'New' Ways of Seeing and Doing: A Critical Reflection on Changes to Educational Theory and Practice

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A B S T R A C T

This paper documents a research journey that was initially undertaken to escape the feelings of tension and dissatisfaction that I had experienced as a secondary school teacher. The paper identifies the many influences that have guided the course of my continuing research journey. Philosophically, my research has taken me from viewing the world and my place in it from a narrow and authoritarian Western perspective through to a more inclusive and more democratic non-Western perspective. This shift in perspective initially resulted in changes to my educational theory and practice as manifested in the evolution of an environmental education program in a Melbourne secondary school. More recently my research perspective has again shifted, enabling me to pursue an opportunity to not only teach in, but more importantly also to learn in, a different cultural context. In both Melbourne and Manila, the transformations have come about by sharing 'new' ways of seeing and doing.

Illuminating blind spots

The field of environmental education is characterised by a rhetoric/reality gap, that is, a gap between the rhetoric of one's expectations and the reality of one's experiences. One challenge for every environmental education researcher is to search for the means to close, or at least to narrow this gap. Underlying this challenge are the perspectives we use to view and navigate the terrain of environmental education. We need to critically examine our own worldviews in order to progressively illuminate our blind spots, so that we can see a terrain that is replete with opportunities, rather than one that appears to be littered with obstacles. The researcher who looks for opportunities during her or his research journey can reasonably expect to reach new horizons and to be continually fulfilled by visions of a sustainable future—a future of peace, justice and environmental integrity. To navigate the terrain of environmental education with a relatively clear and critical vision, we can look for guidance from others who have already embarked upon the journey and then borrow elements of their ways of seeing and doing.

In this paper I identify the 'new' ways of seeing and doing that I have used to illuminate my blind spots during the course of my research journey. To date it has been a rewarding journey through critical education *for* the environment to transform my educational theory and practice in order to narrow the gap between my expectations and experiences.

Blind spot 1: Viewing the world from the isolated peak of empiricism

Throughout my career as a secondary school teacher, I had always endeavoured to ensure that the rhetoric of what I expected students to know and do was actually experienced in the form of appropriate student behaviour and satisfactory academic performance. However, much of my teaching career was characterised by feelings of tension and dissatisfaction, for my students and myself, due to my inability to close the ever-widening gap between my educational expectations and experiences. These feelings of tension and dissatisfaction reached a new height towards the end of the 1996 school year

when my teaching allotment for the following year was changed without any negotiation, from a balance of Geography and Science to one that consisted entirely of Science, including a Year 9 elective called *Endangered Species*. After more than ten years of teaching I was beginning to experience great anxiety, fearing that not only was my position at the school in doubt, but that my career itself was in jeopardy.

At the same time that these changes were being made, I attended the annual conference of the Science Teachers' Association of Victoria. Believing that I was already equipped with adequate techniques for effective teaching, I was primarily in search of more scientific knowledge that would give me greater authority in the subject, thereby enhancing my authority in the classroom. However, upon seeking some advice during a serendipitous and enlightening meeting with Annette Gough, I was inspired to commence a Master of Education in environmental education at Deakin University the following year.

I had expected that a MEd in environmental education would involve the acquisition of knowledge *about* environmental issues. However, upon commencing my research journey, I soon realised that environmental education is less about acquiring knowledge and more about critically analysing ways of seeing and doing. Upon viewing the terrain of environmental education using a more critical lens, I realised that I had hitherto been viewing and navigating the terrain of environmental education from the isolated peak of empiricism, holding on to an unproblematic belief in my ability to exert control in the classroom through the authority of knowledge. Blinded by ignorance and arrogance, I had not been able to see that the means by which I had been attempting to close my rhetoric/reality gap was in fact creating the gap and the feelings of tension and dissatisfaction that were being experienced by everyone in the classroom.

This 'old' theory was implemented through the use of empirical 'research' instruments to examine the extent to which the students had passively absorbed this unproblematic knowledge. Explanations for the gap between my expectations of what the students should know and my experiences of what

they appeared to learn were expressed in terms of student deficiencies. My 'research' conclusions were supported by my 'research colleagues' in the staffroom and we all agreed that there was only so much that we could do to close the gap given the obstacles of the timetable, class sizes and an excessive workload.

A 'new' way of researching

It became obvious to me that I could not sustain this approach to teaching any longer, I needed a new theory and new ways of seeing and doing. These ways of seeing and doing were not 'new' to the writers that they were borrowed from—they were just new to me. Throughout my research journey, as 'new' theory from various literary sources emerged, I progressively applied and reflected upon how I applied it to my teaching in the manner of action research.

Given that I was starting my research from the depths of tension and dissatisfaction, action research was an appropriate method of research for me to use since as Robin McTaggart (1993) explains, the action research spiral begins with 'an imperfectly understood felt concern' (p. 22) and 'recognises the explicit possibility of acting differently as a result of progressively learning from experience' (p. 21) to combat 'the alienation of unrewarding work and its individualising of discontent' (p. 27).

Unlike the authoritarian approach of my old empiricist teaching methods, action research provided the direction to democratically teach and research in the company of others in order to safeguard against self-deception, bias and feelings of guilt (Elliott 1993). John Huckle (1991) provided guidance for the temporal dimension of my research, stressing that action research is not just the pathway to critical education *for* the environment, but an integral part of an education which is 'lifelong, community based and enabling' (p. 59).

Indeed, the process of writing this paper has been a continuation of the action research process, with the actual paper being in the manner described by Elliott (1991), a provisional account of an ongoing process rather than an end product. The initial report of my research journey was submitted as a thesis for the partial fulfilment of my MEd in June 2000. An abridged version of the thesis, written from a slightly different research perspective, was submitted to AJEE in November 2001. In response to reviewers' comments on that paper, I made further changes to the manuscript in May 2002 using a more critical research perspective, influenced in part by working with a community of researchers in Manila.

While action research was the research method, the writing of Jon Wagner (1993) provided the means of assessing and guiding the overall direction of my research. According to Wagner there is no end to what we don't know, so it is better to ask how far beyond ignorance research takes us, rather than ask how close to the truth it takes us. Wagner (1993) argues that research should be assessed by asking:

- What new knowledge does it generate about education and schooling to fill the *blank spots* in emergent social theories and conceptions of knowledge'?
- What new questions does it ask to illuminate the *blind spots* formed by how our 'existing theories, methods and perceptions actually keep us from seeing phenomena as clearly as we might'? (p. 16).

According to Wagner (1993), these questions are not new to those that they have been borrowed from; they are just new to the likes of me who are doing the borrowing.

These were the critical elements that I had sourced from the literature to structure and restructure the analytical framework that I then used to continually guide and assess my research journey. The framework was then applied to the evolution of a semester-length Year 9 Science elective called *Endangered Species*.

Blind Spot 2: My view of environmental education

Within the grounds of Whitefriars College there is a significant area of remnant bushland adjacent to an urban creek. From my previously lofty empiricist perspective, I had viewed this terrain as being littered with too many obstacles, being blinded by visions of students misbehaving beyond the confines of the classroom. Consequently, my view, and therefore my students' experiences of environmental education, were in effect confined to learning *about* environmental issues.

A 'new' view of environmental education

Throughout my research journey I began to share the views of many writers from the fields of critical education and critical environmental education. From these borrowed views I began to evolve my 'new' vision of environmental education. From Stephen Kemmis's (1983) *members of society* view of education, came a vision of more just roles and relationships for students and teachers working together on real and socially-useful projects, requiring skills of participatory decision-making and negotiation. I also shared Henry Giroux's (1985) vision of students being encouraged to 'speak out' against injustices and for teachers to become 'reflective practitioners', enabling them to 'raise serious questions about what and how they teach (pp. 378-9). Such skills and ways of doing were new to my students and to me, because as Kemmis (1983) explains, they have historically been neglected by a 'competitive academic curriculum and its trappings of graded assessment and teacher-dominated curriculum' (p. 3).

As already stated, my 'old' approach to environmental education did not proceed much further than education *about* environmental issues. As John Fien explains, 'it is only when the real intention is education *for* the environment that real environmental education is actually happening' (p. 6). In response to Fien's indirect critique of my former claims to be an environmental education teacher, my new vision of environmental education attempted to incorporate the 'five

common features of critical education *for* the environment (Fien 1993, p. 55).

Guided by such new ways of seeing and doing, I began to look at the bushland at Whitefriars College with a more critical eye. I began to see the opportunities that had always existed to work with my students on more environmentally and socially useful projects. From 1997 to 2001, *Endangered Species* classes ranging in size from 15 to 29 worked in small groups in the environment to collect environmental data as part of the Community Waterwatch program with the assistance of the local municipal council. We also worked together on a bush regeneration project that involved weed removal and tree planting. Students also negotiated the selection of an action project that enabled them to work individually or in small groups on projects that included the construction of nesting boxes and indigenous gardens and the growing of vegetables using organic methods. Their reports on these projects were their major pieces of assessment for the semester. Since there was little prescribed course content, there were no empirical tests to examine the extent of knowledge absorption. To reflect the greater emphasis that was being given to the action orientation of education for the environment, the name of the elective was subsequently changed to *Bushland Rescue*. Since *Bushland Rescue* is conducted as a Science elective, it is appropriate to briefly examine how it is situated within the field of science education and global culture. Using a critical lens formed from the overlapping spheres of feminist and indigenous traditions, the dominant Western approach to science has been challenged because of its inherent ignorance and its undemocratic values and practices (e.g. Harding 1993, Peat 1997).

Such values and practices, which are perpetuated through traditional classroom practices in the form of a competitive curriculum, were once characteristic of my approach to science and environmental education. My new vision of a more democratic approach to science teaching was further honed by borrowing from the vision of Sandra Harding (1993) who recognises the democratic rights of students by stressing that an 'effective pursuit of democracy requires that those who bear the consequences of decisions have a proportionate share in making them' (p. 3).

A 'new' way of assessment

In order for my students to have a say in the decision-making process in *Bushland Rescue* I elevated the status of my students from the role of 'research subjects' to 'research colleagues' and provided them with opportunities to use their voice to have a say in directing the course of the collective research journey. I replaced test papers with student surveys which contained new questions to ascertain the extent to which the students had benefited from the course and to ask them to suggest any improvements that could be made to the course. Not only do these new questions reflect my new ways of seeing and doing, the students responses to the questions listed below demonstrate that they clearly benefited from *Bushland Rescue*

in many ways:

What do you like about *Bushland Rescue?*

'It is fun and educational'.

'Being trusted to do what is needed'.

'Working outside and teachers are not on your back all the time'.

'The freedom of ideas'.

'We made a lot of changes. It gave us a goal to achieve in the long term'.

Has *Bushland Rescue* helped you in any other way?

'Self confidence'.

'It has helped because everything you do, you do with someone else'.

I also believe that within the students' responses there are visions of a sustainable future with clear evidence of peace, justice and environmental integrity having been experienced. More specifically there is evidence that the features of critical education for the environment have been implemented as either a direct or indirect result of *Bushland Rescue*. Listed below under the common features of critical education for the environment is a selection of new questions that I had put to the students along with a selection of their responses.

Development of critical thinking and problem-solving skills

You haven't been given much in the way of specific instructions for the various tasks. Do you prefer it like this or would you prefer to be given specific instructions?

'It makes you think for yourself more'.

'I prefer it this way because it brings out 'choice' skills we don't otherwise get'.

'I would prefer not to have specific instructions because it gives you freedom and control'.

'It is better like this because you might have a different idea to what the teacher wants to do'.

Development of an environmental ethic

Will you encourage other people to take care of the environment? If so, in what way? If not, why not?

'Of course. The environment is important'.

'Yes. To preserve it for later generations'.

'Not really because they wouldn't listen'.

'I have more respect for the environment'.

Critical praxis

Critical praxis has been an integral component of *Bushland Rescue*. Not only did the students negotiate the nature of the

work that they undertook, they also made recommendations for how their work should be assessed and for further improvements to the course.

How do you think you should be assessed in *Bushland Rescue*?

'We should be assessed on how well you work in your group'.

'The quality and the time put in the subject'.

'Your input and enthusiasm and attitudes towards the bush'.

What could I do to make *Bushland Rescue* better?

'Not complain'.

'Speak to the other teachers to get them to help us'.

How could we make the course better?

'All working together'.

Development of a critical environmental consciousness and The development of the understandings, attitudes and skills of political literacy

Although the Community Waterwatch program at Whitefriars College has not resulted in the degree of structural changes that were achieved by the water quality action research project reported by Robottom and Muhlebach (1989), the activities of *Bushland Rescue* have generated extra-curricular environmental activities within the student-based Environment Committee. As I write this paper from Manila, I have received the most encouraging news from Whitefriars College that a *Bushland Rescue* student from last year has this year been petitioning the Principal to provide more time for teachers to assist with the activities of the Environment Committee. In response to the student's persistence, the Principal required that the necessary structural changes were made to the timetable to enable a teacher to assist the Environment Committee with its activities.

McTaggart (1998) believes that educational research should be assessed for the extent to which it 'raises challenges for educational theory and practice' (p. 11). Historically, when I had asked myself why my students weren't meeting my expectations, I answered by blaming them or the school structures. Consequently the gap between my expectations and my experiences remained open. However, after I had challenged this theory and practice and began to ask my students what they would like to experience and how they thought we could make it a reality, the gap began to close. I am pleased to say that the five years of *Bushland Rescue* were the most satisfying and tension-free years of my teaching career, for my students as well as for me.

A new horizon: Beyond *Bushland Rescue*

John Elliott (1993) suggests that research should be assessed for the extent to which it opens 'up new possibilities for future action in the situation' (p. 129). Having challenged myself through *Bushland Rescue* and realising the importance of looking for opportunities rather than focusing on perceived obstacles, a new possibility for future action presented itself, not in the context of my workplace but in a new cultural context.

Perhaps it was another serendipitous moment, or perhaps it was just being able to see more clearly because the fog of ignorance had started to lift. As my MEd research was drawing to a close in 2000, an opportunity arose to continue my research journey during a three-week environmental education study tour to the Philippines in January 2001 sponsored by the Catholic Education Commission of Victoria and Victoria University.

To the casual observer, the environment of the Philippines appears to be littered with innumerable obstacles to environmental education and would appear to be the last place that one would find a vision of a sustainable future. However, during my initial brief visit to the Philippines, I looked past the obstacles to see elements of a new vision of a sustainable future. Some of these elements resembled those that I have already identified above, while within some of the elements that were new to me, I thought I could see the possibilities for taking my personal and professional research journey to a new horizon beyond *Bushland Rescue*. I was so struck by these visions that I looked for opportunities to return to the Philippines this year to continue my research journey.

Although some of these elements may have been 'new' to me, they are not new to the collective wisdom of the Filipino culture and to the many Filipino indigenous groups who have always observed sustainable practices and principles in their traditions, beliefs and ways of life. Tragically these traditional ways of knowing, seeing and doing have been neglected or lost due to the imposition of Western knowledge and technology as part of 'development' projects during three centuries of successive colonisations by Spain, the United States of America and now transnational corporations.

Environmental educators in the Philippines, guided for example by indigenous people's belief that knowledge must serve the people and the environment, are now looking to their indigenous peoples to relearn the 'old' ways in order to see a 'new' vision for a sustainable future for the Philippines . According to the Philippine Council for Sustainable Development (PCSD 1998), the implementation of this vision will only work 'if everyone respects and appreciates the ideas and roles contributed by everyone else for the common good of society' (p. 23). The PCSD believes that our shared vision of a more sustainable future must be 'something that we see in our minds as the goal of our efforts', a future that is 'creative, spiritual and caring' (p. 25).

An element of Filipino culture that has struck a chord with me, and one that I believe should be incorporated more overtly in environmental education programs, is the concept of

paninindigan. Paninindigan is derived from a body of local knowledge and wisdom which constitutes the collective sentiments of traditional Filipino practices and conventions (Jocano 2001). The principle of paninindigan is to guide one to support in thought or in deed the side of an issue that one considers right and socially correct and to then act with a sense of propriety, fairness and justice (Jocano 2001). However, making a stand in the Philippines is not an individual act. The most prominent dimension of Filipino culture is the concept of community. For Filipino people, the community is central to their way of life with group interaction generating their values and their actions in response to these values (Jocano 2001, p. 52). There are many examples throughout Filipino history when the people have made a collective stand to bring about peace, justice and environmental integrity. In the 1980s people massed to remove President Marcos from office while the indigenous people of Kalinga in northern Luzon stood firm against the military to prevent the construction of the Chico River Dam.

Conclusion

Throughout my research journey I have attempted to close the gap between the rhetoric of my expectations and the reality of my experiences in order to alleviate feelings of tension and dissatisfaction. The more I have shared the journey with others the more I have begun to share their views of the world and realised that I do not have to look too far to see images of a sustainable future, for they are to be seen wherever I happen to be. By seeing the world and the future from multiple perspectives I have come to realise that we are all searching for a common future. I have also come to realise that the only way that we can experience our positive expectations for the future is to stand together as a community of researchers and to respect and share our collective wisdom—our collective ways of seeing and doing. Only then will we experience our hopes and expectations for a future of peace, justice and environmental integrity. ☯

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