

Exploring new knowledge spaces in environmental education: the case of a South African/Australian institutional links project

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ABSTRACT

In this article I reflect on how a changing South African socio-political milieu provided space for collaboration among Australian and South African higher education institutions. I describe how the different activities of a project entitled, "Educating for socio-ecological change: capacity-building in environmental education", provided challenges for all participants in the light of processes of globalisation and internationalisation currently prevalent. I provide insights on how participatory processes of critical engagement, reflection and dialogue have served as opportunities for capacity enhancing in environmental education.

reflect on aspects of the project and focus on the danger of "new" forms of colonisation through projects of the kind (involving an international donor funder and a "developing country"). I explore new spaces for disparate ways of knowing to co-exist within a context where processes of globalisation and internationalisation currently are prevalent. By "globalisation" I mean the processes of cultural unification which are occurring across the planet, particularly in terms of culture and media. It also refers to unification which is centred on economic activity leading to larger and larger political groupings. According to Gough (2000:335) "internationalisation" involves the promotion of global peace, social justice and well being through intergovernmental co-operation and transnational social movements, agencies, and communities.

INTRODUCTION

Time and space are the medium of our existence. As Pendlebury (1998) points out, our separate and joint projects, large and small, are all enabled or impeded by their placement and organisation in time and space. Environmental education and research, like all other social practices, occur within particular spatio-temporal settings that are partly constitutive of the actions and interactions that take place within them. In this article I use these "facts" as vantage points for reflecting on activities of an Australian/South African inter-institutional project entitled, "Educating for socio-ecological change: capacity-building in environmental education".

In the first part of the article I provide a historical overview of South African-Australian relations and point out how recent political changes in South Africa have enabled collaboration between the two countries. In the second part of the article I describe shifts occurring in both institutional and pedagogical spaces in South Africa post 1990 and its implications for the project I describe. In the third part of the article I give a brief description of the activities of the project, "Educating for Socio-Ecological Change". Finally, I

BACKGROUND

Shelton, Catley & Schmulow (1998:1) point out that South Africa and Australia have in common their shared heritage of British colonialism that left a similar legacy of English speaking European communities, in uneasy relationships with indigenous people. The two countries were tied closely to Britain by means of trade, strategy, head of state and institutional forms. Both South Africa and Australia fought on the side of the allies in the two World Wars. However, after the Second World War the paths of the two countries began to diverge with the 1948 implementation of the apartheid policy by the Afrikaner led National Party in South Africa. The apartheid policy resulted in South Africa being isolated from the international community. Shelton *et al* (1998) argue that by the 1980s the bilateral relationship between the two states had diminished to almost nil. They point out that both the conservative and social democratic governments of Australia became vociferous advocates and implementers of policy aimed at thwarting the race-based laws of the Afrikaner-nationalist government.

The release of Nelson Mandela (from prison) and the unbanning of the liberation movements in 1990, as

well as South Africa's first democratic elections in 1994 enabled South Africa to re-enter the global community. This opened the way for South Africa to develop beneficial partnerships with other countries. As a consequence South Africa and Australia re-established bilateral relationships and since, we have witnessed a re-opening of trade, investment, migration, cultural, and sporting ties. However, despite the common interests and a shared use of language, the socio-historical contexts and therefore experiences of their peoples have been different.

South Africa's relations with Australia have increased significantly to the extent that bilateral trade in 1998 exceeded AUD\$ 1,5 billion, most of which was in Australia's favour (Shelton *et al* 1998). It is in this context of "good relations" between the two countries that Australia aid has been provided to assist with economic development and the development of a democracy in South Africa.

Recently a programme funded by AusAid was established to enable higher education institutions in both countries to form links aimed at enhancing the capacity of South African higher education institutions, particularly those that have been historically disadvantaged. This institutional links programme comprised more than 40 projects, funded over two rounds. The project I discuss was one of the projects of the broader institutional links programme. This project entitled, "Educating for socio-ecological change: capacity-building in environmental education", focusing on South Africa's tertiary educators is quite complex in its structure, involving a total of eight tertiary institutions in two countries (South Africa and Australia). The eight participating institutions were: Shingwedzi College of Education, Tshisimani College of Education, University of Venda (Northern Province, South Africa), Thlabane College of Education (North West Province, South Africa), Rhodes University (Eastern Cape Province, South Africa), University of Stellenbosch (Western Cape Province, South Africa), Deakin University (Australia) and Griffith University (Australia). The project had four activities, namely: Activity one was concerned with curriculum development; Activity two was concerned with professional development; Activity three was concerned with evaluating existing environmental education curricula in South Africa and Australia, and Activity four was concerned with the development of a methodology text to support post-graduate research in higher education institutions. The overall focus of the project was the professional development of new and existing staff in South African higher education institutions.

"NEW" SPACES FOR SOCIAL ENGAGEMENT

Socio-political change in South Africa provides "new" spaces for social engagement. In charting the

transformation of teacher education in South Africa Pendlebury (1998) uses four spatial constructs, public space, evaluative space, pedagogical space and institutional space, to curtail her analysis. Pendlebury (1998:337) elaborates on each of these constructs:

Public space is the arena for public deliberation and contestation on matters of common concern in teacher education. *Evaluative space* is broadly specified by the criteria for programme accreditation and teacher qualification. *Pedagogic space* specifies who may learn, as well as where, when, what and how they may learn. It also specifies what is to count as teaching and so partly constitutes teachers' identity ... A fourth space *institutional space* is crucial to the transformation of teacher education in South Africa, since transformation may not be possible without changing the structural and institutional conditions of practice (italics in original).

Pendlebury (1998) argues that what we are witnessing in these "spaces" post 1990 are shifts from insulated space towards more porous space. She points out that during the apartheid era the education system was replete with racial and ethnic divisions and generally hidden from public scrutiny. Currently, however, there may be greater opportunities for broader participation in education as well as "new" spaces for critique. I argue that Pendlebury's categories are not only useful within the context of teacher education but may have wider application and relevance. I therefore use Pendlebury's constructs of "institutional space" and "pedagogical space" to explore enabling possibilities within the project, "Educating for socio-ecological change". Pendlebury's idea of a porous space opens up the door to the idea of a discourse comprising no longer one dominant perspective but rather, incorporating a number of different voices. A porous space, however, also opens up the possibility for colonial influences. My concern here is to caution against possible dangers of colonial influences in creating "new" transnational spaces. More importantly, I attempt to explore how different knowledge systems can be performed together within transnational spaces rather than the one replacing the other.

Socio-political transformation in South Africa has brought about the softening of boundaries between higher education institutions within South Africa, and between South African institutions and those of other countries. The existence of a South African/Australian institutional links programme provides evidence of "new" institutional spaces or perhaps, the extension of institutional space across provincial and national boundaries. For example, this project involved six South African institutions (three universities located in three different provinces and three colleges of education located in two different provinces), and

two Australian universities (located in two different states). What was also evident was the softening of boundaries between universities and colleges of education in South Africa. This has enabled South Africans, who were previously isolated from each other due to racial divisions during the apartheid era, to now work together on the project for a period of two years.

The “extension” of institutional space (which enabled this project) also had important implications for pedagogical space. I extend Pendlebury’s (1998) notion of pedagogy to include in Hernández’s (1997) terms “all spaces in which knowledge is produced and identities are formed”. “New” institutional spaces imply new spaces in which knowledge may be produced and consequently new forms of knowledge. I elaborate on this later in the article with specific reference to the project, “Educating for socio-ecological change”. However, there might be a danger of new forms of colonisation rearing its head in projects involving international donor funders (helpers) and “developing countries” (the helped). An Australian academic who worked with us on the project neatly captures his concern in this regard. He writes:

Clearly, our [Australian] participation in the project is intended to be catalytic in some way – we are here to ‘help’ – and I am very uncomfortable with being positioned as a ‘helper’. I try to heed the advice of Lila Watson, an Australian Aboriginal educator and activist, who is reported as saying, ‘If you’ve come to help me you’re wasting your time. But if you’ve come because your liberation is bound up with mine, then let’s work together’ (Gough 1998a:3).

I raise this concern in the light of processes of globalisation and internationalisation currently prevalent, and dangers of work done in Africa, and elsewhere, being assimilated into an imperialist archive. My usage of the term archive is borrowed from Foucault’s (1972) architectural metaphor of a cultural archive. Smith (1999:44) points out that Western knowledges, philosophies and definitions of human nature form what Foucault (1972) has referred to as a cultural archive. According to her it could also be referred to as a “storehouse” of histories, artefacts, ideas, texts and/or images, which are classified, preserved, arranged and represented back to the West. Although shifts and transformations may occur within Western thinking, Smith (1999:44) argues that this happens without changing the archive itself, and without the modes of classification and systems of representation contained within it, being destroyed. She holds the view that systems of classification and representation enable different traditions or fragments of traditions to be retrieved and are formulated in different contexts as discourses, and then played out in systems of power and domination, with material consequences for colo-

nised peoples. Reflecting on a project such as the South African/Australian institutional links programme might be useful for exploring ways in which seemingly disparate knowledges could be performed together and, also to critically reflect on “new” forms of colonisation that might rear its head. Before exploring this further I turn now to a brief description of the activities of the project, “Educating for socio-ecological change”.

PROGRAMME DESCRIPTION

Collaboration among project participants began before the funding was received and before the project formally commenced. For a period of approximately one year we developed the project proposal collaboratively. The proposal was developed through e-mail communication, which generally worked well, although it did exclude three of the institutions that did not have e-mail facilities. Information was faxed to these institutions. When the project formally commenced project participants worked together for a period of two years. A planning meeting was held at the beginning of 1998 and several workshops were conducted over the two-year period of the project. The workshop venues were rotated so that participants could gain first hand experience of the places in which colleagues worked. Because of budgetary constraints and the fact that there were more South African than Australian participants, the Australian colleagues travelled to South Africa for all face to face project activities. I now briefly describe the four activities of the project.

Activity one

Activity one was concerned with the development of curriculum materials aimed for use in teacher education programmes at colleges of education and universities. In developing the materials, activity one participants decided to work on curriculum aspects that were relevant to their professional work and contexts. Participants each wrote an overview article and developed workshop activities for use in teacher education programmes. The topics included were: school-based curriculum development, science and sustainability, fieldwork in the local environment, issue-based approaches to environmental education and appropriate assessment for environmental education (for details see Le Roux 2000). Within a process of collective engagement individual participants decided on the topics they would focus on. The topics chosen were not decided prior to the commencement of the activity nor by any one external to the project. During workshop sessions opportunities were created for critical input from other activity participants on work in progress. This proved to be a meaningful professional development exercise as participants could enhance their own understandings

from insights shared by other colleagues. Collaboration in this instance did not mean that the individual disappeared, but rather meant that the individual could still have the time and space to work, whilst an opportunity for peer review and positive constructive critique of each other's work was constantly made available.

Activity 2

In activity two participants examined developing case studies of changing practice in environmental education. The developing case studies were processes of professional development in two distinct ways: firstly as a moment in professional self-development, as participants reflected on the meaning of their own theories and practices. Secondly, that the case studies may be useful for the professional development of other teacher educators and for use in teacher education programmes. The starting point for activity two was for participants to identify environmental and environmental education issues related to their own professional practices. The first step in the process was for each participant to take photographs representing issues closely related to their work and workplaces. At a next workshop session each of the participants clarified the focus of their case studies through a process of critical engagement with other activity participants. The other participants provided feedback on the photographs, enabling participants to identify the "gaps" or shortcomings in the pictorial records of their individual cases. The photographs served as the basis for initial individual and collaborative reflection on our practices. As participants we returned to our places of work so that we could take additional photographs intended to fill the "gaps" that were identified at the first meeting. At a next meeting we individually wrote captions for the photographs and shared them with other activity two participants for critical discussion. Following this, each participant began to develop individual case study commentaries from the photographs in preparation for presentation at a next meeting. Draft case study commentaries and captioned photographs were presented at a next meeting. These were circulated among at least two other participants who provided critical feedback orally and in the form of annotations on the text. Feedback was also provided in a plenary session (for more details on activity two case studies, see Lotz & Robottom 1998, Jenkin *et al* 2000, Le Grange 2000).

Activity 3

Activity three involved the evaluation and development of post-graduate programmes in environmental education. Master's programmes at Griffith University (Australia) and Rhodes University (South Africa) were evaluated, and a curriculum framework was

developed for environmental education at the BEd level, for use in South African higher education institutions.

Activity 4

In activity four several workshops were conducted to enhance research capacity of participants. The workshops included: broadening participants' horizons concerning what counts as research, the improvement of writing competencies of participants, and issues concerning supervision of post-graduate students. The products of this activity would be a research methodology text for supervisors and post-graduate students, and "how to do" pocket guides on various aspects of research such as supervision of post-graduate students. Next I explore opportunities the project provided for the creation of new knowledge spaces in which environmental education knowledge might be produced. In my exploration I draw on the work of Turnbull (1993, 1997) to extend Pendlebury's idea of pedagogical space.

NEW KNOWLEDGE SPACES

As mentioned earlier, pedagogy includes all spaces in which knowledge is produced and identities are formed. Pendlebury's (1998) notion of porous space opens up the possibility for multiple voices and discourses to co-exist rather than one perspective dominating processes of knowledge production.

The dominance of Western epistemologies gives it the appearance of universal truth and rationality. Gough (1998b:508) argues that it is European imperialism that has given Western science the "appearance of universal truth and rationality, often assumed to be a form of knowledge that lacks the cultural fingerprints" that appear to be much more conspicuous in other knowledge systems. Harding (1993:8) expresses similar sentiments to Gough and notes, "European sciences progressed primarily because of the military, economic and political power of European cultures, not because of the purported greater rationality of Westerners or the purported commitment of their sciences to the pursuit of disinterested truths". The hegemony of Western Science as a consequence of military, economic and political power means that Western science has not been objectively situated in world history nor has non-Western sciences been assessed in objective ways. It is therefore important that Western epistemologies be de-centred and compared equitably with other ways of knowing so as to enable meaningful co-existence in transnational knowledge spaces created by complex and changing globalisation processes. It is with this in mind that I explore ways in which disparate knowledge systems might co-exist within transnational spaces.

Turnbull (1997:552) argues that there are two major positions that one can discern concerning the status of knowledge. The first is the imperialist position. This position holds that scientific knowledge is uniquely distinguished by virtue of its rationality and method, that is, is universal, objective and valid within the limits of its own fallibility. This position is still aggressively defended by scientists such as Gross and Levitt (1994) and more recently by Mackenzie (1998).

The second position is a localist position. This position holds that all knowledges are "situated" within particular sets of values. Turnbull (1997:552) points out that this situated knowledge position can, in turn, be divided into two key positions. Firstly, there are those who argue for the unique virtue of their particular value system such as proponents of Islamicisation of science or the "wisdom of the elders". Those who recognise the differences between knowledge systems but are also concerned with ways in which these systems can co-exist hold the second position. It is the latter view of localism that Turnbull argues for and that I wish to pursue further in this article. Turnbull (1997:552) argues that few of the localist positions provide for a radical rethinking of how knowledge is produced in all cultures. He points out that generally approaches have focused on the knowledge itself which he refers to as a representationalist perspective, rather than on the processes involved in producing the knowledge, that is, that scientific knowledge is a social activity. For Turnbull (1997:553) knowledge is both performative and representational.

Turnbull (1997:551) argues that all knowledge traditions are spatial in that they link people, sites and skills. Turnbull (1997:553) suggests that from such a spatialised perspective, universality, objectivity, rationality and so on cease to be unique characteristics of "technoscientific knowledge":

(R)ather these traits are effects of collective work of the knowledge producers in a given space. To move knowledge from the local site and moment of its production and application to other places and times, knowledge producers deploy a variety of social strategies and technical devices for creating the equivalences and connections between heterogeneous and isolated knowledges. The standardisation and homogenisation required for knowledge to be accumulated and rendered truthlike is achieved through social methods of organising the production, transmission and utilisation of knowledge. An essential component is the social organisation of trust.

Following Shapin (1994), Turnbull (1997:553) points out that the basis of knowledge is not empirical verification, as the orthodox view would have it, but trust. He uses diverse examples such as the building

of gothic cathedrals in medieval Europe, the Polynesian colonisation of the Pacific, the development of modern cartography as well as rice farming in Indonesia to demonstrate "how particular knowledge spaces can be constructed from differing social, moral and technical components in a variety of cultural and historical contexts". The important contribution Turnbull makes is the fact that all knowledge systems have localness in common and that the difference between different knowledge traditions is based on different kinds of work involved in creating assemblages from a collection of practices, instrumentation, theories and people:

Some traditions move it and assemble it through art, ceremony and ritual; [Western] science does it through forming disciplinary societies, building instruments, standardisation techniques and writing articles. In both cases, it is a process of knowledge assembly through making connections and negotiating equivalences between the heterogeneous components while simultaneously establishing a social order of trust and authority resulting in a knowledge space.

By viewing knowledge systems comparatively in terms of spatiality and performativity, it becomes possible for disparate knowledge traditions to coexist rather than for one to displace another. According to Turnbull (1997:560) this would require the creation of a third space, "an interstitial space in which local knowledge traditions can be reframed, decentred by enabling all knowledge traditions to work together". Recognition of the performative aspect of knowledge production may ensure a future for local knowledges and the creation of multiple knowledge spaces in lieu of one homogenous global space.

REFLECTIONS ON THE PROJECT

I use some of the above insights to reflect on the project "Educating for socio-ecological change: capacity building in environmental education". My concern here is not only with the knowledge produced (the knowledge itself) in the project but rather with the processes involved in knowledge production. As I pointed out earlier some of the Australian participants were uncomfortable in working within a helper-helped situation. South African participants, similarly, were critical and suspicious of what they perceived to be neo-colonial influences.

In activity one, for example, one Australian academic attempted to introduce UNESCO funded materials (developed by Australians) into the project suggesting that the materials could easily be adapted for South Africa. Several project participants were suspicious of the academic's motives and questioned the suitability of the materials for South Africa. Some of the participants felt that it was an attempt by the

Australian academic to use the project as a convenient springboard for introducing the UNESCO funded materials into Africa. In reviewing these same materials and their use in other countries, particularly in the Asia-Pacific region, Dillon (1999:227) cautions against colonisation of this kind. He concludes his review with the following: "(b)ut let us the user beware, colonisation comes in many forms. Words and ideas are powerful and can spread like viruses". The activity one participants decided not to use the UNESCO funded materials but to develop contextually relevant materials in South Africa for South Africans. This decision was in conflict with the personal and institutional agenda of the Australian academic and he opted to leave the project.

In activity two it was decided, through a process of negotiation, that the materials that were to be developed would be based on the interests and needs of the South African partners. It was decided that the case studies that were developed would embody the principles of contextuality and responsiveness. By contextual I mean that the activity both respected and related closely to the particular workplaces and workplace issues of the participants. By responsive I mean that the issues explored in the professional development processes were those of interest and concern to participants themselves. Activity two therefore provided space for South African participants to develop case studies suited to their different contexts. At the same time the activity was participatory in that it provided opportunities for collective reflection on each other's work and in enabling collaboration between South Africans and Australians. Participants resisted using Australian materials for mere adaptation in South Africa.

The case study materials produced in this activity is currently being used as part of the course materials of an online Master's programme in professional development at Deakin University, Australia. This will enable students from different parts of the world (registered for the programme of course) with insights into local environmental education issues in Africa and the modes of knowledge production cognate to them. By representing and transmitting local African stories through optic fibre technology, South African performative modes of environmental education knowledge will be made visible in Western terms, a new knowledge space, which will have transformative effects for Africans and students in Australia and other parts of the world.

In activity three the original focus of evaluating Master's degree programmes shifted in emphasis to include the development of a BEd module in environmental education, which South Africans deemed to be more relevant. The Australian academics brought with them evaluation instruments which they thought could easily be adapted to evaluate Master's programmes in South Africa. South

African participants not only found the instruments and the cognate methods of evaluation inappropriate but believed that the development of a curriculum framework for a BEd module would be more useful because it is at this level that many more teachers could be reached. The process involved in reaching this decision was not easy and involved negotiation with vociferous debate initially.

What occurred in activities one and three provide some evidence of resistance on the part of South Africans to personal and institutional agendas of Australians, which might not be easy to exercise in the donor-recipient/helper-helped context. It is, however, important that we become critically conscious of the agendas of donor institutions in transnational spaces created by complex and ever changing globalisation processes. Also, that as Africans we should be careful of uncritically taking up discourses that remains dominant in such transnational knowledge spaces.

In activity four through a process of collaborative planning it was decided that the research methodology text to be developed would be based on local stories of research rather than developing South African "versions" or examples of research framed within imported paradigms. By imported paradigms I refer to categories developed in North America such as quantitative, qualitative, positivist, interpretive, emancipatory, postmodern and so on. Instead of framing our text within some of these categories (and then look for SA stories to fit them) we rather foregrounded local stories of research and focused on how processes of knowledge production were performed within the "real" life experiences of South Africans. When then looked at how these stories might relate and inform the "imported" paradigms I referred to earlier. Activities two and four provide some evidence of how different ways of knowing might be meaningfully performed together in transnational spaces.

CONCLUDING COMMENTS

Socio-political change in South Africa has enabled "new" spaces in which South African academics and educators can perform their work. In this article I have pointed out that changes in both institutional space and pedagogical space have occurred in the post apartheid period. I also noted that "new" spaces which exist for academics (and other professional workers) to perform their work, might open up opportunities for new forms of colonisation. A critical awareness of the latter is crucial, as increasingly South Africans find themselves working in projects funded by international donor agencies. In this context, South African and other workers might become ambivalent about working on such projects. I argue that some of the tensions might be overcome

within projects of this kind if the power of human agency is recognised. By this I mean that rather than uncritically taking up dominant discourses South African academics might explore ways in which seemingly disparate discourses could co-exist and be performed together. I agree with Pendlebury (1998) that the projects we are involved with/in are enabled or impeded by their placement and organisation in time and space. This perspective does, however, not exclude the possibility of agency to the subject, enabling discourses alternative to dominant ones also to be taken up. In the project "Educating for social change", for example, participants (South Africa and Australian) were not only conscious of but, also took action in challenging what they perceived to be forms of colonisation. The works of Turnbull (1993, 1997) were useful in providing a conceptual framework for exploring some of these issues. Turnbull's conceptual framework opens up possibilities for exploring how different knowledge traditions might co-exist within transnational spaces rather than one knowledge system displacing the

other. In the project, "Educating for socio-ecological change", we attempted to conceive of our work in such a way so as to enable different knowledge traditions to co-exist and to be performed together. The extent to which we were successful may, however, require further investigation. Suffice it to say at this point, possibilities might exist for workers from donor countries and recipient countries to work together without their traditions or interests being displaced and/or absorbed into an imperialist archive.

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