critical approach (Wals et al., 2008; Wals, 2011).

Vare & Scott (2007) wrote of the two pedagogical approaches of ESD (see also Wals et al., 2008; Wals, 2011; Sterling, 2010), which they termed ESD 1 and ESD 2. The former refers to education that is instrumental, and promotes predetermined, expert-driven knowledge, behaviours and values. Whereas, ESD 2 refers to building individuals' capacity to think critically about sustainability issues and to self-determine sustainable ways of living (Vare & Scott, 2007; Wals et al., 2008; Wals, 2011).

ESD 2 seeks to foster active participation in a deliberative democratic community that considers pluralism and a diversity of opinions and approaches central to sustainability (Wals, 2010). In this context, a democratic and pluralistic stance allows for learners to offer and respond to different opinions, viewpoints, voices, ways of knowing, etc. Pluralism goes hand-in-hand with democracy, but is also inherent in sustainability: sustainability will require a variety of different approaches and responses depending on the spatial and temporal context (Wals, 2010).

In addition to democracy as a *process* of learning, ESD 2 also comprises democracy as a *product* of learning i.e. learners experience participatory democratic debate and decision-making, and thereby learn skills to engage as citizens. Proponents of ESD 2 argue that ESD 1 reduces learners ability to think and act for themselves, limiting their autonomous thinking, and reducing their capacity to manage change, challenges and setbacks as responsible citizens, thereby making individuals and societies less sustainable long-term (Jickling, 1994; Vare and Scott, 2007; Wals, 2010).

In contrast, Sterling (2003, 2010) warns that alone an ESD 2 type approach can be ethically bereft, lack direction and be prone to relativism, and as such may do little to support the move towards a more ecological/sustainable perspective (See also Kopnina, 2012; Washington, 2015). Kopnina (2012, p. 710) has argued 'there is nothing inherent about democracy that guarantees environmental protection'.

Furthermore, Bonnett (2003) criticises the focus on critical approaches as putting too much faith in rationality. Firstly, Bonnett (2003) questions the ability of students to make rational choices in light of the powerful influences present in a neoliberal society; Kretz (2014) for example, argues the neoliberal ideology appropriating westernised education fosters visions of self that are individualistic, consumerist, and competitive. Secondly, Bonnett believes 'modern rationality is itself not neutral but expresses certain aspirations towards the world (notably to classify, explain, predict, assess, control, possess and exploit), ... rationality that has led to our current environmental predicament' (Bonnett, 2003, p. 699; See also Sterling, 2001, 2010, 2014).

Connected to these arguments, Kopnina and Cherniak (2016) argue that a pluralistic approach is anthropocentric and undemocratic in relation to the environment, by not giving nature a voice – 'some animals are more equal than others' (p. 831). Despite being opposed to approaches that foster predetermined values, the pluralistic ESD 2 approach itself is

instrumental and value laden in terms of advocating for social and economic equity (Kopnina & Cherniak, 2016).

Additionally, Kopnina and Cherniak (2016) argue that an approach based on pluralism can leave more ecocentric stances as radical outliers, and call for a radical reconceptualization of the meaning of pluralism to include the more-than-human.

Vare & Scott (2007) came to the conclusion that rather than seeing the two approaches as competing, they should instead be considered as complimentary. Likewise, Sterling (2010) argued that the tension between the two traditions was impeding sustainability education's effectiveness, and called for their necessary reconciliation, mutual illumination, and integration.

The viewpoint of the need to combine these two pedagogical approaches motivated a research project, a part of which this paper is based on, that uses Repko and Szostak's (2017) Interdisciplinary Research Process (IRP) as a framework to explore the problem of teaching the values aspect of SE. The research takes an interdisciplinary approach, drawing on disciplinary insights, with the goal of integrating those insights to construct a more comprehensive understanding. It is intended that the findings will further theory and inform the development of teaching practices, and subsequently support educators in regards to the challenge of teaching the values aspect of SE.

In the early stages of the IRP, Character education (CE) was identified as a relevant discipline from which to draw, being an existing field of educational research and practice that aims to support the social, emotional and ethical development of students.

Although it is beyond the scope of this article to thoroughly argue the case for integrating CE and SE (See Jordan & Kristjánsson, 2017 for a more thorough account), it is pertinent to explain the main reasons why character education was chosen as opposed to

other values education approaches. Common ground was discovered in two main areas: Firstly, there are voices within the SE field that call for a fundamental change in ourselves in relation to each other, and in relation to nature or the more-then-human world. Sterling (2014) for example, talks of a shift in our worldview, in our perception, action, and knowledge, while the prominent environmental educationist David Orr (2004, p. 60) argues sustainability is 'fundamentally about morality' and stresses 'the need to think seriously about the relationship between sustainability and human qualities subsumed in the word virtue'. Carr (2004) argues that the fostering of a deep connection with nature indicates a change in character rather than principle. In CE, the field of Environmental Virtue Ethics (EVE) already exists, with a focus on fostering virtues related to a deeper, more profound and respectful relationship with nature. CE and SE ve potential to overlap in terms of viewing sustainability as something we are, rather than only something we do. Secondly, and related to the previous point, sustainability is often framed in the context of wellbeing or living well within ecological boundaries, and includes aspects of spatial and temporal equity. This corresponds with an emphasis on flourishing within certain, although not all, CE approaches, for example, Aristotelian virtue ethics aims towards individual and societal flourishing. The ability of individuals and societies to consider, and their practice of asking, fundamental questions regarding humanity's existence, and means of flourishing, within the wider ecological system will become more necessary as sustainability issues mount. These integral elements of CE link to the on-going sustainability debate and the 'excellences' needed to address sustainability issues.

Like the SE field, the CE field has similarly grappled with questions of democracy and indoctrination (Althof & Berkowitz, 2006; Kristjánsson, 2013), and concerns have been raised about CE being adopted towards neoliberal ends (Peterson, 2020). Debate continues on the role CE has in citizenship education with some favouring a knowledge and democratic

skills based approach (Althof & Berkowitz, 2006), while others advocate integration, arguing citizenship education inherently involves both the moral and the political (Peterson, 2020). Similar to Kopnina & Cherniak (2016) above, Kristjansson (2004, p. 210) has argued that 'citizenship education is concerned primarily with the transmission and inculcation of democratic values, not merely the teaching of facts about what such values involve', thereby raising questions about the criticism of indoctrination in regards to other values, and revealing the inherent hierarchy of values this suggests.

The overlap between CE and the values aspect of SE, as well as a degree of similarity between on-going debates within the two fields, indicated SE, as well as CE, could benefit from interdisciplinary research involving the two fields. However, it is also worth noting that many of the issues brought up in this paper are applicable to other approaches to values education.

This paper presents findings from a Delphi study to explore experts' perceptions regarding the feasibility of integrating insights and/or practice from the CE and SE fields. The paper will report on the Delphi study findings i.e. the experts' viewpoints, and then introduce the themes developed from those viewpoints expressed during the Delphi 'discussion'. Following this, the themes will be brought into conversation with the existing CE and SE literatures, placing them in the context of the wider discourse and situation within the two fields, thereby further shedding light on the feasibility of integrating their insights. Lastly, the implications of this work will be discussed and future research suggested. However, to begin, the paper will outline the Delphi method and how it was applied in this study.

2. METHODOLOGY

The Delphi technique can be seen as a structured group communication process that focuses

on a problem (Linstone and Turoff, 1975, as cited in Okoli & Pawlowski, 2004). Since sufficient knowledge concerning the problem is required, a panel of experts is gathered. The Delphi study can be likened to a virtual meeting of a panel of experts gathered to arrive at a group answer to a problem (Okoli & Pawlowski, 2004). The study was carried out via email.

12 participants ('experts') were purposefully sampled using criterion sampling, stratified purposeful sampling, and snowball/network/chain sampling (Bloomberg & Volpe, 2016). The objective was to select a mix of educationists from both the CE and SE fields. The experts were selected via a 'Knowledge research nomination worksheet' (Okoli & Pawlowski, 2004) in order to make the sampling process as transparent, non-biased, and systematic as possible. Seven SE experts (five 'academics', two 'practitioners'; three males and four females), and five CE experts (three 'academics', two 'practitioners'; three males and two females) from across seven countries, four continents, took part in the study. In terms of specialisation and approach in both SE and CE, it was attempted to gather a broad range of approaches to both SE and CE. SE experts' focus varied from the emotional and values aspects of SE, childhood education and learning, outdoor education, and participation and SE competencies, and SE teacher training. CE experts' focus varied from moral development, social science education, cognitive psychology, and civic education. However, in regards to the CE experts, it should be acknowledged that there turned out to be a leaning towards, although not a restriction to, a neo-Aristotelian virtue ethics based approach to CE, therefore the findings should be viewed with this in mind. All participants provided written consent before participation. Below I use pseudonyms to refer to the participants, in order to maintain anonymity.

The Delphi involved experts answering questions in three rounds (See Figure 2).

Round 1 of the study sought to gather the initial ideas and perspectives that would then be

developed and evaluated in the subsequent rounds – it consisted of five open-ended questions:

- A. How *desirable/worthwhile* do you think the integration of insights and/or practice from the CE and SE fields is?
- B. What *possibilities or options*, if any, do you think exist for the integration of insights and/or practice from the CE and SE fields?
- C. What factors do you think might (or currently do) *impede* the integration of insights and/or practice from the CE and SE fields?
- D. What factors do you think might *facilitate* the integration of insights and/or practice from the CE and SE fields?
- E. How *practical/viable* do you think the integration of insights and/or practice from the CE and SE fields is?

Responses from Round 1 were anonymised and consolidated into a set of statements by the researcher, which were then sent to the experts in Round 2. Round 2 involved experts' evaluation of the statements in terms of agreement and importance via 5-point Likert items, and an opportunity for experts to add comments and revise their views (Okoli & Pawlowski, 2004).

Comments and evaluations from Round 2 were used to modify the statements. The modified set of statements, along with the Round 2 comments and descriptive statistics on the evaluations were then sent to experts in Round 3. Statements that reached consensus in Round 2 (all experts either Agreed or Strongly agreed) were excluded from Round 3. In Round 3, participants again commented upon and evaluated each statement. Finally, the comments and evaluations from Round 3 were analysed, and a final set of agreed upon statements was compiled by the researcher. Data synthesis and interpretation (of ideas,

concepts, and themes) is ongoing throughout a Delphi study. Descriptive statistics (median, mode, frequency data, response/point percentages, and interquartile range) of the Likert item evaluation responses given in Rounds 2 and 3 were calculated and tabulated in order to aid in the judgement of consensus in terms of agreement and importance, as well as provide insight into the on going discussion taking place within the Delphi.

[Insert Figure 2 near here]

While many Delphi studies aim for consensus, others, including this study, aim to allow differences to be brought to, and remain at, the surface. Developing clarity in terms of differences/contention is held as important as developing clarity in terms of consensus (Okoli & Pawlowski, 2004; Baumfield et al., 2012).

Thematic analysis, according to Braun & Clarke (2006), was used to explore patterns in the entire data set. It was considered important to go beyond the statements and try to draw out the key talking points throughout the entire Delphi. Thematic analysis was carried out on the statements, but also the comments given, as it was felt that the 'conversation' and particularly the 'Yes, but...' comments were crucial to understanding and accurately portraying the viewpoints expressed. Each theme, therefore, is composed of codes relating to both statements and comments, both agreements and disagreements.

Data were actively and repeatedly read, and initial coding and themes reviewed multiple times. The analysis was guided primarily by the research question and the coding sought to be inductive and led by the data. Codes and themes are both semantic (descriptive) and latent (interpretive) (Braun & Clarke, 2006; Braun et al., 2014; Terry et al., 2017).

3. FINDINGS

Results from Round 1

Round 1 collected experts' responses to the five initial questions (A-E). Following Round 1, the responses were compiled by the researcher into 38 statements, which, based on experts' responses, were organised into the following three sections:

- A. Possibilities for integration and existing common ground (15 statements)
- B. Barriers to, and concerns regarding, integrating the SE-CE fields (9 statements)
- C. Facilitators of integration (14 statements)

Results from Round 2

Experts evaluated 38 statements in terms of agreement and importance, and gave comments. 7 statements reached consensus (where all experts either 'Strongly Agreed' or 'Agreed') (See Table 1 below). 31 statements remained contentious. Following Round 2, the 31 statements were then refined by the researcher, incorporating additional elements and/or removing elements based on experts' comments and evaluation. Additionally, 3 new statements emerged from the Round 2 comments, which were added to the existing 31 statements to form Round 3. The 7 statements that reached consensus in Round 2 were not included in Round 3.

Results from Round 3.

Experts evaluated 34 statements in terms of agreement and importance, and gave comments. Following Round 3, a further 7 statements reached consensus (See Table 1 below). At the end of the study, experts had rated a total of 41 statements. 14 statements had reached consensus (7 in Round 2 and 7 in Round 3), whereas 27 statements remained contentious.

Statements that achieved consensus in Rounds 2 and 3

[Insert Table 1 near here]

Thematic analysis

Thematic analysis generated six themes: (1) SE has an ethical basis and provides practical application of CE; (2) Values, pluralism and democracy; (3) Individualism vs. collectivism; (4) Relationship with nature; (5) Interdisciplinarity; and (6) Purpose of education.¹

In the following section, I will respond to the themes, developed from the expert viewpoints revealed in the Delphi, by bringing them into discussion with the existing SE and CE literatures and placing them in the context of the wider conversation and situation within the two fields, thereby further shedding light on the feasibility of integrating their insights.

Theme 1: SE has an ethical basis and provides practical application of CE

Thematic analysis revealed experts' belief in a 'deep ethical basis' of SE (Statement A4), involving 'ethical questions that revolve around the future of the planet and the life on it' (Statement A1). The view that sustainability, and subsequently SE, is, at its core, an ethical issue has been an enduring notion within the SE field and academic literature. In the 2013 *International Handbook of Research on Environmental Education* (Stevenson et al.), Jickling & Wals, in their introduction to a section on environmental ethics, state: 'environmental education exists at the intersection of two normative ideas – education and ethics' (2013, p. 70).

Experts agreed that CE was a means to help address these ethical, and more affective aspects of SE, and by doing so, CE would gain a 'practical application of good character' (Statement A1), by addressing 'real, pressing sustainability issues' (Statement A4): 'SE and CE are mutually strengthened by joining forces. SE expands beyond scientific data

collections and analysis.² CE gets realistic and practical, finally' (CE expert Shaun,³ comment on A1).

Here, SE is presented as an opportunity for CE to become more relevant to students' lives. Sustainability topics can be taught in such a way as to enable students to consider them as ethical issues and relate them to, the perhaps otherwise, abstract ideas of individual-, societal-, and environmental flourishing (See more below under the theme *Purpose of education*).

However, experts' comments showed reservations remained, particularly concerning democracy and the existing tension between pluralistic and normative approaches in SE:

[T]he often discussed dilemma within SE regarding the importance of a democratic approach, which is stated by many to include free opinions and to avoid indoctrination or pre-set thinking or valuing (ex Jickling) on the other hand claims others [sic] that we do not have time with this normative dilemma discussion, we need to act and promote the necessary behaviours (ex Kopnina) (SE expert Abigail, on statement A1).

Theme 2: Values, pluralism and democracy.

SE expert Abigail's comment above returns us to the discussion in the introduction above regarding what Vare & Scott (2007) referred to as the ESD 1 versus ESD 2 debate, the 'instrumental' approach versus the 'emancipatory' approach to SE (Wals et al., 2008; Wals, 2011; See also Jickling & Wals, 2013), and Kopnina's critique of it (2012, 2014; see also Kopnina & Cherniak, 2016). The Delphi findings indicate that this is still a contentious issue within SE (see Sterling, 2010), and directly ties to CE and similar debates within that field.

Statements B6 and A16 (added in round 3), which were contested (experts were split in terms of agreement or disagreement, though there was more of a leaning, though not exclusive towards agreement within the SE experts), addressed this:

Possibilities for integration depend on how pluralistic and inclusive both CE and SE are. CE and SE are both normative and they need to be to avoid the pitfalls of endless relativism. We don't want to risk their dilution so that they are unrecognisable, or excessively palatable to all and then rendered meaningless. But they do need to be pluralistic enough to avoid becoming dictatorial or "brainwashing" – a real risk in both cases! (Statement B6).

Many within the SE field argue for the importance of a democratic approach, which is usually stated to include free opinions and to avoid indoctrination or preset thinking or valuing; this would require maintaining a neutral or critical thinking approach in SE/CE integration, raising questions of ethics but allowing learners to make those decisions for themselves (Statement A16).

It was expected this debate would be a key point of conversation in the study, and while it was the focus of two to three statements, it didn't feature in the Delphi as much as anticipated. One reason for this may be that the CE experts in the Delphi simply don't view an anti-democratic stance as part of CE: 'Avoiding brainwashing is probably the least of the worries for those involved in either CE or SE' (CE expert Shaun's comment on Statement B6).

It seems apt here to briefly visit the academic discourse in CE and also citizenship education, in relation to this issue (see the Introduction above in relation to the discourse in SE). In his 2013 article 'Ten myths about character, virtue and virtue education – plus three well-founded misgivings', Kristjánsson, a character educationist, addresses the 'persistent myth' that 'Education in character is Anti-democratic and Anti-intellectual' (p. 9). He essentially argues that although character education at an early age may aim to create ethical 'habits' in learners, it also aims 'to produce critical and independent moral choosers... capable of autonomous engagement in rational moral conduct' (Kristjánsson, 2013, p. 9) – something that emerges, and is actively encouraged, in older learner when it is more appropriate in term of their developmentally. In line with this, one CE expert, Irving, stressed

critical thought needed to include an understanding of values and the reasoning and emotions involved in forming opinions – which could in fact be a potential avenue of integration for SE and CE.

Others within the CE discourse view CE as intertwined with citizenship and democracy; for example, Peterson (2020) argues that a properly framed (Aristotelian) CE is concerned with a well-functioning political community, involving practices and institutions that support deliberative citizens. Peterson (2020) also claims that democracy unavoidably involves morality, and 'When pupils are engaged in their communities, including in deliberation with others, such engagement is not separate from questions of who they are and who they wish to become' (p. 153) and their participation is an expression of their character. Furthermore, 'the possession of intellectual and moral virtues affects the level and quality of participation within the community' (Peterson, 2020, p. 148), particularly in regard to virtues such as honesty, compassion, gratitude, and kindness, as well civic virtues such as tolerance, and open-mindedness. Peterson's (2020) remarks perhaps represent the thinking amongst the CE experts, and character educationists more generally, in that they do not see the same divide between democracy and normativity, or morality, that is represented in the ESD 1 and ESD 2 debate within SE (see Introduction above).

Interestingly, somewhat conversely, the Delphi saw all experts denounce value-free education/schools in Statement B8 (67% SA, 33% A):

The idea that schools should be value-free, neutral environments is untenable, and ethically questionable given what is at stake. No education is value free, and schools teach values and norms over the entire school day no matter how it is organized. The instrumental take on education reflects certain values for example. Ethics, values and questions of character are central to school education – it is the kinds of values that are reproduced, and how these would be agreed upon, that may be more in question for SE and CE

Supportive of this, Lapsley & Narvaez (2007) argue that teaching and learning are value-laden activities and moral considerations are inherent to the life of schools. Similarly, Kristjánsson (2013, p. 8, see also Kristjánsson, 2015) challenges the misconception that: 'the character of children can simply be held in abeyance at school until they reach the age where they have become wise or autonomous enough to decide for themselves' and argues: 'When formal education in character does not occur, virtues and vices will still be *caught* even if they are not directly *taught*... Character education will always take place there... although it can obviously be done either well or badly'. Statement B8 conveys the experts believe instrumental education reflects certain values, and arguably also promotes them. As discussed in the introduction above, both Kretz (2014) and Bonnett (2003) draw attention to the powerful individualistic, consumerist, and competitive influences appropriating westernised education and impacting students (See also Kopnina, 2014).

Overall, experts' comments suggested support for a balance between normativity, and democracy and pluralism, and emphasised the importance of critical thinking being developed throughout education. The question remains of how to allow learners to stay open to different possibilities in a democratic setting, when such a setting is heavily influenced by existing, and in many cases neoliberal, values and cultural norms – influencing not only the learners but also the inclusivity of the democracy being practiced⁴ (See Hursh et al., 2015, for an overview of the influence of neoliberalism in education and SE specifically).

Theme 3: Individualism vs. collectivism.

Another reservation about SE and CE integration expressed by the experts was the perceived individual focus of CE. Statement B1 describes the issue:

SE and CE can be perceived as having different underpinning philosophies – the former communitarian, the latter individualistic – potentially acting as a barrier to their integration. However, it is a classic misconception of CE that it is inherently

individualistic: the goods of the individual cannot be parsed out from the goods of the community, and CE requires virtuous communities to build up individuals in virtuous behaviour. CE asks learners to consider themselves as individuals as part of society and encourages reflection on communities as collections of individuals and exactly what that implies for character development.

It was acknowledged that Statement B1 above may be more an aspiration than a reality, and that there was a need for more attention to be given to the social and cultural context of character attributes, and how places can support or obstruct changes or the status quo. This relates to the ideas above about the powerful influences of neoliberalism in westernised societies, and also to the debate over individual versus collective/social action that is often discussed in SE.

Related to this, all experts agreed 'a right wing or neoliberal interpretation/drive of CE' fostering 'agency, resilience and self-confidence in individuals and society may be at odds with the efforts to create a more sustainable world' (Statement B4). However, CE expert Shaun commented: 'We ne[e]d to presume that an individualistic, right-wing theology about CE is a contradiction in terms' (see Kristjánsson, 2013), and CE expert Irving referred to CE being co-opted and 'distorted' by those with an agenda. The sense among these CE experts, that CE is inherently about the good of society, and thus, by its nature would, or certainly could, confront the individualistic nature of neoliberal society's norms. However, it should be noted, as stated in the Methodology above, there was a leaning, though not exclusivity, towards a neo-Aristotelian approach to CE within the CE experts, and therefore their views on individualism in CE are heavily influenced by that approach and may not be representative of other approaches to CE.

Theme 4: Relationship with nature.

Experts highlighted the need for CE, and SE, to more actively foster awareness of self as part

of nature, or the more-than-human:

SE/CE integration could heighten awareness of our belonging to nature, and how self, society and nature is interconnected. CE could be usefully reframed to consider our place in the natural world, benefitting not only learners, but the future population and planet as well. SE could benefit from a more affective approach to learning. SE/CE integration could help foster an emotional attachment to the natural world, which is critical for deep personal change toward sustainable living, but which can also bring benefit in terms of wellbeing (Statement A9).

CE expert Shaun commented that 'Awareness of self in nature is part of awareness of self in general' and that this 'could easily become a key point of intersection between CE & SE' (comment on statement A9). However, CE expert Irving (comment on statement A9) questioned whether 'CE needs to be re-framed to achieve this: the virtues already encompass our impact on our planet'. Therefore, perhaps the meaning to be taken here is not so much a need of reframing, but of ensuring the virtues are, or thinking in CE in general is, extended to the natural environment. Linked to this, Sterling (2001, p. 53), in reference to ecological thinking and SE, states that we 'need to widen and deepen our boundaries of concern' and to recognise 'broader contexts in time and space' that include "the other" in our thinking and transactions' be that neighbour, community, distant environments and peoples, non-human species or the needs of future generations. This suggests an approach for CE in terms of integrating a SE perspective: to widen and deepen the boundaries of concern – in other words, to ensure that the environment is included when considering character, the virtues, and conceptions of flourishing (see more on flourishing below under the theme 'Purpose of Education').

Sterling (2001) stresses that the nature of our widened concern must be more in line with an ecological worldview that recognises that human and natural systems are co-

dependent and co-determining and can be taken to reject an anthropocentric relationship with, or mastery over nature. This connects to ideas within ecofeminism (which likens the 'mastery' approach to the environment to the suppression of women and other minorities) that assert humans are members of an ecological community, but are also separate entities in some respects (Plumwood 1991; Warren 1990/2001). Kretz (2009, p.131) talks of viewing the human self as an intact individual, but also one 'situated in ecologically relevant wholes of which we are a part'.

Another angle on the relationship with nature revealed in the Dephi, was that of ecocitizenship. Experts agreed that participation and taking-action 'towards the creation of a sustainable future should be common to both SE and CE' (Statement A5), and CE's emphasis on service and good citizenship could be infused with SE's sense of an environmental citizen. Again, here we have an extension of boundaries of concern (Sterling, 2001), from predominantly social to environmental concern and thus environmental citizenship.

Theme 5: Interdisciplinarity/Holistic education.

Consensus on statement C5 (60% SA, 40% A) revealed all experts agreed an interdisciplinary approach in education would facilitate integration of SE and CE. SE expert Timothy commented that 'Interdisciplinary working would be the most fertile ground for this blended approach to flourish' (Comment on statement C5). A related point of agreement, statement A8 (78% SA, 22% A) referred to real-word learning:

Opportunities for integration of CE and SE exist through real-world and actionoriented learning, which provide a richer context and connect to learners' real-life experiences.

Real-world learning is a natural means of interdisciplinary learning. Although interdisciplinary education can be implemented somewhat superficially, more akin to multi-

disciplinarity or cross-disciplinarity, the sense within the Delphi was one of a need for holistic education, which incorporates interdisciplinary curricula and real-world learning, as well as whole-systems thinking, cooperative learning, critical thinking, school as community, and experiential learning (Forbes, 1996; Forbes & Martin, 2004). Many in the SE field have called for a more holistic form of education; see for example Sterling (2010, 2014).

Unlike most contemporary westernised education, the holistic education approach integrates academic and 'non-academic' aspects of education and considers the emotional, social, cultural, and moral development of pupils as essential as their 'cognitive' development. It is often described as educating for the head-hands-heart or whole-person education. Holistic education's focus on educating the emotional, social, and moral development of pupils could be seen as containing character education elements, though its proponents and practitioners wouldn't necessarily describe it as such (See Lapsley & Narvaez, 2007, on CE as outcome rather than treatment).

A theme running through the experts' comments on various statements, suggested that a move towards interdisciplinary, holistic education generally would perhaps be a better approach than focussing on CE-SE integration specifically. For example, SE expert Timothy stated: '[there are] clear benefits of creating a blended pedagogy – for simplicity shall we call it 'education'?' (Comment on Statement A5). A holistic education approach would entail integrating CE and SE aspects, as well as a shift to a more interdisciplinary, real-life based, experiential, cooperative, and whole-school education approach (Forbes, 1996; Forbes & Martin, 2004).

Theme 6: Purpose of education.

A theme found throughout the Delphi, was of the need to examine the purpose or aims of education. The most agreed upon statement, B9 (80% SA, 20% A), dealt with the issue of

instrumental/exam-driven schools:

Instrumental/exam driven schools and a narrowing of the curriculum to focus on 'core subjects' (due to competitiveness, inspection frameworks, austerity, etc.), coupled with a lack of discussion on the purpose of education act as barriers to integration.

In relation to this, in his 2004 book, *Earth in Mind*, David Orr began by asking: What is education for? And went on to deride westernised education that aims to produce so-called 'successful' individuals:

The plain fact is that the planet does not need more successful people. But it does desperately need more peacemakers, healers, restorers, storytellers, and lovers of every kind. It needs people who will live well in their places. It needs people of moral courage willing to join the fight to make the world inhabitable and humane. And these qualities have little to do with success as our culture has defined it (Orr, 2004, p. 12).

Elsewhere, Orr (2001) criticises education that aims to prepare individuals for careers in the global economy while the world deteriorates, and reasons we must reclaim education from those that intend it to be homogenized, standardized, and industrialized. Many consider the instrumental, exam-driven approach in westernised education to be detrimental to sustainability efforts; it does little to prepare learners for living in a future that will face a multitude of complex sustainability issues e.g. climate change, collapsing fishing stocks, loss of biodiversity, etc. Furthermore, an emphasis on preparing learners for the workplace, denies learners the time and space to fully develop as individuals, community members, citizens, and moral agents.

Returning to our Delphi experts, although there is agreement on the need to focus on the purpose of education, it is another issue entirely to agree on that purpose. Statement B3 (33% SA, 67% A) highlighted existing issues in respect to SE and CE specifically, but also revealed the potential for forming a joint purpose:

It should be recognised that tension may currently exist between SE and CE proponents in terms of the central core purpose of education i.e. sustainability vs. young people leading fulfilling lives. This misconception needs to be addressed. Work must be done to show that to truly lead fulfilling lives we need a healthy planet, and how living sustainably, in community with all life, and pursuing *eudaimonia* (human flourishing) are all part of the same project.

Experts' agreement on this statement reveals common ground between SE and CE: the concept of flourishing. Recently, the concept of 'Flourishing' has re-surfaced as a discussion point across multiple research fields, significantly as 'Flourishing-as-the-aim-of-education' (See Narvaez, 2015; Kristjánsson, 2017). Extending the concept of flourishing, which ordinarily refers only to individual and societal flourishing (Narvaez, 2015), to be more in line with sustainability, offers a potential avenue for integration between the SE and CE fields in terms of the purpose of education. As CE expert Deborah commented on Statement B3: 'It's not just young people living flourishing lives, but the whole human community and the whole biocommunity'. This idea links to argument for widening and deepening our boundaries of concern (Sterling, 2001) discussed in relation to the *Relationship with nature* theme, and is likewise applicable when considering conceptions of flourishing. In relation to this, Kristjánsson (2020, p. 171) states 'a theory of flourishing could easily be extended to those beings and indeed to the flourishing of the life world as a whole. Such a unified theory would have obvious educational implications' (See also Narvaez, 2015).

4. CONCLUSION

I stated at the beginning of this article that although fostering values is promoted within SE,

many educators appear concerned about how, or whether, to approach values education. I argued interdisciplinary research, drawing on practical and theoretical insights from CE, could produce a more comprehensive understanding of the issue and contribute towards addressing the problem. To this end, a Delphi study sought to gather expert opinion on the feasibility of integrating theoretical/practical insights from the CE and SE fields.

While this study doesn't offer a conclusive answer to the question of how feasible CE-SE integration is, it does reveal areas of common ground, in terms of theory and practice e.g. eco-citizenship; and in terms of mutual concerns/challenges e.g. exam-driven education and the influence of neoliberalism in education, thereby indicating potential future collaboration in terms of addressing the values aspect of SE, and the environmental aspect of CE, as well as jointly working towards shared goals.

However, the findings also highlight the concern that especially SE educators feel, in regards to normative concepts and their tension with democracy and pluralism, while at the same time emphasising that no education is value free, suggesting an area where SE and CE could benefit from integrating insights to gain better understanding of this tension, and how to teach in light of it. The study also uncovers SE experts reservations regarding a perceived individual nature of CE. The findings also reveal that, at least some, CE practitioners and academics are also wary of individualised versions of CE (See Peterson, 2020). However, the findings strongly indicate that the CE field needs to better address persisting concerns regarding its individual focus, by actively emphasising a societal and environmental focus.

This study also raises important questions regarding the need to address the purpose of education. Flourishing-as-the-aim-of-education could offer an avenue of integration between SE and CE fields. Repko and Szostak (2017, p. 245) identify 'extension' as a strategy for integrating interdisciplinary insights (be they assumptions, concepts, theories and/or methods) from different sources. In terms of this study, the findings suggest that there

is potential for the extension of the concept of flourishing from a typically human focussed idea to one that includes nature.

Additionally, this research also questions whether specific CE-SE integration is needed, or whether a joint effort towards fully interdisciplinary and holistic education, embracing CE and SE would be more fruitful.

Limitations

In terms of the method, there were a limited number of participants, as is customary with a Delphi study. However, this should be kept in mind when viewing the findings. Although every attempt was made to gather a broad range of opinions, as mentioned in the methodology section, there was a leaning, though not exclusivity, towards a neo-Aristotelian approach to CE within the CE experts. Additionally, there would inevitably have been a degree of response bias, i.e. those individuals interested in the topic would have given time to the study. A larger, perhaps survey-based study in the future, could gather opinion more widely.

It was attempted to remain as impartial as possible throughout the Delphi, particularly when constructing and refining statements. Producing statistics for the statements in terms of levels of consensus certainly aided this, and every attempt was made to include all perspectives (even though this had some negative consequences in terms of the complexity of statements, see below). However, researcher interpretation is never truly objective, and therefore I encourage readers to make their own interpretation of the data.

One of the major limitations of this Delphi study, and perhaps all Delphi studies, is that agreement on broader concepts can belie underlying disagreements on more specific points. As one expert commented: 'The devil is in the details of what should be taught' (Deborah, comment on Statement A1). There was a great deal of 'yes, but...' commenting. To

attempt to counter this, specific disagreements or interpretations that were hidden under a general agreement on statements, were often incorporated into the statements in the subsequent round, or occasionally made into new statements where appropriate. These new statements remained contentious, and it is important to include them as a part of the study as a whole. The thematic analysis attempted to include these 'Yes, but...' disagreements/comments. It's possible the contentious statements would have benefitted from another round, allowing a movement towards consensus. However, incorporating various comments into refined statements often led to multiple points within a single statement. Several statements received comments that they were 'unclear', though others were considered 'much improved' from the previous round.

Linked to this, the fact the Delphi study was carried out via email meant perhaps experts paid less attention to others' comments as there were many statements, additional comments, and statistics presented. If the Delphi had been carried out in person, there would likely have been much more to-and-fro between experts, although in-person Delphi studies have the disadvantage of being susceptible to 'domineering voices' (see method section above). It might have been wise to reduce the number of statements, however the study sought to represent the desired talking points of the experts, and it would have been problematic to choose between statements.

One important point, that was brought up succinctly by one of the experts was that: 'There is no one "the education system" but a variety of different priorities, pedagogies and sociocultural expectations... This is a challenge for this Delphi exercise as we are coming from a range of cultural positions' (Sandra's comment on Statement C10, Round 3). So, for example, where statements were referring to education or systems, experts were writing from their own perspectives and context. The statements were purposely kept general, though any

implication would inevitably be very particular to the given context, something to bear in mind when viewing the findings.

In summary, the findings that I have presented suggest common ground between the fields of CE and SE that could lead to future collaboration and potential integration in terms of addressing the values aspect of SE, and conversely the environmental aspect of CE, as well as jointly resisting/disrupting the neoliberal influence and exam-driven turn in education and reigniting debate on the purpose of education – areas where it would be fruitful to pursue further interdisciplinary research. If we are to realise sustainability, academics and practitioners in all fields need to actively reach out and embrace other fields in their sustainability efforts. Beginning this conversation between the CE and SE fields, revealing their commonalities, and indicating where differences could be bridged and misunderstandings addressed, has itself been a step towards integration.

[WORDS: 9,600]

5. ACKNOWLEDGEMENTS

I owe a debt of gratitude to the expert participants of this Delphi, who donated their time and minds to the challenge of interdisciplinarity and contributing to a more comprehensive understanding.

6. DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.

7. FUNDING

This work was supported by the Icelandic Centre for Research [141,878-051]

8. NOTES

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¹ The different statements and comments were diverse and broad in focus; therefore themes represent reoccurring topics and key discussion points in the Delphi, rather than attempting to summarise or

provide a complete view of the whole data set. The statements that achieved consensus in Table 2 provide a more detailed view of the data.

- ² This theme also relates to one of the agreed upon barriers to SE-CE integration: a narrow view of SE as only environmental science (Statement B5). Orr (2004, p. 60) argued sustainability issues are 'fundamentality about morality' and questioned the effectiveness of a solely technical-scientific approach to [sustainability] education.
- ³ Throughout the paper, experts have been given pseudonyms in order to preserve anonymity
- ⁴ As mention in the introduction, in terms of sustainability, Kopnina & Cherniak (2016) argue that 'democratic' or 'pluralistic' approaches, which side-step advocating for the environment, are in fact undemocratic in regards to the environment by denying 'more-than-humans' a voice and thus practicing an anthropocentric form of democracy. They propose 'inclusive pluralism' (p. 829), which includes eco-representation and calls for ecological justice for all entities. Elsewhere, Kopnina (2014) proposes education for deep ecology, which would foster a frame of mind that includes non-humans in democratic thought and in one's sense of justice.

9. REFERENCES

- Althof, W. & Berkowitz, M. (2006). Moral education and character education: their relationship and roles in citizenship education, *Journal of Moral Education*, 35(4), 495-518.
 - DOI:10.1080/03057240601012204
- Aðalbjarnardóttir, S. (1999). Tracing the developmental processes of teachers and students: A sociomoral approach in school. *Scandinavian Journal of Educational Research*, 43(1), 57-79.
- Baumfield, V. M., Conroy, J. C., Davis, R. A., & Lundie, D. C. (2012). The Delphi method: gathering expert opinion in religious education. *British journal of religious education*, *34*(1), 5-19.
- Bloomberg, L. D., & Volpe, M. (2018). *Completing your qualitative dissertation: A road map from beginning to end.* Sage Publications.
- Bonnett, M. (2004). Retrieving nature: Education for a post-humanist age. Blackwell.
- Bonnett, M. (2002). Education for sustainability as a frame of mind. *Environmental Education Research*, 8(1), 9-20.

- Bonnett, M. (2017). Environmental consciousness, sustainability, and the character of philosophy of education. *Studies in Philosophy and Education*, *36*(3), 333-347.
- Braun, V. & Clarke V. (2006). Using thematic analysis in psychology, *Qualitative Research in Psychology*, 3, 77-101.
- Braun, V., Clarke, V. & Terry, G. (2014). Thematic analysis. In P. Rohleder & A. Lyons (Eds.), *Qualitative research in clinical and health psychology*. Palgrave MacMillan.
- Breiting, S. (2000). Sustainable development, environmental education and action competence. In B. Jensen, Schnack, K., & Simovsk, V.A (Eds.), *Critical Environmental and Health Education Research Issues and Challenges* (pp. 151-165). The Danish University of Education.
- Cuomo, C. (2005). Ethics and the EcoFeminist Self. In M. Zimmerman, J. Callicott, K. Warren, I. Klaver, and J. Clark (Eds.), *Environmental Philosophy: From Animal Rights to Radical Ecology* (pp. 194–207). Pearson.
- Dewey, J. (1938). *Experience And Education* (Kappa Delta Pi Lecture). Free Press. Touchstone/Kappa Delta Pi.
- Fien, J. (1995). Education for the Environment: Critical curriculum theorising and environmental education, Deakin University Press (Original work published 1993).
- Forbes, S. (1996, June 28). *Values in holistic education* [Conference session]. Third Annual Conference on Education, Spirituality and the Whole Child at the Roehampton Institute, London.
- Forbes, S. H., & Martin, R. A. (2004, April). *An analysis of Holistic schools' literature* [Conference sessions]. American Education Research Association Annual Conference, San Diego, USA.
- Gudynas, E. (2011). Buen Vivir: Today's Tomorrow. *Development*, *54*(4), 441–447. DOI:10.1057/dev.2011.86.
- Gough, A. (2013). The emergence of environmental education research. In R.B. Stevenson, Brody,
 M., Dillon, J., & Wals, A. E. (Eds.), *International handbook of research on environmental education*, (pp. 13-23). Routledge.
- Halstead, J. M., & Taylor, M. J. (2000). Learning and teaching about values: A review of recent research. *Cambridge Journal of Education*, 30(2), 169-202.

Hursh, D., Henderson, J., & Greenwood, D. (2015). Environmental education in a neoliberal climate, *Environmental Education Research*, 21(3), 299-318.
DOI:10.1080/13504622.2015.1018141.

- Hursthouse, R. (2007). Environmental Virtue Ethics. In R. L. Walker and P. J. Ivanhoe (Eds.)

 Working Virtue: Virtue Ethics and Contemporary Moral Problems, (pp. 155–171). Clarendon

 Press.
- Jickling, B., & Wals, A. E. (2013). Normative dimensions of environmental education research. In R.B. Stevenson; Brody, M.; Dillon, J.; & Wals, A. E. (Eds.), *International handbook of research* on environmental education, (pp. 69-73). Routledge.
- Jordan, K., & Kristjánsson, K. (2017). Sustainability, virtue ethics, and the virtue of harmony with nature. *Environmental Education Research*, 23(9), 1205-1229. DOI: 10.1080/13504622.2016.1157681
- Kopnina, H. (2012). Education for sustainable development (ESD): the turn away from 'environment' in environmental education?, *Environmental Education Research*, 18(5), 699-717. DOI:10.1080/13504622.2012.658028
- Kopnina, H. (2014). Future Scenarios and Environmental Education, *The Journal of Environmental Education*, 45(4), 217-231. doi:10.1080/00958964.2014.941783
- Kopnina, H. & Cherniak, B. (2016). Neoliberalism and justice in education for sustainable
 development: a call for inclusive pluralism, *Environmental Education Research*, 22(6), 827-841.
 DOI:10.1080/13504622.2016.1149550
- Kretz, L. (2014). Ecological Identity in Education: Subverting the Neoliberal Self. *Leadership and Research in Education*, *1*, 4-21.
- Kristjánsson, K. (2004). Beyond Democratic Justice: a Further Misgiving about Citizenship Education. *Journal of Philosophy of Education*, *38*, 207-219. DOI:10.1111/j.0309-8249.2004.00376.x
- Kristjánsson, K. (2013). Ten Myths About Character, Virtue and Virtue Education Plus Three Well-Founded Misgivings, *British Journal of Educational Studies*, 61(3)

DOI:10.1080/00071005.2013.778386

- Kristjánsson, K. (2015). Aristotelian character education. Routledge.
- Kristjánsson (2017). Recent Work on Flourishing as the Aim of Education: A Critical Review, *British Journal of Educational Studies*, 65(1), 87-107. DOI: 10.1080/00071005.2016.1182115
- Kristjánsson, K. (2020). Flourishing as the aim of education: a neo-Aristotelian view. Routledge.
- Lapsley, D. & Narvaez. D. (2007). Character Education. In A. Renninger & I. Siegel (Vol. Eds.),
 Child Psychology in Practice, W. Damon, R. Lerner (Eds.) Handbook of Child Psychology (Vol 4., pp. 248-296). Wiley. https://doi.org/10.1002/9780470147658.chpsy0407
- Narvaez, D. (2015). Understanding flourishing: Evolutionary baselines and morality, Journal of Moral Education, 44(3), 253-262, DOI:10.1080/03057240.2015.1054619
- Orr, D. (2001). Forward. In Sterling, S., Sustainable Education: Re-visioning Learning and Change (pp. 7-9). Green Books.
- Orr, D. W. (2004). *Earth in Mind On Education, Environment, and the Human Prospect*. Island Press.
- Peterson, A. (2020) Character education, the individual and the political, Journal of Moral Education, 49(2), 143-157. DOI:10.1080/03057240.2019.1653270
- Plumwood, V. (1991). Nature, Self and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism. *Hypatia*, *6*(1), 3–27.
- Repko, A. and Szostak, R. (2017). *Interdisciplinary process and theory* (3rd edition). Sage Publications.
- Sandler, R. (2006). A Theory of Environmental Virtue. *Environmental Ethics*, 28(3), 247–264. DOI:10.5840/enviroethics200628316.
- Scott, W. & Oulton, C. (1998) Environmental Values Education: an exploration of its role in the school curriculum, *Journal of Moral Education*, 27(2), 209-224. DOI:10.1080/0305724980270206
- Shephard, K. (2008). Higher education for sustainability: seeking affective learning outcomes, International Journal of Sustainability in Higher Education, 9(1), 87-98.
- Sterling, S. (2001). Sustainable Education: Re-visioning Learning and Change. Green Books.

- Sterling, S. R. (2003). Whole systems thinking as a basis for paradigm change in education:

 Explorations in the context of sustainability [Unpublished doctoral dissertation] University of Bath.
- Sterling, S. (2010). Learning for resilience, or the resilient learner? Towards a necessary reconciliation in a paradigm of sustainable education. *Environmental Education Research*, 16(5-6), 511-528.
- Sterling, S. (2014). At variance with reality: How to re-think our thinking. *Education*.
- Stevenson, R. B., Ferreira, J. A., & Emery, S. (2016). Environmental and sustainability education research, past and future: three perspectives from late, mid, and early career researchers. *Australian Journal of Environmental Education*, 32(1), 1-10.
- Terry, G., Hayfield, N., Clarke, V. & Braun, V. (2017). Thematic Analysis. In C. Willig & W. Stainton Rogers (Eds.), *The SAGE Handbook of Qualitative Research in Psychology* (2nd ed.) (pp. 17-37). Sage.
- Tilbury, D. (1995). Environmental Education for Sustainability: defining the new focus of environmental education in the 1990s, *Environmental Education Research*, 1(2), 195-212.
- Treanor, B. (2014). *Emplotting Virtue: A Narrative Approach to Environmental Virtue Ethics*. State University of New York Press.
- United Nations General Assembly (UNGA) (2014). Harmony with Nature: Report of the Sec- retary-General 18 August 2014, a/69/322. http://www.harmonywithnatureun.org/content/documents/285N1450929.pdf.
- Vare, P. & Scott, B. (2007). Learning for a Change: Exploring the Relationship Between Education and Sustainable Development, *Journal of Education for Sustainable Development* 1, 2, 191–198.
- Wals, A. E., Geerling-Eijff, F., Hubeek, F., van der Kroon, S., & Vader, J. (2008). All mixed up?

 Instrumental and emancipatory learning toward a more sustainable world: Considerations for EE policymakers. *Applied Environmental Education and Communication*, 7(3), 55-65.
- Wals, A. E. (2011). Learning our way to sustainability. *Journal of Education for Sustainable Development*, 5(2), 177-186.

Warren, K. (2001). The Power and the Promise of Ecological Feminism. In M. Zimmerman, J.
Callicott, G. Sessions, K. Warren, & J. Clark (Eds.), *Environmental Philosophy: From Animal Rights to Radical Ecology* (pp. 322–342). Prentice Hall. (Original work published 1990).
World Commission on Environment and Development (WCED) (1987). *Report of the World Commission on Environment and Development: Our Common Future*. http://www.undocuments.net/our-common-future.pdf.

TABLE 1: Statements that achieved consensus in Rounds 2 and 3

Round 2 (N=10)		Agreemen	Importanc	
			t	e
	A1	SE involves extremely important ethical questions that	70% SA	60% VI
		revolve around the future of the planet and the life on it.	30% A	30% I
		SE could lend a sense of purpose to CE, and provide		10% N
		motivation for certain values and characteristics in light		
		of global dysfunction. Integration of CE and SE could		
		emphasise a practical application of good character,		
lities		including the long-range implications of ethical,		
Possibilities		responsible behaviour.		
	B4	The desirability of SE-CE integration depends on how they are	60% SA	50% VI
		defined. If, say, a right wing or neoliberal	40% A	50% I
		interpretation/drive of CE is assumed, then the creation of		
		agency, resilience and self-confidence in individuals and		
		society may be at odds with the efforts to create a more		
		sustainable world.		
	B5	A lack of familiarity, knowledge, and understanding of the	60% SA	60% VI
Š		other field, particularly in terms of concepts and language	40% A	40% I
Barriers		e.g. a narrow view of CE as only addressing resilience		

	and/or self-confidence rather than the much richer concept		
	in the Aristotelian tradition, or viewing SE as only		
	environmental science, act as barriers to integration		
B9	Instrumental/exam driven schools and a narrowing of the	80% SA	70% VI
	curriculum to focus on 'core subjects' (due to	20% A	30% I
	competitiveness, inspection frameworks, austerity, etc.),		
	coupled with a lack of discussion on the purpose of		
	education act as barriers to integration		
C3	Examples of successful practice/integrations e.g. through the	30% SA	30% VI
	establishment of networks to share and collaborate on best	70% A	50% I
	practice would facilitate integration.		20% N
C5	An inter/trans-disciplinary approach in school education*	60% SA	70% VI
	would facilitate integration	40% A	20% I
			10% N
C1	We need leadership that is reflective in terms of the	70% SA	60% VI
3	purpose of education, and energetic in bringing about	30% A	30% I
	SE-CE integration.		10% OLI
12			
ma 3 (N=9 except where indicated)	Agreemen	Importanc
ına 3 (N=9 except where indicated)	Agreemen	Importanc e
A4	N=9 except where indicated) Good sustainability education should not be predominately		_
	·	t	e
	Good sustainability education should not be predominately	t 44% SA	e 67% VI
	Good sustainability education should not be predominately science and information based, as this is insufficient to	t 44% SA	e 67% VI
	Good sustainability education should not be predominately science and information based, as this is insufficient to create change. If done well, SE has a deep ethical basis,	t 44% SA	e 67% VI
	Good sustainability education should not be predominately science and information based, as this is insufficient to create change. If done well, SE has a deep ethical basis, asks critical questions of who we are and who we want to	t 44% SA	e 67% VI
	Good sustainability education should not be predominately science and information based, as this is insufficient to create change. If done well, SE has a deep ethical basis, asks critical questions of who we are and who we want to be, and involves affective as well as cognitive learning. CE	t 44% SA	e 67% VI
	C3 C5	in the Aristotelian tradition, or viewing SE as only environmental science, act as barriers to integration B9 Instrumental/exam driven schools and a narrowing of the curriculum to focus on 'core subjects' (due to competitiveness, inspection frameworks, austerity, etc.), coupled with a lack of discussion on the purpose of education act as barriers to integration C3 Examples of successful practice/integrations e.g. through the establishment of networks to share and collaborate on best practice would facilitate integration. C5 An inter/trans-disciplinary approach in school education* would facilitate integration C1 We need leadership that is reflective in terms of the purpose of education, and energetic in bringing about	in the Aristotelian tradition, or viewing SE as only environmental science, act as barriers to integration B9 Instrumental/exam driven schools and a narrowing of the curriculum to focus on 'core subjects' (due to competitiveness, inspection frameworks, austerity, etc.), coupled with a lack of discussion on the purpose of education act as barriers to integration C3 Examples of successful practice/integrations e.g. through the establishment of networks to share and collaborate on best practice would facilitate integration. C5 An inter/trans-disciplinary approach in school education* would facilitate integration C6 We need leadership that is reflective in terms of the purpose of education, and energetic in bringing about 30% SA

	A5	Being skilled and determined to participate in/take action	67% SA	67% VI
		towards the creation of a sustainable future should be	33% A	33% I
		common to both SE and CE. SE could learn from CE in		
		terms of its important emphasis on service, ethics, and what		
		it means to be a good citizen – and how to practice these		
		and develop necessary skills. CE would benefit from		
		opportunities to infuse, consider and experience what it		
		means to be an environmental citizen, at all levels: local,		
		national and global. CE needs the map of SE to orientate its		
		purpose toward responsible citizens for an eco-centric		
		approach rather than just a socio-centric one.		
•	A8	Opportunities for integration of CE and SE exist through	78% SA	67% VI
		real-world and action-oriented learning, which provide	22% A	22% I
		a richer context and connect to learners' real-life		11% N
		experiences.		
-	A1	There is an existing overlap between SE and CE in terms of	56% SA	56% VI
	4	CE's developing agency among young people and the SE	44% A	22% I
		concept of action competence (ability to take informed,		22% N
		collective decisions and actions), where agency is		
		developed in the context of health or environmental		
		education. Agency is very important in order to enact a		
		more sustainable future.		
	В3	It should be recognised that tension may currently exist	33% SA	33% VI
				i
		between SE and CE proponents in terms of the central core	67% A	67% I
		between SE and CE proponents in terms of the central core purpose of education i.e. sustainability vs. young people	67% A	67% I
Barriers			67% A	67% I

		fulfilling lives we need a healthy planet, and how living		
		sustainably, in community with all life, and pursuing		
		eudaimonia (human flourishing) are all part of the same		
		project.		
	В8	The idea that schools should be value-free, neutral	67% SA	44% VI
		environments is untenable, and ethically questionable given	33% A	56% I
		what is at stake. No education is value free, and schools		
		teach values and norms over the entire school day no matter		
		how it is organized. The instrumental take on education		
		reflects certain values for example. Ethics, values and		
		questions of character are central to school education – it is		
		the kinds of values that are reproduced, and how these		
		would be agreed upon, that may be more in question for SE		
		and CE.		
	C1	Active engagement of all stakeholders: school campus, parents,	62.5% SA	37.5% VI
	0	communities, NGOs, associations, institutions and	37.5% A	62.5% I
	*	international organisations would facilitate integration of		
	*	SE and CE. Sustainability requires a shift in the education		
tors		system, one where a more holistic approach is not just		
		embraced within the education system, but the wider		
Facilitators		systems of which it is a part.		

SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly Disagree

VI = Very important; I = Important; N = Neutral; OLI = Of Little Importance; U = Unimportant

vi – very important, i – important, iv – Neutrai, OLi – Of Little importance, O – Offiniportan

 \boldsymbol{Bold} indicates high consensus and/or rated importance (over 70% SA/VI)

^{*}Original wording was 'schooling' which was considered by one participant to be connected to an unwanted formal approach, so the wording was changed to 'school education' to reflect that.

The statement's meaning was not altered; therefore it was considered unnecessary to re-evaluate it in Round 3.

** N=8

Figure 1. Delphi method used in study

