

# Being Brave: Writing Environmental Education Research Texts

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## **Abstract**

*The heroine came back from her very important quest and sat down to write a thesis . . .*

*While mythical journeys do not always end this way, the stories have to be told. The work of telling the story in the hero's journey is often left untold. This paper explores some of the headwork that goes into textwork (Van Manen, 1995) in environmental education research. We argue that writing is an integral part of the research process, and should not be viewed as an "add on" or a silent, untold part of the adventure.*

*We reflect on some of the institutional and epistemological issues associated with writing social science (in our case environmental education) research texts. Writing research is never an easy enterprise, it is bound by history and tradition, convention, institutional habit, and regulation. It is also constrained by the uncertainty of the process of writing itself, by problems of power relations in research, and the difficulty of writing to represent experience rigorously and authentically while recognizing that all writing is a constructed symbolic representation of experience. The paper reflexively reviews our attempts at "being brave" in the construction of our research texts.*

## **Résumé**

*Au retour d'une quête très importante, l'héroïne s'est installée pour écrire sa thèse . . .*

*Si les voyages mythiques ne se terminent pas toujours de la sorte, il n'en demeure pas moins que les récits doivent être partagés. Bien souvent, le travail nécessaire pour raconter l'histoire du héros est passé sous silence. Le présent article explore une partie du travail de réflexion qui est engagé dans la rédaction de textes (Van Manen, 1995) au niveau de la recherche en éducation environnementale. Nous affirmons que l'écriture fait partie intégrante du processus de recherche et qu'il ne faut en aucun cas la percevoir comme un ajout mineur ou, encore, comme une étape de l'aventure vouée à ne pas être racontée.*

*Notre réflexion porte sur certaines des questions d'ordre institutionnel et épistémologique associées à la rédaction de textes dans le domaine des sciences sociales (dans notre cas, l'éducation environnementale). Ce genre de rédaction n'est jamais facile – elle est corsetée par l'histoire, la tradition, les conventions et par les habitudes et les règles institutionnelles. Elle est également gênée par l'incertitude inhérente à l'acte d'écrire, par des problèmes de*

*rapports de force en recherche et par les difficultés propres à toute tentative de relater une expérience par écrit avec rigueur et authenticité, tout en reconnaissant que l'écriture est une représentation construite et symbolique de l'expérience. L'article offre un compte rendu réfléchi de nos tentatives de courage dans l'élaboration de nos textes de recherche.*

## The Quest: The Hero, the King, the Dragon, and the Story

The hero's journey is a myth that is found in most of the world's cultures (Campbell, 1956). Research can be viewed as a hero's journey. There is the Quest—the search for knowledge and the need for improvement which often drives the quest; the Dragon—the main obstacle (question) that we have to overcome if we are to achieve our quest. Finally, we win the prince/ss and the castle and live happily ever after. In academic terms the prize is a degree, a book published, or a paper published in a journal.

But what about the stage of this journey, when the hero becomes the *storyteller*? When and how does the hero share the story with the rest of his/her community? Maybe the story went something like this:

*King:* Hey, Hero, did you kill the Dragon?

*Hero:* Yup.

*King:* Cool, here's lots of gold.

We don't think so. The King will surely insist on a blow-by-blow account (for all to read) on how the Hero got to the Dragon, the evil witch s/he met along the way and, of course, how the Dragon was killed. We think that the Hero is only believed when he/she has a good story to tell. Of course, this can be a difficult task. After all, the Hero is trained as a hero and not a storyteller. And most know that Heroes practice and practice their stories before they meet the King. This does not make the storytelling easier for the Hero. Similarly, the researcher can find the task of writing (and re-writing) the research rather stressful. Some may even be heard to whisper that the Dragon is actually the writing process waiting in the shadows.

Research journeys follow many different paths, particularly in environmental education. Some say that a lone quest for truth may not be a safe journey. Like environmental problems, the Dragon we set out to capture tends to exist in complex, diverse, and often conflicting forms. Lone journeys and narrow quests in environmental education (research) seem to limit the potential to engage meaningfully with/in the complex features of environmental (and educational) issues and concerns (Janse van Rensburg, 1995). These issues

seem to need deliberation about change and social transformation amongst people in contexts that are often as diverse and complex as the issues or risks themselves (Lotz, 1999).

To boldly go and kill the Dragon alone may be dangerous as well as inappropriate. We may even want to question the idea of the researcher as the “knowledgeable hero.” With the emergence of the participatory research journey, the research experience moves away from finding “truths,” or even more tentative “conclusions,” to processes that present openings for further (re-)searching, for new quests, and ongoing travels (Lotz, 1996). The challenge in this type of journey lies in working with/in research processes which are emergent and enabling rather than imposing and engineering (Lotz, 1996). We argue that one of these emergent and enabling research processes is, or ought to be, the writing of the text itself.

### The Stories: Contextualization and Overview of Research Narratives

After killing the Dragon, every Hero has a story to tell. We, the authors of this paper, told ours in two theses (Lotz, 1996; Burt, 1999). On returning from our participatory research journeys we discussed the stories we told, and discovered that we both struggled to tell our stories (it seems easier to talk about the stories after they have been told). We both found the accepted genre and structure of conventional thesis writing inappropriate, just as positivist approaches to research were inappropriate, to our quest to confront the complexity of environmental and educational change, in a country where social and educational transformation are intimately tied up with issues of democracy, environmental justice, and social change. We both view environmental education work as a (partial, but nonetheless vital) process of engaging with, and responding to environmental risk, and see research as part of this process.

We discovered too, that there were similar reasons for the way in which we approached the textwork in our stories. Even so, both stories remain unique, as do the voices that tell them. In this paper, you will encounter us telling our own stories (introduced by “Heila writes” or “Jane writes”). You will also encounter us writing about each other’s stories (reported as “Jane did this” or “Heila did that”) and you will find that we have drawn on original text from the stories we wrote (our theses—these are marked as an extract from Jane’s text, or an extract from Heila’s text). We also draw on our co-authors in the world of academia—and their texts are quoted verbatim and referenced appropriately, as is the norm in academic text writing. Here follows a brief overview of the original stories we wrote (the theses):

## Heila's Story: The Development of Environmental Education Resource Materials for Junior Primary Education Through Teacher Participation (Lotz, 1996)

... the student should understand that their writing encompasses methodological and analytical strategies . . . . It must become part of our reflexive self-awareness that we recognise the rhetorical and stylistic conventions with which we deal . . . in order to bring it within our explicit methodological and epistemological understanding . . . . The academy may need to be more open to . . . theses in which textual experimentation is a major reason d'être, [and] cannot treat them as less important than any other methodological concerns. (Atkinson, 1991, p. 168-173)

### *Heila Writes*

I undertook a formal research study on participatory materials development for a Masters/PhD study. This study was situated in a politically significant time in the history of South Africa—between 1992 and 1996, two years before, and two years after the first democratic elections. The research explicitly engaged with socio-political transformation in the educational and environmental arenas in South Africa, seeking pathways to transformation in curriculum, materials development, and teacher professional development work. I developed resource materials with teachers in an attempt to improve the quality of education in the lower primary grades, where more than half of all African children entering schooling drop out after their first year in formal education (due often to inappropriate curricula, overcrowding, lack of resources, and poor quality teaching materials and practices (see Motala, 1992, cited in Lotz, 1996).

Through a socio-historical grounding of the research question, the assumptions and ideals of the critical inquiry paradigm and socially critical environmental education (Lotz, 1996) were chosen as theoretical framework for the study. At a theoretical level, the research project represents an attempt to clarify the assumptions and orientations of socially critical environmental education (Fien, 1993) as a possible tangible alternative to modernist models of environmental education and educational change in a South African context. It concludes with an emergent critique of narrow interpretations of critical theory in environmental education, noting that critical theory in itself may be modernist in its intentions.

A significant part of this research journey was the writing process, articulated at the start of the thesis as a reasoned justification for decisions made in constructing the text. The challenges I faced in “being brave” with the text—as novice researcher in an historically conservative institution—were enormous (while being a centre of excellence in many respects, the university where I studied was historically known as an apartheid institution, promoting the culture and tradition of minority whites). In spite of earlier conservatism of the institution, my supervisor, Danie Schreuder, was supportive of the project of educational transformation in the country, and

encouraged me to write in a way that authentically reflected my research experience. Without his open-ended orientation, my exploration of issues associated with the writing of the text (as part of the research process) would probably not have been possible.

### Jane's Story—Dramatic Learning: A Case Study of Theatre for Development and Environmental Education (Burt, 1999)

If the medium of our sharing is (partly at least) the message, and the message is art, then the medium should be artistic . . . . More and more, we are being traduced into writing everything like a traditional university thesis . . . . A university thesis is a monologue, in every sense undramatic, and only rarely (more's the pity) artistic. (O'Toole, 1997, p. 187)

#### *Jane Writes*

In my research I explored the use of theatre for development for environmental education in schools as a formal research study for a Masters degree. Theatre for development acknowledges the need to use theatre as a platform for people to fight oppression. The main goal is to turn the practice of theatre into an effective tool for the comprehension of social and personal problems (Boal, 1995). This approach fitted well into the learner-centred, constructivist methodologies being introduced into South African schools in the late 1990s. This research took place in Grahamstown, a small university town in the Eastern Cape, South Africa. The Eastern Cape is one of the most disadvantaged provinces in South Africa with many people sustaining themselves directly from the environment, even in urban settings (Burt, 1999, Appendix A).

Following a series of theatre for development workshops with a number of schools, I worked with one teacher exploring theatre for development for environmental education in a classroom situation which was characterized by issues of over-crowding and poor basic facilities.

The study gave rise to multiple themes: I reflected on how all participants in the project struggled to move towards learner-centered, constructivist pedagogy; and I reflected on performance vs. process in environmental education, drama, *and* research and the struggles of all participants in adopting a more process-orientated approach (Burt, 1999).

The textwork, key to the research itself, and written as a play, reflects a post-structural orientation. I wanted to reflect research as a process of re-searching and *learning*, something in which anyone can participate. I also wished to represent the many voices of the research participants. The textwork became another way in which to re-search the ideas of process and constructivism. It became “the stage” on which I challenged the role of research in society, and I used the text-writing to make my research accessible to non-academic readers.

## The Plot: Epistemological and Methodological Congruency

So how does the Hero decide what to tell the King? And how will the King know if the story is “true”? We found that the traditional ways of telling the research story was not appropriate to our, and the participants’, experience of the research process (see also Nielsen, Cole, & Knowles, 2001). Both our research projects were participatory research initiatives that used the action research methodology. Heila’s research was framed as a critical and reflexive engagement with the critical theory research tradition. Jane’s research was framed within a post-structural research orientation. We were both faced with the challenge of epistemological congruency between the methodology of our studies and the way in which our texts were written.

Drawing on the arguments of Meloy (1994) and Atkinson (1991) Heila notes in her thesis that the writing of qualitative research is an integral, extensive, and pervasive feature of the research process—it begins and ends in writing. This means that the textual construction of qualitative texts goes far beyond the problems of producing serviceable thesis drafts—it involves ongoing clarification of the epistemological position of the textwork, in the context of the research question, the socio-historical location of the research, and the research methodology. Heila writes:

I found that doing research involved playing multiple, simultaneous roles. I was participant in the research process, I was a methodologist, an analyst, writer, thinker, interpreter, inquirer and co-learner, and I was the individual who, through social interaction and the sharing of data and written text with research participants, was responsible for some kind of organized final presentation. In reflecting on this responsibility, I realized the important ethical implications that writing the text has in participatory research and I was confronted with questions as to how I should represent this process, what I could/should report and what would remain unsaid. Given that my research was framed in the socially critical tradition (Robottom & Hart, 1995), the issue of how the text was written was crucial to the epistemological and methodological congruency in my research—the politics of method (Hart, 1996) was at the forefront of the writing process.

Jane’s text also set out to be consistent with her chosen methodological orientation. The textwork became an integral part of, as well as a strategy to, make sense of the research process. Working with a post-structural orientation she pushed the boundaries of the “serviceable thesis” and, through the textwork, questioned what role research should play in society, who the main players should be, and who should have access to the process as well as the finished product. In other words, the accessibility of the language and the availability of the outcomes were important.

Lincoln (1990) and Popkewitz (1990) both argue for a consideration of the intimate connection that exists between a researchers’ use of rhetorical conventions and their tacit assumptions about the nature of knowledge. Our

texts reflect this in both the style and our personal presence in the writing. The self is consistently present, rather than hidden, in both texts. Heila takes her readers through a guided tour of her journey whereas Jane exists as two main characters in her play, Jane and a male “alter-ego” called Zaru. Below Heila discusses the structure and style of her thesis with this in mind:

I was aware that thinking and writing about self refers to self as a relation not an entity and that our theories, practice and research are not given, but constructed by each of us in community (Diamond, 1993). I was thus able to see that through the creation and interpretation of text and the process of “going public” with the personal, community is extended. I saw this as an important dimension of participatory research. Thus, to enable the textual conventions of my research project to reflect its socially constructed and partial nature I chose to write in more narrative ways, rather than choosing the expository and clinical genre of traditional report writing. I wrote the research as an unfolding story that took place over a period of four years. I drew on the work of Zeller (cited in Berkenkotter, 1993) where he states that “. . . the fictive techniques of new journalism (i.e., narrative and description) that writers use to create authenticity are more congruent with the fundamental assumptions or “axioms” of naturalistic and reflexive research.” I made use of these techniques to create authenticity and to provide a thick description which was aimed at *presenting*, not representing, experience (Sherman, 1993).

The style of Heila’s thesis writing encompassed the use of metaphor as textual convention; a reflexive interest in discursive practice and new fictive techniques; representation of text as socially constructed and partial; and a view of text as a mechanism for developing voice, and broadening participation to the reader/s through research. This approach to textwork opens up new avenues and dimensions for reflecting on the research, and for creating new frameworks for validity in research. Lather (1991) noted that self-reflexivity provides some experience of both rendering problematic and provisional our most firmly-held assumptions and nevertheless acting on the world, taking a stand. Heila, in attempting to be self-consciously reflexive in reporting the events of the research process, accepted and acknowledged the inevitable partiality and constructed nature of all writing, but at the same time, provided a rigorous narrative and through the rigor of the reporting, enhanced the validity of the thesis work, a point noted by all the examiners. The textwork showed a reflexive interest in understanding the social and historical roots of her own textual practices (Berkenkotter, 1993), and hence the research process itself. It reflected the research process as an *extensive, interactive, and complex process*, rather than a set of rationally proven conclusions.

Jane’s approach to the textwork also acknowledged the construction and partial representation of the writing process. Her reflexive style took place as a dialogue between different characters in the play. Jane writes:

The more I wrote the more I realised how many different voices, and multiple meanings were being made through my process of writing. I felt it was important

to represent all these voices so as to open up the writing to reveal, those spaces that can be concealed behind academic jargon. They are areas where learning is often hidden as researchers try to represent a clear, logical picture of the subject and not (as Heila mentions) that the research process is extensive, interactive and complex. In an attempt to let these “spaces” (often silent) speak, I tried to give a voice to all participants as well as to the multiple voices that existed within me. It was also important that my supervisor, Eureka Janse van Rensburg made an appearance “on stage” and did not remain a silent character behind the scenes of the research process (see Burt, 1999). Although this reflexive approach was congruent with the epistemology, one examiner pointed out the dangers of participants getting lost in the complexities of my own voice (Burt, 1999). This highlights the fine line an author treads by being self-reflective as well as attempting to present the voices of participants. But it is a fine line that can only be traversed if researchers are brave enough to walk off the beaten track.

This orientation to writing the text supports the argument that we may indeed arrive at the opinion that the normal canons of written scientific discourse are inappropriate for the representation of complex and multiple realities (Atkinson, 1991; Dunlop, 2001).

### The Perspective: Writing as Partial, Organized Representation of Experience

In telling her Story, the Hero is faced with the expectant crowd of *listeners*. They want to know what happened. A scary moment, almost as scary as facing the big Dragon. It would be pointless to tell them about all your lunch stops, to describe how the birds sang and mention each different sunset you saw on your travels. And what about all those other adventures you had while trying to find the Dragon? Of course if you are the kind of hero that believes in participatory adventures, you also have to worry about everyone’s different interpretations of the experience. In writing research the textworker is faced with similar dilemmas and decisions: what to represent, what to include, what to exclude and how to represent the research experience. This was an issue we both confronted. An extract from Jane’s text discusses this:

I wanted to write my research up in the form of a play so that the voices and roles of all the participants are presented to the reader to make his or her sense out of what happened. As a researcher and writer of this play, I am taking on another role in the drama and that is how I wish my comments on the research to be viewed, as another voice within the play. Of course as a writer I have a lot more power than other participants, and I get to leave out things I don’t think are important and keep things in that I think are relevant. I could just write everything down and let the reader try and decipher the chaos, but in every theatre production we see, or film that we watch, there is a director who cuts and shapes the film or drama so that the viewer can enjoy the fluidity of the story. I would like to see one of my roles as the director or in the case of a piece of writing, the editor of the events. (Burt, 1999, p. 4)



Heila addressed this issue by structuring the text in a reflexive manner, keeping in mind the suggestion of Lofland (1974) that a successful text should weave together the local and the generic and should achieve a satisfactory mixture of data and discussion, example, and generalization. Heila used a three-phase chronological structure to both track and describe the shifts in the nature of the research process, and to track her conceptual engagement with socially critical environmental education as the orienting theoretical framework. Although the phases unfold in broad chronological and temporal order, their boundaries are not clearly demarcated as cut-off points in time. The structure illuminates the idea that shifts and changes in research or understandings do not take place as an evolutionary progression of events that can be “neatly” described (as more “conventional” theses texts often promise). In the thesis, this was illustrated through the use of poetry. She also employed the metaphor of a journey to describe different forms of engagement *towards*, *with/in*, and *beyond* socially critical environmental education, and these formed the three parts of the thesis. Heila writes:

The structuring of the thesis in this way helped me to write at a number of different levels, interweaving different strands of writing (about the textual construction, about the research data, about working with others in research, about the epistemological framework, about the nature of change and about research) and enabled me to “select” from the mass of data and experiences over a period of four years, and organise the research process in a represented format (in this case a thesis).

This extract from Heila’s thesis illustrates how metaphor was used to provide structure and orientation to the thesis:

(End of Phase 2):

Bringing along a camera, while usually sacred to most tourists, can invite a lot of extra worry. Between the stressful temptation to jam every notable event down your lens, the high cost of film, equipment and developing, and the ever present paranoia about loss or theft, you could end up smashing your beloved Nikon to bits all too willingly. Still, personal photos are more, well, personal than postcards, and a shot of that guy from Cork with the accordion and the dancing eyes says more about your trip than a glossy poster of Big Ben (from *Let’s Go 1993: The Budget Guide to Britain & Ireland*). The description of phase two of this journey has been directed by the choices I have made about the photographs or “shots” I have chosen to present in this research account. I have tried to avoid the “stressful temptation to jam every notable event down the lens” and have selected those pictures, taken through diverse lenses, which were able to provide insights into this journey in a way which would recount some of the extent and value of the experience, and which could still reflect those personal moments of interaction and encounter with fellow travellers along the way . . . . (Lotz, 1996, p. 259)

She continues:

I drew on the work of Lather (1991) to understand better that in writing one faces the “inescapability of reductionism” and that “. . . language is delimitation, a strategic limitation of possible meanings” (p. xix). She notes that language “. . . frames; it brings into focus that which goes unremarked.” She drew my attention to the fact that the silences of our own writing are subject to some comment in the text, but that we “. . . write at a time when the formerly unsaid/unheard are becoming increasingly visible and audible.” Lather (1991) also drew my attention to the need to create a text that is neither temporal nor evolutionary, that doesn’t totalise, that doesn’t present theoretical orientations as fixed and monolithic and which presents a conceptualisation of knowledge as constructed, contested, incessantly perspectival and polyphonic (Lather, 1991). With these insights I tried to create a text that was open enough to offer multiple perspectives to different readers.

I chose to end the thesis with “multiple endings,” each of which recognised an area of the research that had been largely unreported in the thesis. Through this “open-ending” of the research, I emphasised that the research report is merely (and can only be) a representation of one particular perspective of the research process, and that a further searching for meaning remains possible. (Lotz, 1996)

Heila used the well-travelled, but useful metaphor of a journey and the idea of multiple endings, and wove together different texts, including poetry, so that the structuring of the text helps create both the experience of the research process and an engagement with the theoretical ideas that underpin it. Jane wrote her thesis as a play so as to recognize her experience of knowledge as constructed and changing. Both our methodological orientations chose to see research as going beyond the quest for knowledge. We recognized the role of research as an integral part of the change processes we engage in when we embark on environmental education work in contexts of social transformation. Research, for us, became a process motivated by ideals of enablement, empowerment, and transformation. It became the learning process in which we were able to, with others as our partners, clarify our understandings and practice in environmental education work. We needed to try and reflect this in the text. But the text does not only represent the experience had, but the experience being had, and the learning that takes place during the process of writing. As Jane writes:

Plays are written and performed by people who wish to draw our attention to something. A play is an attempt to change our world, celebrate it or start dialogue around a particular issue. As quoted in my thesis John O Toole (1992) says “. . . drama is something which happens, and never accidentally; it is a dynamic event which is always part of its context.” A play constructs an experience. It removes the experience from the everyday world of action and places it on the laboratory of the stage, within a different experimental space. A play often is a reflection on society but it also can be something else. The process of play making also comments, develops and expands our understanding of our context. Although

this is so, the audience, the listener is always aware that this is a world created by the actors. By writing the thesis as a play I acknowledge the way in which we construct and make sense of our world depending on who is on stage and what lines are spoken. I see my role as one of the many constructors of this particular context.

The play not only comments on the experience of being part of the drama of research, it is post-modern in its approach, as the author remains present on stage, dialoguing and reflecting on the text. Subjectivity is often seen as a weakness in texts, but I see it as a strength. Being able to acknowledge the strength of my own voice to myself and the reader allows me to take one step further away from the process. I reveal myself and so can distance “myself as participant” and enter “myself as observer” with more ease—becoming an observer, not only of the research process, but observer of the text and of myself.

We think that this kind of ongoing critical and contextual review of our (research) practice may sharpen our abilities to engage in ongoing critical contextual evaluation of what a better environment for all (sustainable living, socio-ecological justice, etc.) would entail in a range of different contexts, which are inadvertently linked to each other in global space.

### The Style: Multi-Textual and Multi-Layered Narratives

There are many influences when telling a story. So far we have explored issues like making sure that the story is congruent with the actual adventure and to state that we can only represent our construction of what happened. As one gazes at an audience’s faces one can feel their expectations, knowing that everyone will not hear the story in the same way. In writing research we are faced with similar pressures. The academy exists within a set of rules, power structures, and self-interests. It is also there to regulate and standardize learning, and acts as quality control. As student researchers, storytellers standing in front of the King, we worry about who will read the research text and judge its value, validity, rigour, and authenticity, and of course, we worry about *how* the text will be read. Will the King like the story, and how does the King like his stories told?

Fortunately both of us were supported by our supervisors, but even so, we were constantly aware of the power of the academy in validating our research. Heila writes:

When writing my thesis, I was profoundly aware of the power of the academy in validating the text as a knowledge claim. As strategy to address this, I “wrote to the reader,” and pointed out a new role for readers of qualitative texts. I was warned by Atkinson (1991) and Meloy (1994) that we cannot expect a shared understanding of our textual conventions and so I, as part of the introduction to the text, indicated to the reader that “. . . developing a shared understanding of the text requires the reader to travel alongside the researcher on the road to epistemological, methodological and discursive clarity and understanding” (Lotz, 1996,

p. 9). However, the “bringing along” of the reader may not be enough, as readers have an active role in textual construction.

We both used strategies of multi-textual writing, or textual plurality, to more authentically represent the textwork as well as the research we were involved with, but also to communicate with our different “readers.” The use of textual plurality allows the reader to follow the story of his/her choice among many stories, enabling his/her voice as reader to be heard (Lather & Smithies, 1997). Jane writes:

The reader can read the action (All the Scene Two’s) and ignore my interpretation and make up his/her own; or the reader can read my interpretation although he/she may not be interested in the details of methodology found in the footnotes. Some readers with a methodological interest, will spend a lot of time going through the footnotes. Others might be interested in particular ideas which I have briefly mentioned, and may want to follow up on these ideas by looking up references in the footnotes and the reference list.

Using unconventional strategies of communicating with the reader, does not lessen the power the academy holds over students, and their written texts, particularly for first-time authors like us. Jane writes:

At times I felt insecure with the way I was writing my thesis, but I knew I had the support of my supervisor and department which helped with difficulties I expected from the rest of the academy. Even so, the reasons for writing my thesis as a play arise throughout the text. In the last scene of the play supervisor joins me on the stage and adds her powerful voice to the growing explanations. It was the post-structural methodology within which I was working that set the challenge to work within a different rhetorical style. In the examiners’ reports I found that my examiners accepted the challenge of the alternative style and were able to interpret the methodological significance of the textwork in the context of transformation and new orientations to research. It was interesting to see that the examiners saw themselves as “players” in the drama—one described herself as a “theatre critic.”

In challenging the power of the academy to decide what counts as legitimate knowledge production in our work, we ask questions about how knowing can be represented in rigorous ways, but not be confined to the boundaries of traditional academic writing. Through this work, we ask questions about the many possibilities inherent in new media, new journalism, in different genre’s, and in multi-layered narratives (see for example, Nielsen, Cole, & Knowles, 2001 for further exploration of these possibilities).

Probably one of the more stringent (and powerful) traditions associated with writing for the academy is the “literature review” in which one is required to write a critique of current literature associated with the research topic at the start of a thesis. We both found that the traditional process of distinguishing this literature work as a separate part of the textwork was not

conducive to representing our experience of doing research authentically. We both decided to abandon the struggle to isolate the literature work from other aspects of the research and textwork, and in our search for greater methodological and epistemological congruency we opted for an integrated, multi-textual approach to working with literature, and found that this approach was more consistent with the multi-layered narrative style we had adopted, offering greater rigour. Vulliamy, Lewin, & Stephens (1990) referred to the role of literature studies in research when they talked of a process of progressive focusing in which readings and literature progressively help to focus the stages of a research project. They see this progressive focusing as an important element of analysis and note that ongoing engagement with literature throughout the research provides greater theoretical input into the emerging analysis. Jane comments on this:

As our approach to environmental education, research and drama began to shift from a product to a process orientation, so did my approach to other aspects of my thesis. For example, the way I engaged with the literature. In the beginning I made lots of notes, trying to remember what each author said. As I say in my thesis, "Each article would sway me, saying 'I'm the truth'" (Burt, 1999, Act6Sc2, p. 109). Later, as I warmed to my subject and became more confident in my own voice, I came to each paper with an orientation of my own, seeing them as a dialogue with ideas rather than a lecture from experts. This shift in my approach to the literature gave rise to the approach I used to represent it in my thesis as another voice amongst many.

Heila also found that the dealing with the literature review became a significant methodological issue in the study. She writes:

Reading much of the literature initially had little meaning, but, as my experience of the research process developed, so many of the readings became not only meaningful, but useful tools to help guide the research process. I tried several attempts at "literature review," I had numerous printed pages and computer files full of literature, stories other people told about their ideas. I kept finding that these stories did not tell my story. Worse, I kept finding that, in spite of all the labour to compile a literature review, there was a significant "mismatch" between the theoretical insights I was able to present in the "literature reviews" which I had compiled in the earlier days of the research project and those I was compiling later on in the research process. While I could have chosen to present the more sophisticated versions of the "literature review" in the final text, I found that it did not adequately reflect my increasingly sophisticated understanding of the research process as it unfolded. It also did not reflect the way in which literature had shaped the unfolding of the research process and it did not reflect the interplay between the unfolding empirical findings and the emerging theoretical ideas. Representing the use of literature as a separate section in the thesis did not enable me to represent the reflexive orientation that I gradually developed (over the four years) to the research orientation and research process. This tension between the expectations of the academic genre of thesis writing and my experience in the research process finally pushed me to decide on a different process

of incorporating literature into the text. I did this in a number of ways: 1) Through including a conceptually rigorous and critically analytical sub-text in the form of footnotes. This enabled me to add another “level” of textwork to the thesis without interrupting the flow of the main “story.” It enabled me to deepen the level of discussion about different issues in the thesis. It also created the space for a reflexive review of the research process, which I was then able to “build on” and “take forward” in the final chapter of the thesis. 2) Through supporting empirical evidence with extracts from the literature to substantiate and deepen developing arguments in the thesis, I was able to draw on the experience of other educators and researchers in the analysis and interpretation of the data, thereby providing a strategy for “deepening” the data analysis in the thesis.

## The Voices: Representation of All Research Participants

Although both our research projects followed a participatory approach, writing a thesis for the purposes of academic qualification is essentially an individualistic exercise. How do we as writers present the now silent participants? Who actually killed the Dragon?

In participatory research there are many arguments for “full participation” of all participants at all stages of the research. For example, Carr & Kemmis (1986) maintain that “. . . all those involved in the research process should come to participate equally in all its phases of planning, acting, observing and reflecting. In this, action research is democratic” (p. 78). While it is easy to involve participants in the planning, data collection and even the data analysis phases of a research enterprise, it is difficult to generate the same levels of participation in the writing process, particularly in a country like South Africa where the majority of educators and learners use a second language to communicate in formal education contexts. Written language is often not the preferred form of communication amongst many educators and learners in South Africa, particularly where oral cultures are often stronger than cultures influenced by written text.

These kinds of issues raise questions of power in participatory research relationships, particularly in the writing enterprise. For both of us the issue of participation gave rise to a questioning of how to represent the voices of participants in the text. Heila saw the development of “voice as a central text” as an important aspect of her research. Diamond (1993) indicates that the struggle for voice begins when an attempt is made to communicate meaning to someone else and he notes that, “Finding the words, speaking for yourself, describing your experience and feeling heard by others are all part of this process” (p. 511).

Heila writes:

In my research project I was able to represent myself as different “voices” which, in phase one, I described as the voice of the naïve, inexperienced tourist. In phase two, I found the voice of a slightly more seasoned traveller and in phase

three I expressed myself in the voice of a first-time travel guide. Each voice added new dimensions to the previous research voices. To express my own “voice” in the research text, I used the active voice which reflected a mind-shift from rationalist abstraction to disciplined and rigorous intuition, description and interpretation in the thesis. Sherman (1993) emphasises the use of the active voice in reporting qualitative research when he states that “. . . qualitative research writing requires the researcher to take a stand, to be an interpreter, and to be engaged in the action. It requires the active voice” (p. 236).

Jane also discovered that her voice changed throughout the text. She divided these different “self voices” into different characters. These characters represented her personal voice, as well as the voice of people that influenced her. In this way she was able to dialogue with the voices within herself. Although most of the characters represent some part of Jane, there are two dominant voices.

Jane explains:

First of all there is me, “Jane.” But she is portrayed as the naive researcher she was, confused, sometimes despondent, VERY emotional. She is also the writer. She exists in three different spaces within the play: In her home with character Zaru, her alter-ego, where she battles to make sense of her experience; secondly within the action of the play as a character with the other role-players; and finally as the main guest on two television talk shows. Her character tends to mature towards the end of the play so that when we meet her during the talk shows she is confident and seems to have a deeper understanding of the research. Zaru is Jane’s alter-ego, he is the person she talks to and fights with. He exists only in her mind so can’t join the other participants within the action of the play (although during Act3Sc3 he disobeys this rule of the writer and appears outside the boundaries of her mind). Although Zaru appears the fool, like in most Shakespeare plays, he is the one that sees to the depths of Jane’s problems. He is her mentor and support. Towards the end of the play he becomes incorporated into Jane and no longer exists as a separate character. Of course parts of Jane also existed in other character. For example, Felicity, the talk show host, reflects her cynical voice whereas Professor Keshini reflects her academic persona.

Writing about participatory research meant not only having to find and dialogue with the multiple and changing personal voices, we both also had to find a way of representing the voices of the participants who were no longer sitting with us while we wrote. Heila tackled this problem in the following way:

Through the use of extracts from interview transcripts, video material, workshop data, research journal and field notes, I tried to represent the voice of the teachers who were central partners in my research project. While I tried, through the structure and discursive nature of my research report, to make known the existence and legitimacy of teachers’ words and knowledge, I was only able to represent them through including extracts or summaries of teacher text and lived experience. I told stories of our work together, using face validity techniques to ensure that these were “our” stories and not only “my” stories. Ironically, the extensive nature of the participation in my research project did not enable me

to do justice (in the text writing) to the diverse, rich interactions and discussions which occurred as a result of teachers working together around a concern for developing better quality materials. There was too much data to reflect, to draw on and to organize. This led to a somewhat abstracted representation of teachers' voices as "the teacher's voice" in the thesis, assuming or representing teachers to be a single entity or grouping in the study.

Jane approached the problem of providing a voice for participants by splitting each Act into three Scenes, which followed the pattern of action research. Jane writes:

Each act consisted of an introduction scene, an action scene and a reflection scene. The introduction scene conceptualized the act through dialogue between Jane and Zaru, and the action scene was a re-enactment of the actual research situation. Participants' dialogue was reproduced verbatim from tape and video recordings of the workshops. This was followed by a reflection scene between Jane and Zaru. This form varied later in the play, with a reflexive forum discussion between the teachers being represented as a panel discussion after a television news broadcast.

However, Jane still struggled with the teacher's participation in the textwork stage of her thesis. This can be seen in the following extract from her thesis:

*Jane:* . . . I worked with a lot of people during the research process and all of us experienced the research. But the research didn't stop there, actually I think most of the research happened afterwards when I was alone or with my supervisor or friends. Now wouldn't it be great if this process could also be shared with the participants, if they could be part of the whole research process . . .

*Felicity:* But didn't you have trouble with the lack of participation from the teachers?

*Jane:* Yes, you're right. Kathy was not that interested in participating in the research, but remember that the research topic was my research curiosity and not hers. Also if we could develop a culture of learning as researching maybe it would be more acceptable as it would be something that we do with the children in our class. I don't know, maybe I'm pipe dreaming, also this learning process works for me and perhaps it won't work for others. But I do think it is important to open it up as an option. (Burt, 1999, Act6Sc2, p. 109)

Perhaps we were both too impatient, or did not take the role of participatory research as professional development for our partners as seriously as we took it for ourselves. Hart (1996) and Payne and Riddell (1999) are among those that have reminded us that we should acknowledge that humans are natural storytellers, and that we need to allow more time for teachers to write about their practice, and to develop an authentic "voice" in a practical language that ". . . incorporates the reality of their teaching, situatedness, history and context." We should not end up telling the story of capturing the Dragon alone!



Although this remains a problematic area, we should not shy away from the challenge of looking for alternative ways to extend participatory research to include the process of textwork.

## Conclusion

Reflecting upon our experiences of writing our research texts we are left with many questions about representing research. Key among them is whether the conventional “thesis” with its culture, history, and tradition is the only valid way. Our explorations of textwork have provided us with some insight into other possibilities for writing “the thesis.” In spite of our “being brave” we were both bound by the prevailing textual convention of the academy—to produce a serviceable thesis.

Both our research projects consisted of many other texts besides the actual thesis: video recordings of working with participants, research journals, photographs, interview transcripts and published resource materials. As we review our written stories, the theses, we ask questions as to how we could have extended the ideas of textual plurality to include these texts in the representation of our research work, and how our written texts would have been differently constructed had the “power of the academy” not been so strong an influence in prescribing conventions of representing research for degree purposes.

Learning from research happens through the experience as much and perhaps more than the learning that takes place from the conclusions, a move away from answers to experience. As we have argued in this paper, part of this experience is the headwork that goes into the textwork in research. Each environment is different, as are the many issues that confront us in environmental and educational work. We can work towards changing our understanding of both the role of research and environmental education processes through documenting our research experiences rigorously in textwork. Through our experience we argue that the forms and features of this textwork may be multiple and varied, and may present new challenges to the research enterprise in academic settings. We both see the research enterprise (including the textwork) as a reflection *on*, and a reflection *of* society. If, in environmental education work we are serious about processes of social transformation, perhaps we need to reflexively review and continue to bravely re-search our textual conventions in ways that will contribute to our own, and others’ learning in research . . .

*Writers:* So, Hero what do you think about this paper?

*Hero:* Well, it’s a bit tame for a paper about brave texts.

*Writers:* Hey this is difficult stuff. What do you suggest?

*Hero:* Keep quiet. Here comes the Dragon. (*Calling to the other heroes hidden in the bushes.*) Hey you guys, got the digital camera ready?

*Yet another Hero:* Do you mind moving your foot from my cartoon representation of the great adventure of '59.

*Writers:* Oops, sorry.

*Hero:* Shh, here comes the Dragon!

*Writers:* (*Confused.*) But that's a computer.

*Hero:* Of course, now I can show you our new Dragon homepage developed to encourage dialogue between Heroes on the congruency between our experience of Dragon and the way in which this has been recorded in mythological texts. Want to have a look?

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