Queensland Teachers' Relationship With the Sustainability Cross-Curriculum Priority

Jennifer Nicholls & **Marcia Thorne**
James Cook University, Cairns, Queensland, Australia

Abstract

Sustainability is a Cross-Curriculum Priority (SCCP) in the Australian Curriculum and is intended to be integrated into teaching and learning where deemed appropriate by teachers. This article explores teachers' knowledge, understanding, and beliefs about curriculum priorities and the situational context of teaching and learning in Queensland schools. In this article we discuss the ways in which teachers describe their relationship with sustainability education and the SCCP. Data were collected from interviews with 26 Queensland teachers, teaching across all year levels from early childhood to Year 12, as part of two different PhD research projects. Queensland teachers participating in both studies indicated strong support for the inclusion of sustainability within formal curriculum; however, this strong support did not translate into practice in most cases. As a result of curriculum and policy pressures, teachers indicated that despite their belief that Education for Sustainability (EfS) is important, few believe they have the time or support for teaching EfS. The current educational context teachers have described offers limited opportunity for teachers to integrate sustainability in ways that are meaningful and relevant to their students. The SCCP did not influence planning or teaching decisions, and many teachers were unaware of its existence. Data from both studies question the adequacy of current educational policy and curriculum documents for supporting teachers to engage with sustainability education.

In response to the Australian Association for Environmental Education (AAEE) 2016 conference theme, 'Tomorrow making: our present to the future', this article explores how Queensland schools are preparing young people for the Anthropocene. Here, we present findings from two independent doctoral studies that researched Queensland teachers' perspectives of, and engagement with, the Australian Curriculum and the Sustainability Cross-Curriculum Priority (SCCP) as part of larger research aims. The first study (Study A), focused on understanding teachers' personal and educational beliefs about climate change and education and how these shaped their approaches to climate change mitigation and adaptation education. The second (Study B), explored the

Address for correspondence: Jennifer Nicholls, The Cairns Institute, James Cook University, PO Box 6811, Cairns Qld 4870, Australia. Email: jennifer.nicholls@my.jcu.edu.au

expression of environmental stewardship in education policy and Year 10 teachers and students. Environmental stewardship is action based on a deep ethic of care for the natural environment. While the studies have different foci, similarities in findings motivated the authors to analyse their data sets in response to the question: How do Queensland teachers understand the SCCP and how does the SCCP influence praxis?

This article first explores sustainability policy priorities in the Australian Curriculum and how they are enacted in Queensland; next, it outlines the theoretical construct and design of each study and presents the conformable results. Concluding this article is a discussion about how teachers view sustainability education and school culture, the role policy plays, and suggestions for the way forward.

The Australian Curriculum and Cross-Curriculum Priorities

The Australian Curriculum was introduced nationally in 2012 to standardise learning content and outcomes from the Foundation Year to Year 10 (F–10). The curriculum states it has been written with the intention of equipping 'young Australians with the skills, knowledge and understanding that will enable them to engage effectively with and proposer in a globalized world' (ACARA, n.d., para 1). The National Curriculum includes nine learning areas 'that describe what students will learn and teachers will teach' (ACARA, n.d., para 2). Additionally, the curriculum describes seven general capabilities and three cross-curriculum priorities that are intended to contribute to and be developed through each learning area (ACARA, n.d., para 7). The cross-curriculum priorities and their importance were identified within the Melbourne Declaration on Educational Goals for Young Australians (Barr et al., 2008) and have been included under the banners of: Aboriginal and Torres Strait Islander Histories and Cultures, Asia and Australia's Engagement with Asia, and Sustainability.

The SCCP is intended to enrich the curriculum by connecting relevant aspects of sustainability across learning areas and subjects (ACARA, 2015) to 'develop the knowledge, skills, values and world views necessary to contribute to more sustainable patterns of living' (ACARA, n.d., para 3). These outcomes are in accord with UNESCO (2014) global education initiatives for sustainability and sustainable development, and the SCCP strengths include references to social justice, systems thinking, and a strong connection with the science learning area.

The cross-curriculum priorities have met with a mixed response, including tensions from policy positioning and implementation. The Australian Curriculum positions the priorities as 'important' (Salter & Maxwell, 2015) and states that '[t]hey will have a strong but varying presence depending on their relevance to the learning areas' (ACARA, 2015, para 4). However, at the same time the priorities have been described by the chairman of the Australian Curriculum, Assessment and Reporting Authority, Professor Barry McGaw (2014), as 'options, not orders'. Salter and Maxwell (2015) argue that the construction of the cross-curriculum priorities as optional solutions to curriculum rather than including them to demonstrate their intrinsic worth is problematic, arguing the priorities serve to present a pseudo sense of addressing the key issues they represent while placating the detractors.

The Queensland Context

In the previous decade, many policies have offered strong support for Education for Sustainability (EfS) and in some cases were deemed to be quite successful (e.g., see the Australian Sustainable School Initiative); but, the introduction of the Australian Curriculum and the SCCP post-2012, has seen substantial policy change in Queensland. Extensive education policy changes have occurred in both federal and Queensland state governments between 2011 and 2014, resulting in a period of policy disruption

for sustainability education (Stevenson & Nicholls, 2015). Changes in the Australian and Queensland EfS field followed the successive election of conservative governments, beginning with the election of the Newman Liberal National Party in Queensland during March 2012, followed by the federal election of the Abbott Liberal-National Coalition Party in September 2013. During this time of policy disruption, EfS policy documents were archived on Australian government websites, and the Department of the Environment and Energy web page states: 'From 2002 to 2011, the Australian Government was actively involved in sustainability education.' Links on the site for archived EfS documents are listed (rather anonymously) in a date format, not by program or initiative title, making retrieval cumbersome. Similarly, in Queensland, positions responsible for the coordination and support of sustainability education were eliminated and the Queensland Sustainable Schools Initiative and the Earth Smart Science Program were disbanded (Stevenson & Nicholls, 2015).

In 2011, the Queensland Studies Authority (QSA), in partnership with Education Queensland (EQ), Queensland Catholic Education Commission (QCEC), and Independent Schools Queensland (ISQ) responded to an initial draft of the cross-curriculum priorities (QSA, 2011). The group identified several strengths and weaknesses associated with the curriculum, and the priorities, and offered suggestions for 'a way forward'. In 2014, the same group partnered to review 3 years of implementation in Queensland of Phase 1 Learning Areas of the Australian Curriculum. Concurrent with these policies and policy reviews, the Queensland state educational authority, Education Queensland, responded to the Australian Curriculum by developing 'Curriculum into the Classroom' (C2C), a comprehensive set of unit and lesson plans, assessment instruments and resources designed to assist Queensland teachers with the implementation of the new curriculum (Department of Education and Training, 2015).

Adding further complexity to the job of implementing the SCCP was the pressure placed on teachers to prepare students for national testing. The first National Assessment Program — Literacy and Numeracy (NAPLAN) tests undertaken in 2008 indicated Queensland schools were below the Australian average, creating a 'political furore in the State' (Lingard & Sellar, 2013). In response, the Queensland government commissioned a review of Queensland student performance known as the Masters Report (Masters, 2009), resulting in teachers being encouraged to focus on NAPLAN preparation and improving NAPLAN results (Hardy, 2015). Following these recommendations, the Queensland government instructed all Queensland schools to focus their attention on NAPLAN testing and to undertake practice tests, with the goal of improving the state's test results (Bligh, 2009). Spurred by this perception of poor performance, an intensification of auditing and accountability has taken place across Queensland schools (Lingard & Sellar, 2013). Queensland teachers are 'increasingly dominated by broader political and policy concerns for improved test outcomes/"numbers" … with problematic outcomes for practice' (Hardy, 2015, p. 355). The introduction of NAPLAN testing has resulted in the reduction of time spent on 'non-assessed' areas of the curriculum while increasing time is spent on numeracy and literacy instruction (Polesel, Rice, & Dulfer, 2014).

Research Aims and Design

The article explores Queensland teachers' stated understandings of, and engagement with, the SCCP, and presents an analysis of congruent findings from two independent doctoral research projects conducted between 2012 and 2014. Although these projects investigated different educational foci, similarities between findings were identified for further investigation. Data were collected from one-on-one interviews with Queensland teachers, and findings are considered here in light of the Queensland educational

context. This article was informed by the research question and investigates teacher knowledge, beliefs, and curriculum, recognising that it is more than teacher knowledge alone that influences teacher practices (Fives & Buehl, 2012; Pajares, 1992). Dominant educational discourses such as those concerning the role of education and the role of a teacher can serve to encourage or constrain teachers (Barrett, 2006; Cronin Jones, 1991; Stevenson, 1987, 2007a). Further to the dominant educational discourses of schooling, teachers have their own personal teaching philosophy, theories of education, and beliefs about their role as an educator through which all new policies are filtered (Stevenson, 1987, 2007a). Discussed in this section are the research design and conceptual framework of each study and conformable results.

Study A

Study A investigated Queensland teachers' understandings of climate change and climate change education and how these understandings influenced the teaching of climate change in Queensland schools. Using a mixed-methods approach, the study surveyed 311 inservice teachers from across Queensland and conducted 21 interviews with inservice teachers from across the state. The conceptual parameters that framed this study were informed by the overarching research question that essentially is concerned with teachers' understandings of climate change, teachers' beliefs about climate change education, and how these may intersect and influence the teaching of climate change education in Queensland schools. Conceptualising teacher beliefs as a teacher's worldview, or all that a teacher presupposes about the world, this research contended that teacher beliefs act as filters for interpretation, frames for defining problems, and/or guides or standards for teacher practice (Fives & Buehl, 2012). As such, teacher educational beliefs must be considered in terms of their connections with other beliefs, such as political and religious beliefs, as they exist as integrated complex systems.

Study B

Study B focused on understanding the relationship between environmental stewardship, Year 10 students and their teachers, and the SCCP in five state high schools in the Wet Tropics region of Australia. In Australia, the prioritising of environmental quality in education has varied over the past 40 years. The theoretical construct guiding study B was founded on the shift away from core education values focused on environmental quality and an ethic of care for the natural environment (Gough, 2013; Stevenson et al., 2013) to the linking of sustainability with economic development in education policy and praxis (Brundtland, 1985; UNWCED, 1987). The prioritising of environmental quality in education policy and learning to care for the natural environment responds to contemporary needs presented by the Anthropocene. A mixed-methods research design utilised online surveys with 126 students and five teachers, small group interviews with 23 students, face-to-face interviews with five teachers, a document analysis of Australian government education policy for stewardship and sustainability between 1999 and 2014, and analysis of the SCCP and five Year 10 subjects in the Australian Curriculum and in Education Queensland's C2C.

Results: Queensland Teachers, Sustainability, and the Cross-Curriculum Priority

The results presented here include thematic findings and quotes from the interviews conducted with Queensland teachers. The results bring together common findings from

both studies and focus on teachers' points of view. Following, the discussion will address how these themes are situated in the wider Queensland education context.

Priority

Sustainability education was a priority for teachers participating in both studies. Teachers identified its importance, with many speaking in terms of it importance for the future of the planet:

> *Our future depends on it. (TH1, Study B)*
> *I definitely think that we need to be talking about sustainability now. (TH2, Study B)*
> *100% important. (TH3, Study B)*
> *Very important. (TH4, Study B)*
> *Oh without a doubt. We all live on the Earth. (Secondary teacher, Study A)*

These findings support research suggesting teachers value education that allows students to benefit from learning the concepts, knowledge, skills, and values associated with sustainability education and believe it is important to personally integrate sustainability into their own teaching practice (Australian Education for Sustainability Alliance, 2014). However, despite strong teacher support for sustainability, findings from both studies found the SCCP was not influencing planning and teaching decisions in the majority of Queensland schools. Both studies identified a number of barriers to inclusion, including school cultures, curriculum pressures, low awareness of the SCCP, and the need for professional development.

SCCP and Curriculum

The SCCP did not appear to influence Queensland teachers' planning and teaching decisions in either Study A or Study B. Predominantly, responses to questions specifically relating to the influence of the SCCP on planning and teaching decisions fell into three categories: (1) teachers were unaware of the priority and therefore the SCCP had no influence; (2) sustainability was not in their curriculum, therefore it was difficult to include as an extra; and (3) teachers were teaching using C2C and therefore had limited autonomy and discretion with curriculum planning or teaching decisions.

Unaware of the priority.   A number of teachers were unaware of the existence of the CCPs within the Australian curriculum:

> *I think I am vaguely aware of what you are talking about but I don't have any direct access … you know — direct knowledge of it. (Secondary teacher, Study A)*

> *No, I don't, it's not a name I'm recognising but it may be something that we are currently using but it's something that I don't recognise by name. (Secondary teacher, Study A)*

Not in their curriculum.   Although teachers indicated sustainability education was important to them, many could not see direct links between sustainability and their curriculum, even with the SCCP as an avenue. Teachers did not view sustainability as part of their curriculum. It was seen as an optional extra to their already overly burdened curriculum. Teachers indicated they did not have the time or space to include the priority:

Too pushed by the curriculum. (TH3, Study B)

I'd like to do that sort of thing because they are all really good priorities, it's just that it's not my priority at the moment because I'm trying to do all this other stuff. (Primary teacher, Study A)

The syllabus documents and the time I have available to me strongly influence my teaching and curriculum decisions. In my subject area it is sometimes difficult to address sustainability in addition to the other necessary content. (Secondary teacher, Study A)

Sustainability was also not viewed as a priority within many schools, and in some cases teachers felt they were working within a school culture at odds with the sustainability message:

I hope so. I'm really not sure. I don't think so. As a whole school we're focused on things like explicit teaching. We are very focused on numeracy and literacy. (TH4, Study B)

Even though we say we're only going to have it [air-conditioning] on for two terms a year, for example, I know many schools have air-conditioned areas and that daily is teaching students something completely against what you'd be teaching on the use of materials. And the amount of photocopying and everything. I think it's the administrative stuff that happens within the school, it goes against the teaching of something like climate change and sustainability in general, really. (Secondary teacher, Study A)

C2C, teacher autonomy, and sustainability.   Many respondents see the Queensland Government, Department of Education and Training C2C learning resources as a barrier to including sustainability in lessons:

Since C2C there is little opportunity to deviate from what we are teaching. In the distant past I was able to teach topics that I could incorporate. (Primary teacher, Study A)

With C2C there's not much room to budge, the curriculum's very rigid. (TH3, Study B)

Participants also suggested the C2C resources diminished teacher autonomy. Teachers indicated that they felt C2C units were rigid and inflexible and therefore allowed for very little teacher discretion. Although some teachers indicated they were required to teach the C2C units, not all schools required teachers to use the C2C documents exclusively or even at all. The teachers who were able to choose which aspects of the C2C resources to use felt the resources were helpful for engaging with the new Australian Curriculum.

Professional Development for Improved Sustainability Education

Teachers identified professional development as important for the inclusion of the SCCP Sustainability:

Oh it's essential. I mean that's your gold card in really. (Primary/Secondary teacher, Study A)

Whole school PD … I would say it would have to be something … a big thing that starts with principals and also involves the whole leadership things but it

can't just be another one that is just tacked onto all the other things. It can't just be, well now we're going to focus on this this year. (Secondary teacher, Study A)

Some teachers believed professional development did not go far enough. A small number of teachers identified that curriculum change was needed to make space for sustainability: 'I think they'd have to rejig [the curriculum] to incorporate sustainability values more' (TH3, Study B).

Discussion

Teachers work in complex spaces with praxis informed by a number of factors, including policy, curriculum, and culture. This research sought to understand some of these influences on sustainability education as expressed through the teacher voice. Queensland teachers appear to strongly support the inclusion of sustainability education in Queensland schools. However, this support does not translate into meaningful sustainability education in Queensland classrooms. Data from the two research projects suggests there are several barriers and tensions impeding the inclusion of sustainability education, with or without the support of the SCCP. These include a lack of awareness of the priority, a lack of school culture and principal support, reticence to step outside school or social norms, a lessening of teacher autonomy, and a clear mandate to teach for improved NAPLAN test results.

Recent Australian studies have found there to be a considerable lack of awareness of the SCCP among Australian teachers (Australian Education for Sustainability Alliance [AESA], 2014; Dyment, Hill, & Emery, 2015). Like the Queensland teachers in these studies, research has found educators' conceptions of sustainability and the SCCP to be limited in scope (Dyment et al., 2015), with Australian teachers lacking an understanding of the concept of sustainability and its relevance within the Australian curriculum (AESA, 2014) and lacking confidence and preparedness to include sustainability pedagogies in classroom praxis (Evans, Whitehouse, & Gooch, 2012). Teachers in both studies were mostly unaware of the cross-curriculum priorities within the Australian Curriculum, and most claimed the priority did not influence their teaching decisions at all. Those who were aware of these priorities believed they were not a core element of the curriculum. Rather, teachers viewed these priorities as an add-on or an optional extra for those who wish to engage with such issues. Teachers also stated that the curriculum was overly full and the addition of discretionary extras would prove difficult. Teachers did not appear to view the cross-curriculum priorities as a mechanism for deepening current teaching and learning practices, suggesting there is little incentive for teachers to incorporate these into their teaching (Whitehouse, 2013). Consequently, teachers felt sustainability education was not something that was easily integrated into their curriculum but seen in many cases as an impossible add-on to a currently overburdened curriculum.

School culture and principal support appear to be key factors alongside curriculum in supporting teachers to engage in what teachers believed to be extracurricular content (AESA, 2014; Evans et al., 2012; Leithwood, Harris, & Hopkins, 2008). Principal support is viewed as key to the success of any project deemed to be outside of mandated curriculum (AESA, 2014). This support appears to be lacking in Queensland schools. Sustainability was not viewed as a priority within many schools and in some cases teachers felt they were working within a school culture at odds with sustainability messages and/or actions. Teachers feel their current school context does not provide support for including sustainability in any meaningful way. One teacher articulated some of the struggles they felt working within a large system that actively negates sustainability teachings through its daily function. This teacher explained the sense of hopelessness

and frustration felt when, on one hand, sustainability was deemed to be a priority, while on the other hand, the day-to-day running and practices of the school remained actively at odds with sustainability messages. She expressed a sense of hypocrisy on her part as she conveyed the importance of sustainability to her students while the school culture worked against her. This sense of futility has led to feelings of frustration in some teachers and apathy in others.

Teachers were also concerned with being seen as too radical or stepping too far outside of school or social norms (Evans et al., 2012; Whitehouse & Evans, 2010). For example, one teacher noted her reticence to implement a unit of work in a new school for fear of alienating herself from her colleagues. This teacher recalled negative experiences at a previous school where she attempted an 'energy saving' unit of work with her class. The unit of work encouraged other classrooms to be energy conscious, and in this instance, teachers were a source of resistance. This memory caused the teacher to question her desire to include similar units of work at her new school as she feared receiving the same response, particularly as sustainability was not a priority within the school.

This research suggests that although the SCCP provides an avenue for teachers to engage with EfS, the lack of policy support for EfS and the clear mandate for improved NAPLAN test results means that teachers are more likely to teach only that which is mandated (Kuzich, Taylor, & Taylor, 2015; Polesel et al., 2014). Currently within Queensland (and across Australia), government educational policy foci arguably rests on narrowly defined educational aims, particularly in the areas of literacy and numeracy. The quantification of student achievements into comparative statistics steers the rationale for policy decision making, thus reducing education policy to what Lingard (2011) calls 'policy as numbers'. Numbers are provided in large part by data collected through the NAPLAN testing. Individual student reports are provided to parents and schools, and the aggregated results of these tests are published for each school on the government developed website *My School,* where results are compared against national averages, benchmarks, and 'similar' schools. Proponents of NAPLAN testing value the testing regime as a diagnostic tool for the improvement of student outcomes and increased accountability for schools (ACARA, 2016). NAPLAN testing, they argue, allows parents, teachers, and schools the opportunity to monitor student and school performance in literacy and numeracy skills from a national perspective (McGaw, 2014). However, others note the consequence of a narrow numbers-based policy foci as an inevitable narrowing of the curriculum (Hardy, 2015; Lingard, 2010; Reid, 2009; Stevenson, 2007b) and a focus on teaching to the test (Comber, 2012; Stevenson, 2007b).

Teachers also felt their autonomy was further limited by highly structured C2C documents. Although C2C documents were developed as a teaching guide, research suggests some teachers and school regions have felt pressure to enact the curriculum by closely following lesson plans as written, with the result being a reduction of teacher autonomy, as well as that of school principals and school-based practices more broadly (Barton, Garvis, & Ryan, 2014; Hardy, 2015). This reduction in autonomy, coupled with a less than supportive policy and school context, leaves teachers feeling unable to include sustainability in any meaningful way.

A Way Forward

Teachers in Queensland have indicated a strong support for sustainability education; yet, in the absence of a supportive environment, sustainability education continues to be marginalised (Gough, 1997). This research proposes that meaningful sustainability education requires immediate leadership in the form of policy and curriculum support. Given the influence policy directives appear to have on Queensland schools, principals and in turn, teachers, teaching and learning, policy and administrative action must

explicitly support and encourage all levels of schooling to engage with sustainability education. This requires a reversing of the current policy climate in Queensland as it effectively discourages schools and teachers from engaging with sustainability through the removal of all supportive EfS policy (Stevenson & Nicholls, 2015) and emphasises narrow, prescriptive aims focused on nationwide annual tests for Years 3, 5, 7 and 9.

Conclusion

This research article aimed to develop an understanding of how the complex policy and learning context of Queensland influences how sustainability education is enacted in Queensland schools. Sustainability is a cross-curriculum priority in the Australian Curriculum and is intended to be integrated into teaching and learning where deemed appropriate by teachers. Findings from two Queensland doctoral studies about teachers' understandings of climate change and climate change education and the expression of environmental stewardship in Year 10 students, teachers, government education policy and curricula found that the SCCP had little to no impact on teaching and learning in the participant schools. Queensland teachers participating in both studies indicated strong support for the inclusion of sustainability within the formal curriculum; however, this strong support did not translate into practice in most cases. Teachers from both studies lacked awareness of the priority and stated that school culture and principals do not support implementation of education for sustainability. Teachers were hesitant to step outside current school or social norms, felt that their autonomy was restricted, and were directed to teach to improve NAPLAN test results. The sustainability leadership strategy that positions the priority as an 'option' relegates content to an 'interest level', and inclusion of content becomes reliant on teacher and school priorities in the context of an over-crowded curriculum.

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Keywords: cross-curriculum priority, education for sustainability, teacher, policy

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Author Biographies

Jennifer Nicholls is a sessional lecturer at James Cook University, Cairns campus, in the College of Arts, Society and Education. Her research and teaching interests include the influence of teacher beliefs and knowledge on classroom practice, climate change mitigation and adaption education, and education for sustainability.

Marcia Thorne is a sessional lecturer in the School of Education at James Cook University in Cairns, Australia. After careers in teaching and as an IT business owner and company director, Marcia returned to university studies in 2008 to complete a Bachelor of Education (Professional Development), a Masters in Education (Sustainability) and a PhD, to research what ethic of care for the environment is developed in today's adolescents through formal education. Further research will focus on the relationship between wellbeing, critical thinking and problem solving, and environmental stewardship behaviour.