Towards academic generativity: working collaboratively with visual artefacts for self-study and social change

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There appears to be a mounting consciousness in academia that knowledge production and the scholarly dissemination of knowledge do not necessarily lead to general well-being or improvement in society. In this article we start with ourselves by initiating an exploration into generative possibilities for becoming agents of social change through our own educational research. We take a collaborative self-study approach to our inquiry, using artefact retrieval as a visual method to re-examine our own research interests. Our individual reflections on our chosen artefacts are brought together into a reflexive dialogue. We follow this with a collaborative reflection, in which we explain how we have noticed similarities in both the connotative and denotative histories of our artefacts and gained an alternative perspective on our interests and practices as educational researchers. The article demonstrates how, by working with visual artefacts from our professional spaces. we were afforded the opportunity to collaboratively re-think our research endeavours. As 'critical friends' we were able to recognise the importance of moving beyond advocating change, and to explore how 'starting with ourselves' research approaches can facilitate social action for the benefit of others.

Keywords: artefacts; collaborative self-study; dialogue; generativity; reflection; reflexivity; social change; visual research

Introduction

Globally there is increasing emphasis on the production and publication of academic research. As Kearney (2007:8) highlights: "today, unprecedented emphasis is being placed on research as key motor for advancing the knowledge society and its offspring, the knowledge economy". In academia 'productivity' appears to have become synonymous with research publication, and many academics are measured by the number of publications or 'productivity units' they produce. Thus, publication seems to have become the end-point of much research.

At the same time, however, there also appears to be a growing awareness among some academics that knowledge production and scholarly dissemination of knowledge about what needs to be done or improved is not sufficient to bring about the desired outcomes. In other words, changes recommended in academic research literature often do not appear to make any substantive difference to many of the problems that are being researched.

To illustrate, in the case of HIV&AIDS prevention, funders who invested vast amounts of money in prevention research in Africa are now concerned about why the evidence of promising interventions described in reports and disseminated through academic literature has not translated into a significant decrease in prevalence rates. Hence there are concerns about whether the research is making any real contribution to social change (Audoin, 2011; Koch,

2011). Tragically, in this case, as American historian Howard Zinn wrote, "We publish while others perish" (Phelps, 2010).

A similar disquiet is reflected in the 2012 theme of one of the most influential international educational research events, the American Educational Research Association (AERA) Annual Meeting. The theme of this year's meeting is "Non Satis Scire: To Know Is Not Enough" and, in their call for submissions, Ball & Tyson (2011:198) argue:

While we as education researchers wholeheartedly agree that "to know" is critically important, we also recognize that ... we ... need to act effectively on what we know... . In these times when far too many children and adults in our global society have suffered – and continue to suffer – marginalization, neglect, and denigration, we must be vigilant in ensuring that our research is seen in the language of policy and legislation, as well as in the actions of teachers, administrators, school boards, parent groups, community organizers, foundations, and government officials.

Likewise, in the South African context Mitchell (2008) has called for educational researchers to engage critically with questions of their own social responsibility, and this has been taken up by De Lange (2012:1), who in the call for papers for this special issue of the *South African Journal of Education* asks: "But what if the educational researcher, through the chosen methodology, could, at the same time, contribute to social change?"

In her presidential address at the 2012 AERA Annual Meeting, "To Know Is Not Enough: Knowledge, Power, and the Zone of Generativity", Ball (2012) put forward the concept of the Zone of Generativity as a way forward in making the link between what researchers know and recommend and what the researchers' work should actually do for the general well-being of others in society. Ball (2012) proposed that researchers should engage in a self-reflexive process of "reflection", "introspection", "critique" and developing "personal voice" to move beyond advocating change to becoming agents of change. Ball (2012) also drew attention to this self-reflexive "generativity" as being the opposite of what the psychosocial theorist Erik Erikson describes as "self-absorption" (Sdorow, 1998:139).

In our view, the notion of generativity serves as a counterpoint to the current pervasive emphasis on academic 'productivity', a term that has commercial connotations with the measurement of worker efficiency in business or the rate at which goods are manufactured. In contrast, generativity connotes creativity and a calling to contribute to the well-being of others, particularly younger people. For us, as South African educational researchers and educators, the idea of *academic generativity* is infinitely more inspiring than *academic productivity*!

In this article we start with ourselves, by initiating our exploration into possibilities for generativity in our own educational research. We decided that it would be appropriate to take a collaborative self-study approach to our inquiry, using artefact retrieval as a visual research method. Our previous self-study research using visual methods of drawing (Van Laren, 2011) and collage (Pithouse, 2007) had made us aware of how "work with the visual [can create] a generative space for looking, and then looking anew ..." (Mitchell, 2011:xiii). We were also conscious of how working together as 'critical friends' (Samaras, 2011), especially through collaborative self-study, "[could provide] encouragement not only to look more deeply inwards, but also to look outwards from our own...responses and thus gain a more empathetic and social understanding of [our research interests]" (Pithouse-Morgan, Khau, Masinga & Van de Ruit, 2012:51).

In what follows we discuss how other scholars have worked with artefacts in visual

research and, more specifically, in self-study research. We then re-present our own work with visual artefacts in the form of a reflexive dialogue (Anderson-Patton & Bass, 2002; Pithouse-Morgan, Khau, Masinga & Van de Ruit, 2012). We follow this with a collaborative reflection, in which we consider how working with artefact retrieval as a visual method has afforded us alternative ways of looking anew at and explaining our educational research interests (Mitchell, 2008; Samaras, 2011). We chose to use a reflexive dialogue as an alternative form of data re-presentation (Eisner, 1997) to help to express the "polyvocality" (Blair, Filipek, Lovell, McKay, Nixon & Sun, 2011:149) of our collaborative self-study. The use of a dialogue also allowed us to introduce a third voice into the article – that of Anastasia Samaras, who at a Transformative Education/al Studies workshop held in Durban in March 2012 (Pithouse-Morgan, Rawlinson, Pillay, Chisanga & Timm, 2012), provided us with the impetus and prompts for working with visual artefacts to explore our research interests (see Samaras, 2011).

Working with artefacts in visual research and self-study

We understand an artefact as an object that has cultural and/or historical significance.³ In a number of academic disciplines the importance of commencing with manipulation of objects is regarded as vital. In these disciplines objects become the primary sources for manipulation that facilitate learning. To illustrate, for decades Mathematics Education research in the teaching and learning of geometry (Gutiérrez, 1992) has noted the importance of using everyday three-dimensional objects shaped as cubes, cuboids, cylinders and spheres. By manipulating, handling and then drawing around three-dimensional shapes, it is possible to focus on the essential aspects of two-dimensional shapes such as squares, rectangles and triangles. Starting with the three-dimensional shapes in Mathematics and using mainly visual methods allows for changes in perceptions, so that the flat two-dimensional components of the three-dimensional can be explored further.

So too in visual research, researchers are often reliant on the use of objects, since it is through seeing, drawing and filming objects that that the exploration unfolds. This means that the primary source of data is often an object and the secondary source is the drawing, photograph or other form of representing the information. Furthermore, in everyday living we are surrounded by three-dimensional objects, where we can apply our senses, act upon the objects and develop one of the important types of knowledge, which is described as physical knowledge (Spelke, 1991). This type of knowledge is considered to form foundations for knowledge development and facilitates changes to our perceptions and connections of concepts.

Mitchell (2008) explains that visual research spans a range of promising research approaches that rely on use of senses. These approaches include actively working with drawings, photographs, films, videos, advertisements and material culture. It is within the category of material culture that objects, things and spaces are explored. Seminal work by Prown (1982) in the area of material culture points to the importance of studying artefacts. He defines material culture as the "study through artefacts of the beliefs – values, ideas, attitudes, and assumptions – of a particular community or society at a given time" (Prown, 1982:1) and the evidence used in such studies is objects. Using objects as primary data is thus considered a significant mode of investigation. According to Prown (1982) the range of objects that can be studied as artefacts is broad and may be man-made or modified by man.

Mitchell (2011) draws attention to how the potential value of working with objects is often overlooked in social research, even in visual research. She proposes that studying objects "as

texts of visual research in and of themselves" (Mitchell, 2011:37) can "[expand] the possibilities of what counts as evidence in research" (Mitchell, 2011:35). Building on the ideas of Riggins (1994), Mitchell offers examples of how everyday objects such as a toy or an item of clothing can be studied as visual research data in terms of their connotative and/or denotative meanings. In exploring the connotative meanings, the researcher considers personal meanings that rely on the autobiographer's memory and stories associated with the object, whereas the denotative meanings relate to factual and social aspects of the object (Mitchell, 2011). Mitchell (2011:49) emphasises that this multidimensional study of objects in visual research can facilitate access to the complex autobiographical, social and historical narratives that these objects carry, thus allowing us to "situate the thing or object within broader societal questions".

A wide range of objects has been used and studied by autobiographers who have worked within the field of material culture. These objects include anything from collages (Allender & Manke, 2004), a selection of school documents and photographs (Grossi, 2007), and knitted items (Samaras, 2011) to dresses (Van Laren, 2012). Furthermore, in teacher education literature there are numerous examples where self-study researchers make use of objects or artefacts (Allender & Manke, 2004; Samaras, 2011). Allender & Manke (2004) consider these artefacts, which may or may not be highly ephemeral, to be concrete evidence of teaching and learning realities that the self-study researcher could benefit from, and they propose that researchers can even use artefacts for the development of a theoretical framework.

Although the variety of artefacts used by self-study researchers is endless, the object is usually selected by the researcher and serves as a tool for reflection that is within the lived experiences of, and has associated meanings for, the researcher. Usually the object is not newly purchased, but already exists in the researcher's living environment and is associated with an emotional attachment. The emotions may range from frustration to enjoyment (Samaras, 2011) and, when the researcher selects an object for reflection, these emotions may be explored to deepen research insights. In other words, through reflection on the selected object the researcher is able to flag particular experiences and emotions that are linked to or signalled by the concrete object, and this allows for reflexive practice where changes in action are possible.

However, the self-study researcher does not merely select a particular method or research design without careful consideration. Artefacts that are used by these researchers are often considered to be significant and appropriate at a certain time and space in the research process, but may be interchanged with other objects according to research interests. Goodchild & English (2002) note that a researcher should select research methods that take account of the researcher's beliefs, attitudes and values in relation to the research question, the participants and their social and cultural contexts. It is precisely for these reasons that many self-study researchers are able to use artefacts successfully to reflect on and highlight particular research foci and explain why their studies were designed in a particular way (Burton, 2002). This is an important consideration in self-study methodology, where the emphasis is on providing full, in-depth details of the research process together with an indication of what will be counted as evidence (Feldman, 2003; LaBoskey, 2004).

Another defining characteristic of self-study methodology, especially in the context of using visual methods, is the need to disseminate and make public the findings of self-study research (LaBoskey, 2004). Although the focus of self-study is on understanding and/or changing one's practice through reflexivity, the researcher's actions and research process do not occur in a vacuum without involving others in, during or after the research process (Hamilton & Pinnegar, 1998). Allender & Manke (2004) find that by working in small groups to discuss and

explain the chosen artefact, the opinions and observations of others can impact on the researcher's own reflections, observations and hypotheses to supplement and extend ideas for reflection as well as reflexivity. Furthermore, these authors point out that engaging and sustained involvement often occur in self-study research when artefacts are discussed with critical friends. This collaborative work with others allows for deeper intellectual, emotional and physical (visual and tactile) extension of each individual self-study researcher's goals.

A reflexive dialogue: Looking at our individual research interests through the medium of visual artefacts

Anastasia: Please choose an artefact that captures the main idea of your research interest. The artefact is a mere tool to prompt your inner or private speech and to take it outward to an audience for feedback and support. Pedagogically, it is to assist you in articulating an inquiry that is situated in your practice. Can you each begin by explaining why you chose *this object* to represent your research interest?⁴

Linda: I am a keen gardener and like to grow indigenous succulents, as they are hardy and 'out of Africa'. About six years ago I planted two different varieties of succulents in one pot, so that I could bring something 'living' into my university office space. I was not sure if both cuttings would grow, and so I planted them both in one pot as I reckoned that I had a better chance of having at least one plant. Both these plants managed to grow successfully in my office and are always a welcoming sight on my windowsill when I open my office door.



Figure 1 Linda's artefact – Growing Together

Kathleen: I chose my artefact because it has been at the back of my mind ever since I created it and I have been wanting to think more about it and write about it. I also chose it because I had stuck it up on the inside of my office door, and so it was within my gaze when I was sitting at my desk thinking about which artefact to choose for this activity!



Figure 2 Kathleen's artefact - Building Hope

Anastasia: Please could each of you share what your artefact represents or symbolises about your research.

Linda: I chose my pot with two plants to symbolise my research interests – integration of HIV &AIDS education in Mathematics. My integration experiences have developed as a process and this is synonymous with the growing process of the two plants – the integration is not a final product. I merge the two disciplines so that both disciplines benefit and so too the plants have become intertwined but remain separate plants. The separateness of the two disciplines makes complete merging difficult. The two varieties of plants are symbolic of the development of my integration experiences. Over the years the one plant has grown more vigorous than the other. The more vigorous plant symbolises my teaching emphasis in Mathematics Education on integration initiatives, as my experiences in this discipline surpass my experiences in HIV& AIDS education. The more delicate plant symbolises my HIV&AIDS education experiences because of my more recent knowledge in this discipline. I have also noticed roots growing out of the stems of each of the two plants. This symbolises how I see the potential to extend the process of integration through involving my pre-service teachers in Mathematics Education modules. Some pieces of the plants have started to become detached from my two parent plants and, if potted, these will develop to form little plants that could also become established plants. If pre-service teachers take up the challenge of integration then they too may continue with integration initiatives in their own Mathematics classrooms.

Kathleen: I created my artefact at a collage-making workshop organised by a colleague. The workshop was aimed at getting us started on a piece of writing. The facilitator asked us to look through magazines that she had provided and tear out any pictures that appealed to us, without stopping to think about why we had chosen them. We then each had to arrange our pictures as a collage on a large piece of cardboard. What I found very interesting about the activity was that I had expected that the facilitator would then ask us to each explain our own collage. Instead, she looked at each collage in turn and explained to the group what she felt the collage suggested about the collage-maker. As she had not met the workshop participants before and there was no discussion with the participants before the collage-making took place, the facilitator was relying solely on our choice and arrangements of images for her analysis. I cannot remember very clearly everything she said about my collage, but a question that she posed has remained with me. When looking at the dominant image of the word "HOPE" being made from a child's building blocks, she asked "Is that what you try to do through your work, build hope?" That had not been consciously in my mind when I chose the image for the collage, but as soon as she asked the question, I thought "Yes. That's right. Yes." I have been thinking about it ever since. I pasted it up on the inside of my office door to remind me of that question, and because I wanted to think (and perhaps write) about it. Now this artefact retrieval exercise has prompted me to do that.

The first thing that comes to mind when I consider what the collage, and this image in particular, represents or symbolises about my research is that my research is inseparable from my teaching and postgraduate student supervision in the area of Teacher Development Studies. My 'work' is a combination or indeed perhaps a 'collage' of all of these activities. This idea of 'building hope' gave me a sense of how my different work roles and various scholarly interests come together.

Anastasia: What is the time period of your artefacts?

Linda: My integration initiatives started in earnest in 2004 when I began with my self-study research, but my two plants were potted in about 2006. The cuttings came from plants that were already well established in my home garden for many years, and likewise for many years it has concerned me that many teacher educators believe in the myth that 'There is nothing one can do about HIV&AIDS'. I have tried to tackle this myth by doing something, by starting with myself. Just as I will need to water and fertilise my potted plants to ensure continued growth, I will nurture my integration initiatives and develop the process further in teacher education. Kathleen: I created the collage in 2011, but I think my interest in 'building hope' began much earlier.

Anastasia: Does culture play a role your artefacts?

Linda: If 'culture' is defined as a 'way of life', then as a gardener, and particularly a person who cultivates potted plants, I realise that my responsibility towards my plants is never ending. It is my responsibility, once I have planted the cuttings, to nurture the plants and likewise I will nurture my integration of HIV&AIDS education in Mathematics initiatives. I need to, however, make sure that this 'way of life' through constantly developing integration must be taken up by my pre-service teachers, and this is difficult to supervise. I may influence pre-service teachers during Mathematics Education modules to see the need for integration of HIV&AIDS education, but it is difficult to follow-up to see that this is taken up in the Mathematics classrooms. Likewise, when I am out of my office I may ask someone to take care of my pot plant, but if I am not there it is impossible to actually see and know that this person is in fact taking care of my office plant.

Kathleen: I am a white South African, who grew up under Apartheid. I remember becoming politically conscious as a teenager in the mid-1980s, when it seemed that there was little hope of South Africa being anything other than a dark and oppressive place. It was hard to imagine what else South Africa could be. I became an adult in the early 1990s, when everything changed and, suddenly, South Africa was filled with hope and a vision of a future in which anything might be possible.

Anastasia: Are there others involved in your artefact memories? What roles do they play? What is their influence on your thinking? Do they see things the way you do?

Linda: The pre-service Mathematics Education teachers are involved in my artefact memory as they play an important role in taking up the integration initiatives that I offer in Mathematics Education modules. The pre-service teachers are the custodians of my integration initiatives. In written tests on integration of HIV&AIDS education in Mathematics the pre-service teachers write that they consider integration initiatives important in South African classrooms, but I cannot be sure that they will include HIV&AIDS education activities in Mathematics lessons. The pre-service teachers need to take the cuttings of my plants and make sure that the plants grow, and in so doing extend and develop the integration initiatives in their Mathematics classrooms

Kathleen: Since 1999, when I returned to university to begin my postgraduate studies in Education, I have been studying with and then teaching students (of all races) who are practising teachers. Through working with these teachers, especially through using approaches such as narrative inquiry, self-study and memory work, I have come to understand more about their past experiences of learning and teaching in Apartheid South Africa. I have also learned more about their present experiences of teaching in communities where education continues to be undermined by a combination of troubling factors, including social and economic inequities, the HIV epidemic, and high levels of violence and discrimination. Very often these teachers come to our classes with stories of hopelessness and despair, but also very often they demonstrate a sustaining faith that keeps them going in very challenging circumstances, and that inspires me in my work. It is that sense of hope that I have come to see as fundamental to Teacher Development and that I try to cultivate and communicate in my teaching and research.

Thus, the artefact reminds me of the people with whom I work to build hope — my students and my colleagues. Through them, I see building hope as a relational, collaborative, ongoing process. Although there are no people shown in the 'building hope' image, to me it looks like something that is in the process of being built by a group of people. To me, hope cannot be nurtured and sustained in isolation.

A collaborative reflection: Looking anew at our research interests as portrayed in our reflexive dialogue

We each initially chose and wrote about our visual artefacts independently, without consulting the other, and yet our reflexive dialogue reveals that there are a number of similarities in relation to both the connotative and denotative histories (Mitchell, 2011) of our objects. The connotative, personal meanings and stories of our artefacts commence as items from our particular academic spaces. Kathleen designed her collage during an academic workshop and displays her collage in her office, whereas Linda planted the slips as a decorative ornament for her office. Both our objects were thus 'created' for a particular purpose and required some personal effort and time to create. Each of us is attached to what we created and we pay frequent attention to our object by looking at or caring for it. For each artefact a deliberate process

was required to develop the object. Furthermore, both objects originate from within our professional spaces where we work as educational researchers.

Some of the denotative, social and factual meanings we described as being associated with our artefacts are also similar. The two artefacts are uniquely created items that cannot be purchased, and of no commercial value to anyone. However, the meanings that we described in our artefact reflections are quite similar, because Kathleen related her object to 'building hope' and Linda focused on addressing the myth that 'There is nothing one can do about HIV& AIDS'. This means that we see our educational research endeavours as a means of starting with ourselves in making a difference, by doing something to bring about social change. Hence, although both of us take a self-study approach to our research, our responses to our artefacts suggest that this is not 'self-absorptive', as we have seen the need to move beyond advocating change to actually striving to make a difference through our teaching and research.

When we consider the social contexts in which teachers of today are required to educate learners, we both describe important aspects where we as South African teacher educators cannot operate in a 'business as usual' fashion. For example, Kathleen reflects on changes required of educational researchers when taking cognizance of the present experiences of school teaching in communities where there are disturbing pervasive social and economic hardships, and Linda focuses on the need to integrate HIV&AIDS education in a discipline such as Mathematics. We describe how we are striving to do academic work that is generative (Ball, 2012), by working with practising teachers to nurture and sustain hope in the face of hardship and working with pre-service teachers in encouraging take-up of integration of HIV&AIDS education.

Methodological reflections: Considering the generative potential of working collaboratively with artefacts in visual research

The visual artefact retrieval exercise, construction of our reflexive dialogue and subsequent collaborative reflection have allowed us to make space in our busy academic lives to think more deeply, both individually and collectively, about why we do what we do and thus to position our work in relation to broader societal concerns (Mitchell, 2011). Furthermore, because this has been a collaborative self-study process we believe that in our future work together as colleagues and co-researchers we will have a much better understanding of what the other one is trying to do, and thus will be better placed to be able to act as 'critical friends' (Samaras, 2011) for each other.

Significantly, this process of self-examination and collaborative inquiry has also changed our way of looking at objects that we encounter every day in our offices. Our chosen objects can be considered as being "objects modified by man" (Prown, 1982:2) and so are of "cultural interest", as these quite unremarkable objects have become artefacts imbued with significance, and we believe that they will serve as sources of inspiration for us going forward. Working with objects has also allowed us to build on our previous experiences of visual research to explore and demonstrate the (often overlooked) potential of artefact retrieval as a generative visual method (Mitchell, 2011).

But have we entered the "Zone of Generativity" (Ball, 2012) as researchers? How could this small-scale collaborative self-study contribute to social change? At this point we return to Ball's (2012) proposal that researchers should engage in a self-reflexive process of "reflection", "introspection", "critique" and developing "personal voice" to move beyond advocating change to becoming agents of change, and Mitchell's (2008) call for educational researchers

to engage critically with questions of their own social responsibility. Certainly we believe that our collaborative inquiry has facilitated reflection and introspection in relation to our own research and our positioning in relation to that research (Kirk, 2005). Having gained deeper insight into our motivation for our educational research endeavours and having had an opportunity to express that motivation in our individual and collective personal voices, we believe that we are now also in a stronger position to critique our own educational endeavours.

We anticipate that when we go about our daily work as educators and researchers, looking at our visual artefacts will remind us of our deeply felt research interests. They will also provoke us to remain consciously aware of the extent to which we are (or are not) living out what we believe to be important (Whitehead, 2001), and to be mindful that our research interests must be brought into dialogue with what is important to those with whom we work. We are hopeful that the daily visual reminder provided by our artefacts will encourage us to move beyond advocating change for others, to *making changes in what we do*. Of course we realise that the impact of what we do in our daily work is on a small scale. However, we do believe that by striving to work with our students and colleagues to cultivate hope in the face of challenging educational circumstances, and to find opportunities for integrating HIV&AIDS education, we can "make real and important differences in terms of affecting the life chances of [our] students" (Zeichner, 1993:201) and the learners, teachers and communities with whom they work.

In conclusion, we have found that working collaboratively in self-study research using everyday objects as visual artefacts allowed for heightened self-awareness of the importance of others in educational research. Thus, this exploration illustrated that artefact retrieval as a visual research method has significant generative potential to contribute to raising and addressing social concerns (Mitchell, 2011).

Notes

- 1 http://dictionary.reference.com/browse/productivity?s=t
- 2 http://dictionary.reference.com/browse/generativity?s=t
- 3 Collins Cobuild Advanced Learners English Dictionary, 4th edn.
- 4 These prompts are drawn from Samaras (2011). We thank Anastasia Samaras for permission to include her 'voice' in our dialogue.

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