

STRETCHING AND TRANSFORMING RESEARCH PRACTICE FOR HIV AND AIDS CURRICULUM INTEGRATION: AN AUTO-ETHNOGRAPHY

L. van Laren

University of KwaZulu-Natal

Durban, South Africa

e-mail: linda.v01@curro.co.za

ABSTRACT

This article explores stretching and transforming my research expertise in HIV and AIDS curriculum integration. As a mathematics teacher educator in higher education, I actively pursue ways of enhancing and improving production of new knowledge through alternative research strategies. This study focuses on how my involvement in a Higher Education HIV/AIDS Programme (HEAIDS) HIV and AIDS Education Community of Practice in Higher Education Institutions (CoP) contributed to changing my higher education curriculum research to accommodate the HIV and AIDS context in South Africa. My research question is: How has my participation in the HEAIDS CoP contributed to changing my research practice in HIV and AIDS curriculum integration? I explore HEAIDS CoP contributions to my professional research capacity development using auto-ethnographical methods, using a crocheted artefact as a metaphor to understand my research practice development. Key findings point to the complex, folded, twisted, interwoven nature of reflexivity in my professional learning.

Keywords: Auto-ethnography, community of practice, crocheted metaphor, curriculum integration, higher education, HIV and AIDS, reflexivity, research capacity development

INTRODUCTION

According to AVERT (2017, 1)

“South Africa has the biggest and most high profile HIV epidemic in the world, with an estimated 7 million people living with HIV in 2015. In the same year, there were 380,000 new infections while 180,000 South Africans died from AIDS-related illnesses.”

Statistics show that the number of South Africans living with HIV and AIDS is increasing. In the review published by AVERT (2017) the HIV prevalence is 19,2 per cent in South Africa (SA) with the highest prevalence being in KwaZulu-Natal where it is almost 40 per cent. However, over the past decade new HIV infections in youth aged between 15 and 24 years has declined, which may be an indication that this age group is benefitting from knowledge gained about HIV and AIDS during schooling. As a South African teacher educator-researcher I

therefore have an obligation to sustain my research focus on HIV and AIDS education curriculum integration.

Furthermore, the teachers being prepared for the South African school context are increasingly likely to “see the face” of HIV and AIDS through their contact with learners affected by HIV and AIDS. According to Slemming and Saloojee (2013) over a quarter of South African children directly or indirectly come into contact with illness or death of caregivers as a result of HIV and AIDS. These children are therefore at risk in terms of becoming infected by HIV and/or tuberculosis (TB) and experience hardships associated with lack of economic, social and food security.

In addition, South African teachers are increasingly likely to teach or work with orphans. If orphans are defined as children under 18 years of age whose mother, father or both biological parents have died, then according to Meintjes and Hall (2013) there are more than 3,85 million orphans in SA. Although there is generally a frequent absence of fathers in the lives of many South African children, the “numbers of paternal orphans are high because of the higher mortality rates of men” (Meintjes and Hall 2013, 88). These authors also note that “roughly half of all orphans in SA live in KwaZulu-Natal and the Eastern Cape” and more than a quarter of the children in these provinces have lost a mother, father or both parents (Meintjes and Hall 2013, 88). Tomlinson (2013, 56) estimated that by 2015 there would be 2,2 million maternal AIDS orphans in SA, so it is essential that higher education preparation of teachers includes coping strategies for these professionals who will undoubtedly need to address issues related to HIV and AIDS in their work environment. In other words, university faculty/school of education professional preparation across all disciplines needs to take cognizance and appropriate action in relation to the pandemic, by responding to HIV and AIDS through discipline-specific teaching and learning strategies. As a mathematics teacher educator-researcher in KwaZulu-Natal I too have to ensure that HIV and AIDS curriculum integration research is in keeping with the South African teaching and learning context.

In addition to the economic, psychosocial and social impacts and the large number of orphans in SA there are other hardships related to the biomedical challenges of HIV and AIDS for HIV-positive South Africans who require antiretroviral therapy (ART). According to Kresge (2010, 10) “2010 was to be a landmark year in the global response to HIV/AIDS”. By 2010 all people in need of HIV treatment, prevention and care should have had access to appropriate support. Although progress has been made in providing ART, these treatment goals have as yet not been achieved. AVERT (2017) reports that “In April 2014, more than 3 million people were receiving ART, which equates to 47 per cent of people living with HIV in the country”.

Kresge (2010, 14) points out that the “big game changer” required in the area of biomedical research is the production of a vaccine; however, to date a vaccine that needs to become a prevention tool for HIV infection has not been forthcoming. So in the absence of this game changer the global population still requires education about HIV and AIDS in order to contain the pandemic. In other words, as a teacher educator conducting HIV and AIDS education curriculum integration research in SA, I have a responsibility to continue creating new knowledge in the area of HIV and AIDS in order to contribute to curbing the pandemic. Also, there are more than just the physical and medical challenges to addressing the pandemic, with many additional social and economic issues accompanying being infected by HIV. This means that sustained research is essential for finding ways of confronting issues of gender, poverty, stigma and discrimination associated with HIV and AIDS.

SETTING THE SCENE

In response to recognising the importance of addressing issues related to HIV and AIDS, the HIV and AIDS Education Community of Practice (CoP) in Higher Education Institutions was established and launched in 2010. This launch took place during a national symposium in Port Elizabeth hosted by the HIV and AIDS Education Research Chair in the Faculty of Education at the Nelson Mandela Metropolitan University (NMMU) and the Higher Education HIV and AIDS Programme (HEAIDS). The purpose of this HEAIDS CoP is to provide opportunities for lecturers in higher education to “collaborate, network, share knowledge and provide collective suggestions on issues related to HIV and AIDS teaching, learning and research” (De Lange 2014, 1). HEAIDS CoP membership is open to South African higher education (universities and further education and technical and vocational education training (TVET) colleges) which have education faculties, schools of education or departments of education. There are 26 public universities and 50 TVET colleges in SA which may send representatives to the annual HEAIDS CoP colloquia.

The mission of the HEAIDS CoP is to provide “an opportunity for education experts working in Higher education (HE) to collaborate, network, share knowledge and provide collective suggestions on issues related to HIV and AIDS teaching, learning and research” (HEAIDS 2017, 3). The associated objectives of the HEAIDS CoP are to:

- share best practices on strategies for incorporation of HIV and AIDS related education into the teacher education curricula; and
- provide mutual support to members engaged in teaching and research in HIV and AIDS and Teacher Education. (De Lange 2014, 1).

Analysis of professional learning, such as making a difference in HIV and AIDS education research through working within a CoP, is offered by Wenger and Snyder (2000). The work of Wenger (1998) is widely used in the study of CoPs, but Tuval, Barak and Gidron (2011) note that deep research into how an individual in a CoP has changed his/her practice is under-reported. My study will contribute to this gap, as I use an auto-ethnographical approach to explore how the HEAIDS CoP contributed to my research practice through my active involvement in this CoP from 2010 to 2014.

Because of the complexity and pervasiveness of the HIV epidemic, South African higher education policy makers have formulated policy frameworks that require addressing of HIV and AIDS issues. In 2012 the HEAIDS prepared a revised Policy and Strategic Framework on HIV and AIDS for Higher Education (HEAIDS 2012). The policy developers point out that the policy will “be truly worthwhile only if it guides actual programme implementation ... [and] among other ... requires an integrated institutional approach, and leadership and commitment at all levels” (HEAIDS 2012, 4). According to this policy one of the six guiding principles that should be supported by higher education during its implementation is a comprehensive institutional response to the pandemic. The policy recognises that integration of issues and curriculum development is essential.

The first policy framework objective notes that a critical component of one of the strategic objectives requires “the comprehensive and appropriate use of the Higher Education mandate of teaching and learning, research, innovation and knowledge generation, and community engagement” (HEAIDS 2012, 24). My study contributes to achieving this strategic objective by seeking innovative knowledge-generation strategies in the area of HIV and AIDS education curriculum integration, using an auto-ethnographical approach that explores my experiences as a teacher-researcher who is actively involved in the HEAIDS CoP. My research question is thus: How has my participation in the HEAIDS CoP contributed to stretching and transforming of my research practice in HIV and AIDS curriculum integration?

METHODOLOGY

Ellis, Adams and Bochner (2010, 1) point out that auto-ethnography includes aspects of “*autobiography* and *ethnography*”. An autobiographer reflects on selective past experiences through consulting visual and written texts to assist with recollections, whereas an ethnographer becomes a participant observer in a particular culture’s shared experiences, practices, values and beliefs. This article is an auto-ethnographic account because I reflect on my past experiences, using visual and written texts, whilst being part of the culture of a particular CoP of teacher educators that share values and beliefs about HIV and AIDS education in higher

education.

Solas' (1992, 212) review of autobiographical approaches describes autobiography as “the life story of just one individual who is the central character” and through “synchronic reconstruction, usually late in life, an autobiography is concerned with ... longitudinal aspects of personal and professional experience”. This auto-ethnographical study of my participation in the HEAIDS CoP is primarily concerned with my professional life as a mathematics teacher educator-researcher who has taught in the higher education context of HIV and AIDS since 2000, and more specifically my experiences of professional learning through HEAIDS CoP participation over a period of five years. This means that my auto-ethnographical study describes my learning “late in life” using “longitudinal aspects” of my professional experience within a CoP culture. Solas (1992, 212) adds that autobiography serves as a methodology that facilitates reconstruction of teachers’ “experiences of the process of teaching and learning” and includes professional experiences where there is a “conscious and reflective elaboration of their educational lives”.

I have chosen an auto-ethnographic approach to explore how my participation in the HEAIDS CoP contributed to stretching and transforming my research practice in HIV and AIDS curriculum integration. I chose this methodology of foregrounding myself because I recognise that addressing this change in my research practice can “contribute to our understanding of teaching and teacher education” (Hamilton, Smith and Worthington 2008, 17). Furthermore, auto-ethnography facilitates exploration of my reflexive experiences as a teacher educator-researcher who sees the need to take cognizance and action in the South African HIV and AIDS context when preparing prospective teachers.

Although I am a mathematics educator-researcher, for my professional learning I prefer to use research methods that are mainly qualitative, using literary and visual arts/craft-based research approaches, because the scientific research methods employed by mathematicians and some mathematics teacher educators often highlight the notion that mathematics is the “language of science” as it develops through quantitative, reproducible measurement descriptions of the physical world. In addition, scientific research methods are noted for facilitating development of convincing, generalisable research (Goldin 2003, 181), but when a teacher or teacher educator faces a class of learners/students, it is difficult to focus on the physical aspects and not take into account the context of the teaching environment. As a mathematics teacher educator I value “mathematical achievement and meaningful learning by students” (Goldin 2003, 174). However, mathematics education researchers are concerned with the teaching and learning of mathematics as well as the social, cultural, historical and technological influences on mathematics and its teaching, together with affect, motivation and

cognition. As a practitioner and researcher in mathematics education I use auto-ethnography as both a process and a product (Ellis, Adams and Bochner 2010, 1) to explore how my participation in the HEAIDS CoP contributed to stretching and transforming of my research practice in HIV and AIDS curriculum integration.

METAPHOR AS A RESEARCH METHOD

I crafted a unique crocheted artefact to use as a metaphor to explain and understand how I stretched and transformed my research practice by participating and learning from activities and workshops offered during the HEAIDS CoP colloquia. According to Jensen (2006, 14) metaphors have been used in hundreds of studies to bridge “understanding in educational and social contexts”. A metaphor may be used as a tool for exploring components of a complex phenomenon. For example, Deleuze and Guattari (1987) explained their understandings of complex systems of connections using the metaphor of a plant rooting system called a rhizome. In addition, Carpenter (2008) notes that metaphors have also been used in a wide range of other fields of study. Carpenter (2008, 274) considers metaphors to be a useful qualitative research method that allows for exploration of phenomena from a “unique and creative perspective”. This author adds that metaphors assist in evoking emotions, identifying situation-specific interventions, providing structure to data, and understanding a familiar process from a different perspective. Carpenter (2008, 274) cautions that the “choice of metaphors should not become a self-serving attempt at creativity, that supersedes subject and substance”. Furthermore, Palmquist (2001) points out that a metaphor may assist in understanding a process, while Midgley and Trimmer (2013) maintain that a metaphor illustrates or explains a concept in a manner that will successfully convey the intended message, may be used to aid reflection, and is an effective means for explaining the lived experience of researchers.

In this article I share my research practice transformation in HIV and AIDS curriculum integration through my participation in the HEAIDS CoP, using my hand-crafted crocheted artefact that will serve as a metaphor. I begin my auto-ethnographical account by providing a table that briefly summarises the five consecutive HEAIDS CoP colloquia where I participated and/or presented papers. Next I describe and reflect on the stretching and transforming of my research practice in HIV and AIDS curriculum integration, when I used the visual research methods of drawing metaphors and storyboards. I then go on to describe how my hand-crafted metaphor facilitated reflection on my research knowledge and skills development as a participant and presenter at the HEAIDS CoP colloquia. Reflections on my crocheted metaphor are assisted by my three self-asked questions: What does my metaphor illustrate? How does my metaphor illustrate it? Is this worth illustrating? The answers to these questions facilitate the

gaining of insight into my research practice in HIV and AIDS education curriculum integration and assist in answering my research question.

LEARNING THROUGH PARTICIPATION AT HEAIDS COP COLLOQUIA

Table 1 shows the large number of learning opportunities for professional knowledge and skills that were made available during the five colloquia. However, in this article I focus on my extension of professional learning in using participatory visual methodologies (HIV&AIDS Education CoP 2011) and more specifically in using the process and the products of metaphor drawings and storyboarding in participatory educational research.

Table 1: Summary of my involvement in five HEADS CoP colloquia

HEAIDS CoP colloquium date/s and location	Focus of meeting/theme	Participation/activity at the HEAIDS CoP
13 and 14 September 2010 at North Campus conference centre, NMMU, Port Elizabeth	HIV&AIDS and Education Research	Presented a paper entitled "Integrating HIV&AIDS education in mathematics using self-study"
4 and 5 April 2011 at North Campus conference centre, NMMU, Port Elizabeth	Research method and pedagogy: Using participatory visual methodologies	<ol style="list-style-type: none"> 1. Participated in small group activities whilst learning about drawing, photovoice and planning a video using storyboarding during workshop activities 2. Attended the celebration of the HEAIDS CoP 3. Presented a paper entitled "<i>Starting with ourselves</i> working towards a community of practice using drawings" 4. Prepared reflections for "Using a different lens for HIV and AIDS education" (HEAIDS 2011)
15 and 16 April 2012 at Brookes Hill Conference Centre, Port Elizabeth	Being a teacher-educator in the age of AIDS: Psychosocial and pedagogical challenges in integrating HIV and AIDS in the academic curriculum	Participated in a movement activity involving experiential, expressive art to strengthen the self
7 and 8 October 2013 at Salt Rock Hotel, Salt Rock, Durban	Digital spaces and HIV and AIDS integration	<ol style="list-style-type: none"> 1. Participated in a cellphilm group activity using cell phones for a participatory video 2. Presented a paper entitled "Take a risk: It's as easy as ABC! – Using digital animation to stimulate discussion on HIV&AIDS integration in university teaching" 3. Assisted in preparing this CoP colloquium report
11 and 12 May 2014 at the Kopanong Hotel, Boksburg	Partnerships for change: Addressing HIV and AIDS in the higher education curriculum	<ol style="list-style-type: none"> 1. Participated in the "Pictured change" using photographs with appropriate captions 2. Presented the paper entitled "Collaborating for HIV&AIDS integration using participatory visual methodologies in a 'starting with ourselves' approach"

My interest in using metaphor drawings began whilst I generated data for my doctoral thesis (Van Laren 2008). To gain insight into the pre-service teachers' beliefs about HIV and AIDS education curriculum integration in mathematics, I worked with a focus group of seven volunteer final-year Bachelor of Education students at the University of KwaZulu-Natal. We explored, using our own drawings, descriptions and reflections on our own metaphors, possibilities for curriculum integration. Our personal metaphors did not represent integrated

mathematics lessons but what we believed and imagined *ought* to occur in finding possibilities for including HIV and AIDS education content into mathematics primary school classrooms.

Numerous exciting possibilities for promoting and extending my professional learning in HIV and AIDS education integration were provided at the workshop that was presented on 4 and 5 April 2011 at NMMU. At this colloquium parallel small group participatory sessions were offered and opportunities to cycle round each of the various visual participatory methods (drawing, photovoice, and storyboarding) in preparation for participatory video-making workshops were facilitated. The colloquia workshops, which concentrated on *doing* and *reflecting* in group work using each of the visual participatory methods, were indeed activity-based, hands-on knowledge and skills development experiences. Furthermore, the step-by-step instructions of the process together with participant reflections were published by the HIV and AIDS Education Research Chair (HIV&AIDS Education CoP 2011). In addition to the detailed descriptions of these research methods, the importance of visual ethics in terms of “informed consent, confidentiality and anonymity” (HIV&AIDS Education CoP 2011, 48) was emphasised.

At the 2011 colloquium the “Drawing: How can it be used?” (HIV&AIDS Education CoP 2011, 8) workshop was a research method offered that contributed to stretching and transforming of my research practice in HIV and AIDS curriculum integration. Colloquium participants were randomly grouped in sets of eight and asked to prepare a collaborative poster using the following prompt (HIV&AIDS Education CoP 2011, 8):

“Make a drawing that represents how you see yourself as an educator or researcher in HIV and AIDS in higher education. There is no right or wrong drawing as long as it represents how you see yourself.”

“Write a caption or an explanation of the drawing.”

Our group’s poster consisted of a collection of drawings with descriptions. As a group we agreed on the caption “Paying the price to make the difference” (HIV&AIDS Education CoP 2011, 10), because we considered taking a risk worthwhile for change in HIV and AIDS education integration in higher education. In my 2011 reflection on this poster, published in “Using a different lens for HIV and Aids education” (HIV&AIDS Education CoP 2011, 10, 13), I noted that some higher education academics consider integrating HIV and AIDS education in mathematics as compromising engagement in facilitating “real mathematics”. Often students find mathematics challenging so including HIV and AIDS education in mathematics may be construed as wasting precious teaching time that could be used more effectively in addressing understanding of mathematics concepts and skills. However, I

consider it as my responsibility to make a difference in mathematics concept teaching and learning and as well as to include issues related to HIV and AIDS that influence the social and economic contexts of students.

Preparing and reflecting on the group poster at the 2011 HEAIDS CoP colloquium made me realise that working as a group is an important part of the reflection process using drawn pictures. After working individually to create a unique drawing, it is purposeful to share and discuss particular issues with other group members. Not only does this reflection give further insight into your own point of view, it also allows for consideration of additional experiences and opinions to stretch, transform and challenge your understandings of HIV and AIDS education curriculum integration in unexpected and divergent ways.

The worthwhile group-sharing opportunities afforded by group reflections at the 2011 workshop resulted in me changing my reflection strategies when using drawing as a research method. Whenever drawings are used to explore personal reflection on practice, learning experiences or issues in collaborate projects, reflections by other team members (see, for example, Tanga, De Lange and Van Laren 2014) on personal drawings are insightful. It is thus possible to reflect on one's own drawing individually as well as on the drawings of one other individually, independently as well as collectively.

At the "Partnerships for change: Addressing HIV and AIDS in the higher education curriculum" colloquium in 2014, Prof. Naydene de Lange (NMMU), Prof. Pius Tangwe Tanga (University of Fort Hare) and I (University of KwaZulu-Natal) prepared a presentation entitled "Collaborating for HIV&AIDS integration using participatory visual methodologies in a 'starting with ourselves' approach". We employed participatory visual methodology using drawn metaphors to generate data and knowledge and skills gained from the 2011 HEAIDS CoP colloquium to gain insight into our collaborative experiences. After working as a research team for three years, where we focused on our three South African higher education institutions' HIV and AIDS education curriculum integration responses to the pandemic, we presented our discoveries and professional learning experiences as collaborators. In our presentation we noted that working collaboratively with drawings, we:

- "complemented each other's professional and personal experiences in the area of HIV&AIDS curriculum integration"
- "sustained our interest in making a difference in HIV& AIDS curriculum integration"
- "became more reflexive through using non-traditional methods".

(Source: PowerPoint presentation "Collaborating for HIV&AIDS integration using participatory visual methodologies in a 'starting with ourselves' approach", slide number 12)

Prior to the 2011 HEAIDS CoP I did not know about storyboarding or how storyboarding may be used as a research method, until we prepared our own storyboards using the prompt “What are the issues and solutions around integrating or mainstreaming HIV and AIDS into your curriculum?” at this colloquium. Subsequent to this introduction to storyboarding at the colloquium, I (together with four other research team members) used storyboarding and digital animation as research methods for collaborative self-studies on HIV and AIDS education curriculum integration. The title of our published article where we used storyboarding as a visual method is “Starting with ourselves in deepening our understanding of generativity in participatory education research” (Van Laren et al. 2013), and that of our published article where we used digital animation as our visual method is “Digital animation for ‘going public’ in curriculum integration of HIV and AIDS in higher education” (Pithouse-Morgan et al. 2015).

CONSTRUCTION OF MY CROCHETED METAPHOR

To represent my professional learning that took place as a HEAIDS CoP member, I decided to crochet a metaphor using three different colours of wool (see Figure 1) that represent three facets of my professional knowledge development, namely: my professional learning as a mathematics teacher-educator researcher; research knowledge and skills I gained at the five HEAIDS CoP colloquia; and research knowledge and skill connections I made as a result of participating at these colloquia.

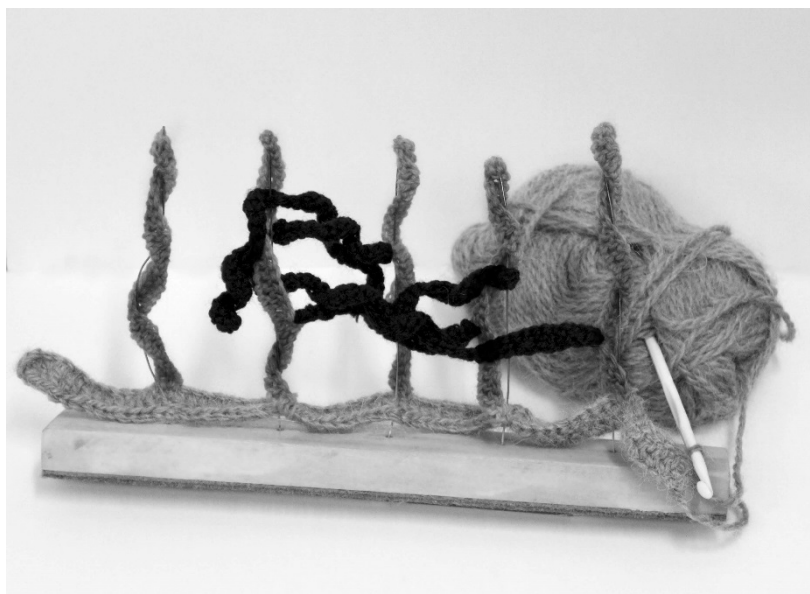


Figure 1: Photograph of my crocheted metaphor

The first, broadest crocheted row, made of grey, furry wool, represents my professional

knowledge and skills as a mathematics teacher educator. I used furry wool for this first row because, as a mathematics teacher, I have come to realise that teaching and learning mathematics is not straightforward, clear-cut, smooth or without emotional anxieties. I placed this row at the base of the metaphor, as this is where most of my professional knowledge as a teacher educator stems and originates from, having been a mathematics teacher educator since 1976. The grey colour may also be seen as “old”, grey knowledge and skills that I have constructed over a long period of time. I placed the grey row in a straight line to indicate my “straight-laced”, restricted, narrow knowledge and skills set, where my focus is mainly on the teaching of mathematics without adequate attention being given to the context in which I teach. This basal row does not have a distinct ending and is still attached to the ball of grey wool. The length of the grey base thus has possibilities for extension for when I attend subsequent HEAIDS colloquia and hence continue to gain knowledge and skills related to HIV and AIDS education curriculum integration in mathematics education.

The blue coils that are attached to the grey base represent the knowledge and skills I gained during each of the five HEAIDS CoP colloquia that I attended from 2010 until 2014. The blue is a more “cheerful”, bright colour than the grey base of the metaphor. The texture of the blue wool is smooth and not furry. These blue coils are equidistantly placed along the almost straight grey row that forms a “time-line” for the colloquia, which were scheduled more or less 12 months apart. I chose to represent the HIV and AIDS education knowledge and skills I learnt at colloquia as coils, because the coiled form is less linear and more elastic, malleable and flexible than the grey, linear base. The knowledge and skills I gained at colloquia are less rigid than my mathematics education knowledge and skills positioned at the base of the metaphor. The coils are also more three- and multidimensional than the flat grey base of the metaphor, indicating that this knowledge can be applied in a variety of ways and take many directions by using appropriate research strategies depending on the particular context.

The brown thinner coils attached to the blue coils represent knowledge and skill connections that I make between the various HEAIDS CoP colloquia. The brown coils are not as colourful as the blue coils, because my own extension and development of knowledge and skills offered at colloquia are not as striking, elaborate or innovative as the research knowledge and skills offered by presenters and participants at the colloquia. These brown coils are also elastic, malleable and flexible so as to allow me to make multidimensional links and connections between knowledge and skills gained at the various colloquia. The brown coils are thinner than the blue coils to show that my learning at the HEAIDS CoP colloquia is broader than the possible connections of knowledge and skills that I create when I construct links between my mathematics education and HIV and AIDS education knowledge and skill sets. In

other words, the possibilities of learning from presenters and participants at colloquia are far more colourful and brighter than my own professional research knowledge and skill capabilities when I make or apply knowledge and skill connections.

The metaphor shows many brown coils emanating from and others joining the second vertical blue coil. This illustrates that I frequently made use of the knowledge and skills relating to participatory visual methodology presented at the 2011 HEAIDS CoP colloquium. I used the visual research methods that I learnt about at this colloquium for HEAIDS CoP paper presentations in 2013 (“Take a risk: It’s as easy as ABC! – Using digital animation to stimulate discussion on HIV&AIDS integration in university teaching”) and 2014 (“Collaborating for HIV&AIDS integration using participatory visual methodologies in a ‘starting with ourselves’ approach”). In addition, I used visual research methods for collaboratively published articles (Van Laren et al. 2013; Pithouse-Morgan et al. 2015).

I was indecisive whether or not I should place the crocheted metaphor on the horizontal wooden stand with vertical wire prongs. The flexible wire makes my metaphor appear more rigid and linear than I intended for the soft, malleable, flexible, stretchable possibilities offered by my hand-crafted, multidimensional crocheted object. However, without the wire and wooden construction the metaphor appears too one-dimensional (almost horizontal) and lacks a multidimensional representation to show my professional learning that occurred at the five HEAIDS CoP colloquia. Furthermore, the flexible wires supporting the five blue coils allow for further bending and twisting of these coils. This additional maneuverability of my dynamic metaphor, together with the linking possibilities of the brown coils that represent my applications and learning, facilitates representation of the multiple possibilities for stretching and transforming my research practices in HIV and AIDS education curriculum integration. However, if there was a sufficient collection of brown coils connecting with the blue coils, then the resulting structure would appear to be “flattened” into a “thick” horizontal structure. In other words the vertical blue coils may be transversed by brown coils to result in a less hierarchical structure (Deleuze and Guattari 1987, 7).

THREE SELF-ASKED QUESTIONS ABOUT MY METAPHOR

I now answer three self-asked questions, namely: What does my metaphor illustrate? How does my metaphor illustrate it? Is this worth illustrating?, to gain further insight into the purpose and worth of my handcrafted metaphor that served as a tool for understanding the stretching and transforming of my research practices in HIV and AIDS education curriculum integration through participation at the HEAIDS CoP colloquia.

What does my metaphor illustrate?

The metaphor illustrates important components of my learning as a professional who teaches and researches in the context of HIV and AIDS in higher education. I selected three different learning components that have contributed to the stretching and transforming of my research practice. These contributions are from my knowledge and skills as a mathematics teacher educator, my learning as a result of being an active participant and presenter at five HEAIDS colloquia, and knowledge and skill application connections that I made in my research practice in HIV and AIDS curriculum integration. The first, basal contributing component is represented as a linear learning path, and subtended from this base are the five HEAIDS CoP colloquia learning opportunities that are represented in the metaphor as distinct events of learning. The third contribution is my particular knowledge and skill applications where I made connections between the HEAIDS CoP colloquia to stretch and transform my research practice. The three different components in the metaphor are presented independently, but in reality these complex knowledge and skills connections are dynamically interrelated.

The stretching and transforming of my research practice can, however, not be as a result of only these three learning components that I have illustrated in the metaphor. This crocheted structure does not show the other researchers and academics, together with other complex interrelated factors (Deleuze and Guattari 1987), who have played a significant role in my professional research practice. My metaphor illustrates a beginning and an end, as I have shown what represents a small portion of my stretching and transforming that occurred at a specific period of time which lies “at the centre”, because these changes in the middle allowed for “metamorphosis” (Deleuze and Guattari 1987, 21) in my HIV and AIDS curriculum integration knowledge and skill research practice development. All the HEAIDS CoP steering committee members, guest speakers and participants contributed to the multidimensional space in which my learning was stretched and transformed. However, I have not included these vital components in my metaphor.

It is because of the effective functioning of the HEAIDS CoP and dedicated organisers that the space for stretching and transforming takes place. Wenger and Snyder (2000, 144) identify three aspects of a community that may be used to assess the value of a CoP, namely: a sustainable CoP; infrastructure provision; and use of non-traditional method of reflections. First, the CoP is sustainable because of the generative, dedicated efforts of the CoP steering committee, who are experienced in participatory approaches for development of personal and professional knowledge and skills. Second, the infrastructural components are well organised by the HEAIDS steering committee and the two-day annual colloquia run according to the predetermined programme of events and take place at locations that provide appropriate

facilities. Furthermore, the HEAIDS CoP colloquia function as workshops which are more conducive for sharing and learning than meetings. In addition, the CoP consists of a group of teacher educators who share an interest in “striving for an AIDS-free society” (HEAIDS 2017, 3). Third, a key aspect that is advocated by the CoP is the emphasis on “reflexivity, self-study and other auto-ethnographic practices” (HEAIDS 2017, 4) where innovative, participatory methods of reflection are explored and encouraged.

How does my metaphor illustrate it?

When looking at the photograph (Figure 1) of the metaphor, it appears as a static, tangled collection of different-sized crocheted strips emerging from and supported by a solid base. However, without the supporting wooden base the crocheted part of the artefact has many possible configurations because of the tactile, flexible, stretchable, transformable crocheted design. Only one of these possible configurations has been photographed and shown in Figure 1. The thinner, darker, raised lateral strands shown in the photograph illustrate the multiple connections I made by applying and using research knowledge and skills gained at the five HEAIDS CoP colloquia, whilst making use of metaphor drawings and storyboarding as visual methods in participatory research.

The construction is an unsophisticated representation of my complex professional knowledge and skill connections made over the five years of being a participant and presenter at HEAIDS CoP colloquia. In this article I referred only to research knowledge and skill connections I made that are related to using metaphor drawings and storyboarding. My crocheted metaphor could illustrate additional connections for other processes and products where I learnt about other visual methods that may be used to generate data for relevant participatory educational research in the area of HIV and AIDS education.

Is this worth illustrating?

Because I made the crocheted metaphor, the construction, shape and form emerged as a result of my multiple, unique ways of connecting thinking, acting and being (Deleuze and Guattari 1987, 2), which means that my discoveries of working within the HEAIDS CoP are not generalisable. However, it is important to provide deep research (Tuval, Barak and Gidron 2011) into how an individual working in a CoP has changed his/her research practice and to report on his/her experiences. The metaphor shows how my stretching and transforming was facilitated at specific CoP colloquia, and how these three particular components contributed to my research practice in HIV and AIDS curriculum integration. Both the creation of the metaphor and the final product provided opportunities to explore my conceptualisation of the

complex, multidimensional, flexible connections for extending my HIV and AIDS education integration research practice development. The metaphor stimulated in-depth reflection by a CoP member who has been a presenter and participant for five years, and contributed to understanding what CoP contributions enabled me “to achieve in terms of HIV and AIDS work with teacher education (teaching, research, and engagement)” (HEAIDS 2017, 8) in the South African higher education context. At the HEAIDS CoP colloquia opportunities for sharing, constructing of new knowledge and stretching and transforming of knowledge are provided to address issues related to HIV and AIDS education curriculum integration. Not only do the higher education teacher educator-researchers themselves benefit from reflecting and acting reflexively, but in the case of HIV and AIDS education the whole teaching and learning community could benefit from actions taken in endeavours to ensure that future teachers are HIV aware, HIV competent and HIV secure and knowledgeable in relation to social issues of gender, poverty, stigma and discrimination.

HEAIDS CoP CONTRIBUTIONS TO MY HIV AND AIDS RESEARCH

Here I focus on responding to my research question: How has my participation in HEAIDS CoP contributed to stretching and transforming of my research practice in HIV and AIDS curriculum integration?

By linking what I learnt through participation and application of knowledge and skills gained at various HEAIDS CoP colloquia to my previous research experiences I could bring “meaning, motivation and accessibility to professional development” (Clausen, Aquino and Wideman 2009, 445). In addition, the colloquia facilitated “powerful professional learning” (Tuval, Barak and Gidron 2011, 202) because as a CoP member there is a “shared domain of interest”, learning from others that “care about their standing with each other”, “develop a shared repertoire of resource” and have a “shared practice” (HEAIDS 2017, 3). Individual CoP members were afforded the opportunity to be part of the inquiry-driven HEAIDS CoP where the colloquia were never “talk shops” but workshops with engaging activities that directly related to HIV and AIDS issues. Furthermore, prompts for participants’ workshop activities, using participatory visual methods at colloquia always included application to professional learning appropriate for higher education.

Learning as a community also provided opportunities to “collaborate, network, share knowledge and provide collective suggestions on issues related to HIV and AIDS teaching, learning and research” (De Lange 2014, 1). In my reflection on using drawing I noticed that I commented on the importance of learning within a group of participants at the workshops. I reflected (HIV&AIDS Education CoP 2011, 13):

“I did not know the names of most of the members of our group so this activity also provided an opportunity for us to get to know each other as well as speak to each other about our ‘visions’ and experiences in HIV and AIDS education.”

The HEADS CoP complies with the defining characteristics of a CoP offered by Wenger and Snyder (2000, 142) because of its purpose, membership, what holds it together and how long the grouping has lasted. Working in a community made being creative and innovative easier because we shared many concerns relating to HIV and AIDS, and all community members saw the need to strive towards seeking alternative ways to work towards an AIDS-free and tolerant society. Community members were keen to share research methods that involved stretching and transforming of traditional research practice in HIV and AIDS because, during HEAIDS CoP colloquia, research innovations were welcomed. Furthermore, constructive criticism from community members was encouraged because all members had a sincere interest and desire to gain appropriate knowledge and skills related to HIV and AIDS education.

The process of crafting a metaphor and reflecting on the crocheted product (Palmquist 2001) facilitated exploration of how my learning during my participation in HEAIDS CoP colloquia contributed to stretching and transforming my research practice in HIV and AIDS curriculum integration. Additionally, crafting a crocheted metaphor for reflection in a professional academic setting is a somewhat “unique” and unusual way of reflecting on my lived experiences as a researcher. However, being a member of an HEAIDS CoP community, where the “significance of reflexivity, self-study and other auto-ethnographic practices” (HEAIDS 2017, 4) using innovative arts/crafts-based visual methods are encouraged, crafting a metaphor is in keeping with the “evolution of qualitative research methodologies” (HEAIDS 2011) in the HEAIDS CoP research community. In other words, this auto-ethnographic study, that makes use of a metaphor for illustrating, explaining and reflecting (Midgley and Trimmer 2013) on the complex stretching and transforming of my research practice in HIV and AIDS curriculum through my participation in the HEAIDS CoP colloquia, makes use of arts/craft-based research method and a reflexive approach that is aligned with research methodologies advocated by this CoP.

REFERENCES

- AVERT. 2017. *HIV and AIDS in South Africa*. <https://www.avert.org/professionals/hiv-around-world/sub-saharan-africa/south-africa> (Accessed 21 March 2017).
- Carpenter, Jacque. 2008. Metaphors in qualitative research: Shedding light or casting shadows? *Research in Nursing and Health* 31(3): 274–281.
- Clausen, Kurt W., Aquino M. Aquino and Ron Wideman. 2009. Bridging the real and the ideal: A

- comparison between learning community characteristics and a school-based case study. *Teaching and Teacher Education* 25: 444–452.
- De Lange, Naydene. 2014. *HIV and AIDS Education Community of Practice (CoP)*. <http://rce.nmmu.ac.za/HIV-and-AIDS-Education-Community-of-Practice> (Accessed 10 October 2013).
- Deleuze, Gilles and Felix Guattari. 1987. *A thousand plateaus. Capitalism and schizophrenia*. Translated by B. Massumi. Minneapolis: The University of Minnesota Press.
- Ellis, Carolyn, Tony E. Adams and Arthur P. Bochner. 2010. Autoethnography: An overview. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research* 12(1), Article 10. <http://nbn-resolving.de/urn:nbn:de:0114-fqs1101108> (Accessed 21 March 2017).
- Goldin, Gerald A. 2003. Developing complex understandings: On the relation of mathematics education research to mathematics. *Educational Studies in Mathematics* 54: 171–202.
- Hamilton, Mary Lynn, Laura Smith and Kristen Worthington. 2008. Fitting the methodology with the research: An exploration of narrative, self-study and auto-ethnography. *Studying Teacher Education: A Journal of Self-study or Teacher Education Practices* 41(1): 17–28.
- HEAIDS *see* Higher Education HIV and AIDS Programme.
- Higher Education HIV and AIDS Programme. 2012. *Policy and strategic framework on HIV and AIDS for higher education*. Pretoria: Higher Education HIV/AIDS Programme.
- Higher Education HIV and AIDS Programme. 2017. *HEAIDS HIV&AIDS Education Community of Practice, 2010–2016, Reflecting Forward*. Port Elizabeth: HIV&AIDS Education Research Chair.
- HIV&AIDS Education Community of Practice. 2011. *Using a different lens for HIV and AIDS education*. Port Elizabeth: HIV and AIDS Education Research Chair, Nelson Mandela Metropolitan University. <https://heids.org.za/site/assets/files/1233/using-a-different-lens.pdf> (Accessed 21 March 2017).
- Jensen, Devon F. N. 2006. Metaphors as a bridge to understanding educational and social contexts. *International Journal of Qualitative Methods* 5(1), Article 4. http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/jensen.pdf (Accessed 19 March 2017).
- Kresge, Kristen J. 2010. Microbicides finally gel, securing spotlight at the International AIDS Conference. *The International AIDS Vaccine Initiative (IAVI) Report* 14(4): 10–15.
- Meintjes, Hellen and Katherine Hall. 2013. “Demography of South Africa’s children.” In *South African Child Gauge 2013*, ed. Lizette Berry, Linda Biersteker, Andrew Dawes, Lori Lake and Charmaine Smith, 86–94. Cape Town: Children’s Institute, University of Cape Town.
- Midgley, Warren and Karen Trimmer. 2013. “‘Walking the labyrinth’: A metaphorical understanding of approaches to metaphors for, in and of education research.” In *Metaphors for, in and of education research*, ed. Warren Midgley, Karen Trimmer and Andy Davies, 1–9. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Palmquist, Ruth A. 2001. Cognitive style and users’ metaphors for the web: An exploratory study. *Journal of Academic Librarianship* 27(1): 24–32.
- Pithouse-Morgan, Kathleen, Linda van Laren, Claudia Mitchell, Ronicka Mudaly and Shakila Singh. 2015. Digital animation for “going public” in curriculum integration of HIV and AIDS in higher education. *South African Journal of Higher Education* 29(2): 237–259.
- Slemming, Wiedaad and Haroon Saloojee. 2013. “Beyond survival: The role of health care in promoting ECD.” In *South African Child Gauge 2013*, edited by Lizette Berry, Linda Biersteker, Andrew Dawes, Lori Lake, and Charmaine Smith, 50–55. Cape Town: Children’s Institute, University of Cape Town.
- Solas, John. 1992. Investigating teacher and student thinking about the process of teaching and learning using autobiography and repertory grid. *Review of Educational Research* 62(2): 205–225.
- Tanga, Pius T., Naydene de Lange and Linda van Laren. 2014. “Listening with our eyes”: Collaboration and HIV and AIDS curriculum integration in South African higher education. *The Journal for Transdisciplinary Research in Southern Africa* 10(1): 169–186.

- Tomlinson, Mark. 2013. "Caring for the caregiver: A framework for support." In *South African Child Gauge 2013*, ed. Lizette Berry, Linda Biersteker, Andrew Dawes, Lori Lake, and Charmaine Smith, 56–61. Cape Town: Children's Institute, University of Cape Town.
- Tuval, Smadar, Judith Barak and Ariela Gidron. 2011. Negotiating a team identity through collaborative self-study. *Studying Teacher Education* 7(2): 201–210.
- Van Laren, Linda. 2008. "Starting with ourselves: Addressing HIV and AIDS education through integration in a South African pre-service teacher mathematics education curriculum." Unpublished doctoral thesis, Faculty of Education, University of KwaZulu-Natal, Durban.
- Van Laren, Linda, Ronicka Mudaly, Kathleen Pithouse-Morgan and Shakila Singh. 2013. Starting with ourselves in deepening our understanding of generativity in participatory educational research. *South African Journal of Education* 33(4): 1–16. <http://www.sajournalofeducation.co.za/index.php/saje/article/view/814/376> (Accessed 18 December 2013).
- Wenger, Etienne. 1998. *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.
- Wenger, Etienne C. and William M. Snyder. 2000. Communities of practice: The organizational frontier. *Harvard Business Review* January-February: 139–145. http://itu.dk/people/petermeldgaard/B12/lektion%207/Communities%20of%20Practice_The%20Organizational%20Frontier.pdf (Accessed 18 February 2014).