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Contents

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Editorial

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This fifth issue, an open issue, brings together a collection of interesting articles, all contributing in some way to the debate on educational research for social change. The articles draw on research in the local and global arenas, making it clear that educational research for social change is fast gaining momentum in educational research debates.

The first article, "Reconsidering the philosophy of Education for Self-Reliance from an experiential learning perspective in contemporary education in Tanzania" written by Athman Kyaruzi Ahmad, Sigrid Gjøtterud, and Erling Krogh, clearly shows the importance of policy in guiding an education system. The authors argue that despite the Education for Self-Relience (ESR) philosophy underpinning the country's education policy being contextually relevant and appropriate, it has slipped out of the praxis of the education system. They revisit the ESR philosophy—using the theoretical framework of social learning and experiential learning—to argue for the need to revitalise ESR in contemporary education in Tanzania as a means of transformation.

In "Voices of despair: Challenges of multigrade teachers in a rural district in South Africa", Andre du Plessis and Brenda Subramanien take up the issue of education policy in multigrade classrooms, which often places teachers in classes without the necessary educational support. It is important to note that multigrade is not implemented through choice, but due to necessity. It became evident that the curriculum was a major challenge because multigrade teachers have to implement a monograde-designed curriculum that does not take their context, in which several grades are combined into one class at the same time, into consideration. The authors subsequently implemented the Intel@ Teach programme to assist multigrade teachers in dealing with the many challenges they face in their classrooms.

The third article, "Academic and life values to improve teaching–learning skills: A self-reflective action research approach" by Rampaola Paul Mokhele, is an account of how he learned to improve his practice as a lecturer in a tertiary setting. In this self-study, the author explains the importance of using his educational values to guide his pedagogical decisions. He stresses the importance of critical self-reflection in assisting tertiary educators to make educational choices appropriate for the diverse and complex higher education landscape in South Africa. He concludes that constant self-reflection is needed to inform the design of various teaching strategies suited to the diverse learning needs of students. The article thus emphasises the importance of critical self-reflection as a catalyst for educational transformation through transforming the educators.

Margaret Riel and Kathleen Lepori contribute to the debate of research as social change through their "Analysis of reflections of action researchers" in which they explored the nature of the transformative change that novice action researchers (in this instance graduate university students) often reported, and how this knowledge could be used to better support the reflective process central to action research. The transformative changes in knowledge, skills, and identity are discussed at three contextual levels—professional transformations of the action researcher, shared experiences of changes in the organization, and scholarly participation in a research community. Their discussion highlights the complexity and richness of action research as a means of professional development.

The final article, "'Stepping back' as researchers: Addressing ethics in arts-based approaches to working with war-affected children in school and community settings" by Bree Akesson, Miranda D'Amico, Myriam Denov, Fatima Khan, Warren Linds, and Claudia Mitchell, foregrounds the ethical dilemmas of doing educational research with children, in this case children affected by global adversity such as war. The use of participatory arts-based methods such as photovoice, drama, and drawing—in school, community, and 'on the street' settings—are increasingly being used to do 'most good', yet they also create certain ethical dilemmas. The authors, having reviewed the literature, raise several questions and make an important contribution to the debate on the ethics of using arts-based research with children.

Complementing the five articles of this fifth issue, are a book review and a conference report. Thokozani Ndaleni reviewed Yusef Waghid's (2014) African Philosophy of Education Reconsidered: On being human—prompting him to self-reflect on whether, and how, he as a teacher and researcher is contributing to transformative education. This book clearly has value for teacher and scholars.

A report on the annual Southern Africa Research in Mathematics, Science and Technology Education (SAARMSTE) conference with the fitting theme, "New avenues to transform Mathematics, Science and Technology Education in Africa", and hosted by Nelson Mandela Metropolitan University, Port Elizabeth, in January 2014, rounds off this interesting open issue.

Reconsidering the philosophy of Education for Self-Reliance (ESR) from an experiential learning perspective in contemporary education in Tanzania

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Abstract

After independence, Tanzania introduced its ESR policy to guide the education system. Despite its contextual, theoretical, and practical relevance, ESR gradually lost its position in education circles due to a lack of support from policy makers after the political and economic changes effected in the mid-1980s. This article analyses ESR philosophy from the perspectives of social learning theory and experiential learning. Based on the analysis below, and on a discussion of current educational and community development challenges, we argue for the revitalisation of ESR in contemporary education in Tanzania through an approach based on action research.

Keywords: Experiential Learning; Education for Self-Reliance; Action Research; Agricultural Experience; Pedagogy.

Introduction

For decades, Tanzania has made various attempts to reform its education system to prepare students to be better able to cope with the social and economic realities they will face after school. A few years after independence, Education for Self-Reliance (ESR) was introduced to guide these reform efforts. Following

political and economic changes in the mid-1980s—and in spite of its overriding contextual, theoretical, and practical relevance—ESR gradually lost its position in domestic education circles due to lack of support from policy makers. But 50 years of education reform have not assisted the country in eradicating poverty and overcoming technological dependence, and there are many explanations for this. We concur with explanations pointing out that the planning and management of education systems have been largely devoid of contextual realities. Formal and informal education systems have been dissociated. During the past 15 years, the highest societal status—and thus, societal and individual attention—has largely been afforded to formal education.

Even within the framework of Tanzania's Education Sector Development Programme (ESDP)[1], attempts to improve pedagogies and to link school learning with community realities have consistently been weak. This explains why calls for innovative approaches to improve learning in and outside schools are on the increase (United Republic of Tanzania, 2006). Elsewhere, studies to explore the learning effects of using practical arenas and learning activities such as agricultural projects, handicraft, and outdoor recreation have been carried out. We will elaborate on some recent studies because they buttress the idea of revitalising ESR in Tanzania.

In the 1990s, a comprehensive and comparative research programme was conducted in the USA focusing on the learning effects of teacher-guided, but pupil-managed, projects in local environments (Lieberman & Hoody, 1998). Participating pupils showed significantly better performance in standardised tests in mathematics, science, and language compared to non-participating pupils at the same schools. In addition, participant observation documented improvement in the learning milieu, and increased motivation among pupils towards further learning in relevant fields. Based on experience obtained from the Norwegian model of school–farm cooperation, Haubenhofer, Hassink, and Kragt (2008) investigated learning effects and goal achievement in curricula based on three case studies involving pupil participation in The Netherlands: farm visits of one day (Case 1), a week-long visit (Case 2), and 20 successive daytime visits (Case 3). The results of the inquiry showed a gradual, but substantial and measurable, increase in the effects of learning and goal achievement in Cases 1 to 3. In addition, a survey among parents of the pupils showed that the pupils in Case 3 became proponents of sustainable development in their households.

Taylor and Munhall (1997) conducted three case studies in Tanzania, Ethiopia, and Sri Lanka to examine the role of agricultural experience as a vehicle for supporting the development of learners in rural primary schools. The practice, they found, allowed curricula to be made relevant to learners' prior experience and, possibly, for developing knowledge, attitudes, and skills identifiable as important nationwide. Kibwika, Kyazze, Loga, and Apolot (2010) observed that within learning arrangements in which farmers served as teachers, the farmers also learned new agricultural technologies in the process. Other studies (Ballentyne & Packer, 2009; Black, Govinda, Kiragu, & Devine, 1993; Krogh & Jolly, 2012; Taylor, 2007) also demonstrated that agricultural topics used as a teaching medium provided concrete and meaningful experiences—an aspect which, in turn, helped pupils in many parts of the world to master cognitive, physical (motor), and social skills.

The literature cited above attests to the fact that, with the appropriate strategies, the use of agricultural activities in and outside school in Tanzania has the potential to improve learning and community development in a number of ways: first, to build a bridge between teaching and the practical use of knowledge acquired in schools to improve local subsistence activities and pupil engagement in (and interest for) such activities; second, to induce improvement in academic performance by making theory more relevant and understandable, in particular to the pupils; and, third, to foster linkages between formal and

[1] United Republic of Tanzania. (1997). *Education Sector Development Programme*. Dar es Salaam Tanzania: Government Printers.

informal education systems as a way to connect school learning with other community institutions. These suggested outcomes call for a robust theoretical and contextual analysis. This paper thus aims to identify theoretical approaches that can support sustainable revitalisation of ESR. In the process, we will also analyse ESR philosophy through the lens of cognitive and social learning theory and investigate its potential to inform and inspire education processes in a contemporary Tanzanian setting. Finally, we will show how the theoretical discussion informs the development of a participatory action research project aimed at developing and implementing participatory teaching strategies that take community realities as their point of departure.

Education for Self-Reliance: Origin and theoretical underpinning

In this section, we present an overview of the challenges that would be faced in the event of ESR policy implementation. To assist in a better understanding of ESR policy, we discuss its objectives. We further describe characteristic features of education provision under liberal market policies in Tanzania and present an argument for revitalising ESR in Tanzanian contemporary education.

Aims and foundations of ESR policy in the Tanzanian education system

ESR aims at providing learners with abilities in appropriate vocations[1] and with self-employment skills (Nyerere, 1967). Acquired skills and abilities are meant to be useful in performing community tasks and for solving personal and community challenges. In this way, education becomes a tool for emancipation. Following this intention, Nyerere reiterated that:

> education provided must encourage development in each citizen of three things; an enquiring mind; an ability to learn from what others do, and reject or adapt to their own needs; and a basic confidence in their own positions as a free and equal member of the society, who values others and is valued by them for what he does and not for what he obtains. (Nyerere, 1968, p. 274)

This means that educational efforts should provide spaces for meaningful learning in relevant contexts for developing appropriate knowledge, skills and emotions, while at the same time instilling ideal values such as love, respect, morals, and cooperation. In a Tanzanian rural context, this means that education becomes meaningful and useful when learners, as community members, acquire the basic principles of modern agriculture and adapt knowledge and skills to solve local problems such as malnutrition and soil degradation. Boosting self-confidence, a sense of equality, and responsibility among learners for achieving collective goals, is also important. This, however, presupposes an underlying spirit of community.

Conceptually, ESR was a sequel to the Arusha Declaration, a framework for operationalising a sociopolitical and economic policy called Ujamaa. Ujamaa was grounded on values such as respect, cooperation, and common property, which ensured that everyone could benefit from the natural resources and meet an obligation to work for the community, hence building a classless society through a spirit of self-reliance. The policy was operationalised by introducing agriculture as a subject in primary school, and mobilising rural and urban workers into cooperatives and workers unions respectively. Cooperation in collective actions and a spirit of self-reliance were instrumental in building schools and related infrastructure such as school farms, which integrated pupils into local life. Correspondingly, curricular reforms in terms of content and delivery methods were made to integrate theoretical teaching with the acquisition of practical skills. Also, school organisation was modified to accommodate outdoor activities, and the entry age for primary school was raised from six to seven years (see Box 1, adopted from Nyerere, 1967).

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[1] Such vocations might include catering, carpentry, agriculture, and information technology.

Box 1: Operational terms for education reforms, as envisaged in ESR (adopted from Nyerere, 1967)

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i. Education should be oriented toward rural life, because a larger part of the population lives in rural areas (95% after independence; over 80% at present).

ii. Together, teachers and students should engage in productive activities such as animal husbandry and crop production. Students should participate in the planning and decision-making process that surrounds the organisation of these activities.

iii. Productive work should become an integral part of the school curriculum and provide meaningful experience through the integration of theory and practice.

iv. The importance of examinations should be downgraded because they only assess a person's ability to learn facts and present them on demand within a limited time period. This approach excludes assessing other qualities such as the ability to reason and a willingness to serve others.

v. Children should begin school at the age of seven years. They would then be old enough and sufficiently mature to engage in self-reliant activities and productive work a few years after graduation. (The usual age at graduation is 15 years or older).

vi. Primary education should be self-contained, that is, provide knowledge and skills necessary to be self-reliant, rather than merely serve as preparation for further education at the secondary level.

vii. Education given must ensure that students can become self-reliant and cooperative (that is, develop willingness and an ability to work with others), be creative, and develop inquisitive minds.

ESR aligned educational efforts with national socioeconomic development plans. The policy called for the inclusion of practical and productive activities into the educational curricula as an integral part of the learning process, thus enhancing relevant learning but also making schools self-sufficient production units. Schools would run a farm or a workshop to meet educational objectives and to contribute to the school's own economy. Thus, school learning was designed and run in such a way that it linked well with community needs and realities. This was done by utilising everyday life experience to prepare pupils, while still in school, for the life they were going to live.

Challenges encountered in sustaining ESR policy in the Tanzanian education system

Almost four decades have passed since ESR was integrated into the Tanzanian education discourse. Looking at the timeline from its inception to the 2000s, ESR has shown mixed results. Between the early 1970s and the early 1980s, high enrolment rates were registered in primary and secondary schools, as well as an increase in literacy levels among adults (United Republic of Tanzania, 1984, cited in Malekela, 1984). During this period, many schools were built by community members who were inspired by the self-help spirit. Increasingly, a number of schools offered more pupils the opportunity to attend school. The link between school and community life was established during the decade. Unfortunately, this achievement was short lived. Analyses of ESR design and implementation processes revealed a number of conceptual and practical challenges. First, a top down decision-making process to introduce ESR, and how it had to be managed, was made at central government level and then trickled down the implementation ladder in the form of directives. The same trend was emulated at school level. Pupils had no voice in planning and evaluating ESR activities. Second, the concept was misconstrued and subsequently poorly implemented. Going to school was believed to be a panacea to escape the misery of farming and rural life (Mosha, 1990). Key stakeholders did not view school agriculture as educational but rather as a means of gaining manual skills. The pedagogical potential of ESR activities was not understood and therefore not utilised by teachers. Instead, the emphasis was mainly placed on the economic gain that accrued from self-reliance activities because teachers, in some cases, used ESR activities as their own means for extra income. Third, the lack of feedback mechanisms for reflection and improvement was a challenge. Practitioners were not empowered to learn from their involvement in ESR activities in a manner that promoted improvement (Mbilinyi &

Mwobahe, 1975). Fourth, although ESR aimed at establishing linkages between education institutions and communities, the roles of each party were not explicitly established and communicated between them. Fifth, assessment procedures were not designed to capture knowledge developed from participation in ESR activities; thus, the pedagogical contributions of ESR activities were not assessed.

Furthermore, in the early 1980s, external shocks (energy shortages, low coffee prices, and drought) caused an economic crisis. Efforts to arrest the crisis demanded adopting economic restructuring and recovery mechanisms that required a fundamental ideological shift from a socialistic to a capitalistic ideology. This was in response to demands by the international donor community that encompassed the International Monetary Fund and World Bank structural adjustment programmes. A clear-cut market orientation was demanded, especially in Tanzania but also in other developing countries, as a condition for receiving loans and grants. Tanzania, like many other developing countries, adopted and adapted to free market economic policies in which goods or services are held individually and exchanged (as "private property") with the act of exchange occurring through a pricing mechanism that responds to individual preferences (rather than state control). The education sector, as was the case with other publicly financed sectors, was heavily impacted. For example, a reduction in resources to this sector reversed progress made during the 1970s. Education provision was privatised and cost sharing was introduced. As a result, education was no longer used as an instrument of social change but as an instrument of economic efficiency (Galabawa, 2001). This new orientation has had profound implications on education planning and associated delivery mechanisms.

It is important to examine how the combination of the above challenges affected the provision of education in Tanzania. We start by looking at education provision under free market policies.

Education under liberal market policies in Tanzania

Following the adoption of liberal market policies in the mid-1980s, national developmental orientation shifted from Ujamaa and commitment to collective responsibilities, to individualism. Educational focus also shifted from preparing learners for life, to observable and quantifiable outcomes. A look into education delivery mechanisms as organised under liberal education policies shows two distinct features, namely, teaching for the purpose of selection for further education, and lack of contact with communities. From our point of view, these features turned out to be limiting factors for the provision of relevant education in Tanzania—as explained below.

Teaching for the purpose of selection

At all levels of education, efforts are geared towards knowledge acquisition and the memorisation of facts (rote learning) to pass examinations with good grades and qualify for the next level or, alternatively, to enter the labour market as unskilled worker. This is contrary to the spirit of learning for self-reliance and the new reality of preparing pupils for jobs that demand marketable skills. Exit certificates from secondary school, college, and university make better paying jobs more accessible. The higher the level, the more prestige and power. This seems to have widened the social gap among Tanzanians and engendered an unwillingness among those in power to change the status quo. Pupils of more affluent parents attend well-staffed, well-equipped, usually private, schools while those with less affluent parents continue at understaffed, poorly equipped, public schools. However, to keep up with policy requirements, they all have to sit for the same standard national examination, regardless of the quality of education they have received.

In practice, passing an examination is more highly valued and weighted in the learning process than developing knowledge, skills, and attitudes for and towards life. This demonstrates the paradoxical nature of the Tanzanian education system, which theoretically aspires to prepare learners to enter a world of work (United Republic of Tanzania, 1997) but in practice, is a screening institution. Those who are neither selected for the next educational level nor absorbed into formal employment upon exiting school have fewer options to cope with social life in the community. As a result, after graduation, large numbers of

young people migrate to towns to look for employment. Lacking the competencies needed by an urban labour market, the lucky ones, at best, end up in poorly paid and insecure jobs. Creating new and different kinds of jobs requires creativity and problem-solving skills as well as the ability to think critically. The school fails on two counts: both in not giving the students basic self-reliance skills, and in not developing competencies in such skills as numeracy, literacy, and communication. A study conducted by Uwezo[1] in 2011 found that across Tanzania, only four out of 10 students in Standard 7 could complete a Standard 2 assessment in Kiswahili, English, and numeracy (Uwezo Tanzania, 2011). This means that more than 50% of Standard 7 graduates lacked competencies the school should have developed. It should be noted, however, that those who were able to complete the assessments were not, necessarily, more likely to become productive and active citizens in the community than those who did not. So, the current pedagogies in Tanzania do not seem to enable learners to develop useful skills and knowledge.

Lack of contact between school and community

The overall goal of education is to prepare young people for a productive life in society (United Republic of Tanzania, 1997), the attainment of which requires integration of formal learning with community experience, thereby enhancing pedagogical contact at a variety of local levels. Emphasising the importance of school–community linkages, Brookes (2003) observed:

> if education is to become more relevant, to become a real force for improving societies in which we live, then it must become more closely linked to the local, to the spheres of action and influence which most of us experience. (p. 5)

Curriculum content and pedagogies therefore need to be informed by experiences gained in familiar contexts so that knowledge and skills developed can be employed to solve community problems. In proposing ESR for the Tanzanian education system, Nyerere (1967) argued that education could not be considered separate from society. And formal schooling cannot educate a child in isolation from the social and economic system in which it operates. Understood thus, the introduction of ESR activities in schools was aimed at enabling contacts between schools and their immediate communities.

During the 1970s and throughout the early 1980s, ESR activities in a school learning environment were adopted which, in turn, enhanced contact. Unfortunately, under the current school system, such contact is no longer happening. School–farm activities, orchestrated under ESR and the source of increasingly stronger networking ties, are no longer being utilised. They are perceived as a waste of time—time otherwise required for completing subject matter content in accordance with national curriculum standards. The pedagogical values associated with ESR activities seem to be wasteful. Nowadays, the practice of teaching is mainly perceived to be an abstract activity only possible in school classrooms. As a result, schools as community institutions are operating in isolation. Instead of striving to integrate and make use of learners' everyday life experience and to strengthen institutional partnerships with communities, schools evade, almost by default, this responsibility. The above may constitute a significant reason for poor learning outcomes in primary schools, especially in mathematics and science subjects, as reported by the National Examination Council of Tanzania (United Republic of Tanzania, 2010), HakiElimu (2011), and Uwezo (2011), as well as in the lack of competencies registered among graduates in applying school learning to real-life situations.

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[1] Uwezo is a non-governmental educational research organization based in Tanzania. Uwezo means *capability* in Kiswahili. The Uwezo organization is an initiative that aims to improve competencies in literacy and numeracy among children aged 5 to 16 years in Kenya, Tanzania, and Uganda by using an innovative approach to social change that is citizen driven and accountable to the public.

Another consequence is the declining status of, interest in, and positive attitude towards agriculture, especially among the youth, despite the fact that the agricultural sector provides a livelihood for more than 80% of the population. This has serious consequences for the quality of community life for children, as well as for overall community development in Tanzania. Life in the community requires development of cooperative behaviour, positive attitudes toward work, fortitude with respect to weather and, hopefully, mastery of the multiple adversities that are part and parcel of daily life. Development of positive coping responses is only possible when learning is contextualised and relevant to specific social and economic circumstances.

Reflecting on the foregoing arguments, we believe that the Tanzanian education system seems out of touch with local community life. Its focus is on improving cognitive performance and enabling learners to acquire knowledge and skills that prepare them only for the formal labour market, which is already oversubscribed. Educational efforts designed to create job seekers are, unfortunately for most, efforts that lead to further unemployment. This makes realisation of the Tanzania Development Vision (TDV) by 2025[1] elusive. Attaining the TDV objectives requires the education system to employ pedagogical approaches that integrate teaching and learning on a recurring, daily, basis, and factor in community experience. The TDV clearly stated that:

> education should be treated as a strategic agent for mind-set transformation and for the creation of a well-educated nation, sufficiently equipped with the knowledge needed to competently and competitively solve the development challenges which face the nation. In this light, the education system should be restructured and transformed qualitatively with a focus on promoting creativity and problem solving. (United Republic of Tanzania, 1999, p. 19)

Stated differently, the idea of revitalising ESR is a response to repeated calls in education discourses for transformation of the education system into one that enhances relevant learning. Lave and Wenger (1991) called for situated learning, as did Gruenewald (2003). In a study on exploring possibilities for management of education in Africa, Twalo (2010) called for reconsidering the role of context in ensuring relevance, quality, affordability, and accessibility with the ultimate goal of inculcating youth with knowledge. Examining the relevance of Nyerere's contributions in education, Kadenyi and Kariuki (2011) called for rethinking education for liberation and self-reliance by focusing on educating rather than merely schooling. Implicitly, the above calls have more in common with Nyerere's ESR thinking and Dewey's observation that learning that endures is ''*got through life itself''* **(**1916, p. 1; our emphasis), implying that learning must to take place in the community fabric.

Efforts to revitalise ESR in school curricula are predicated on an understanding that such an education arrangement is supported by established social learning theories/traditions that transcend historical contexts of ESR in Tanzania, and on the need for its revitalisation for the sake of social change. In the following section, we explore how Nyerere's ESR thinking does just that, while specifically emphasising experiential learning.

ESR and the socioconstructive learning perspective

ESR aims at meaningful, collaborative school learning by engaging learners in practical agricultural activities in farms and workshops. Through ESR activities, learners had opportunities to actively learn and reflect

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[1] TDV 2025 is a long term roadmap to transform Tanzania from a least-developing to a middle-income country by the year 2025. This transformation is envisioned to turn Tanzanian economy into a strong, competitive economy that will provide improved socioeconomic opportunities, public sector performance, and environmental management. As a result, it strategically positions education as a driving force to push action.

together with practitioners within community frames, capacities, and limits. By emphasising the utilisation of relevant tasks in familiar environments, the ESR framework took a stride away from equating learning with the banking concept of education, to induced knowledge creation in learners (Freire, 1970). When learners are just informed by teachers about facts derived from prescribed sources and compelled to accept and memorise the facts in preparation for an examination, the knowledge developed is unlikely to enhance critical thinking. This could have a ricochet effect and hinder community development. However, when learners get a chance to construct their own knowledge through practical, hands-on experience, as envisaged in ESR thinking, problem-solving skills and critical thinking are more likely to develop. The ESR framework strove to facilitate interaction between learners, society, and the environment. The framework built on the understanding that learning is not solely an individual, abstract undertaking (as it is viewed under the current education system in Tanzania). Rather, it is a social undertaking (Vygotsky, 1978) in which knowledge is mutually constructed and developed and not imposed on learners.

In a sociocultural perspective, learning takes place in an interaction with culturally embedded tools and in situational contexts (Lave & Wenger, 1991; Vygotsky, 1978). While some tools might involve physical activity or action, the main tool in the learning process is language. Communication is crucial to learning in a social perspective (Vygotsky, 1978). Learning also takes place by participation in practical working communities (Lave & Wenger, 1991). Students participating in local agricultural activities will learn by participation, by engaging in simpler and gradually more complex tasks. Learning from skilled role models is an important benefit of participating in real-life activities (Bandura, 1986). Practical work experience might be repetitive and might not automatically lead to learning. Reflecting on the actions and communicating about experience are crucial, and contribute to a deeper understanding and the building of a professional vocabulary, which improves cognitive skills and enhances practical performance. A sense of coherence is developed when learning processes are characterised by comprehensibility, manageability, and meaningfulness (Antonovsky, 1979). In addition to being relevant to everyday life experience, meaningful learning situations often activate the senses and motor skills, as well as heart and mind (emotion and cognition). Such holistic learning processes guarantee a deeper understanding. But, where connections to the outside world have not been established, as is the case with Tanzanian schools today, learning can still function within the classroom though it might be almost impossible to transfer to the outside. In this understanding of learning, it is obvious that the socioconstructive view supports ESR. To further explore its robustness in enhancing relevant learning, we analyse ESR from an experiential learning perspective (ELP) in the next section.

ESR and the experiential learning perspective (ELP)

As an integral part of school systems, school farms and/or workshops were an iconic feature of ESR. It aimed at meshing theory and practice through concrete, familiar, and meaningful tasks in order to integrate mental learning in preparing learners for life in society. In terms of societal attitudes and values, pupils were stimulated to internalise meaning and understand the need for working collaboratively towards the common good. Under ESR arrangements, holistic learning was possible because learning was based on experience and on "doing". Therefore, it combined experience, perception, cognition, and behaviour. According to Kolb's (1984) four-stage experiential learning model, all learning begins with concrete experience. Observation from experience is reflected and formed in abstract and generalised concepts. This forms a basis for new concrete experiences or actions originating from a new and improved understanding. Wilson (1998) asserted further that the human brain—and thus problem solving capacities as well as critical thinking—is developed through hands-on activities.

Cognisant of the above, ESR and ELP share a common understanding of basic principles for learning. Both underscore the active role of learners. A teacher's role changes from one who transmits information to passive pupils to a facilitator who encourages learners to interact with others and with the physical environment for relevance and comprehension.

In spite of the advantages of experiential relevance as a point of departure for learning and encouraging reflection, Kolb's theory was criticised for focusing mainly on cognitive aspects of learning. This diminished other important aspects, such as emotional connections and relations, bodily engagement, and willpower, which are crucial in enhancing relevant learning. Krogh and Jolly's (2012) relationship-based experiential learning (REL) model includes these qualities. The point of departure is that all experience and learning starts with humans relating to each other and to the physical world (Dewey, 1929). To extend possibilities for lasting learning outcomes, the formation of relevant relationships should be emphasised in the learning process. This can be motivated by teacher introduction, instruction, and inspiration. Learners develop confidence in using tools and in their role in the overall value chain. Also, they learn to appreciate how the key, human, element functions: how pupils deal with others and with more experienced adults.

Through mastery of learning activities in guided learning processes that offer comprehensibility, manageability, and meaningfulness, resistance against learning can be fought by the learner. Consequently, willpower and a sense of coherence can be strengthened (Antonovsky, 1979). Mastery and sense of coherence are mirrored by the desired, or a concrete, outcome of a given activity. Achieving desired outcomes not only motivates towards further involvement but also imprints in the learner's mind a sense of what it takes to succeed. These might include such attributes as patience, perseverance, cooperation, and the role of proper planning before attempting any task. Also, well-guided reflection processes on failure to achieve a desired outcome, provide learners with an opportunity to identify and analyse reasons for the failure. Useful knowledge can be developed for dealing with similar or related tasks in the future. Execution of such tasks can be improved with better results in terms of outcomes. If properly acknowledged and guided by experienced facilitators, such learning processes will tend to resonate in the learner and stimulate mental activity.

The REL model suggests that establishing relevant connections and experience, motivating willpower, and developing agricultural skills in learning situations can enhance problem solving capacity, creativity, and ability to manage changing and demanding circumstances. The REL focus on building and strengthening the inner motivation of the learner is in line with self-determination theory (Deci & Ryan, 2000). Furthermore, the REL model stresses the significance of relatedness to meaningful activities for both teachers and others, as well as how those activities relate to the physical world. These are the reasons why we have chosen the REL model to guide our work.

The main argument of this article is that Ujamaa, inspired by experiential learning theories, may constitute a platform for revitalising ideas of meaningful learning that take the requirements of the local community as a point of departure for learning self-reliance skills, as well as such academic school subjects as science and mathematics. Both socioconstructive and experiential learning theories have common characteristics with the philosophy of Ujamaa. We believe that revitalising ESR informed by these learning theories will make it possible to overcome some of the challenges the implementation of ESR has previously encountered, as discussed above.

In the next section, we present an outline of a project to revitalise ESR based on REL, and preliminary results from the first phase of the project, which was still under way at the time of writing this article. To ensure ownership of this in the schools, we started the research project with the aim to establish how these ideas can be brought into the schools. Only the results from the initial consultation with the community are provided here. The complete findings will be presented in subsequent papers once the project is finished.

The school–farm cooperation project: Project outline

Aims of the project

The project is a collaborative initiative between researchers from Sokoine University of Agriculture in Tanzania and the Norwegian University of Life Sciences, practicing teachers (Nyandira primary school), school administrators, and community workers at the village and district level, and farmers of Nyandira village community in Tanzania. This project aims at developing interactive teaching and learning strategies in cooperation between the stakeholders. The school selected is in a rural, underprivileged area of Tanzania, where farming is the main source of income. Project participants included a group of university-based researchers, five teachers, the parents' school committee (seven members), four community workers, three education administrators at community and district levels, and all pupils in Standards 5 and 6 at Nyandira primary school (total, 142 pupils). The pupils were selected on two criteria: (1) sufficient age-based physical maturity for meaningful engagement, and (2) availability at school for the whole period (two years) of the project evaluation period. The central research question was: How can the use of farms as a pedagogical resource in primary school improve pupils' performance in science and mathematics, influence their attitudes toward agriculture, and foster school–community linkages in Tanzania?

Methodology

The project was methodologically inspired by the participatory action research (PAR) paradigm (Fals Borda, 2001), which foregrounds participative democracy; all voices should be heard and retain equal status (Bradbury & Reason, 2003; Kemmis, 2001). Hence, the project aims to promote shared ownership of the project, mutual understanding of the challenges the school faces, as well as cooperative planning and solution finding. The research methodology follows Kemmis and McTaggart's (1988) action research spiral inquiry embodied in plan–act–reflect–cycles. According to Elliott (1991), action research enhances the improvement of performance and furthers the development of persons in their professional capacities. Therefore, the project also has an aspect of professional development for teachers.

For students, the project has three objectives: (1) to promote the active use of experience developed from concrete work on farms, school farms, or at other learning centres in the community in order to learn both self-reliance skills and academic skills; (2) to emphasise collaborative involvement in planning, executing, and evaluating their own learning; and (3) to heighten awareness through sharing experience and knowledge in classrooms and in other encounters with adults, expanding the knowledge needed in the community.

From a long-term perspective, the goal is to show how ESR can be revitalised in the case of one selected primary school in Tanzania. It is hoped that this case can inspire other schools elsewhere to undertake similar approaches.

Project plan

The project involves two distinct phases: preparatory and intervention. This paper emphasises the preparatory phase, but Table 1 below shows the main actions to be associated with both.

Table 1: Project plan

Phase 1: Preparation phase		
Action	**Purposes**	**Remarks (input for the subsequent actions)**
Apply for access and research permission (including participant consent).	Compliance with research ethics and procedures.	Entry granted with a call for adherence to established procedures.
Contact and visit the community in dialogue with local stakeholders. Hold several formal and informal discussions.	Diagnose and validate project ideas. Plan together for grounding the project into the community, addressing participants' realities (needs, worries and possibilities), and generating knowledge and insight for replanning. Identify roles and responsibilities for each party.	Project idea and execution plan analysed and modifications/changes suggested.
Design survey instruments and conduct baseline survey with teachers, parents/farmers and students.	Conduct situation analysis/teaching–learning practice mapping. Familiarisation with available assets and infrastructure in the community, and with school schedules.	Developed inputs for discussion during dialogue conference. Highlighted who is to participate in the dialogue conference.
Dialogue conference.	Reflect on the baseline survey results and, collaboratively, decide on subsequent plans of activities.	Critical constraints affecting teaching and learning identified and prioritised. The need for ESR activities in school, in parallel to re-establishing school gardens, envisaged. The need for capacity building programme for school and community teachers to use experiential learning strategies also highlighted.
Phase 2: Intervention phase		
Design and implement capacity-building programme.	Build capacities of teachers, parents/farmers to be able to use experiential learning strategies and methodology in facilitating pupils learning.	The need for coaching and backstopping.
Facilitate trained teachers to carry out teaching following a developed experiential-learning teaching strategy.	Customise the strategy into day-to-day activities.	Not yet implemented, hence no reflections as of yet.
Collect data and evidence.	For communication and decision making.	Not yet implemented, hence no reflections as of yet.

Data collection and analysis methods

The researchers visited participants and conducted informal and formal meetings to present and discuss issues of interest with respect to the research project. Data were collected by tape recording meetings and note taking. Thematic analysis procedure (Braun & Clarke, 2006) was the data analysis method utilised in this study. The procedure enables sorting and categorising data into different themes (patterns), and numerous cross-references between evolving themes.

The initial phase: ensuring a democratic process from the start

The purpose of the initial phase was to ground the project in the community and to ensure a democratic process. In this section, we want to discuss a few examples of what was done and the ensuing results. Soon

after fulfilling the research-related procedural and ethical requirements, the multidisciplinary team, comprising university-based researchers, classroom teachers, and community members (extension workers and farmers), established themselves in the project area. Then a participatory exercise for discussing the research idea and its significance for improving learning and community development was carried out. This initial consultation process sought to ground the idea within the fabric of community realities and to gain knowledge and insights from the target community for later use in the planning phase.

Over a period of 12 months, formal and informal meetings were held with the above-mentioned stakeholders to share and reflect on the project idea and to develop an execution plan. Also, a baseline survey was carried to collect information on teaching–learning practices and associated conditions. These practices and conditions included teachers' socioeconomic characteristics, teaching strategies employed, teachers' level of knowledge and attitudes towards experiential learning through agricultural practices and school–community linkages. Other issues were stakeholders' levels of satisfaction with current learning and teaching practices as well as their perceptions of agriculture and rural life.

Preliminary results

As shown in Table 2 below, analysis of recorded information during meetings and discussions throughout the process show three important themes categorised as stakeholder views, stakeholder worries, and stakeholder wishes about the project and action plan.

Table 2: Stakeholders' analysis of project and action plan

Stakeholder category	Stakeholder views	Stakeholder worries	Stakeholder wishes (prospects)
Researchers	Pertinent to enhance learning, but its execution may be complex, laborious, and risky.	Resources such as time and finances may be limiting factors. Methodological aspects: action research is not common in our area. Conflict of interest between teachers and parents. The idea may be regarded as old-fashioned.	Generate lessons from African context. Boost teachers' and pupils' confidence and motivation. Demonstrate values of school–community interaction and upscale the evidence.
Teachers	Pertinent for enhanced learning, although more teachers are required.	Time may be a limiting factor because the school has few teachers but large classes (50+). Hungry pupils (may not eat lunch every day). Farmers are not "professional" hence their involvement in teaching may be unacceptable to professionals.	Enhance memory and understanding. Provide chance for pupils to engage actively and take control of own learning.
School committee	Commendable because it may be a way of building bridges between school and community.	Equipment and tools. Travel time between school and learning sites may interrupt school routines.	Help pupils learn in three areas: passing exams, working after school, and promoting cooperation.
Education administrators	Good and feasible because it may be a pathway toward education for community development.	Teachers may not be cooperative if not suitably motivated.	Assist in implementing curriculum (more pupils selected for next level). Reinvigorate ESR concept.
Pupils	May provide opportunities for sharing ideas.	Not getting any lunch.	Opportunity to learn from practical activities by reducing passive sitting and listening.

It is clear that stakeholders' views on the idea were generally favourable (Table 2). Different groups pointed out different areas of interest—everything from providing collaborative learning opportunities to enhancing relevant learning, and linking schools with their respective communities. On the one hand, researchers and teachers had a feeling that the execution of the idea was complex, risky, and demanded that more teachers be deployed at school level. On the other, physical and financial resources, time, pupils suffering from short-term hunger, conflicts of interest (the perception that parents are not teachers by profession), and the size of classes (large number of pupils and few available spaces) were among the worries expressed by stakeholders—worries that ultimately could hinder the change process, it was felt. Nevertheless, stakeholders were of the opinion that the project idea had some merit, which included empowering teachers, helping pupils to learn in all aspects, demonstrating the pedagogical value of school–community interaction, and the importance of concrete tasks in school learning. This kind of participant orientation demonstrated that initial consultations open up communicative spaces, which, according to Kemmis (2001) among others, permit people to achieve mutual understanding and consensus about what to do. We generally worked to align the interests and agendas of the participants in the research project. This had a knock-on effect as they felt the need for intervention. Also, willingness to participate increased and, as a result, participants gave suggestions that necessitated re-examining the previous research plan, as shown in Table 3 below.

Table 3: Project plan before and after consultation with stakeholders

Aspect	Initial plan	Modified plan
Stakeholders consultation	Officials from two ministries, the zonal school inspectorate, school inspectors and education officers at the district and community levels, and school teachers and parents.	Consulted education administrators at local level, school teachers, parents (through school committees), pupils, and community workers (agriculture, community development and health sectors). Briefs should be developed for policy makers.
Who should be trained?	School teachers.	School teachers, selected farmers, and community workers.
Source of experience (out of class learning sites)	Established sites in the community, such as progressive farms, extension services, demonstration sites, research centres, and processing units in the community.	In addition, a school farm should be established at the study school.
Scope	Target two schools.	Target fewer schools/classes (e.g., Standards 5 and 6 at one school).
Baseline study coverage	Only targeted schools and their communities.	To satisfy policy makers, cover some other schools not targeted for intervention, for comparative purposes.
Approach to follow in choosing actions to take	Structured dialogue conference.	Open and inclusive approaches may include dialogue and/or interviews.

The overall outcome of the initial process was the development of an intervention strategy based on a relationalship-based experiential learning framework. It enabled us to engage with stakeholders; an engagement that resulted in building trust and strong relationships. Boog (2003) and Stringer and Genat (2004) identified strong relationship as key factor in success of PAR projects. This is because PAR practices aim at allowing all voices to be expressed (Bradbury & Reason, 2003). Creating such communicative spaces is vital for voicing views, designing ideas, and their implementation but also allows discussion of what Bradbury and Reason (2003, p. 165) called "undiscussables". This, in turn, made it possible to clarify common goals and resources, thus providing a basis for planning the future together and consolidating agreements to establish structures required to effect the planned changes to meet community needs and realities. Building such relationships takes time, but as Smith (1999) put it, the research process and relationship building process are crucial in developing effective initiatives. The initial phase with all its various meetings took about one year. This was mainly because we needed time to attain valuable

participant collaboration. As Smith (1999) suggested, by actively collaborating with participants, researchers would be confident that their research benefits participants. Establishing and nurturing quality relationships and active collaboration at the initial phase, developed positive experience among and between participants which, according to relationship-based experiential learning theory, is an asset in subsequent stages of the project.

Significance of the initiative for education and Tanzanian society

Developing the strategy and launching the implementation plan kick-started the project to revitalise ESR policy in Tanzania. This may pave the way for building a bridge between teaching in schools and the application of practical knowledge in the communities. It has the potential for contributing to the development of local activities, which, it is hoped, will engage pupils in a positive manner and foster further interest in such activities. As we see it, the main challenge is in bridging the gap between practical work and theoretical learning. Facilitating experiential learning represents a new way of teaching—a new pedagogy— for teachers in the area (in the whole country, for that matter), and is one that needs to be learned and developed over time.

Different studies (Ballentyne & Packer, 2009; Haubenhofer, Hassink, & Kragt, 2008; Krogh & Jolly, 2012; Lieberman & Hoody, 1998; Taylor & Munhall, 1997) have demonstrated that the teaching–learning process, which takes its point of departure from everyday life experiences and resources, has the potential to enable future citizens to manage growing education and community development challenges. It also fosters a positive attitude towards, and restores the status of, agriculture, especially among youths, but also generally in Tanzanian society.

In a Tanzanian rural context, most learners have agricultural experience, acquired either by working on their family farm or by observing people involved in farming on a daily basis. Also, after graduation, the majority are likely to be involved in similar activities, either directly (the majority) as farmers or indirectly (fewer) as experts in agriculture and related fields (after additional years of training). Revitalising ESR, and thus maintaining agricultural-related learning activities in contemporary education, is an important step towards quality education and community development. As we have said before, ESR has the potential to develop actionable capacities/skills applicable to similar or different situations in the future, such as with decisions to organise or join existing farmers groups, cooperatives, networks, and associations

Also, when working with real-life problems, appropriate problem-solving skills are required throughout the trial-and-error process that informs practice grounded in theory. Guided by experienced adults, learners are likely to develop useful skills (Bandura, 1986), unlike a situation when learners are directly given (spoon-fed) correct answers to enable them to pass examinations rather than teach them how to learn. The latter is important to optimise social and economic capabilities in a community setting.

Tanzania needs innovative and creative citizens who can produce enough food in an increasingly unstable environment—among many other tasks that need development. Young people comprise over 50% of Tanzanian population. Improving their entrepreneurial skills, influencing them to take part in agricultural activities, and providing access to appropriate technologies is essential for improving food security and reducing poverty.

Agriculture has the potential to provide employment for many young people. This labour market potential will sensitise students to the available opportunities and resources to promote a productive life. Hopefully, over the long term, this will reduce the rural–urban migration exodus from the countryside that invariably results in social dislocation and increased crime rates in the cities.

The learning strategy discussed in this paper is well positioned to enable learner development, critical thinking, and transferable problem-solving skills. These are structural capacities to which the Tanzanian education system aspires and, at the individual level, aspects which must be reflected and developed in classroom curricula among learners at all levels (United Republic of Tanzania, 1995; United Republic of Tanzania, 1999). Ideas to enhance learning processes described in this article are welcome because we believe this project is working, with proven potential for the years ahead as an example from which others can learn, and one designed to influence significantly, teacher education in Tanzania.

References

Antonovsky A. (1979). *Health, stress, and coping*. San Francisco, USA: Jossey-Bass.

Ballentyne, R., & Packer, J. (2009). Introducing a fifth pedagogy: Experience-based strategies for facilitating learning in natural environments. *Environmental Education Research, 15*(2), 243–262.

Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, USA: Prentice-Hall.

Black, H., Govinda, R., Kiragu, F., & Devine, M. (1993). *School improvement in the Developing World: An evaluation of the Aga Khan Foundation Programme.* (SCRE Research Report, no. 45; DFID Evaluation Report EV545). Scotland: The Scottish Council for Research in Education.

Bradbury, H., & Reason P. (2003) Action research: An opportunity for revitalizing research purpose and practices. *Qualitative Social Work, 2*(2), 155–175.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.

Brookes, A. (2003). A critique of neo-Hahnian outdoor education theory. Part one:

Challenges to the concept of 'character building'. *Journal of Adventure Education and*

Outdoor Learning, 3(1), 49–62.

Boog, B.W.M. (2003). The emancipatory character of action research, its history and the present state of the art. *Journal of Community & Applied Social Psychology, 13*(6), 426–438.

Deci, E. L., and Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry,* 11(4), 227-268.

Dewey, J. (1929). *The quest for certainty: A study of the relation of knowledge and action*. London, UK: George Allen & Unwin.

Dewey. J. (1916). *Democracy and education*. New York, USA: The Free Press.

Elliott, J. (1991). *Action research for educational change*. Milton Keynes, UK: Open University Press.

Fals Borda, O. (2001). Participatory (action) research in social theory: Origins and challenges. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice* (pp. 27–37). London, UK: Sage.

Freire, P. (1970). *Pedagogy of the oppressed*. New York, USA: Continuum Books.

Galabawa, J. (2001, October). Development and issues regarding universal primary education in Tanzania. In *Reaching out, reaching all: Sustaining effective policy and practice for education in Africa and promising educational responses to HIV/AIDS.* Symposium conducted at the meeting of the Association for the Development of Education in Africa, Arusha, Tanzania.

Gruenewald, D.A. (2003). The best of both worlds: A critical pedagogy of place. *Educational Researcher*, *32*(4), 3–12.

HakiElimu. (2011). *Who decides what our children learn? A research report on the relationship between curriculum quality and education quality*. Dar es Salaam, Tanzania: HakiElimu.

Haubenhofer, D., Hassink, J., & Kragt, I. (2008). *Inventarisatie Jeugdboerderijen* [Evaluation of Youth Farms] (Report 174 Plant Research Internationally). Wageningen, The Netherlands: Wageningen University Press.

Kadenyi, M., & Kariuki, M. (2011). Rethinking education for liberation and self-reliance: An examination of Nyerere's and Plato's paradigm. *International Journal of Curriculum and Instruction, 1*(1), 15–29.

Kemmis, S., & McTaggart, R. (1988). *The action research reader* (3rd ed.). Geelong, Australia: Deakin University Press.

Kemmis, S. (2001). Exploring the relevance of critical theory for action research: Emancipatory action research in the footsteps of Jürgen Habermas. In P. Reason & H. Bradbury (Eds.), *Handbook of action research: Participative inquiry and practice* (pp. 91–102). London, UK: SAGE.

Kibwika, P., Kyazze, F., Loga, D., & Apolot, S. (2010, September). Empowering primary school children to produce food to mitigate short-term hunger through school gardening: The case of universal primary schools in Kamuli and Soroti Districts, Uganda. *Proceedings of the Second RUFORUM Biennial Meeting* (pp.1841–1846). Entebbe, Uganda: Regional Universities Forum for Capacity Building in Agriculture.

Kolb, D.A. (1984). *Experiential learning.* Englewood Cliffs, USA: Prentice-Hall.

Krogh, E., and Jolly, L. (2012). Relationalship-based experiential learning in practical outdoor tasks. In A. E. J. Wals & P. B. Corcoran (Eds.), *Learning for sustainability in times of accelerating changes* (pp. 213–224). Retrieved from http://www.wageningenacademic.com/learn4-e_13

Lave J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.

Lieberman, G.A., & Hoody, L.L. (1998). *Closing the achievement gap. Using the environment as an integrated context for learning*. San Diego, USA: Science Wizards.

Malekela, G.A. (1984, November). *After UPE What Next?* Paper presented at an International

Symposium on Village-Based Teacher Training and Universal Primary Education, Tanzania.

Mbilinyi, M., & Mwobahe, B.L. (1975). *Challenge of education for self-reliance*. Dar es Salaam, Tanzania: Institute of Education.

Mosha, H.J. (1990). Twenty years after education for self-reliance: A critical review. *International Journal of Educational Development, 10*(1), 59–67.

Nyerere, J.K. (1967). *Education for self-reliance*. Dar es Salaam, Tanzania: Government Printer.

Nyerere, J.K. (1968). *Freedom and socialism: A selection from writings and speeches,1965–1967*. Dar es Salam, Tanzania: Oxford University Press.

Smith, L.T. (1999). *Decolonizing methodologies: Research and Indigenous Peoples*. London, UK: Zed Books.

Stringer, E.T., & Genat, W.J. (2004). *Action research in health.* Upper Saddle River, USA: Pearson Education.

Taylor, P., & Mulhall, A. (1997). *Contextualizing teaching and learning in rural primary school using agricultural experience* (Vol. 1 Educational research, paper No.20). London, UK: DFID Education Division.

Taylor, P. (2007). *Making learning relevant: principles and evidence from recent experiences: Synthesis of an institutional, regional, and international review*. Washington, DC: World Bank.

Twalo, T. (2010). Education for self-reliance—South Africa's alternative for addressing skills shortage and job creation: A literature review. *South African Journal of Higher Education 24*(5), 832–846.

United Republic of Tanzania. (1995). *Education and training policy.* Dar es Salaam, Tanzania: Goverment Printer.

United Republic of Tanzania. (1997). *Education sector development Programme*. Dar es Salaam, Tanzania: Government Printer.

United Republic of Tanzania. (1999). *Tanzania development vision 2025*. Dar es Salaam, Tanzania: Government Printer.

United Republic of Tanzania. (2006). *Education sector review report*. Dar es Salaam, Tanzania: Government Printer.

United Republic of Tanzania. (2010). *National Examination Council of Tanzania* (Examination Results). Dar es Salaam, Tanzania: Government Printer.

Uwezo Tanzania. (2011). *Are our Children Learning?* (Annual Learning Assessment Report). Dar es Salaam, Tanzania: Uwezo.net. Retrieved from http://www.twaweza.org/uploads/files/ALA_UWEZO.pdf

Vygotsky, L. S. (1978). *Mind in society*: *The development of higher psychological processes*. Cambridge, USA: Harvard University Press.

Wilson, V.A. (1998). *Learning how they learn: A review of the literature on learning styles*. U.S. Department of Education, Educational Resource Information Center.

Voices of despair: Challenges for multigrade teachers in a rural district in South Africa

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Abstract

The focus of this paper is an exploration of the challenges experienced by a group of 19 multigrade teachers in the Uitenhage District of South Africa's Eastern Cape Province. This interpretive qualitative, exploratory, case study made use of semistructured personal interviews, focus group interviews, and an open-ended questionnaire as data gathering tools to explore the perceived challenges. The findings from the data were categorised using a three-order typology (Benveniste & McEwan, 2000; Raffo, Dyson, Gunter, Hall, Jones, & Kalambouka, 2007), and the generative theory of rurality (Balfour, Mitchell, & Moletsane, 2008) was used as lens for the discussion of the data. The findings reported in this paper relate to the first phase of the research project. The initial findings of the study suggested that the participants viewed their rural multigrade context as one of deficit; however, after the Intel@ Teach Programme was introduced, there was a positive change. The findings in this paper, which forms part of a larger study, suggest there were several first-order (micro or self), second-order (meso or school), and third-order (macro or system wide) challenges— curriculum issues and support being key aspects because multigrade schools have to implement a monograde curriculum. In addition, it seemed that multigrade teachers should be supported to enable them to acquire skills in building agency and sustainable relationships in order to have a different disposition towards resources.

Introduction

After the South African democratic elections in 1994 when the African National Congress came into power, it was believed the education playing field would be levelled. The South African Schools Act 84 of 1996 (Republic of South Africa, 1996b) and the Constitution, Act 108 of 1996 (Republic of South Africa, 1996a) indicated that the mission and vision of the Department of Basic Education (DBE) is to provide quality education for all. This was reaffirmed when the DBE committed itself to the principles of the Dakar Framework for Action in 2000 (World Education Forum, 2000) and again through the Department of Education's Quality Learning and Teaching Campaign (Department of Education, 2009). However, it seems

the main focus of education is on monograde education despite the fact that multigrade teaching is a reality in rural areas (Brown, 2010; Little, 2006).

Research into rurality within the South African context, such as the recent special edition of *Perspectives in Education* (Balfour, De Lange, & Khau, 2012), has not indicated whether the challenges researched were in the monograde or multigrade context. Ebersöhn and Ferreira (2012), for example, referred to two rural schools that consisted of 10 and four teachers respectively, which seems to suggest that these schools were not multigrade, but monograde. Similarly, scrutiny of the book, *School–University Partnerships for Educational Change in Rural South Africa* (Islam, Mitchell, De Lange, Balfour, & Combrinck, 2011), indicated that special reference to multigrade education in the rural context was not reported.

Internationally, Bhardwaj (2008), Brunswic and Valérien (2004), Juvane (2007), and Little (2006) have spoken out for assisting multigrade schools, and made a case for their continuation. Locally, Brown (2010) has indicated that the multigrade context is an under-researched area. In the light of Brown's assertion, as well as being involved with the Uitenhage District Office, rural schools, and informal interactions with multigrade teachers, the authors of this study grappled with the question, "What are the problems that multigrade teachers experience within the Uitenhage District?" The purpose of this paper, which forms part of a larger research study (Subramanien, 2014), was to ascertain the challenges related to multigrade education, according to a group of 20 multigrade teachers. We intend reporting, in a follow-up article linked to the research findings reported within this article, how the Intel@ Teach programme[1] enabled the participating multigrade teachers to become resilient and responsive to their own needs, and how it assisted them to overcome most of the challenges they had experienced. With reference to this article, the rationale for determining the challenges was to provide insight and understanding for possible action, not only to the Uitenhage District Office but also to the Eastern Cape DBE, because the Eastern Cape is one of the provinces with the largest number of rural and farm schools (Gardiner, 2008; Joubert, 2010) and hence also, of multigrade schools.

Multigrade education

The multigrade model, instead of the monograde education model, seems to be implemented mostly in rural areas (Tsolakidis & Constantinidi 2006). In a monograde school, learners are grouped according to grade with a specific teacher assigned to every grade, or class within that grade. By contrast, learners in a multigrade school are not grouped and taught in separate classes; learners of mixed ages, abilities, and in different grades are all present at the same time, in the same classroom with one teacher (Jordaan & Joubert, 2007; Joubert, 2010; Little, 2001; Tsolakidis, 2010). It seems that multigrade education, as practice, is not one of choice but a necessity to provide education to learners in remote areas. Hence, in order to make education economically viable and to provide access to education, the multigrade education model seems to be the only option in many rural areas (Bhardwaj, 2008; Little, 2006). A school with multigrade classes, in many instances, has only one or two teachers in total—one for Grades 1 to 3 (foundation phase) and one for Grades 4 to 7 (intermediate and secondary phases)—one of these teachers also being the principal with a full teaching load as well as performing non-teaching duties.

Rurality

The concepts, *rural* and *urban*, are concepts that have different meanings that could interpreted differently within the same country and among different countries (Gardiner, 2008; Wako, 2005). The term *rural school* in this study refers to schools that are far away from city centres and towns. Ebersöhn and Ferreira (2012) argued that the term, rural, should not always be equated with backwardness because there are

stories that celebrate resilience within the rural school context. They continued by stating that rurality should not necessarily be seen in a context of deficit (Ebersöhn & Ferreira, 2012 with reference to Balfour, Mitchell, & Moletsane, 2008).

With reference to rurality, and how to assist with addressing challenges, the work of Balfour et al. (2008) provided a lens for looking at rural education with their generative theory of rurality. The generative theory of rurality views rurality as a construct and not as a context. This construct consists of three variables, namely, forces, agencies, and resources (Balfour et al., 2008). Figure 1 depicts the variables and their associated dimensions. Forces as variable, includes space, place, and time; agencies includes regulation, systems, and will; resources includes the situated, material, and psychosocial (Balfour et al., 2008).

Figure 1: The three variables and the aspects associated with each (Balfour, 2012, p. 14)
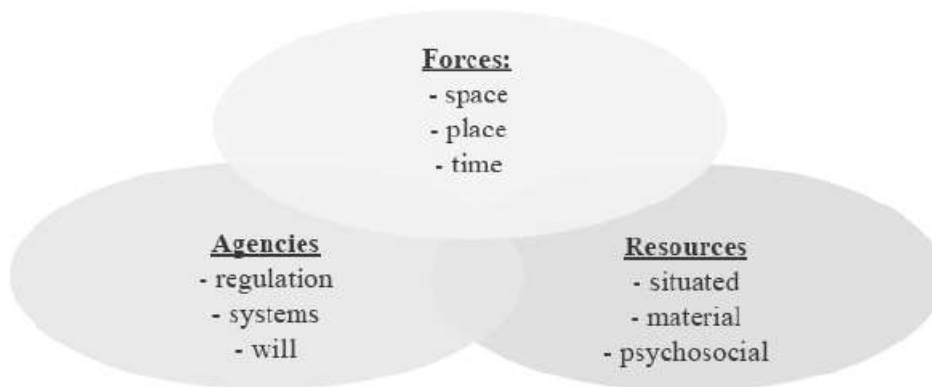
Regarding forces as variable, Balfour et al. (2008, p. 100) stated that it refers to "the movement of labour and production from the rural to the urban and back again". Space refers to the inhabited space and the area in which movement occurs, for example, movement from the rural to urban and vice versa that results in "identity formulation or renegotiation" which includes an inward and an outward journey (Balfour et al., 2008). Place relates to habits such as "connectedness, development of identity culture, interdependence with the land, spirituality, ideology and politics, and activism and engagement" (Balfour et al., 2008, p. 100). Time refers to moving from one place to another by moving through space (Balfour et al., 2008).

Agencies as variable denotes that the notions of victimhood, passivity, and dependence should be transcended (Balfour et al., 2008) because they suggest a depiction of deficit. According to Balfour et al. (2008), agency is an attempt to regulate space and time, denoting a positive dimension. In addition, agency, also includes the systemic dimension that refers to the power that resides within the individual, community, and state to transcend challenges, thus supporting the notion that there must be a will to engage with the challenges on various fronts in order to find possible solutions; hence, the importance of building relationships (Balfour et al., 2008).

Resources as variable refers to conceptual, physical, material, and emotional resources—resources that can be purchased or generated (Balfour et al., 2008). Agency and forces seem to play a vital role in acquiring or generating resources but this is not where it stops; these resources have to be maintained and sustained (Balfour et al., 2008). At the same time, it is important to note that a resource that is functional within a particular place could be dysfunctional in another place (Balfour et al., 2008). Recently, Ebersöhn (2013) extended the resource dimension with her relationship-resourced resilience lens. Within this extension, one actually finds a dichotomy, or antithesis, because the perception regarding the absence of resources is blinded by the abundance of resources (Ebersöhn, 2013). At the same time "harvesting" these resources, for example, personal-based resources, school-based resources, community-based resources, societal

resources, and systems-based resources bring the possibility of risks, hence the importance of relationship building to harness the various resources (Ebersöhn, 2013). It is therefore important that teachers, parents, learners, and community members begin looking at their lived context through different lenses. We intend using the generative theory of rurality as lens in a follow up article when we will be looking at the successes of an intervention to address challenges.

Theoretical framework: Three-order typology

Benveniste and McEwan (2000) proposed a two-level typology to frame the challenges experienced by the multigrade teachers. In their two-pronged typology, the macro and micro levels refer to categorising and grouping the challenges within the multigrade teaching context. The macro level refers to system-wide challenges or external interferences—challenges that are beyond the multigrade teacher's control, such as resource challenges, financing, and training (Brown, 2010; Joubert, 2010; Little, 2006). The micro level refers to challenges that the individual (self) could face, for example, personal attitudes and lack of knowledge and skills (Little, 2006; Tsolakidis & Constantinidi, 2006). The two-level typology was extended to three levels by Raffo, Dyson, Gunter, Hall, Jones, and Kalambouka (2007) who argued that a three-level typology is useful for group challenges pertaining to education and poverty, including multigrade education. They included the meso level, which refers to the school itself, and they specifically refer to the macro level as the "structures linked to power" (Raffo et al., 2007, p. 7). The challenges in the multigrade context seem to be multifaceted and not always easily grouped into one specific category. For the purpose of this study, a three-level typology was used as theoretical framework, namely, the first-order (micro, individual or self) level, second-order (meso, school) level and third-order (macro, beyond school or system-wide) level (Raffo et al., 2007).

The first-order (micro, individual, or self) level refers to aspects such as isolation that influence support as well as attendance of training sessions (Cornish, 2010). Isolation also makes it difficult to attract teachers to teach in remote rural areas (Juvane, 2007). Principals of multigrade schools are also full-time teachers in these schools and are required to manage their school in the same manner as in a monograde school. The teaching workload, and the administration required of a principal, result in administration overload and stress (Brown, 2010; Brunswic & Valérien, 2004; Little, 2006). In terms of community, the learners mostly come from homes of farm workers—workers who have low levels of literacy (Jordaan & Joubert, 2007) and living in impoverished conditions (Cornish, 2010; Juvane, 2005; Little, 2006). This results in a lack of parental involvement, absenteeism, and high dropout rates (Jordaan & Joubert, 2007; Little, 2006).

On the second (meso, school) level, it appears that workload implications (Mulkeen & Higgins, 2009), including the negative connotation of rural (Gardiner, 2008), influence how individual teachers think about the multigrade context—for example, rural as being backward (Cornish, 2010; Gardiner, 2008). Furthermore, unpreparedness for multigrade teaching and its requirements also seems to influence prospective decisions to teach or not to teach within this context (Juvane, 2007; Little, 2006).

The third level (macro, system-wide) challenges seem to be lack of external support (Juvane, 2005; Little, 2006; Pridmore, 2007), an aspect that also becomes evident in the nonexistence of policies and curricula related to multigrade (Little, 2001). This results in uncertainty because multigrade teachers are expected to implement a monograde curriculum within a totally different context, and these teachers also have to deliver in the same manner as their monograde colleagues (Brunswic & Valérien, 2004; Little, 2004). Training and support also seem to be a major challenge (Brown, 2010). In addition, several infrastructural resource challenges exist (Gardiner, 2008; Jordaan & Joubert, 2007; Little, 2006), including lack of finances to support teaching and learning (Juvane, 2005; Little, 2006; Tsolakidis & Constantinidi, 2006).

Methodology of the research

This qualitative exploratory case study was framed within the interpretive paradigm because the purpose was to explore participating multigrade teachers' perceived challenges pertaining to the multigrade context in rural areas. The case study as research design was deemed appropriate because it provides an opportunity for the rigorous exploration of a single entity (Flyvbjerg, 2011), the single entity being the group or community of multigrade teachers residing within rural areas of Uitenhage district, South Africa. The focus was to explore the participants' perceptions, interpretations, and experiences of challenges through their own eyes (McDonough & McDonough, 1997), providing a voice from their context.

Although case studies have been criticised as being "soft" and not possible to be generalised from (Berg, 1998), probably due to their qualitative nature, Stake (1995) and Merriam (2009) argued that readers have the capacity to ascertain whether the findings seem truthful and credible, and whether the findings are generalisable to their specific contexts. The purpose of this study was not to generalise, but to portray a picture as seen through the eyes and voices of the participants within their specific multigrade contexts and to leave it to readers, for example, officials from the Department of Basic Education, to ascertain whether they are able to relate to the participants' experiences.

There were 19 participating teachers (initially 20, but one teacher passed away during the project) from the Uitenhage district. These participants were purposefully and conveniently selected because the researcher had to visit them every two to three weeks during each term in order to render support regarding a new laptop initiative that had been introduced. Data were gathered by means of individual semi-structured interviews (N = 9), focus group interviews that consisted of two groups of three members per interview (N = 3), and an open-ended questionnaire (N = 19). The transcribing, analysis, and interpretation process was based upon the suggestions of Creswell (2006). The interview data were recorded on a Dictaphone and stored on a secure portable hard drive. The data were transcribed by the researcher and typed in Microsoft Word. The transcribed data were provided to the participants to verify that it was indeed what was said, serving as member checking and adding to credibility and trustworthiness. The transcribed data was read and reread to obtain a comprehensive overview of the participants' stories. The next step was coding and note making in the margin of the transcribed printed data. Similar codes were categorised together and then grouped as micro (first-order), meso (second-order), or macro (third-order) challenges[1].

Before the research commenced, ethical clearance was applied for and received from the Nelson Mandela Metropolitan University Ethics Committee. The aim of the research was explained to the prospective participants and written informed consent forms were completed. Consent was also obtained from the Provincial Department of Education and the Uitenhage District Office. All data are reported anonymously in the format [PI, MGT 7] where the first abbreviation refers to the data generation tool, the second abbreviation to the multigrade teacher, and the number to the participant's number in sequence.

Results of the research

The findings are presented in terms of first-order (micro, individual, or self) level, second-order (meso, school) level, and third-order (macro, beyond school, or system wide) level (Raffo et al., 2007). A summary of the findings is presented in Table 1. The abbreviation *FGI* refers to focus group interview, *OEQ* to the open-ended questionnaire, and *PI* to personal interview. It is important to note from the outset that the purpose of this article and its findings is not to portray a picture of deficit, although the findings may suggest the contrary because these findings portray the findings from the first phase of a research study.

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[1] Reporting in the thesis followed the ICT order challenges framework suggested by Ertmer (1999) who refers to first order challenges as school-based (meso) and second order challenges as the self (micro). However, for the purpose of this article, the framework of Raffo et al. (2007) has been used to categorise and present the data.

The findings after the intervention portray a very different story and one we intend telling in another publication in the near future.

TABLE 1: Multigrade teaching challenges

TYPOLOGY	CATEGORIES
First-order challenges relating to intrinsic challenges or teacher-related challenges, also called micro level challenges (self)	Perceived uncaring attitude of the DBE hurts teachers
	Unpreparedness for multigrade teaching demotivates teachers
	Negative perceptions about the multigrade learners
Second-order challenges relating to extrinsic challenges or school level challenges, also called meso level challenges (school)	Isolation and distance impacts on communication and teaching
	Time constraints and work overload as a result of multiple roles
	Lack of resources
	Curriculum challenges
	Learner-related challenges
Third-order challenges relating to system challenges, also referred to as macro level challenges (system wide, beyond school and self)	Lack of support from parents
	Lack of external curriculum training
	Lack of departmental support from officials

First-order barriers on micro (self) level

Perceived uncaring attitude of the Department of Basic Education hurts teachers

One could hear the sadness and despair in the participants' voices. Their voices carried emotion as they alluded to the perception that their employer, the Department of Basic Education, was not supporting the school according to their needs. This became apparent during a focus group interview when a participant voiced with emotion that "we teachers are demotivated because we can't find any support" (FGI, MGT 3) and another participant wrote on the open-ended questionnaire that "nobody cares about how we have to struggle to teach our children and make them learn" (OEQ, MGT 19). As a despairing participant voiced during a focus group interview, this resulted in the feeling that "you don't feel worthwhile" (FGI, MGT 3). It appeared participants perceived that nothing was being done to eradicate the dire conditions they experienced.

Unpreparedness for multigrade teaching demotivates teachers

Linking to the perceived uncaring attitude of the Department of Basic Education, and adding to their frustration, was perception that participants were not being supported, nor prepared, nor trained for teaching in the multigrade classroom. Personal interviews alluded to the above: "Ek is nie getrain vir multigrade nie. Ek was in die diepkant ingegooi" [I have not been trained for multigrade. I was thrown in at the deep end] (PI, MGT 2).

Another participant concurred, responding in the open-ended questionnaire that:

> I am frustrated. I am not trained for multigrade teaching. It is frustrating not to be able to complete all the work in a year, and you feel like a failure. We have too much work as principal and the responsibility of teaching everything for more than one grade. I sometimes feel like quitting because it gets too much. And you get no assistance. (OEQ, MGT 16)

Another participant concurred in the open-ended questionnaire: "I am not trained as a multigrade teacher, and there is no support for me. The workload is too much" (OEQ, MGT 11). The frustration of being unprepared and not trained for this context was expanded upon during a focus group interview:

> I am not trained as a multigrade teacher; I trained for monograde teaching. Also, when we were at colleges or universities, we were trained for monograde classes and not to teach multigrade classes. The multigrade skills, as I have said, we as teachers have not received any training in that regard within the multigrade. We don't have skills for the multigrade classes. We need those skills. (FGI, MGT 1)

The participants' despair and perceived feelings of unpreparedness for the multigrade classroom seemed to have had a negative influence on their emotional well-being. Frustrations and challenges such as inappropriate preparation and training seemed to be a demotivator that impacted negatively on attitudes. In addition, the great workload seemed to causing stress among participants.

Negative perceptions about multigrade learners

In addition to experiencing an overwhelming feeling of being unprepared for the multigrade classroom, as well as perceiving the Department of Basic Education as not being helpful or supportive, another aspect alluded to was a negative perception about the learners at school within this learning space. It seems the learners, who primarily resided in poverty-stricken homes, were perceived as incompetent and inferior. Furthermore, it appears it was perceived that these learners were not stimulated educationally at home due to their deprived social context. This was highlighted during a focus group interview when a participant said:

> The standard of work that you can do with the learner cannot compare with a child from the city where schools are bigger, or near offices, or where there are libraries and computers and those things… they will always stay behind. (FGQ, MGT 2)

One participant was insensitive when he stated during a personal interview that the learners were not educable: "Kinders wat feitlik onopvoedbaar is" [Children who are basically uneducable] (PI, MGT 7).

This seemed to highlight a divide between teacher and learners—a possible bias that had possibly been formed even prior to becoming a multigrade teacher. It seemed participants felt a gloomy future awaited these children; one teacher stated that this could be attributed to what he perceived as being without role models in the community. In addition, this participant mentioned that he felt the only role models these learners seemed to have, were their teachers. This was alluded to in the open-ended questionnaire, when a participant noted: "The learners have no role models, except us teachers. They drop out and fall pregnant. It's like they are doomed to have no future expectation" (OEQ, MGT 19).

From the above, it seems the participants believed teaching was not bringing about social change, but that the multigrade context seemed to perpetuate the status quo of the past.

Second-order barriers on meso (school) level

Isolation and distance impacts on communication and teaching

The isolation and long distance to town and city, the urban areas, became evident during personal interviews, focus group interviews, and in the open-ended questionnaire when participants stated:

> Ons is 180 km van die Distrik af. Afstandgewys, ja, dit affekteer ons. Sommige keer kom informasie laat by ons uit [We are 180 km away from the District Office. The distance, yes, it does affect us. Sometimes information reaches us late]. (PI, MGT 3)

> Whenever there is a meeting, workshop, etc. that needs to be attended, the educators concerned have to leave the learners alone. (OEQ, MGT 8)

From the above, it is clear that isolation and long distances had a severe impact on communication and attending departmental workshops. Furthermore, because there were no substitute teachers to relieve teachers summoned to attend departmental meetings and workshops, learners had to be left behind unattended or be sent home. This again led to loss of teaching and learning time. Isolation and the lack of communication had become barriers that impacted negatively on teaching and learning within these schools.

Another aspect that participating teachers were concerned about was that, due to the isolation, student teachers did not choose these schools for practice teaching and hence, students are not exposed to this context and are probably not aware of its existence—an aspect that became evident during focus group interviews and in the open-ended questionnaire:

> No teachers from universities come to school to practise teaching, because of the vast distance, big classes. (OEQ, MGT 3)

> No practice teachers from universities. (FGI, MGT 1)

It seems, therefore, that these teachers are living in isolation because not only do they not interact with young prospective teacher education students from university who could bring new educational perspectives to the school, but those prospective teachers are also not developing a disposition towards this context. In addition, it is highly probable that students could influence the tertiary curriculum design because they could influence their lecturers to think about these contexts and assist students to find creative solutions for the contextual challenges.

Time constraints and work overload as a result of multiple roles

Closely linked to isolation, distance, and communication, are time constraints and work overload due to the fact that learners of different grades are within the same classroom and, according to the curriculum, all learners should receive the same tuition. Participants stated during focus group interviews, individual personal interviews, and in the open-ended questionnaire that time was an issue:

> And there is a time constraint. Teachers do not have enough time to do proper planning for multigrade classes; time constraint is a problem when you have to deal with one learning area for 30 minutes with 3 grades. (FGI, MGT 1)

> Time is another challenge. Our timetable is for a single class, yet we are expected to teach more than one grade in that time. (OEQ, MGT 18)

It is evident from the above that the curriculum requires the same expectations and deliverables from a multigrade teacher and yet the context is totally different from the monograde system.

In addition, many multigrade teachers had to fulfil the roles of secretary and principal in addition to their teaching load—roles that had an impact on their workload:

> Yes, I am the principal of a school and also have a multigrade class. But, you know, the multigrade classes around here is, about, my class, 41 learners, and is three grades. So how do you do three grades and you have to do your office work, you have to attend to the visitors, the admin, and you have to do all those three learning areas for all three grades? It's impossible. So that is a real challenge. (FGI, MGT 3)

> Administration—with a multigrade class, the administrative load upon the teacher is multiplied. (OEQ, MGT 16)

These strenuous demands seem to negatively impact multigrade teachers' time management, planning, and well-being; they start to become overwhelmed and overburdened, possibly leading to demotivation and burnout.

Lack of resources

The data suggest that funding was experienced as a problem, and also the ability to raise funds locally. In addition, the National Norms and Standards for School Funding (Republic of South Africa, 1996b) allocation also seemed not to be working well. This became evident when several participants stated:

> Learner enrolment affects the funding—NSF [National Norms and Standards for School Funding] model for funding multigrade schools. (FGI, MGT 2)

> Ons budget is te klein om hierdie goed aan te koop [Our budget is too small to buy the necessary things]. (PI, MGT 19)

In addition to funding as resource, infrastructure was viewed as another challenge in the resource spectrum:

> Lack of resources like computers, libraries, science labs, sport fields. When you look at the infrastructure, my school, for example, we have applied so many times for maintenance. The floors are falling apart, the roof is falling apart. One of my classrooms… You can't use the classroom on rainy days, because we are afraid of [electric] shorts and things like that. (FGI, MGT 3)

> Also the desks in the classrooms, maybe you are there for three grades—Grades 4, 5, 6. The desks are sometimes too big or too small for the learners and especially when there are some learners, say, for instance, in Grade 6, they will have to sit in a Grade 4 desk or a Grade 4 learner have to sit in a Grade 6 desk… they feel uncomfortable, because the desks are not suited for them, and I know of a learner in my class… that learner is so small, and the class which I have, only has senior phase desks. And she can't, she has to stand in that desk to write, and it is very awkward for her to do that. (FGI, MGT 1)

The teachers were also concerned about not having basic learning resources such as textbooks, learning and teaching support material, and even chalkboards:

> At the same time, for the many learning areas, there are no textbooks or even teacher guides on multigrade teaching. (FGI, MGT 2)

> Resources—in a multigrade class, space and limitation of resources such as textbooks, multimedia, chalkboards, and LTSM [Learner Teacher Support Material] is a big challenge. Sometimes, learners have to wait for textbooks whilst others first complete. (OEQ, MGT 16)

Another issue that was raised was the shortage of multigrade teachers; teachers found it difficult to adapt from monograde to multigrade due to the fact that several grades were grouped as one class. This also placed a great burden on the teachers and hence, they tried to apply for a post in a monograde school:

> Ons ondervind 'n tekort aan onderwysers en dit bemoeilik ons taak om by als uit te kom [There is a shortage of teachers and this makes it difficult for those of us within this context to cover everything]. (PI, MGT 20)

> That is why when a new teacher comes here, he will only last three months—as soon as he gets a new post, he will leave. (FGI, MGT 3)

From the above, it appears the resourcing of multigrade schools is a great concern because resourcing in the multigrade school cannot be similar to the resourcing of a monograde school. Hence, the resourcing allocated in terms of the National Norms and Standards for School Funding (Republic of South Africa, 1996b), based on the numbers of learners enrolled at a school, cannot be implemented in a similar manner in monograde and multigrade schools because the contexts are totally different. In addition, the textbook challenge—including workbooks and teaching materials—is also something that has to be dealt with. When visiting the schools, we were shocked to find dilapidated buildings including wood and prefabricated structures. A further dehumanising aspect was the fact that many of these schools lacked proper sanitation facilities for the learners.

Curriculum challenges

Participants felt it was extremely difficult to implement A curriculum they perceived as being designed for the monograde school system, within the multigrade context. They sensed that the needs and implications of implementation within the multigrade context were not thought through. This became evident during a focus group interview when a participant mentioned that, "policies are only for the monogrades and when we have CASS [Continuous Assessment] they do not explain to us how to implement these policies" (FGI, MGT 1).

This was affirmed in the open-ended questionnaire when a participant wrote that the "NCS [National Curriculum Statement] and CAPS [Curriculum and Assessment Policy] were designed for monograde context" (OEQ, MGT 4).

Furthermore, participants indicated during a focus group interview that the curriculum is overloaded, which resulted in good consolidation not being possible. Also, that it is problematic to have similar expectations from multigrade learners and teachers in rural contexts when compared to urban ones:

> Die sillabus is so gelaai dat jy nie werklik kans het om goeie vaslegging te doen nie. Dieselfde verwagtinge wat vir monograad is... dat hulle dit ook van jou as multigraadonderwyser verwag [The syllabus is so loaded that it is not possible to do proper consolidation. The expectations for the multigrade teachers are the same as for monograde teachers]. (FGI, MGT 6)

It appears then that there seems to be some tension between how the multigrade teacher views multigrade teaching and how the Department of Basic Education perceives it.

Learner- related challenges

Participants voiced their concern regarding fluctuating enrolment numbers as well as problematic discrepant attendance. Although participants did not state it directly, fluctuating numbers impact on the finances of the school because the Department of Basic Education does a head count during the first term of every year and then bases financial assistance for the next year on that number. Hence, if learner enrolment numbers increase during the course of the year, it does not necessarily result in more funding from the DBE. In many instances, learners have had to leave a farm school because their parents were seasonal workers on the farm. The fluctuating aspect was raised during a focus group interview: "Learner enrolment on a farm school is always a problem, because parents do not always stay on the same farm" (FGI, MGT 3).

The majority of learners lived very far from their schools, which had an impact on the learners' well-being because there was no transport to school. This meant that learners had to walk excessive distances to school in all weather conditions, leading to tiredness and lack of concentration. This was well articulated in a focus group interview:

> These learners, they walk very far; they get to school very tired. And if it rains, because of the distance, or the river, you can't expect these learners to be at school and then those are all things that take time away from actual teaching. (FGI, MGT 2)

In addition, teachers were concerned about the high rate of absenteeism, especially when it was payday because parents then took their children with them to town. It also seemed these learners had to deal with parents who consumed alcohol on payday. This was highlighted in the open-ended questionnaire when a participant wrote:

> High absenteeism towards end of the month when the parents go to town and on social grants days. Then the learners go with, because they need medical attention or to make sure the parents do not just buy drink with the money. (OEQ, MGT 17)

It appears that absenteeism, poverty, and a high dropout rate is symptomatic within the multigrade context. The fluctuation of learner numbers can therefore also be linked to lack of resources because departmental financial assistance is based on learner numbers and not the specific type of school.

Third-order barriers on macro (system-wide) level

Lack of support from parents

In order to be successful, schools have to be supported, however, it seems from the data that the contrary was being experienced by the teachers because support was lacking from parents, the community, and the Department of Basic Education. This lack of support from the DBE was alluded to previously. Parental support and hence, community support from parents, due to working conditions and expectations from employers who demanded long hours of physical work, also played its part in parents as well as their children being unable to participate in and support school activities. This was evident when a participant stated during a focus group interview:

> Ongelukkig sit jy met groot hoeveelheid onbetrokke ouers. Ouers wat nie in staat is om hulself te help nie—hoe gaan hulle hulle kinders help? En hulle het nie befondsing om te sê hulle het boeke en goed wat die kinders kan navorsing doen" [Unfortunately, you have a large number of uninvolved parents. Parents who are not able to help themselves—how are they going to help their children? And they do not have the funds for books and things the children need for research]. (FGI, MGT 5)

It seems, thus, support from parents and parents' non-involvement was due to low literacy levels and extensive and demanding working hours, which resulted in the neglect of their children's education. It appears that learners from multigrade contexts are deprived of their educational needs because the majority of these learners' parents are farm workers, poorly remunerated, and with a low level of education and literacy levels.

Lack of external curriculum training

In the previous subsection, we alluded to the fact that participants indicated that teachers tried to leave the multigrade context as soon as a position at a monograde school became available. The data suggest that another possible reason for the above could be the fact that multigrade teachers were not only not being trained for teaching within this context but, equally important, workshops regarding curriculum changes were being experienced as extremely difficult because the training focused on the monograde context. Multigrade teachers felt that orientation and training with reference to the new curriculum, for example the Curriculum Assessment Policy Statement, did not cater for their realities. This became apparent during personal interviews and within the focus group interviews:

> As dit kom by workshops en clinics en goed, dan sukkel ons, want niemand kan vir ons antwoorde gee nie. Die werkswinkels is net gerig op onderwysers wat een graad het" [During workshops, clinics and the like, we struggle because nobody can provide answers for us. The workshops are geared towards teachers with one grade only]. (PI, MGT 19)

This was affirmed in the open-ended questionnaire and focus group interviews when teachers wrote regarding curriculum training,

> How can they expect us to survive? (OEQ, MGT 18)

> There is no support from the Department on how to deal with the changing curriculum for us as multigrade teachers. We have to do everything. (OEQ, MGT 17)

> I can't cut the curriculum for my specific situation. (FGI, MGT 1)

It seems the Department of Basic Education's subject advisors were not prepared to deal with multigrade issues pertaining to the curriculum. This became apparent when a participant mentioned during a focus group interview: "Subject advisors leave after a workshop when they finish with monograde and the multigrade teacher does not reach all subjects and they are not sure if they are on the right track or not" (FGI, MGT 2). This was also indicated in the open-ended questionnaire: "They never prepared for us from the start" (OEQ, MGT 19).

The above suggests the preparation for in-service workshops does not take the context of the multigrade teachers into consideration, and that the focus is on the monograde context. It appears then that the main focus of the South African curriculum is geared towards monograde education because there seems to be a lack of recognition and planning in policies, procedures, and training from the DBE for multigrade teachers.

Lack of departmental support from officials at school level

On the macro, or external to the school, level it appears participants perceived that the Department of Basic Education was not providing support at school level. This was evident when a participant stated in the open-ended questionnaire that there was "no multigrade support person on departmental level" (OEQ, MGT 1). In supporting the above, a participant mentioned during a personal interview: "Ek kry nie enige hulp van die Department af nie" [I do not get any help from the Department] PI, MGT 6).

It seems thus that teachers want support and school visits from departmental officials but it appears from the data from previous sections, that department officials do not have the necessary skills and experience to assist the multigrade teachers; the officials seem to have only monograde experience. The data seem to imply that the Rural Development Directorate that has as its aim the support of rural schools, has not made inroads within the Uitenhage district.

Discussion

The data suggested that on a first-order level, the participants perceived the Department of Basic Education as not caring for their needs, an aspect that led to a negative attitude towards the DBE. In addition, it became clear that inappropriate preparation or training for teaching within the multigrade contexts, seemed to be a demotivator. Furthermore, the perceived lack of care from the Department of Basic Education seemed to negatively impact on the teachers' attitudes. In addition, it became evident the workload is becoming a stress factor that leads to a feeling of burn-out. Another aspect highlighted were negative perceptions the multigrade teachers had of their learners. It seemed the feelings of being unprepared and experiencing hopelessness in this learning space were very likely to result in negative perceptions. Hence, it becomes vital for teachers to create or develop a different stance within the multigrade learning space, that is, try to put themselves in their learners' shoes—possibly suggesting that teachers should rather view themselves as agents of hope, because their learners' social milieu is not always conducive to the learning the teachers envisage.

On a second-order level, it became evident from the data that the isolation and lack of communication from the Department of Basic Education had become a barrier that impacted negatively on the self and on teaching and learning in these schools. In addition, it became apparent that the multigrade teachers felt there was a need for student teachers to observe and experience teaching within this context because

these experiences could possibly assist in making faculties of education in tertiary education institutions aware of the challenges. These education faculties could then also assist with the preparation of teachers to function within the multigrade context.

It seemed that the great workload was causing stress among participants due to the demands of the curriculum. The expectations from a multigrade teacher are the same as from a monograde teacher; yet the contexts are very different. These expectations seemed to negatively impact on the multigrade teacher's wellness because time constraints and planning-related aspects resulted in feelings and emotions of despair and consequently, possible demotivation and burnout.

It also became evident that the resourcing of multi-grade schools is problematic because financial resourcing to these schools was made in a similar manner as to monograde schools. Furthermore, it became apparent that the teachers and learners at multigrade level were not receiving the textbooks, workbooks, and teaching materials that were required. Equally important, teachers and learners felt dehumanised due to the fact that there were not proper ablution facilities for learners. The above concurs with the sentiments of Gardiner (2008), Jordaan and Joubert (2007) and Little (2006) pertaining to infrastructure and resources being problematic within the multigrade context, and with Cornish's (2010) argument that it is problematic to retain teachers within the multigrade system due to the many challenges that have to be overcome.

There also seemed to be tension created due to the fact that the Department of Basic Education does not view multigrade education as a separate entity; this became apparent in the policies, training practices, curriculum, the system itself, as well as in teacher support. It became evident that the DBE appears to favour monograde education. It became thus imperative to review that stance and to engage with the multigrade teachers to assist them with reference to curriculum aspects. Equally important, it appeared that absenteeism, poverty, and a high dropout rate was symptomatic within the multigrade context.

From a third-order level perspective, that is, external to the self and immediate school context, it seemed the missing support from parents was problematic within the multigrade context. It also appeared that curriculum training from the Department of Basic Education did not take the multigrade teachers' needs and context into consideration, concurring with Little (2004) that there seems to be a lack of support worldwide for the multigrade teacher. Lastly, no support in the form of onsite school visits by departmental officials seemed to be an important aspect that requires serious attention from the Department of Basic Education.

Conclusion

Through using the first-, second-, and third-order barrier typology, we wanted to understand how teachers perceived the challenges within the multigrade context in a rural area. The findings pertaining to these challenges suggest that the forces of space, time, and place had a direct impact on how the participants viewed the challenges, influencing not only how the participants experienced their beliefs, but also cultivating their perceptions related to the multigrade and rural contexts. The participants' references to isolation, time, and learners suggested these forces are constructs that would require a different approach in addressing them—in comparison with urban issues. The data suggested the forces of space, time, and place played a role in how the participants perceived the Department of Basic Education and their officials, as well as what the DBE and its officials could do to address the issues. It is therefore argued that what is required is a different perspective on rurality by taking cognisance of the generative theory of rurality in order to assist with possible social change by means of cultivating a different perspective on resources as well as agency.

It became evident that one has to take into consideration that the first-order (micro, individual), second-order (meso, school), and third-order (macro, system-wide) typology cannot be interpreted in a similar manner within the multigrade context as in the monograde context. This is due to the fact that not only is there a rural–urban disjuncture, but the number of teachers within each system is also different. Large urban schools, for example, could probably assist their staff with support—support one another— whereas in the multigrade context there are, in many instances, only one or two teachers at the same school. This then becomes a support challenge. The curriculum seemed to be a major challenge because the multigrade teachers have to implement a monograde-designed curriculum that did not take their context, in which several grades are combined into one class at the same time, into consideration. It is important to note that multigrade was not implemented through choice, but due to necessity. However, in spite of all the challenges there is hope. We intend to follow up in a forthcoming paper, about how the Intel@ Teach intervention assisted this group of multigrade teachers to overcome the majority of the challenges reported here by making use of the generative theory of rurality as lens.

References

Balfour, R.J., Mitchell, C., & Moletsane, R. (2008). Troubling contexts: Toward a generative theory of rurality as education research. *Journal of Rural and Community Development, 3*(3), 100–111.

Balfour, R.J. (2012). Rurality research and rural education: Exploratory and explanatory power. *Perspectives in Education 30*(1), 9–19.

Balfour, R.J., De Lange N., & Khau, 'M. (2012). Rural education and rural realities: The politics and possibilities of rural research in Southern Africa. *Perspectives in Education* 30*(1)*, i–ix

Bhardwaj, N. (2008). *Multigrade teaching.* New Delhi, India: APH Publishing.

Benveniste, L., & Mc Ewan, P. (2000). Constraints to implementing educational innovations: The case of multigrade school. *International Review of Education, 46* (1/2), 31–48.

Brown, B. (2010). Teachers' accounts of the usefulness of multi grade teaching in promoting sustainable human development related outcomes in rural South Africa. *Journal of Southern African Studies*, *36*(1), 189–207.

Brunswic, E., & Valérien, J. (2004). *Multigrade schools: Improving access in rural Africa?* Paris, France: UNESCO.

Cornish, L. (2010, March). *Multigrade education in Australia.* Paper presented at The Southern African Multigrade Education Conference, Paarl, South Africa.

Creswell, J. W. (2006). Understanding mixed methods research. In J. W. Creswell & V. Plano-Clark (Eds.), *Designing and conducting mixed methods research* (pp. 1–19). Thousand Oaks, USA: Sage.

Department of Education. (2009). *Quality learning and teaching campaign*. South Africa: Department of Education.

Ebersöhn, L. (2013). Building generative theory from case work: The relationship-resourced resilience model. In M. Wissing (Ed.), *Well-being research in South Africa* (pp. 97–121). Dordrecht, Netherlands: Springer.

Ebersöhn, L., & Ferreira, R. (2012). Rurality and resilience in education: Place-based partnerships and agency to moderate time and space constraints. *Perspectives in Education 30*(1), 30–43.

Flyvbjerg, B. (2011). Case study. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (4th ed.) (pp. 301–316). Thousand Oaks, USA: Sage.

Gardiner, M. (2008). Education in rural areas. *Issues in Education Policy*, *4*, 1–34.

Islam, F., Mitchell, C., De Lange, N., Balfour, R., & Combrinck, M. (Eds.). (2011). *School–university partnerships for educational change in rural South Africa: Particular challenges and practical cases*. Lewiston, USA: Edwin Mellen Press.

Jordaan, V., & Joubert, J. (2007). *Training of teachers in poor rural areas through a multigrade intervention to achieve millennium development goals: Our experience of using ODL as a tool for building capacity and what lessons can be learned?* Wellington, South africa:Cape Peninsula University of Technology.

Joubert, J. (2010). *Multigrade schools in South Africa: Overview of a baseline study conducted in 2009 by the Centre for Multigrade Education*. Cape Peninsula University of Technology. Available from http://www.pmg.org.za/files/docx/100728multigrade.doc

Juvane, V. (2007). *Multi-grade teaching: Can it support achievement of quality universal primary education?* In Commonwealth Education Partnership 2007. Commonwealth Secretariat.

Little, A. (2001). Multigrade teaching: Towards an international research and policy agenda. *International Journal of Educational Development, 21,* 481–497. Available from http://www.elsevier.com/locate/ijedudev

Little, A. (2004). *Learning and teaching in multigrade settings*. Paper prepared for the UNESCO 2005 EFA Monitoring Report. Retrieved from http://multigrade.ioe.ac.uk/fulltext/fulltextLittle.pdf

Little, A. (2006). *Education for all and multigrade teaching: Challenges and opportunities*. Dordrecht, Netherlands: Springer.

McDonough, J., & McDonough, S. (1997). *Research methods for English language teachers*. London, UK: Sage.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation*. Thousand Oaks, USA: Sage.

Mulkeen, A., & Higgins, C. (2009). *Multigrade Teaching in sub-Saharan Africa: Lessons from Uganda, Senegal and The Gambia*. Washington, U.S.A: The World Bank.

Pridmore, P., & Vu, S. T. (2006) Adapting the curriculum for teaching health in multigrade classes in Vietnam. In A.W. Little (Ed.), *Education for all and multigrade teaching: Challenges and opportunities,* (pp. 169–191). Dordrecht, Netherlands: Springer.

Raffo, C., Dyson, A., Gunter, H., Hall, D., Jones, L., & Kalambouka, A. (2007). *Education and poverty: A critical review of theory, policy and practice.* Manchester, UK: Joseph Rowntree Foundation & University of Manchester.

Republic of South Africa. (1996a). *The Constitution of the Republic of South Africa* (*Act 108 of 1996).* Pretoria, South Africa: Government Printer.

Republic of South Africa. (1996b). *The South African Schools Act of 1996 (Act 84 of 1996).* Pretoria, South Africa: Government Printer.

Stake, R. (1995). *The art of case study research.* Thousand Oaks, USA: Sage.

Subramanien, B. (2014). *Exploring teachers' perceptions of the barriers and solutions to using one laptop per class in a multigrade context: The case of Intel® Teach – ICT implementation* (Master's Dissertation). Nelson Mandela Metropolitan University, Port Elizabeth, South Africa.

Tsolakidis, K.(2010, March). *Multigrade issues: A policy required.* Paper presented at The Southern African Multigrade Education Conference, Paarl, South Africa.

Tsolakidis, C., & Constantinidi, A. (2006). *ICT reinforcing teaching and learning in multigrade schools*. Available from http://openeducationeuropa.eu/en/article/ICT-reenforcing-teaching-and-learning-in-multigrade-schools

Wako, T. (2005, September). *National education statistics information systems.* Working document prepared for the Ministerial Seminar on Education for Rural People in Africa: Policy Lessons, Options and Priorities, Addis Ababa, Ethiopia.

World Education Forum (2000). *The Dakar Framework of Action*. Retrieved from http://unesdoc.unesco.org/images/0012/001211/121147e.pdf

Academic and life values to improve teaching–learning skills: A self-reflective action research approach

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Abstract

Open-mindedness, fairness, and responsibility are important ontological values that influence how I live and work, giving meaning and purpose to my academic life. In this article, I present major teaching–learning strategies I followed, guided by my values, to improve students' basic study and learning skills as well as my own teaching skills. In keeping with action research methodology, my students and I kept diaries of our critical reflections throughout the process. Data sources also included transcriptions of informal chats, observations, and an open-ended questionnaire. Data were analysed thematically. The study revealed that there was no single best and/or suitable method of teaching university students. University students cannot be forced to change their learning method, especially if they feel they are progressing well in their studies using that particular method. I make a case that self-reflective action research has a vital role to play in the development of appropriate teaching and learning strategies at higher institutions of learning.

Keywords: Self-reflective Action Research; Ontological Values; Teaching–learning Methods; Reflexive Action Cycles.

Introduction

The entire education practice is determined by the manner in which the student is guided into accepting what is existentially valuable. "There is a genius in every one of us and whatever is highest on our list of values is where we awaken our genius. Our greatest potential sits there" (Demartini, 2011, pp. 3–4). My academic life is shaped by values such as open-mindedness, fairness, and responsibility. I tested my claims to knowledge against these values and opened a dialogue between my students and myself to determine whether I was living my values fully in my practice. McNiff and Whitehead (2009, p. 147) argued that "the challenge is to turn these [living values] into social practices, so that talk becomes political talk, and to explain the processes involved". To turn my values into living values I allowed them to be questioned, modified, and changed as the study proceeded. Briggs and Coleman (2007, p. 162) argued that "where this kind of critical engagement with values is not possible for personal or cultural reasons, action research is pointless".

According to Briggs and Coleman (2007) it is the task of action researchers to clarify their educational values so that the values can be used as a clear yardstick for measuring the success of the action. Gray (2009, p. 320) presented the argument that, in aiming to attain the focus of the research project, sometimes we need to make "our own personal values explicit, so that we can explore the relationship between these values and our own behaviour". The Chambers-MacMillan Dictionary (1996) describes open-mindedness as willingness to accept new ideas and responsibility as acting in a sensible way. According to the Further Education and Training Institute (2010), fairness in assessment means that assessment must not in any way hinder or advantage a student. I used my values in the realisation of effective instruction in the lecture room through self-study practitioner inquiry. Samaras (2011) observed that self-study research offers teachers a new way to think about their professional accountability. I fully agree with her when she says that self-study teachers question the status quo of their teaching in order to improve and impact on the learning of their students and the education field. This is a report on the self-study research of a lecturer committed to taking action to improve practice and to create opportunities for students to improve their study and learning skills.

My educational concern

My concern is that, just as I realise the importance of teaching methods and learning skills, so I wish to know how to improve them so that I may be as effective as possible, both as lecturer-educator and as learner. I believe the answer to my concern lies in my professional values developed over a 13-year teaching career. However, I am experiencing a tension between my commitment to the values of fairness, open-mindedness, and responsibility and my actual practice. I experience tension because the values I uphold seem to be negated every time I enter my lecture room. The challenge is to turn my values into "social practices—living the values" (McNiff & Whitehead, 2009, p. 147). I have to test my claims to knowledge against these values and I am a "living contradiction" if I do not live my values in my practice (Whitehead, 2010, p. 3). I experienced myself as a living contradiction after reflecting on the first observation of my teaching. My living contradiction emerged when I realised that I deny the true meaning of education by dominating lecture room proceedings.

McNiff and Whitehead (2002, p.102) observed that "we raise our deep tacit knowledge which contains our values base to an explicit surface level where we try to live our values in our practice". The struggle is to find a way to live my values in my practice. Put in another way, my concern is that I am not contributing to the quality of teaching and learning in higher education if I do not live these values. Since I started teaching at the university, I have always been eager to learn and improve my teaching.

Research Aim

It was my intention to learn the best teaching skills I could to create opportunities for my students to develop appropriate learning and study skills that would enable them to complete their course in four years—the minimum designated timeframe. As part of my enquiry, I hoped to determine which essential teaching skills and learning methods were suitable for me at a higher institution of learning. As a beginner lecturer who started lecturing in 2009, I felt the need to revisit teaching skills learned over a period of 13 years at technical high schools and further education and training (FET) colleges.

The two concepts, teaching and learning, must be defined in order for their meaning and context in this paper to be understood. Teaching should be seen as "enabling learning" (Watkinson, 2006, p. 6). This is an important definition for educators. It means that they recognise that students have the potential to learn; their job is to unlock this potential and guide them in the process—not to dictate what must be learnt and how it should be learned, as I had been doing. The best teaching process recognises learners as partners in the whole process of teaching and learning (Watkinson, 2006). In his words, "relationships between the

learner and the teacher are important" (p. 8). He further proposed a teaching process that encouraged teachers to value the needs, strengths, and reactions of learners in order to find an appropriate match between classroom activities and the material the teacher wants learners to learn. According to Watkinson (2006), if any of these are inappropriate, "then something goes wrong" (p. 9). The teaching process should therefore find a match between the content or curriculum, the teacher, and the learners.

According to Abbott (as cited in Watkinson, 2006, p. 18), learning is that reflective activity which enables the learner to draw upon previous experience to understand and evaluate the present in order to shape future action and to formulate new knowledge. This definition of learning emphasises the idea that students should establish and maintain a reflective portfolio of learning. I find progressive education appealing as an approach to teaching and learning. It encourages teachers to live the values they fully aspire to in their teaching practice. Kohn (2008, p. 2) observed that "progressive educators don't merely say they endorse ideas like 'love of learning' or 'a sense of community'. They're willing to put these values into practice even if doing so requires them to up-end traditions". Principles of progressive education are normally compared with traditional education. Traditional education encourages learners to memorise endless facts and formulas from a "dreary academic curriculum remote from their own youthful interests" (Hampel, 2008, p. 1). By contrast, progressive education encourages education to be learner-centred, offering learners an opportunity to become creative. I believe that all teachers who aspire to improve their practice should adopt a progressive education approach and ask themselves this question: "How do I improve what I am doing?" (Whitehead, 2010). As Kohn (2008) contended, to the progressive teacher, learning is a process; more a journey than a destination. The real challenge lies in the incorporation of these essential teaching strategies to assist students from poor and rural schools to learn at higher education institutions (HEIs). My first-year Bachelor of Education (BEd) programme students were not required to write a course psychometric test to determine their level of readiness and learning skills. I was guided by the 2011 study conducted by the Centre for Learning and Teaching Development (CLTD) at the university. The study revealed that "in direct comprehension assessments, students performed slightly better in English, while questions involving synthesis of information—combination of old and new information, were performed better in isiXhosa (primary language) especially among rural students" (CLTD, 2011, p. 2). In summary, I aimed to involve my students in their own learning by adapting my teaching practice and living my ontological values consistently.

How do I improve my practice?

I developed the main research question(s) by looking at my academic and professional life values. The research question that guides this paper is, "How do I improve my practice in such a way that my academic values and practice concur?"

By practice improvement, I refer to the betterment of instruction (teaching and learning at HEIs). As McNiff (2002, p. 9) contended, the question, "How do I improve my work?" contains a "social intent". The intention is that one person improves his or her work (teaching skills) for own benefit and for the benefit of others (students' learning skills).

The context

My annual class size is approximately 28 students. My university students possess the following characteristics: they are between the ages of 20 and 33 years; they have a high school certificate and/or Level 2 FET certificate; some have one semester (six months) electrical engineering coursework, and others have worked in the industry or other commercial settings. A noteworthy fact is that in classroom research the concern is more with cases than samples. As Schumacher (2007, p. 29) pointed out, "in action research, the subject of the study is often thought to be the teachers or instructors themselves—not the students".

The students nevertheless remain the research participants. The data for the study were collected from BEd programme first-year undergraduate students.

My students registered in 2011 for the BEd, an initial four-year qualification for teachers. I am committed to creating opportunities for students to practice and learn the best teaching and learning methods they can. These methods can contribute to a transformation of education by encouraging students, upon their qualifying, to become facilitators of learning, rather than adopt the more teacher-centred methods still common in many schools today. According to the Higher Education Quality Committee (HEQC), to prepare prospective teachers for this comprehensive role, a BEd programme should foster self-reflectivity and self-understanding among prospective teachers (Council for Higher Education, 2006).

Self-reflective action research as a strategy to conduct the study

I started by asking myself the following questions: (1) "Will the methodology that I choose assist effective change?" and (2), "Are valid data interpretations adequately assured by the methodology?" The methodology is important because it must align with what is being asked. This element of the action research design states exactly what data will be collected, how it will be collected, and how it will be analysed (Ross-Fisher, 2008). McNiff (2002) argued that the methodology of action research means that you need to check constantly that what you are doing really is working. Self-reflective action research is used by many practitioners as the basis for practice improvement. Samaras (2011) argued that self-study draws directly from teachers' personal experience "which is situated within their classroom" (p. 10). I agree with her idea that in self-study, teachers question the status quo of their teaching in order to improve and impact on the learning of their students, and on the education field. I have always wanted to conduct research that would not only identify problematic situations, but also afford me an opportunity to "get my hands dirty"—work with research participants to solve identified problems.

Methods used to collect data

The specific techniques I used to collect data were transcriptions of recorded informal conversations, observation, and an open-ended questionnaire.

Informal conversations: I used these as open response interviews to allow students to express their experiences about my teaching strategies in their own language and thinking. A chat occurred every time I seized a chance to have an unplanned conversation with a student. This type of interview was chosen because "people will tell interviewers things in a chat they might not in a formal interview" (Briggs & Coleman, 2007, p. 211). Whenever an opportunity arose, students were asked the following questions individually:

- Today in class, did you learn anything new and interesting from the session?

- How do the new teaching and learning strategies affect you? Do you feel satisfied after the changes?

Observation: I engaged the help of a colleague to observe my teaching. Observation allowed my colleague, who I used as a critical friend, to observe my lesson inductively, that is, "without predetermined categories" Parahoo (1997, p. 330). This critical friend used a combination of audiovisual camera and field notes (observation checklists) to record anything impressive or unusual in his observations during the second phase of data collection. Samaras (2011) observed that "critical friends serve as valuators who provide feedback, help shape the research, and work as a validation team" (p. 8). Although my critical friend observed my lessons without predetermined categories, some form or degree of structure was introduced by having broad topics or items to look out for during lecture room observation. Introducing

broad topics was a way of having a clear purpose for his observation. Another reason is that lecture rooms are complex social settings and there are many things going on at once (Wilson, 2009). The aspects that he concentrated on were:

- Lesson delivery (student engagement, how I ended the lesson, etc.).

- Classroom climate (did I recognise prior knowledge, welcome student contributions, use appropriate questioning techniques, etc.).

- Teaching style (did I invite students to take part in the lesson activities? If yes, how? If not, what seemed to be the problem?).

- Overall impression (lecture room climate, questioning techniques, lesson flexibility, etc.).

Open-ended questionnaire: Gray (2009) observed that the use of a questionnaire is valid for discovering information that cannot be ascertained in any other way, or for evaluating the effect of an action research intervention. I used a questionnaire in my study solely to evaluate the impact of my teaching strategies at the end of our last reflective action cycle. I used a short open-ended questionnaire, which afforded my students the opportunity to freely express their views and experiences of the course in the past academic year. Students were asked the following questions:

- Did you feel positive as a student in this course? Explain your answer.

- Are you afraid to ask questions in public (lecture room)? If yes, why? If no, why not?

- Did the lecturer create opportunities for you to ask questions? Explain how you experienced this.

- When answering your questions, did the lecturer's responses indicate a caring, respectful attitude? Explain.

- Do you feel that your questions and contributions were welcomed and valued? If yes, why? If no, why not?

- What was your experience of being given the opportunity to answer one another's questions in the lecture room?

- How did the teaching–learning strategies affect you in terms of your teaching and learning methods? What did you learn about the learning and study methods in this course?

- What influence if any, did your lecturer have on you?

Data in each cycle was collected through students' portfolios, my reflective journal, and lecture room group reflections.

Reflexive action cycle as a model for improving teaching–learning skills

I followed Zuber-Skerritt's (1992) traditional, spiral action, research cycles model, which focuses on planning, acting, observing, and reflecting, to decide which ideas I should take forward. The aim of adapting the model was to gather data in such a way that I would be able to generate enough evidence. What I was looking for was episodes of practice to show how I had developed my own learning (and episodes where I thought my learning had influenced the learning of others). Although I treated each cycle as a "discrete experiment" (Riel, 2010, p. 5) in taking action to study change, I allowed ideas to flow from one cycle to the

next. It was easy to build a body of knowledge by letting one cycle correct the flaws of the previous cycle, and to review and evaluate the modified action in the next cycle. I generated different data sets depending on the question I asked in each cycle. To become a critically reflexive practitioner I made adjustments before the next cycle according to the feedback from students, my critical friend, and my own reflections. Diagram 1 represents the working model of my reflexive action research spiral of cycles.

Diagram 1: The traditional spiral of action research cycles (adapted from Zuber-Skerritt, 1992, p. 13)
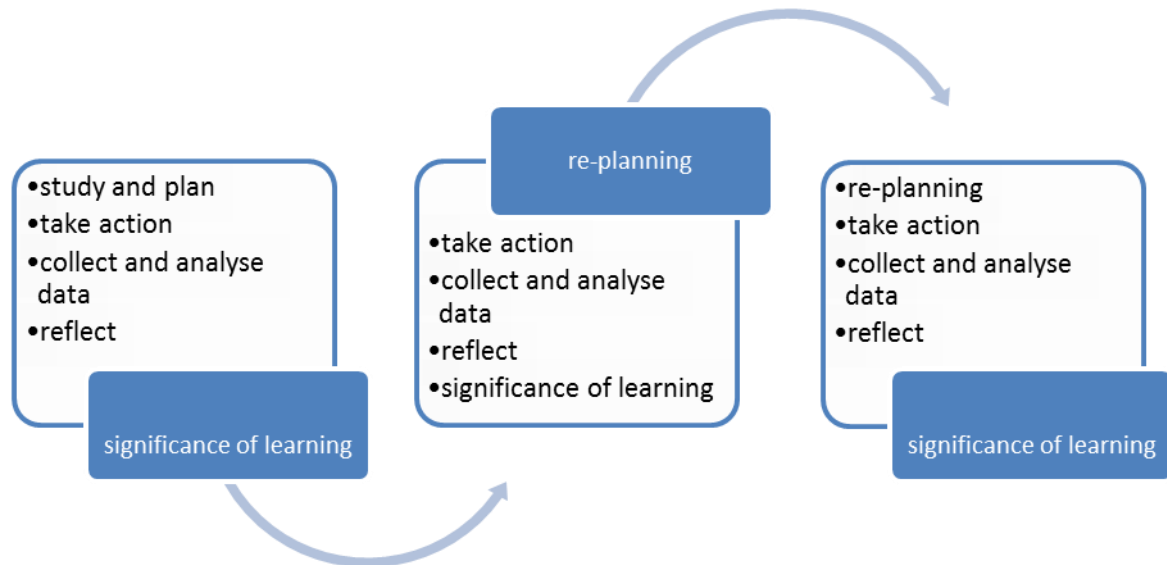
In order to monitor my actions I had to develop a research question suitable for each cycle. By suitable, I mean a question showing intent to solve a problematic situation. According to collaborative studies, cycle questions are subquestions that help address the larger issue in different ways. The cycle questions were aimed at addressing this question:

- How can I adapt my teaching to encourage students to improve their learning and studying skills?

Cycle 1

Study and plan: In my plan, I worked out possible improvements to the problems I had identified, and took action to put these improvements into practice. I started with a lecture entitled, Learning how to Learn, that explained the meaning of learning and conditions under which learning could take place. During those first weeks of our encounter, students made it clear to me that their most popular method of learning was rote learning, that is, learning by memorising. I pointed out to them that rote learning was not encouraged at the university as a method of learning because it leads to memorising disconnected facts that are easily forgotten. My experience has taught me that students who rely on rote learning are unable to relate theory with practice. I introduced to them two methods, (1) Reading and Summarising and (2) Question and Answer, as alternatives or methods to be coupled with rote learning.

Take action: I reminded students about our earlier discussion of the rote learning method and explained to them that I should like us to try other learning methods. They readily accepted this suggestion. The new teaching and learning strategy was Question and Answer. The use of questions while teaching was

encouraged by Mwamwenda (2004) and by Jacobs, Vakalisa, and Gawe (2004), among others, as a technique that would promote deep learning and so I decided to try it—and link to progressive education. As Jacobs et al. (2004, p. 188) contended, "questionling is a key technique in most teaching–learning situations". Mwamwenda (2004) proposed the following factors for effective questioning: prompting, wait time, frequency, and equitable distribution. I requested students to develop five basic questions ("Where?", "What?", "Why?", "Which?", "How?") from a learning materials handout. In groups of four, students wrote their impressions of the lesson—in particular, of the learning methods used in the lesson and of my teaching methods. The question that guided my first cycle was:

- If I let students work in groups on a certain activity, using their own language and thinking, and developing and answering each other's basic five questions ("Where?", "What?", "Why?", "Which?", "How?"), will they develop a questioning attitude?

In addition to students reflecting on books and, when doing assignments or preparing for a test, using a process of planning, acting, asking themselves the significance of their actions, and reflecting on the outcomes, they also had to answer the following questions as part of monitoring their learning in a student portfolio:

- Do you feel the lecturer allowed enough questions from students? Why?

- Did you learn anything new and interesting from the session?

- Did other people (co-students and lecturer) help you enough to learn? Not enough? Why not?

I prepared a reflective journal for myself in which I wrote the following three points: "What did I feel?"; "What did I discover?"; "Learning and significance". I took these from the work of Grande (2006).

Collect and analyse data: I taught my lesson, observed by my critical friend who made notes. Some students felt that developing questions was a really difficult thing to do. They wrote, "It is difficult to develop questions. It is better if the lecturer develops the questions himself". However, the good moment of the first action lesson was highlighted as students being free to ask questions. Students also appreciated working in groups. Group discussion contributed to students assisting one another. The next portfolio extract captures this well: "The group played an important role in solving problems. What makes it easier is the group work. Some of us understand easier when we are taught by other students". In general, students felt that the two methods, Question and Answer and Group Discussion, should be tried again. They wrote: "At first the methods were a bit confusing"; "Try other questions like mention, list, describe etc."; "We think that can help us ask questions". My critical friend now plans to use this method too.

Reflecting in Cycle 1

Next came what I was thinking about in my first action lesson. My reflections were guided by what I felt and discovered, followed by learning and significance.

What did I feel? I was excited by some students who explored answers to their co-students' questions. The session soon became a question and answer which is something that needs to be applauded.

What did I discover? I discovered that students were not happy with only using the five basic questions, "Where?", "What?", "Why?", "Which?", "How?" They used the word, *vacuum*, saying that I let them operate in a vacuum. I interpreted this as the reason the method was viewed as being difficult. I also

learned that I should allow other ways and methods of asking questions. Students wanted to develop questions starting with action words such as explain, describe, mention, list, evaluate, and so forth.

Learning and significance: The importance of learning, I think, is that in a lecture room, group discussion should be appreciated. We have learned the importance of allowing one another some space to be creative—students standing up and showcasing their various talents, developing questions, and exploring their answers. According to the above reflection, students were able to develop questions and explore answers to the questions but (1) the questioning aptitude was still lacking and (2) they were not happy with developing only the basic questions, they wanted something more—questions starting with action words such as mention, describe, list, explain, evaluate, and so forth.

Cycle 2

Study and replan in another cycle: I continued with the objective of my first action lesson in Cycle 2. The question was slightly altered to:

- If I give students the freedom to ask questions that start with action words such as mention, state, outline, evaluate, discuss, reflect, identify, and so forth, to what extent will they be able to develop and formulate their own questions with ease, and develop a questioning aptitude?

In this cycle, I planned to continue with group discussion as a teaching strategy, combined with lecturing. I taught students how to develop questions beginning with action words based on Bloom's Taxonomy (Further Education and Training Institute, 2010). These are reproductive questions normally used to show how much knowledge has been retained by a student. I used the same questions to guide students' group reflections.

Take action: In small group sessions, I facilitated students developing questions and formulating answers. I allowed them not only to develop the basic five questions but also to begin their questions with action words such as describe, mention, explain, and discuss.

I gave them charts on which to write their impressions of the lesson, requesting them to choose a group representative to present their impressions to the entire group. I invited my colleague to conduct the second lecture room observation.

Figure 1: Students during group work, July 2011. Photograph, Paul Mokhele

Figure 1 shows students interacting with one another and discussing solutions. It also shows how committed and dedicated they were to their work. Here I attempted to live out my value of responsibility by allowing students to work together in searching for, and gathering, new information.

Collect and analyse data: To elicit appropriate questions from students, I decided to practice the following caring responses: "Perhaps you feel...", "It sounds as though...", "You feel... because...", "It seems as though you are saying...". This made it easier for my students to accept my reactions to their questions and concerns. Hence, my data was categorised according to the following criteria, followed by my critical friend recording his impressions of the lesson:

- Critically look at my responses (instances where I showed respect, sensitiveness).

- In posing the questions, am I patient or impatient—was I successful in allowing students to answer one another's questions?

Examine the overall impression (lecture room climate, questioning techniques, lesson flexibility, and so forth).

Students did not like the idea of me developing questions involving re-direction. I think I am to blame. Some even went to the extent of questioning my strategy of not answering some questions directly. They reflected: "He takes time to answer our questions"; "Why is he ignoring our questions?"; "Our lecturer answers questions after we have answered them ourselves". This was also observed by my critical friend: "The lecturer needed the views of students' classmates before he could respond". I redirected too many of their questions; I did not explain to them my strategy of pausing after each question. However, they appreciated being given a chance to develop questions starting with action words.

Reflecting in Cycle 2
My reflections were guided by the following three points:

What did I feel? I was overwhelmed by joy at seeing students develop so many questions. At that moment I was satisfied that my action was bearing fruit—students were beginning to get used to the idea of going through the study materials, developing and exploring questions and answers.

What did I discover? Students were really excited by working in groups and developing questions. They got tired of walking into a lecture room every day to find the lecturer ready to deliver another stand-in-front lecture, ignoring what students feel and think about the lesson. I need to work on my strategy of redirecting questions. Some demanded to see the necessity of the Question and Answer method. They requested to be tested with those questions they developed. We agreed that for our assessment to be fair I should keep a record of our developed questions and use 60% of them in the tests and assignments.

Learning and significance: The significance to learning is that questions form part of school assessment and therefore the skill of asking questions should be developed as early as the first year of study. By students being involved in their learning, they created a dialogue where they exchanged ideas. I value students working together—it gives a sense of belonging; it leaves students with a feeling of comfort in a strange (the university) environment. Kohn (2008, p. 1) discovered that "children learn with and from one another in a caring community, and that's true of moral as well as academic learning". I have learned this important lesson with regard to redirecting students' questions: do not overdo it. Adult students can become suspicious that you do not know the answer or that you are rude. In the next action lesson, I guarded

against that by reducing time taken to pause, and by not redirecting too many questions. I was also criticised for denying them an opportunity to develop questions that start with action words such as: draw, evaluate, mention, explain, and so forth. I welcomed the criticism with an open mind. In short, I can say I lived my value of open-mindedness in my practice.

Cycle 3

Study and plan: Being able to develop questions and explore their answers required students to be able to read intuitively and write a summary as they go through the tutorial learning materials. These skills are a prerequisite for young and aspiring student teachers hoping to become better teachers. I therefore planned to introduce another method I called Reading and Summarising. The reflexive cycle question was:

- If I teach students how to read and summarise study materials will they be able to read intuitively and develop questions and answers in much improved ways?

The following questions assisted me in trying to achieve the objective of my action lesson: "How was the lesson?"; "Describe the likes and dislikes about the lesson."; "Do you think we should try this method again? If yes, why yes? If not, why not?" I gave these to students to use when reflecting on the action lesson. I wanted students to tell me if the introduction of the method influenced their learning in a significant way–if it complemented the Question and Answer method.

Take action: I handed out prepared tutorial learning material to students. I led them through it by showing them how to search and highlight important concepts. Here, I directed students to the known piece of information. We summarised the important points of each paragraph in a few words. The learning strategy was Reading and Summarising and the teaching methods used were lecturing and group discussion.

Collect and analyse data: Data in this cycle was collected through students' learning portfolios, my reflective journal, and lecture room group reflections.

Some students wished to leave our research study—feeling that it was a waste of time. This was after I picked an example from a different study material when introducing Reading and Summarising as a learning strategy. They viewed the move as shuffling of chapters. With regard to time wasting, they wrote, "We are rereading and translating to mother tongue". This was a sad moment, not only of my action lesson but also of my research study. The reaction from my colleague was not what I had expected: "Your study is qualitative in nature don't worry about who wants to leave, huge samples do not count. In every research we experience attrition".

Reflecting in Cycle 3
My reflection was well captured by the points I used to guide my thoughts.

What did I feel? I felt happy combining the two study methods, Question and Answer and Reading and Summarising. It was fair to give students a choice.

What did I discover? Some students were not happy. At first I thought this was a group of students who wanted me teach what they thought was in the syllabus. They felt that with so many academic disruptions experienced by the university, chances were we might not finish the syllabus. I also realised that some students wanted to be left out of the research study. I needed to pause and revisit the aim of involving the

entire population. Revisiting meant discussing the ethical issues with students, and setting aside a day and time for students who were willing to remain and see out the end of the research study.

Learning and significance: Students wanted to know how far we were in terms of the syllabus; they needed the assurance that we would complete the remaining course material. The university had experienced academic disruptions on numerous occasions. We arranged an extra day on which to continue with our research study, Learning how to Learn. I was surprised when all my students arrived on our appointed day. I had misjudged the whole situation in my reflections when I thought some students wanted to be left out of our project. The significance to learning is that students desire a greater cooperation between themselves and the lecturer. I fell short on this one. In the next cycle, I applied the method, Reading and Summarising, to a series of presentations by the students.

Cycle 4

Study and plan: My plan involved affording students the opportunity to present lessons on various subtopics from the remaining scope of course work. I wanted to put their different questioning skills into practice by allowing them to prepare short lessons to present so they could ask one another questions. The reflexive cycle question was:

- If, after introducing the major topic, I step back in my lessons by giving students subtopics to prepare and present in the next action lesson(s), will they be able not only ask and answer questions from the presenters (co-students), but (1) develop teaching and learning skills and (2) take interest and initiative in leading lecture room discussions?

When students lead lecture room discussions, the lecturer's role becomes more that of a facilitator.

Take action: In this cycle, I used presentation as a learning strategy for my students. My teaching strategy was more of a mentoring role where I guided students on how to write on the board, how to control and maintain order in the lecture room, and how to lead lecture room discussions. I introduced the major topic and allowed students to lead discussions by presenting subtopics. Once again, I showed them how to develop questions and to summarise main ideas in tutorial materials. Students wrote their impressions about the lesson in their individual learning portfolios. I also kept my reflective journal.

Collect and analyse data: The cycle data was collected using students' and my reflective journals. I watched my critical friend's video recordings of the sessions, searching for instances where students showed a level of readiness with regard to developing an individual teaching style, and confidence when asking questions; such students can lead lecture room discussions.

Students prepared themselves well for their lesson presentations. Lesson plans were well written; drawings were clear; questions ready for co-students. They felt that lesson presentation prepared them for the real life school situation. The following extract captures this well: "It gives us an idea of what we are going to do in the teaching field".

After watching the video clip of their presentations, there was no need to plan another action lesson. I had reached "theoretical saturation" (Wilson, 2009, p.224). According to Wilson, this is the point where no further data collection is needed because all new data fit into the model without having to make any more adjustments. Here are my journal reflections after the lesson presentations:

Reflecting in Cycle 4

What did I feel? It is okay to allow students to present the lessons to test their content knowledge. It is okay because it gives students an opportunity to develop an individual teaching style.

What did I discover? I discovered that students really enjoy presenting to their co-students. They prepared well. My students' excitement led to some of them not adhering to the stipulated time. The group behaved well by giving each other chance to present, and showed respect to each other. This was a sign that they were ready to lead lecture room discussions. I also realised that some students needed some presentation skills. However, the majority of them showed confidence—they demanded questions from their co-students at the end of a lesson presentation. I think, because they were beginning to realise the importance of questioning.

Learning and significance: One of the lessons I learned from being a facilitator a few years ago, was to allow my student teachers to learn from experience by encouraging student presentations and reflection. As a staff-development facilitator, I would sit back and allow participants to learn from each other and to raise questions that help learning take place. I thought I could try this technique with my university students. I did, and it worked well. The significance of the learning is that university students, regardless of the career course, must be given an opportunity to get their hands dirty—experience the practical working situation. It was fair to score students' presentations, and I recorded these scores and later used them for assessment.

My criteria and standards of judgement

The criteria I used to judge the success of my performance are my statements of intention I used to direct my practice. As Whitehead and McNiff (2006) contended, criteria take the form of words and phrases that are used as markers of performance. The following are the criteria with which I judged my performance:

- I allowed students to lead the discussions (student-centred).
- I made the lesson (instruction) a two-way process (active engagement).
- Students could develop and respond to questions (questioning aptitude).

I created space for my students to learn (process-oriented).

My criteria are focused on teaching–learning encounters between a lecturer and students at a higher institution of learning. However, my criteria generally said little about the quality of the practice. I therefore needed to make judgements about the quality of my practice.

Standards of judgement

I have indicated that my ontological values are my standards of judgement. I used my ontological values of fairness, open-mindedness, and responsibility as standards of judgement to test the validity of my claims to have influenced the learning of my students in a significant way, and improved my practice. My standards of judgement are based on what I consider to be good. I judged the worth of my action in the feedback I got from students and its relation to my standards of judgement. Whitehead and McNiff (2006) argued that standards of judgement enable us to make value judgements from a reasoned position. My standards were:

- To show fairness in my assessments.

- To value students' responsibility for their own learning.

- To allow myself to be criticised with an open mind–my practice questioned.

I linked my criteria with my values to help me make judgements about whether the situation had improved. I used my values as practical principles to explain the reason for my doing what I had done, that is, I showed the meanings of these values as they were clarified in the course of their emergence in the practice. I can only evaluate the quality of my influence on the learning of others and in the learning of social formations by checking how others respond to me (Whitehead & McNiff, 2006).

Concluding thoughts

I write my concluding thoughts as the issues and lessons I learned throughout my reflexive journey and from data analysis. These kinds of lessons could inform and refine improvements towards effective teaching strategies at HEIs.

I bring my lived experiences in relation to my life and academic values as standards of judgement about the claims I make about my practice. I agree with McNiff (2002, p. 6) when she said that "because these standards are part of the lived realities of people's lives, they become living critical standards of judgement". In having researched my practice, I am now able to make connections between my practice and progressive education.

Important lessons

One of the first things that struck me was that students do not want to be taught content. Hence, I conclude with this friendly suggestion: do not teach students—facilitate for them to learn and/or improve their acquired practical skills. Involving students in their own learning and assessment raised their level of confidence. I did not assert my superiority; instead, I openly welcomed ideas and concerns from my students. Give students an opportunity to be involved in their own education by allowing them to choose what they want to learn and how to learn it. I agree with Van de Venter and Kruger (2003) that a positive lecture room climate manifests itself in listening, openness, critical questioning, and a feeling of being cared for. Our point of departure should be to involve students as partners in their learning.

A questioning attitude can enable students to link new concepts and ideas to existing personal experience. This view also accepts that our educational knowledge will change as we engage with students', and colleagues', ideas on the best teaching–learning practices at HEIs. Students can voice their own opinions about issues that affect their learning in a democratic lecture room climate. The best teaching–learning practice is the one developed and agreed upon between the lecturer-educator and his or her students. Be flexible; be mindful of diversity.

Students learn best in a community of caring. I interacted with my students and the lecture content amid the fear raised by Steinert (1999) that undergraduate students, because of their limited knowledge, cannot participate in an interactive lecture. I was open-minded about new ways of communicating with, and teaching, adult students; a combination of strategies—for one strategy can never be enough to strengthen students' learning. Students learn best when new concepts are explained by fellow students. Learning cannot take place until a student is able to communicate verbally what has been learned. I encouraged this by allowing my students to explain what they had learned to one another. Communicating verbally what has been learned can stimulate the brain to process and store the new content into the long-term memory.

University students always seek to learn content knowledge that will help them when they enter the world of work. I agree with White (2005), after selecting poor examples when introducing Reading and Summarising as a teaching method, that adult students want their education to be relevant to their jobs and lives. Also, students cannot be forced to change their learning method, especially if they feel they are progressing well in their studies using that particular method. We must ensure that tutorial materials used, and teaching strategies employed, will influence appropriate learning skills and study habits. Students have their unique styles of learning; implementing various learning styles affords students an opportunity to find a style that matches their own. My value of responsibility (inviting students to be responsible for their own learning) was not a favourite among some of my students who were used to relying on their teachers for knowledge. As a result, they demonstrated their own values. I am referring here to values such as respect, compassion, helping others, and listening, which were demonstrated by my students. The crux of the matter is that no matter how wonderful our values are, there is always another side—other people may not necessarily agree with our values in that particular context. This is my next inevitable step: to determine what is most valuable to my students and use this to equip them with suitable learning and study skills.

References

Briggs, A.R.J., & Coleman, M. (2007). *Research methods in educationa*l *leadership and management* (2nd ed.). London, UK: Sage.

Centre for Learning and Teaching Development. (2011). Communication and public speaking Term 4. In *Newsletter, Issue 05–July*. Retrieved from Walter Sisulu University website: http://www.wsu.ac.za/cltd/documents/Newsletters/CLTDNewsletterIssue05.pdf

Chambers-MacMillan. (1996). *South African Dictionary – Senior Phase*. Manzini, Swaziland: Boleswa.

Council for Higher Education. (2006). National review of the ACE/PGCE and B ED programmes manual. Retrieved from http://www.che.ac.za/sites/default/files/publications/Manual_National-Review_2006-7.pdf

Demartini, J. (2011). Pinpointing personal values. Mail & Guardian. Retrieved from http://mg.co.za/article/2011-05-26-pinpointing-personal-values

Further Education and Training Institute. (2010). Teaching, learning and assessing: A guide for FET College lecturers. NCV programmes: University of the Western Cape.

Grande, E. (2006). From closed mind to an open mind through action research project: How do I improve my practice? (Master of vocational education, Akershus University College). Retrieved from http://www.actionresearch.net/writings/module/elisabethgrandemaster.pdf

Gray, D.E. (2009). *Doing research in the real world* (2nd ed.). London, UK: Sage.

Hampel, R.L. (2008). *Progressive education.* Retrieved from http://www.faqs.org/childhood/Pa-Re/Progressive-Education.html

Jacobs, M., Vakalisa, N., & Gawe, N., (Eds.). (2004). *Teaching–learning dynamics: A participative approach for OBE* (3rd ed.). Sandton, South Africa: Heinemann.

Kohn, A. (2008). *Progressive education: Why it's hard to beat, but also hard to find*. Retrieved from: http://www.alfiekohn.org/teaching/progressive.htm

McNiff, J. (2002). *Action research for professional development: Concise advice for new action researchers* (3rd Ed.). Retrieved from http://www.jeanmcniff.com/ar-booklet.asp

McNiff, J., & Whitehead, J. (2002). *Action research: principles and practice* (2nd ed.). London, UK: RoutledgeFalmer.

McNiff, J., & Whitehead, J. (2009). *Doing and writing action research*. Los Angeles, USA: Sage.

Mwamwenda, T.S. (2004). *Educational psychology: An African perspective*. Sandton, South Africa: Heinemann.

Parahoo, K. (1997). *Nursing Research*. London, UK: Macmillan.

Riel, M. (2010). *Understanding action research.* Retrieved from Centre for Collaborative Action Research, Pepperdine University website: http://cadres.pepperdine.edu/ccar/define.html

Ross-Fisher, R. (2008). Action research to improve teaching and learning. *Kappa Delta Pi Record*, *44* (4), 160–164.

Samaras, A.P. (2011). *Self-study teacher research: Improving your practice through collaborative inquiry*. Los Angeles, US: Sage.

Schumacher, K.A. (2007). *Action research: Establishing ethics*. (Ruth & Ted Braun awards for writing excellence at Saginaw Valley State University). Retrieved from http://svsu.edu/media/writingprogram/docs/writingprogrampdf/P_28-34_Schumacher.pdf

Steinert, Y. (1999). *Interactive lecturing: Strategies for increasing participation in large group presentations*. Retrieved from http://search.proquest.com/pqcentral/doc

Watkinson, A. (2006). *Learning and teaching: The essential guide for higher level teaching assistants*. London, UK: Fulton.

Van Deventer, I., & Kruger, A.G. (2003). *An educator's guide to school management skills.* Pretoria, South Africa: Van Schaik.

White, B., (2005). *What Andragogy means for distance education.*Retrieved from http://www.conferencing.zone.com/4080_andragogy.

Whitehead, J. (2010). As an educator and educational researcher, how do I improve what I am doing and contribute to educational theories that carry hope for the future of humanity? *i.e.: inquiry in education, 1*(2)*.* Retrieved from http://digitalcommons.nl.edu/ie/vol1/iss2/2

Whitehead, J., & McNiff, J. (2006). *Action research: Living theory*. London, UK: Sage.

Wilson, E. (2009). *School-based research: A guide for educational students.* London, UK. Sage.

Zuber-Skerritt, O. (1992). *Action research in higher education: Examples and reflections*. London, UK: Kogan Page.

Analysis of reflections of action researchers

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Abstract

Action research blends cycles of social activism with methods of data analysis to develop deeper understanding of change. Although transformational outcomes of action research extend well beyond the individual, our analysis focuses solely on the change in the action researcher. We explore changes in knowledge, skills, and identity at three contextual levels: professional interactions from the perspective of the action researcher, shared experiences of changes in the organisation, and scholarly participation in a research community. We do this for two reasons: to deepen understanding of the nature of the transformative change that new action researchers often report and, second, to use this knowledge to better support the reflective process of new action researchers. This paper describes the learning outcomes reported by 25 university graduate students in their final written reflections from their published action research projects on the Center for Collaborative Action Research (CCAR) website. Reflections were coded at the sentence level to explore how researchers conceptualised their personal change in knowledge, skills, and identity at the professional, organisational, and scholarly contextual levels. The data were used to examine the nature of change experienced by the action researcher and to inform the continual evolution of graduate-level teaching strategies for preparing new action researchers.

Keywords: Action Research; Reflection; Transformational Change; Identity; Practice, Theory, Knowledge

Introduction

Action research is a form of deep inquiry into one's practice, which involves acting to address issues or problems, followed by a systematic process for learning from that action (Kemmis & McTaggart, 2000; Lewin, 1946; McNiff & Whitehead, 2006; Mills, 2003; Reason & McArdle, 2004; Stringer, 2007). Common to most, if not all, approaches to action research is the assumption that understanding is grounded in experience coupled with an analytic approach to evidence, followed by reflective integration (Reason & Bradbury, 2006).

Action research is collaborative in nature and researchers often enlist others as co-action researchers, partners, critical friends, or advisors (Kember et al., 1997). Action research is collaborative with the participants in the social context. Analysing change from the perspective of these partners, co-researchers,

critical friends, and stakeholders is an important part of action research enabling action researchers to generate findings. This process also results in changes to the action researcher. The discourse with others in the social context is one factor that contributes to transformational learning as described by Mezirow (2003). However, equally central to transformational learning is critical reflection on experience (Kemmis, 2008; Mezirow, 1998; Schön, 1983). The experiences that one has in action research can be powerful, but effective transformational learning generally does not take place without a process of reflection (Criticos, 1993; Merriam, 2004). In this study, we focus our attention on this reflective process.

In our initial efforts to understand the change, we examined the written reflections of 25 action researchers whose electronic portfolios had been published, paying particular attention to how they characterised change. This exploratory review of these reflections, and the review of the literature, resulted in the following theoretical framework.

Theoretical Frames for Exploring Transformational Change

Our efforts to characterise change led us to view the change to the knowledge, skills, and identity of action researchers from the vantage point of three contextual levels: professional, organisational, and scholarly (see Figure1). On the professional level, the researcher focuses inward reflecting on the action taken and any shifts in skills, knowledge, and identity. On the organisational level, the researcher attends to the interactions among the participants that result from the action taken. On the scholarly level, researchers engage in transactions where they share their findings with the research community helping others draw possible implications.

Figure 1: Three contextual levels of outcomes from action research

These contextual levels might appear to be similar to Reason and Bradbury's (2006) three broad pathways for action research. They described a progression from individual actions to large-scale implementations that they called first-, second-, and third-person approaches. First-person inquiry describes reflective practice; second-person inquiry involves the enlistment of others in the social setting or community to create change; and third-person inquiry describes a process of patterning behaviours at the macro-level to institutionalise change or to develop a social movement (Wicks & Reason, 2009; Reason & Bradbury, 2006). For these researchers, the first-, second- and third-person approaches described a scaling up of the efforts; the involvement of a larger community with the outcomes of the action solution to create social change. Reason and Bradbury used *I*, *We*, *They* to represent first-, second-, and third-person pathways even though, technically, *we* is first person plural.) While community and policy changes are important outcomes of

action research, in this paper, we are looking specifically at the actions, interactions, and transactions of the action researcher at three contextual levels: professional, organisational, and scholarly.

Our three contextual levels may also appear similar to the three overlapping dimensions of action research—professional, personal, and political—described by Noffke (2009). While her *professional* dimension was used to index the whole profession of teaching, we used *organizational contextual level* to, more narrowly, index the interactive dimensions of the specific action research. Her *personal* dimension is a close match to what we call the *professional contextual level*. Whereas she focused on the person, we use professional context to highlight the context of the person in the workplace—his or her professional identity. Finally, her *political* dimension places action research in relationship to power relationships that control knowledge construction. When we point to the *scholarly contextual level*, we focus on the entry of the action researcher into an arena where the outcomes of his or her action might, hopefully, have political consequences.

Professional Contextual Level: Transforming Knowledge, Practice, and Identity

Action researchers engage in systematic inquiry in their social setting by transforming problems into questions, using the questions to shape actions, and reflecting on the results to create theories that frame new cycles of inquiry (Coghlan & Brannick, 2009). Action research is an iterative approach that takes place across cycles of innovation and reflection resulting in learning from, and through, systematic inquiry into one's practice (McNiff & Whitehead, 2006). Central to this research process is deep reflection, which often generates new avenues for further exploration. Action researchers move past a subjective stance to understand how their actions are viewed from multiple perspectives. Refining actions based on critical assessment of multiple perspectives and reflective insights has the potential to lead to transformational learning (Mezirow, 1998). Through alignment of this reflection with external evidence gained through collaboration, action researchers revisit and refine their theory of action. This process of "progressive problem solving" (Bereiter & Scardamalia, 1993, pp. 96–120) or transformative research moves through cycles of planning, acting, analysing, and reflecting which help researchers use evidence to develop expertise in their work (see Figure 2). Action research, according to Whitehead (2009), is a process of living one's theory into practice.

Figure 2: Action research as a process of progressive problem solving (Riel, 2010)

Progressive Problem Solving with Action Research
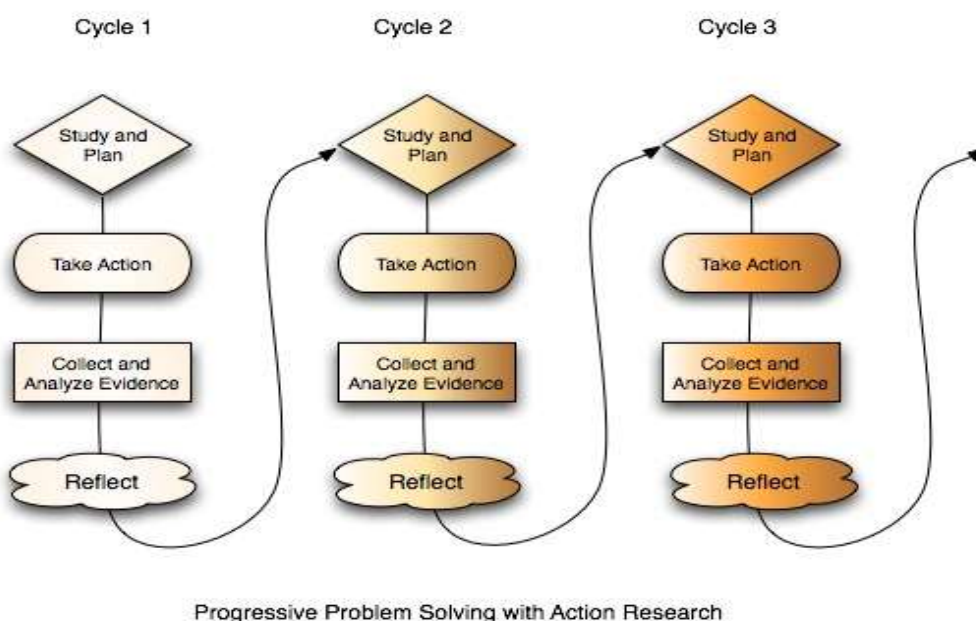
Learning and acting in a social setting is a form of identity management (Engeström, 1993; Gee, 2003). When a new skill is learned, either physical or conceptual, it often changes the person's construction of his or her identity and role in the community (Lave & Wenger, 1991). A person who develops the disposition of continual learning, forms what some have called "adaptive" expertise (Bransford, Brown, & Cocking, 2000; Hatano & Inagaki, 1986). When people use technology to mediate the relationships of others, either through the creation of conceptual artefacts or visualisation of shared cognition, they can take on new leadership roles and identities as community organisers or stewards of digital habitats (Wenger, White, & Smith, 2009).

Organisational Contextual Level: Understanding Complex Systems

Action research is directed at acquiring understanding of the social forces of change that operate in a specific organisational context (Coghlan & Brannick, 2009) through critical dialogue. It is a form of social activism embedded in an effort to understand larger social systems or to understand human behaviour in "fields" (Lewin, 1946). The ability to predict and create change through taking action, tested and developed the action researcher's understanding of the social dimensions in a community or organisation (Miner, 2005). Action researchers often engage their community in knowledge-building dialogue to expand the skills of the group. Lewin suggested that action research was a process to capture the complexity of activity in particular contexts rather than attempting to isolate and study variables out of their context.

More recently, activity theory has been proposed to understand the processes and conditions that lead to organisational change. This approach builds on the Soviet tradition of psychology (Vygotsky, 1978), which placed a high value on understanding the historical, social, and contextual factors that shape behaviour. Activity theory examines change from a systems perspective and Engeström (1987) made use of a set of embedded triangles to indicate the different forces and constraints that operate on change in social contexts. The overlapping triangles represent the "problem space" that can be used to understand human activity.

Figure 3: Activity theory as described by Engeström (1993)
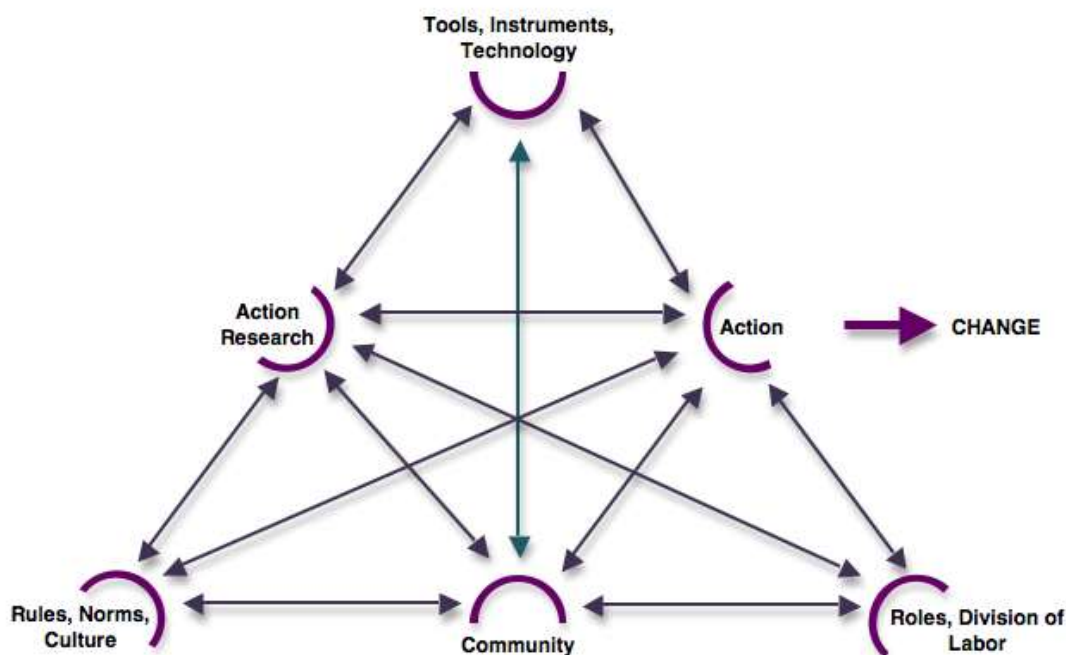
Activity theory predicts that the actions between a person (in this case the action researcher) and a goal will be mediated by a system of relationships and a set of culturally designed tools (Engeström, 1993; Nardi, 1996). The framework (see Figure 3) provides a way to understand how the actions taken by the researcher seeking an outcome are shaped by membership in a community with roles and rules mediated by tools, including technology. The action researcher seeks to understand collaborative, organisational change, which is often directed toward capacity building by fostering collective learning (Heron & Reason, 2006).

Scholarly Contextual Level: Developing the Knowledge, Skills, and Identity of Researchers

When action researchers build their theories of action, methods, and outcomes and make them available for public examination, they are building knowledge that has value for both the local community and for the more extended professional communities (Heron & Reason, 1997; McNiff, 2010; McNiff & Whitehead, 2006).

Action research is very similar to other forms of qualitative research that have emergent, iterative, cyclic, and data-driven properties. These include formative assessment (Black & Wiliam, 2003), constructivist grounded theory (Charmaz, 2008), data-driven decision-making (Mandinach, Honey, & Light, 2006), design research (Collins, 1992; Faste & Faste, 2012; Schön, 1983), and a recent grouping of practitioner–researcher partnerships under design-based implementation research (Roschelle, Knudsen, & Hegedus, 2010, and also see learndbir.org/) that stress relevance to practice as the criterion for rigour (Gutiérrez & Penuel, 2014).

Action research differs from these practitioner–researcher partnerships based on the nature of the relationship. Action researchers play a central role, selecting the research problem and working closely with colleagues in the social context to design change. This contrasts with other partnerships in which the practitioner's role is to assist in research processes defined by researchers who are not participants in the research setting. Action researchers develop an evolving understanding of their setting over time; these other approaches are often completed in a shorter time span.

Action researchers do develop an identity as researcher, which marks them as consumer of research and participant in knowledge construction. While they are not often in a position to offer generalisable findings across settings, they do generate knowledge from their own setting that has value across settings. Many action researchers develop living theories (McNiff & Whitehead, 2006) that account for actions taken and offer interpretations for the changes that take place in context. Their work can either precede and inform experimental or evaluation research, or can follow these studies by exploring the limits of generalised findings. When engaged in this way, action research can provide a path to leadership. The sharing of their research findings with colleagues locally and at a distance is one of the defining characteristics of teacher leadership (Riel & Becker, 2008).

In this article, we explored the learning outcomes of first-time action researchers working towards a graduate degree. Students created online portfolios that captured their work in locating a problem, contextualising the problem in both their organisation and the research literature, planning, and then engaging in cycles of action, collecting, and analysing the data, and reflecting on the process. We chose to use their final reflections, which completed the action research e-portfolios. These research questions guided our research:

1. What does the analysis of action researchers' final written reflections indicate regarding

   a. transformative change at three contextual levels—professional, organisational, and scholarly?

   b. transformative change in knowledge, practice, and identity of the action researcher?

2. How can this analysis support the learning and teaching of reflective writing in action research?

Methods

To arrive at a deeper understanding of the dimension of the change reported by action researchers, we analysed the final reflections of 25 mid-career professionals who engaged in action research in educational, organisational, community, and corporate settings and whose work was published online by the Center for Collaborative Action Research. These peer-reviewed publications represented the 10–15% top-scoring graduate students over the past six years. Because the purpose of the final reflection in their Master's thesis was to report the experiences that researchers thought were most salient, we think these statements are useful in understanding the iterative personal impact of action research.

However, there are limitations to this choice of materials. Because these reports were graded as a part of graduate program coursework, students may have felt some peer and/or professor pressure to report some level of change. However, this pressure does not specify the direction of change. We are not examining the presence or absence of reports of change as much as we are exploring how the change is characterised. It is easy for students to claim change, but it is more informative to examine the evidence they use to explain or support it.

Action Research Projects

While these researchers came from many sectors of work, schools, colleges, museums, organisations, and corporations, they shared in common the use, support, or teaching of technology. Their action research often involved leveraging communication and information technology to create change. This involved the introduction of databases, communication forums, collaborative spaces, or virtual environments into the community. All action researchers designed their projects enlisting the help of supervisors, stakeholders, critical friends, and coresearchers in their research context. They also worked within university level "learning circles" (onlinelearningcircles.org) where action researchers discuss their research methods, analyses, and reflections. The learning circle, as a group, shared the responsibility for the quality of all of the action research projects. Table 1 shows the contexts of the research and gives a brief description of both the problems and projects.

Table 1. Action Research Problems and Projects used in this Study

	Context	Research Problem	Action Research Project
School-Based Action Research			
1	Primary	Computer club was dominated by boys.	Created an inclusive elementary school tech club.
2	Primary	Current student learning did not help students develop their voice in social issues.	Used film and project-based learning to create "student provocateurs" to increase public debate and awareness of local environmental issues.
3	Secondary	Low engagement of computer science students in learning.	Increased student engagement; fostered higher-order thinking skills by creating community work on projects.
4	Secondary	Lack of motivation and engagement in learning a foreign language.	Students used video technology to teach units to each other.
5	Secondary	Students not metacognitively aware of how to understand and direct their own learning.	Facilitated adaptive expertise through a constructivist approach to learning.

6	College	Low student expectations for themselves; some content with "just passing".	Created a culture of multiple revisions with peer and teacher comments; students reworked materials until they received at least a C grade.
7	College	Drop out rate was too high among students in online course.	Focused on a teaching relationship; created a personalised process of review with more guidance for each student.
8	College	Students were learning computer skills but not developing the competence to use them effectively.	Engaged students in authentic technology projects.

Professional Development In Educational Contexts

9	Secondary Students & College Professors	Secondary students have a tough transition to college; college professors needed more technology tutoring.	Created a partnership for learning that involved co-mentoring between secondary students and college professors.
10	New K-12 Teachers	Improvements needed in teacher induction process, with innovative uses of technology.	Created a professional development program with the goal of adding a teacher induction process.
11	Teachers	Technology resources were underutilised in her district.	Helped teachers find and understand how to use technology treasures.
12	Resource Teachers	District resource teachers were working alone in rural settings.	Cultivated a community of practice among itinerant educators.
13	Teacher Program at Museum	Teachers who didn't experience the excitement of historical research didn't share it with students.	Developed a better understanding of the nature of science by using primary sources through teacher interpretation and conversation.
14	Aquarium Educators	Two departments were blended and a new program of learning support for schools was introduced.	Created a program of action learning at a large aquarium.

Administration and Corporate Settings

15	College Administration	Ineffective delivery of student services.	Designed a "one stop" integrated program of delivering student services.
16	Corporate Training	Training in different countries was expensive because the current model was travelling workshop leaders.	Designed a synchronous solution for learning across distances.
17	Corporate Training	Technology trainers used similar tools but did not share their practice or learning with other trainers.	Cultivated a community of practice in a corporate setting.
18	Corporate	The standard training process in an environmental consulting firm was not making effective use of communication technology.	Achieved project management through a community of practice approach.
19	Corporate	Better communication and collaboration practices needed in a corporation.	Developed a collaborative team environment.
20	Corporate	Lack of communication and effective collaboration among software designers.	Built thriving communities of practice with social learning technologies.

Action Research in Organisations

21	Hospital	Multi-state healthcare organisation needed effective ways of integrating streaming media with training.	Developed an on-demand media program for nurses to train other nurses.
22	Research	The help desk in a research unit was overburdened with requests.	Used peer collaboration to build an infrastructure for enhancing technical support.
23	Youth Centre	The children in an island community in Pandytown in the Honduras needed computer literacy.	Develop a program of social entrepreneurship; engineered a movement to increase student access to technology in community centres.
24	Church	More informal spiritual discussion and guidance was needed.	Developed a women-led spiritual group to address the needs of women in the church.
25	Church	A need to train more lay leaders to serve in church ministry.	Developed a program for training of lay leaders supported by online communities of practice.

Analysis

Written reflections differed in length—from 10 to 150 sentences with an average length of 78 sentences (*SD* = 35). Across the 25 reflections, there was a total of 1,953 sentences, with 58 sentences that were not coded. Non-coded sentences included short, ambiguous expressions, quotes from others, or sentences used as section headers.

We first coded each sentence as describing change in one of three contextual levels: professional, organisational, or scholarly. The level was assessed by determining if the focus was on (1) the professional transformations of the researcher, (2) changes in the collaborative setting or partners in the action research, or (3) the process of doing or sharing their action research. While it was not difficult to distinguish these contextual levels conceptually, a single sentence could begin discussing professional growth, then tie this to collaborative work, and end by sharing an insight about doing action research. Because our rules were that each sentence was coded in only one contextual level, we established coding rules and examples in a codebook to help make these decisions. After training, the two researchers were able to achieve an average rate of intercoder reliability of 87%.

Once coded for level, we then assigned a second code for knowledge, practice, or identity. While some sentences clearly fell in one of these categories, other sentences fell into the intersections of the categories. For example, the sentence, "I am a different person now because I listen more carefully to my students and use constructivist theories to help design effective learning contexts", addresses identity, practice, and knowledge. This was coded as identity because the first verb, "to be", suggested identity. We attended to verb forms to help with coding reliability—"to know" or "to think" for knowledge, "to do" for practice, and "to be" for identity. Although we established coding rules, the average intercoder reliability for this secondary level was 74%. Once these levels of reliability were established between the two coders, the same person coded all of the essays to increase consistency and reliability. The sentences were grouped into the nine categories below.

Professional level—Reflections on self as the object of change, including changes to:

1. Professional knowledge

2. Professional practices

3. Professional identity

Organisational level—Reflections on changes in the collaborative context, including changes to:

4. Collective knowledge

5. Collaborative skills or teamwork

6. Roles and identities within the community

Scholarly level—Reflection on role as researcher, including discussion of:
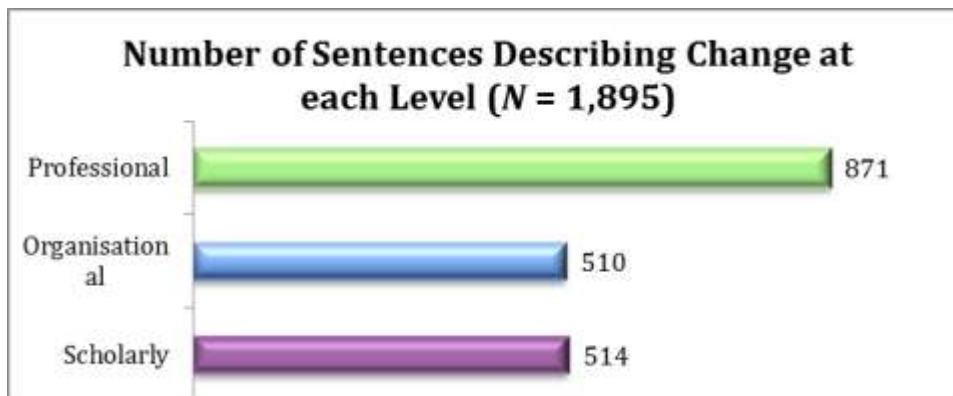
7. Research knowledge

8. Research methods

9. Research identity

Finally, for each of the three levels, we used a secondary level of analysis to characterise the content of the reflections. These are described in each section. For the more detailed focus on change at the organisational level, we used the activity theory frame to understand what parts of the system the action research identified as changed.

Results

All 25 action researchers had at least one sentence coded at all three professional, organisational, and scholarly levels. Of the total number of sentences (N = 1,895), 46% were coded as describing change at the professional contextual level with equal frequency (27%) for changes at the organisational and scholarly levels (see Figure 4).

Figure 4: Number of sentences coded at each of the levels (N = 1,895)

Most of the sentences coded in the professional and scholarly contextual levels described changes in knowledge (see Figure 5). This may be an artefact of university-based action research. Students are exposed to a number of ideas and are encouraged to apply these ideas to their action research in the field. Also, they entered the program with minimal knowledge of action research and developed this knowledge as they worked. The discussion of changes in professional knowledge suggests that students used what they learned to help them organise action in their place of study.

Figure 5: Distribution of types of action research changes
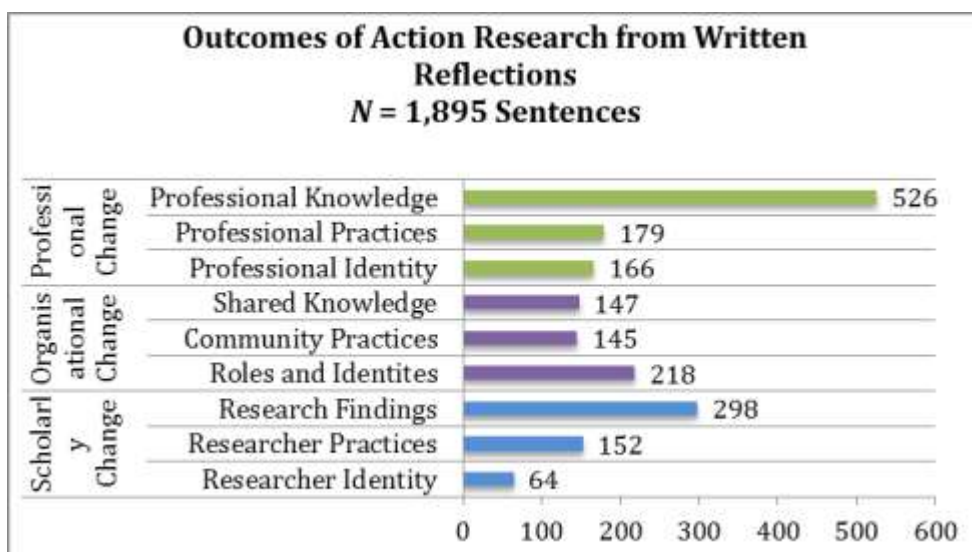
The evidence in Figures 4 and 5 indicates that students did reflect on changes in identity, practice, and knowledge and did so at professional, organisational, and scholarly contextual levels. This finding addressed our first research question.

We examined the students' writing about knowledge, practice, and identity changes to determine what these action researchers said about professional change, their understanding of classroom or organisational change, and their membership in the research community.

Professional Context: Professional Transformation of the Action Researcher

Action research places a central focus on professional change and the reflections highlighted some aspect of this change. Deep learning generally involves identity management; therefore, we expected to see some evidence of change in identity in the reflections. As shown in Figure 6, we found the focus was clearly on knowledge shifts (60%) with a lesser but similar number of sentences describing changes to identity (19%) and practice (21%).

Figure 6: Percentage of sentences on knowledge, practices, and identity in professional change

Professional Knowledge

The largest category, change in professional knowledge, was further analysed into sentences that contained insights, ideas, strategies, and metacomments (see Figure 7) as follows:

- Insights—what appeared to be described as an idea of the researcher

- Ideas—citation of the ideas or theories of others

- Strategies/plans—thinking about how or why a strategy worked

- Metacomments—reflections on their knowledge or thinking.
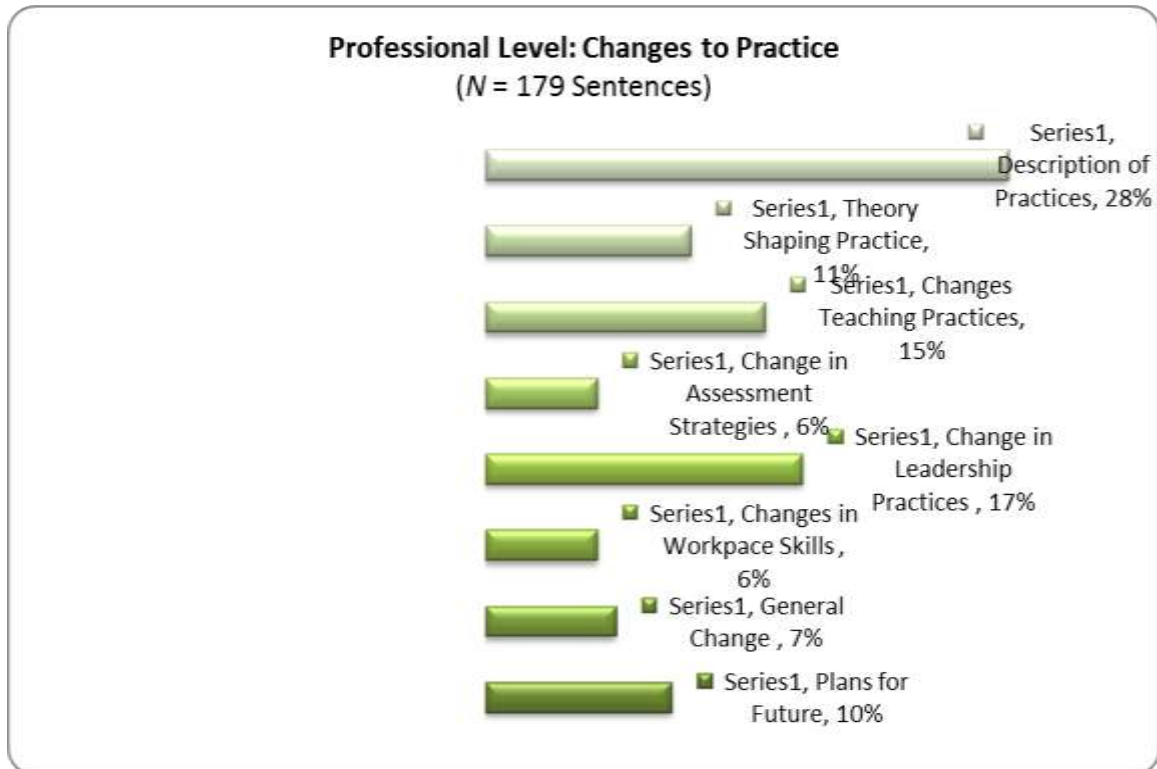
Figure 7: Change in professional knowledge
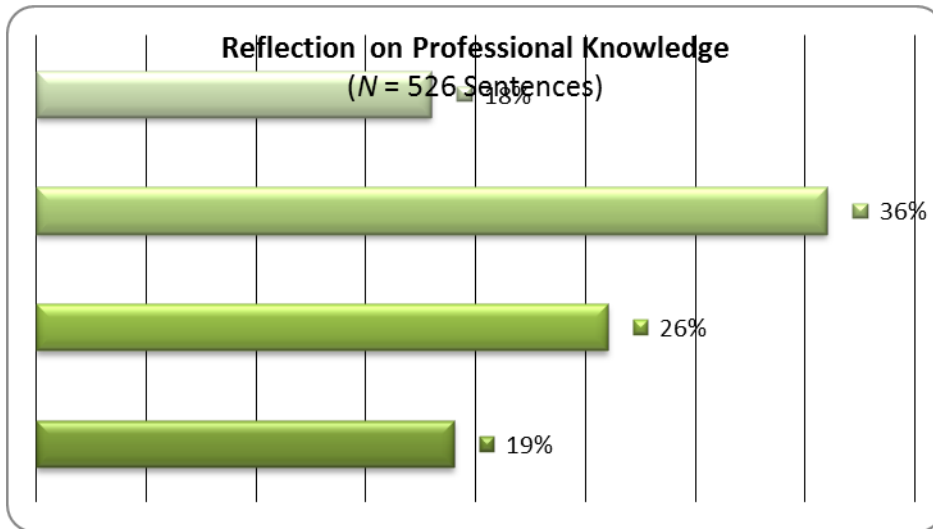
Most of the insights centred on how deeper listening, as seen from the perspective of others or shifting from a central role to a supporting one, had initiated more changes than the researchers originally projected. Some researchers were very clear about how their thinking had shifted from an initial goal of changing others to an understanding of how their own behaviour was inhibiting the change they sought. The largest group of sentences in the professional knowledge change category focused on coming to terms with how ideas of others had shaped the way they now think about their own practice or change in their practice. Some examples are:

- As an educator, I reread the works of these theorists with a different set of eyes; and I found myself marvelling over my own embodiment of the ideas that they proposed.

- Indeed, I have come to appreciate Carl Bereiter and Marlene Scardamalia's view of expert knowledge being the property of a group rather than the property of the individuals composing it (Bereiter & Scardamalia, 1993, p. 21).

Professional Practices

The changes to practices were coded into eight categories. *Theory shaping practice* was used for statements that simultaneously indexed change in knowledge *and* in practice. Many researchers described past practices that were now changed. *Changes to teaching*, *changes to assessment,* and *changes to leadership* were used when a practice was described as new or as a shift from what had been done before. Many of these discussions of change involved a movement away from transmission models toward constructionist models. Changes in practice that were not tied to education were coded as *changes in workplace practices*. The term, *description of practices,* was used for descriptions of skills, without any comparison with the past. Often these were practices such as learning to listen to others, and developing strategies to create the context for thoughtful community dialogue. *General change* was used for sentences that said their practice had changed but no details were included. Sentences that were coded as *plans for the future* described plans to use new practices. The frequencies of these codes are shown in Figure 8.

Figure 8: Number of sentences describing different aspects of professional practice

Professional Level: Changes to Practice
(*N* = 179 Sentences)

Series1, Description of Practices, 28%
Series1, Theory Shaping Practice, 11%
Series1, Changes Teaching Practices, 15%
Series1, Change in Assessment Strategies, 6%
Series1, Change in Leadership Practices, 17%
Series1, Changes in Workpace Skills, 6%
Series1, General Change, 7%
Series1, Plans for Future, 10%

Because these action researchers were students in a learning technologies program, one might have expected a large number of the reflections to centre on the use of technology. In fact, fewer than 10% of the statements directly mentioned the use of technology—generally, online forums, blogs, and community websites. In most of these, the statements focused on a shift in thinking about technology as subsumed under changes in learning, teaching, or leadership. For example, one researcher wrote:

- Rather than incorporating technology lessons into my curriculum because they are "fun" or the "latest thing", I have learned to match my performance tasks with content standards and goals.

Taken as a whole, the sentences regarding practice focused on strategies to create contexts where people could interact in ways that fostered a community approach to learning, a service approach to leadership, and more effective ways to listen to others.

Professional Identity

The statements that referred to changes in professional identity are displayed in Figure 9. We coded three types of statements about identity that described (1) characteristics of identity that existed before engaging in action research, (2) identity changes that resulted from conducting action research, and (3) anticipated changes in the future. Figure 9 shows that 75% of the responses focused on changes that stemmed from the process of doing action research, with 11% looking back in time and 14% looking forward to the future.

Figure 9: Number of sentences describing changes to professional identity
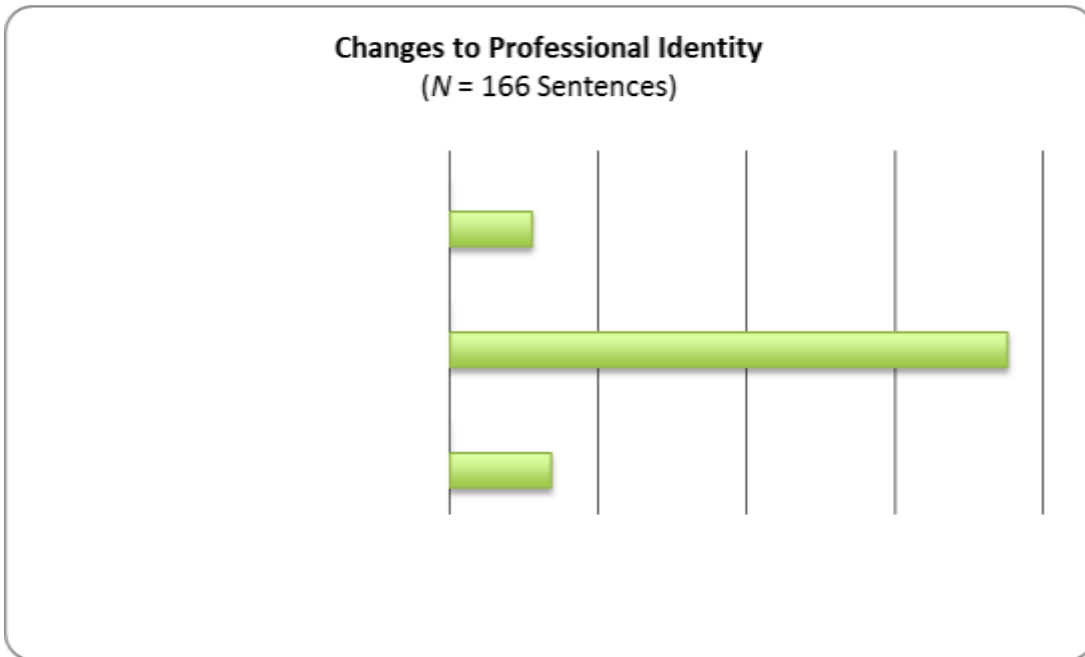
The following two sentences are characteristic of focus on past changes. These sentences generally set up the discussion of current change:

- When I was hired by my organisation to spearhead the streaming media department, I was a soloist alone on stage, playing to an empty house.

- In the past, I acted as an instructor directing the stop-motion film, leading students through worksheets that taught them how to use a computer application.

Of the descriptions of change that took place, during or after the action research, over half centred on shifts in researchers' role responsibilities. These often described a decentring move into a role of supporting the participation of others. While many described the role changes in positive terms, others expressed doubts about the change in identity:

- In my action research project, I was forced to accept certain things about myself.

- Thoughtful reflection has caused me to gain insights, which were nonexistent before my research project, into whether or not my practice was consistent with my values. As with all change and visionary thinking, one must begin with the self.

The researchers also projected change into the future and these tended to be quite optimistic:

- Indeed, it has been a rich, rewarding, and transformational experience—one that will continue to have a long-lasting impact on me both, professionally and personally.

- For me, this realisation makes the future a very exciting prospect.

- Throughout my career, I will wear many hats. I will be a leader in terms of managing the technology, designing learning opportunities, developing strategic plans, and setting a vision for the future, but I will also be a mentor in terms of facilitating staff growth and development among educators.

Organisational Change: Deeper Understanding of the Activity System

There is a different pattern in the analysis of the social setting; 43% of the reflections centred on changes in roles and identities of others or of the whole group (including the researcher). There was an equal focus on changes in the knowledge of others (29%) and changes in group practices (28%) as shown in Figure 10.

Figure 10: Change in organisational knowledge, practice, and identity

For this section, we used the activity theory framework (see Figure 3) to see what types of changes were captured in the reflections. We combined the 510 sentences that focused on identities, practice, and knowledge and coded them all for content related to the double-sided arrows in the activity theory model. Using the 12 possible paired relations, each sentence was examined for any of these relationships. If a sentence contained information about more than one relationship, it was coded for each relationship mentioned. There was an average of 1.75 coded relationships per sentence, with 893 codes from the 510 sentences.

The numbers following the relationship was the number of times that relationship was mentioned in the reflections at the organizational level.

- Action Researcher–Rules, Norms, and Culture: 21

- Action Researcher–Roles and Division of Labor: 83

- Action Researcher–Community: 148

- Action Researcher–Mediating Tools: 49

- Community–Mediating Tools: 147

- Community–Roles and Responsibilities: 111

- Community–Action: 117

- Community–Rules, Norms, and Culture: 79

- Action–Mediating Tools: 26

- Action–Rules, Norms and Culture: 11

- Action–Roles and Responsibilities: 15

- Action–Action Researcher: 86

Figure 11: Reflections about organisational change mapped onto the activity theory model (Engeström, 1993)
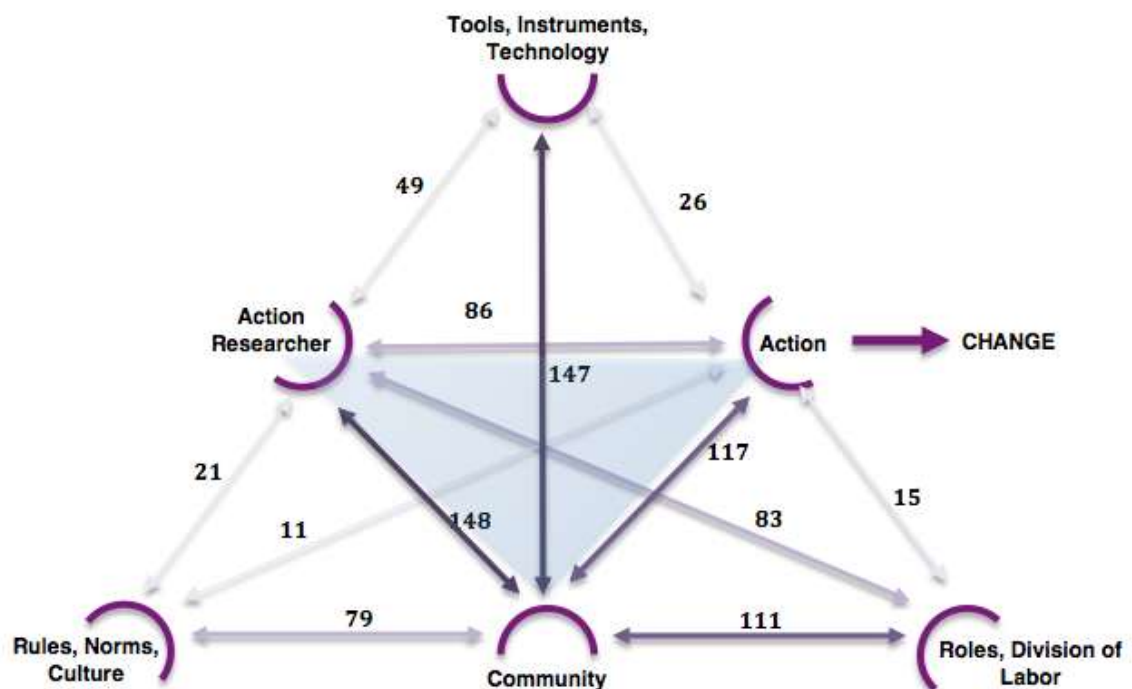
The number of times a relationship was coded is also displayed in Figure 11. Darker, thicker arrows denote greater frequency. Because this set of sentences from the reflections focused on community, it is not surprising that over half of the codes (67%) were anchored on one end to the community. The most frequently mentioned paired relationships were community to action researcher (148 instances), and

community to mediating tools (147 instances). Community linked to the outcome (117) and community linked to division of labour or roles were also frequently mentioned.

If we look at triangles of relationships, the most frequently mentioned relationship is the triangle in the middle (highlighted in figure 11) of the community to action researcher to action (412). Other triangles that were frequently mentioned were the community–action researcher–tools/technology (344), and the community–tools/technology–action (290), and community–action–roles (243). These relationships highlight how the action researchers, working within communities mediated by technology, took action that led to specific outcomes. The stronger focus on shifts in the way roles were defined, in contrast with the changes in culture and rules, suggests that the change discussed was more likely a shift in the way work was accomplished rather than change in the culture or rules of the organisation. What is learned from the whole chart, is that action taken by the action researcher engaged the community, was mediated by technology, and resulted in shifts in roles, expectations, and behaviour.

Scholarly Change: Participation in the research community

Overall, 27% (514 sentences) of all of the writing was coded as describing scholarly level outcomes (see Figure 4). As shown in Figure 12, action researchers focused most of this writing on the knowledge gained from doing action research (58%), then on research practices (30%) and on their growing identity as action researchers (12%).

Figure 12: Reflections about scholarly change to knowledge, practice, and identity
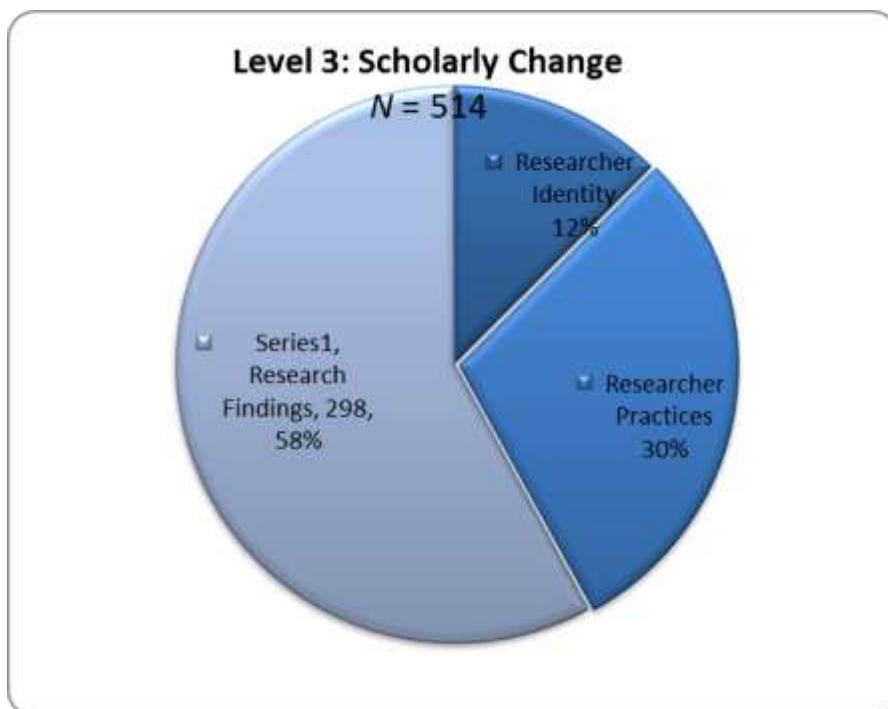
Scholarly Knowledge

Statements about findings, insights, ties to research literature, future plans, and metacomments about the process and the collection of data dominated discussions about scholarly knowledge. Two examples suggested actions that might apply across settings:

- Learning at its best will be in an environment where relationships are formed, dialogue occurs, fun is involved, reflection is encouraged, and the learner has choice in what is learned.
- I think that this demonstrates the value of integrating social learning theory in an organisation's training programs.

Many researchers indicated that their learning had just sprouted, and projected ways that it would continue to grow with future action research projects:

- With the tools I have gained through this past year of research, action, and reflection, I feel prepared and ready to continue the journey.

Scholarly Practice

Some identified specific ways in which their practice changed:

- My action research project allowed me to form a community of practice that encouraged expert thinking and progressive problem solving through the use of streaming media technology.

Most of the 25 researchers stated that they had gained a better understanding of how to apply what they had learned into their communities of practice. Many recognised workplace-specific problems that could now be resolved with their newly acquired skills:

- I found that without research, a plan, careful preparation, and reflection, serendipitous events such as being given district money for teacher technology training would only lead to more unproductive professional development that would not shape change.
- The action research process has not only provided for new ways of doing things, it has caused me to be much more intentional about finding connections among what used to seem disconnected and unrelated events and experiences.

Scholarly Identity

Changes to identity at the scholarly contextual level was the only change not mentioned by everyone (20 researchers of the 25 discussed this change). The smaller number of sentences (64) suggests that their identity as a researcher is not a central focus when reflecting on action research. However, some of the students did describe their growing identity as an action researcher, and their developing membership in the research community:

- Certainly, my action research experience lacked characteristics of professional research, but in some ways I assumed the role of an understudy—a legitimate peripheral participant (Lave & Wenger, 1991) in the community of professional education research.

Others equated their identity with their role of change agent:

- Until this year, I had a hard time thinking of myself as a change agent.

Summary and Discussion

This report is about action research and about doing action research. More specifically, it is about an important process in action research—reflection. We have examined the content of the reflections produced by a set of action researchers to learn more about what changes occur when people engage in action research. This examination produced a framework composed of three contextual levels—professional, organisational, and scholarly—on which to understand changes in knowledge, practices, and identity. By employing systematic and rigorous qualitative research methods, we sought to provide valid evidence to inform the larger research community.

We are also engaged in a process of action research to shape our thinking and teaching practices to support students' reflective processes. The final section is a reflection on how this analysis extends our process of inquiry.

Transformational Change: Professional, Organisational, and Scholarly

Action research involves changes throughout the system. In this paper, we focused on the changes reported by the action researchers who initiated the change process. Often they began with the notion of fixing a problem by changing others' practices and then discovered that they needed to change their own practices and, in fact, their own identity before the change could take hold. Acknowledging the multilevel outcomes of action research, we examined data reflections on change to the action researcher at three overlapping contextual levels: professional, organisational, and scholarly.

The Professional Level

Professional change focused on changes within individuals as they explored strategies to improve their practice. In examining the reflective statements of 25 new action researchers, we found that most of the descriptions emphasised change in knowledge. Since this action research took place within a higher education program, and many of the college courses were designed to be lenses into the action research process, it is not surprising that conceptual change was highlighted. This finding suggests that when practitioners are engaged in action research, they become consumers of research and professional literature.

The Organisational Level

Action research is a process of understanding systems of interactions by seeing how change in one part of the system affects other parts. Here, action researchers deepen their understanding of activity systems, specifically, how roles, practices, and knowledge building interact. Understanding organisational change is part of understanding the reactions to the change initiated. Activity theory provided a heuristic tool for thinking about how systems change. The reflections of these action researchers emphasised changes perceived in the roles of the action research participants. Shifts in interpersonal skills and issues of community development dominated the knowledge, practice, and role discussions. While technology was an important part of the story, in most cases these action research projects involved a process of learning to use technology in the service of other goals. In other words, students moved away from a focus *on* technology integration to a focus on learning or leadership activities mediated *by* the technology.

The Scholarly Level

Research is a social activity where one is drawn into a community that values knowledge building and the sharing of research skills and findings (Cochran-Smith & Lytle, 1999). This activity entails the development of the practices, knowledge, and identity of an action researcher. The developing identity and role of an

action researcher is tied to theories of evaluation and methods of data interpretation. Students appeared to have accepted and internalised their role in the action research community, but they felt less welcomed in the larger educational research community. This was particularly true of students who worked in university settings. It is unfortunate that those who engage in large-scale experimental research sometimes reject the validity of deep inquiry over time. All forms of research have strengths and weaknesses, and knowledge building benefits from the development of "living theories" of learning generated by practitioners engaged in inquiry over time (Whitehead, 2009).

Reflection on Knowledge, Practice, and Identity

We used the concepts of knowledge, practice, and identity to look across all three levels of change in order to determine what we could learn from students' reflections about the process of doing action research.

Knowledge

Over half of all of the statements in the final reflections were about knowledge. And over half of these (58%) were about professional knowledge tied closely to their context. The researchers discussed generalised findings and made comparisons of their findings to research theories, models, and concepts (31%). The rest of the knowledge discussion described the changes in community knowledge. At the content level, both the professional and scholarly knowledge gave evidence of a move toward more social constructivist theories of learning, assessment-driven instruction, and theories of service leadership. This evidence of movement back and forth between theory and practice validates an important dimension of action research.

Technology was reconceptualised as a mediating tool. Those students who discussed technology in their reflections described how their focus had shifted from merely using more technology tools to one of learning, leading, or community building with technology.

Practice

Statements about practice accounted for 25% of the data that was split almost equally across the three levels. The most common shift in practice centred on listening to others and facilitating a process of dialogue where others were also challenged to listen and build on what was shared. In the classroom setting, the change involved giving students more voice and ownership over their work. Teachers wanted to be more involved and engaged in solving problems. Students working in corporate and organisational settings reported learning how to foster a community of practice so that participant-researchers felt a sense of ownership and leadership consistent with what they read in work of Wenger, White, and Smith, 2009. The major change in practice centred on actively listening to others, which often changed the nature of the problem they were investigating.

Identity

A quarter of the reflections discussed changes in identity and role expectations for themselves and their collaborators. Almost half of these sentences described how roles and identities in the social setting had shifted. Another third of the sentences described shifts in their professional roles and identities. The rest (about 14%) described changes in their roles and identity as researchers. The most consistent shift in identity resulted from their surprise at the power of their own agency in initiating change. The progressive cycles of action research often increased the reach and size of the change. This process led to changes in the way the researchers saw themselves and in the way others saw them. In classrooms, this was often a shift away from being the provider of knowledge to the facilitator of assessment and feedback. In the

workplace, the shift was from advocacy leadership to distributed leadership, with increased effort to involve the community in shared decision-making and goal-setting processes.

A Meta-Reflection on Reflection

The first author of this paper engaged in this analytic process for two purposes: to understand better the outcomes of action research, and to evolve new strategies to support reflective writing. Students often return to university with keen observational skills from years of experience and, some, with strong descriptive writing skills. But most need help with developing reflective writing skills. Reflective writing helps action researchers focus on themselves and their role at the centre of their research. Reflective writing explores what is meant by holding oneself accountable for everyday learning. Without a good record of daily or weekly learning, it will be hard to understand change over time. This analysis of the work of past students has helped the first author to evolve a framework to help new action researchers learn how to reflect. Based on this analysis, the following advice is now offered to those who struggle with reflective writing.

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1) Personal Change: Think about any personal changes during this cycle. Maybe you tried to address an issue at your workplace. Is this how you expected things would develop? Why do you think it did or did not turn out as you expected? Do you see yourself as a problem solver? What has been some of your experience in solving problems in the past? Are you different in different contexts? For example, would you have been more likely to have solved this problem if it was located outside of work? In your past, how have you oriented toward problems or issues like this? Do you normally wait for others to solve them or would you have done it in a different way? When you and others came up with this plan, was there a time when you worried it would not work? Was there something that you can point to that you learned about yourself that helped make it work? Have you changed the way you look at problems or at least at common ones? Do you see any difference in the way you approach others? Do you think that others see you differently?

2) Local Change: Think about how this action affected others. Do you think they understood the goals in the same way as you did? Do you think that they might have wanted a different plan? Were you surprised by their reactions? Did they appreciate your efforts to solve the problem or did they feel left out of the process? Who owned the problem at the beginning? Who owns the problem now? Why do you think this is the case? What are the norms—the unspoken rules—that shape behaviour? Did this project challenge any of these norms? Did you see any evidence of norms shifting? What about the division of labour within the group—has this shifted? Do you have a better understanding of the forces for change in your workplace?

3) Conceptual Change: Metacognition is thinking about your thinking. Have your ideas changed in anyway? Maybe you expected that it would be easy for others to learn a new system, but you realised that not everyone approaches a learning task in the same way. Maybe you understood something about the way ownership of the problem, or your identity as a problem solver, interacted with learning. Maybe there was something about leadership that you read and were able to put into practice in this cycle. Were there any principles of learning, change, or interaction that you see in a different way that you would like to share with others? Think back on what you read; look back on your notes. Did you see any good examples of theoretical concepts? Maybe you saw an example of Vygotsky's zone of proximal development in practice or saw how Lave and Wenger's legitimate peripheral participation works in a community of practice. Think about how these ideas might become a part of your action research presentation.

In this way, the analytic framework of knowledge, skills, and identity shifts considered on professional, organisational, and scholarly levels helped students to examine their own experiences. This analysis of the reflective process of past students and the framework developed may help current students attend to experiences that they might have missed. In this way, this analysis serves as a conceptual tool that we use

in cycles of action research to help improve university-teaching practices. The evidence that we are being effective in helping novice action researchers develop their reflective writing skills will be in the reflections written by more students. So, the analysis in this paper serves as the material for the first of ongoing cycles of action research focused on improving the teaching of reflective writing.

References

Bereiter, C., & Scardamalia, M. (1993). Surpassing ourselves: An inquiry into the nature and implications of expertise. Chicago, USA: Open Court.

Black, P., & Wiliam, D. (2003). In praise of educational research: Formative assessment. British Educational Research Journal, 29(5), 623–637.

Bransford, J. D., Brown, A. L., & Cocking R. R. (2000). How people learn: Brain, mind, experience, and school (expanded ed.). Washington, USA: National Academy Press.

Charmaz, K. (2008). Constructionism and the grounded theory method. In J.A. Holstein & J.F. Gubrium (Eds.), Handbook of constructionist research (pp. 397–412). New York, USA: Guilford Press

Cochran-Smith, M., & Lytle, S. (1999). Relationships of knowledge and practice: Teacher learning in communities. In A. Iran-Nejad & P. Pearson (Eds.), Review of education, 24, 249–305.

Coghlan, D., & Brannick, T. (2009). Doing action research in your own organization (2nd ed.). London, UK: Sage.

Collins, A. (1992). Towards a design science of education. In E. Scanlon & T. O'Shea (Eds.), New directions in educational technology (pp. 15–22). Berlin, Germany: Springer.

Criticos, C. (1993). Experiential learning and social transformation for a post-apartheid learning future. In D. Boud, R. Cohen, & D. Walker (Eds.), Using experience for learning (pp. 159–165). Buckingham, UK: Society for Research into Higher Education and Open University Press.

Engeström, Y. (1987). Learning by expanding: An activity-theoretical approach to developmental research. Helsinki, Finland: Orienta-Konsultit O.

Engeström, Y. (1993). Developmental studies of work as a testbench of activity theory: The case of primary care medical practice. In S. Chaiklin & J. Lave (Eds.), Understanding practice: Perspectives on activity and context (pp. 84–103). New York, USA: Cambridge University Press.

Faste, T., & Faste, H. (2012, August). Demystifying "design research": Design is not research, research is design. Paper presented at the Industrial Designers Society of America (IDSA) Education Symposium, Boston, USA. Retrieved from at http://www.idsa.org/sites/default/files/Faste.pdf

Wicks, P.G, & Reason, P. (2009). Initiating action research: Challenges and paradoxes of opening communicative space. Action Research, 7(3), 243–262. doi:10.1177/1476750309336715

Gee, J. P. (2003). What Video Games Have to Teach Us About Learning and Literacy? New York, USA: Palgrave Macmillan.

Gutiérrez, K., & Penuel, W. (2014). Educational Researcher 43(1), 19–23. doi:10.3102/0013189X13520289

Hatano, G., & Inagaki, K. (1986). Two courses of expertise. In H. Stevenson, H. Azuma, & K. Hakuta (Eds.), Child development and education in Japan. New York, USA: Freeman.

Heron, J., & Reason, P. (1997). A participatory inquiry paradigm. Qualitative Inquiry, 3(3), 274–294.

Heron, J., & Reason, P. (2006). The practice of co-operative inquiry: Research 'with' rather than on people. In P. Reason & H. Bradbury (Eds.), Handbook of Action Research (pp. 144–155). London, UK: Sage.

Kember, D., Ha, T., Lam, B., Lee, A., NG, S., Yan, L., & Yum, J. (1997). The diverse role of the critical friend in supporting educational action research projects. Educational Action Research, 5(3), 463–481.

Kemmis, S. (2008). Critical theory and participatory action research. In P. Reason & H. Bradbury (Eds.), The Sage handbook of action research. Thousand Oaks, USA: Sage.

Kemmis, S., & McTaggart, R. (2000). Participatory action research (2nd ed.). In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of qualitative research (pp. 567–605). Thousand Oaks, USA: Sage.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York, USA: Cambridge University Press.

Lewin, K. (1946). Action research and minority problems. Journal of Sociology Issues, 2(4), 34–46.

Mandinach, E. B., Honey, M., & Light, D. (2006, April). A theoretical framework for data driven decision making. Paper presented at the annual meeting of American Educational Research Association, San Francisco, USA. Retrieved from http://cct.edc.org/admin/publications/speeches/DataFrame_AERA06.pdf

McNiff, J. (2010). Action research for professional development: Concise advice for new (and experienced) action researchers. Church Stretton, UK: September Books.

McNiff, J., & Whitehead, J. (2006). All you need to know about action research. London, UK: Sage.

Merriam, S. (2004). The role of cognitive development in Mezirow's transformational learning theory. Adult Education Quarterly, 55(1), 60–68. doi:10.1177/0741713604268891

Mezirow, J. (1998). On critical reflection. Adult Education Quarterly, 48(3), 185–191.

Mezirow, J. (2003). Transformative learning as discourse. Journal of Transformative Education, 1(1), 58–63.

Mills, G. E. (2003). Action research: A guide for the teacher researcher (2nd ed.). Upper Saddle River, USA: Merrill/Prentice Hall.

Miner, J. B. (2005). Organizational behavior 1: Essential theories of motivation and leadership. Armonk, USA: M.E. Sharpe.

Nardi, B. (Ed.). (1996). Activity theory and human-computer interaction. Cambridge, USA: MIT Press.

Noffke, S., (2009). Revisiting the professional, personal, and political dimension of action research. In S. Noffke & B. Somekh (Eds.), The Sage handbook of educational action research. Los Angeles, USA: Sage.

Reason, P., & Bradbury, H. (2006). Inquiry and participation in search of a world worthy of human aspiration. In P. Reason & H. Bradbury (Eds.), Handbook of action research (pp. 1–14). London, UK: Sage.

Reason, P., & McArdle, K. L. (2004). Action research and organization development. In T. C. Cummings (Ed.), Handbook of Organization Development. Bath, UK: Sage.

Riel, M. (2010). Understanding action research. Center For Collaborative Action Research, Pepperdine University (Last revision Sep, 2013). Retrived from http://cadres.pepperdine.edu/ccar/define.html

Riel, M., & Becker, H. (2008). Characteristics of teacher leaders for information and communication technology. In J. Voogt & G. Knezek (Eds.), International handbook of information technology in primary and secondary Education, pp. 397–417. New York, USA: Springer.

Roschelle, J., Knudsen, J., & Hegedus, S. J. (2010). From new technological infrastructures to curricular activity systems: Advanced designs for teaching and learning. In M. J. Jacobson & P. Reimann (Eds.), Designs for learning environments of the future: International perspectives from the learning sciences (pp. 233–262). New York, USA: Springer.

Schön, D. (1983). The reflective practitioner: How professionals think in action. London, UK: Temple Smith.

Stringer, E. T. (2007). Action Research: A handbook for practitioners (3rd ed.). Thousand Oaks, USA: Sage.

Wenger, E., White, N., & Smith, J. (2009). Digital habitats: Stewarding technology for communities. Portland, USA: CPsquare.

Whitehead, J. (2009). Generating living theory and understanding in action research studies. Action Research, 7(1), 85–99.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, USA: Harvard University Press.

"Stepping back" as researchers: Addressing ethics in arts-based approaches to working with war-affected children in school and community settings

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Abstract

There is a need for an ethically responsible means of conducting arts-based research with children affected by global adversity, including children affected by war. The multiple effects of war on children remains a global issue. While there are many approaches to working with war-affected children, participatory arts-based methods such as photovoice, drama, and drawing are being increasingly relied upon. However, what are the ethical issues and how are researchers and practitioners taking up these issues in school, community, and "on the street" settings? By reviewing the literature on ethical issues that may arise when working with children through arts-based methods, this article identifies four critical ethical issues that represent specific challenges in relation to children affected by war: (1) informed consent; (2) truth, interpretation, and representation; (3) dangerous emotional terrain; and (4) aesthetics. The article highlights current gaps in the research and poses several unanswered questions in arts-based research with war-affected children.

Keywords: Arts-based Research; War-affected Children; Ethics; Informed Consent; Interpretation.

Introduction

As a team of researchers[1] working in the area of arts-based approaches to engaging in research with children affected by global adversity, and especially those affected by war, we have been interested in deepening our understanding of what it means to be ethically responsible in the research process itself. The issue of children affected by war remains a particularly complex one. This is a global issue, both in relation to new, ongoing, and recently resolved conflicts around the world, and also in relation to forced migration and the ways in which children are reintegrated into new country contexts through schools and communities.

There are numerous participatory arts-based approaches to working with war-affected children. The Suitcase Project, for example, initiated by Clacherty (2006) in her work with refugee children in South Africa demonstrates how using the arts and working with material culture can help to frame support for war-affected children *alongside* research that allows the researcher or practitioner to deepen an understanding of the issues. The Suitcase Project was developed out of the need to provide accessible psychosocial support for refugee children who struggled daily with issues of identity, voicelessness, xenophobia, and marginalisation in their host country, and psychological trauma from past experiences of war and displacement. Through a therapeutic and creative mixed media approach, children were encouraged to use suitcases to conceptualise their lives, both past and present, and to use their artwork to tell their stories and express themselves. Researchers ensured at all stages that children had the power to determine their level of engagement and emotional involvement. The project was guided by the notion that children are capable of contributing to their own healing, reclaiming their identities, and building their sense of self-worth.

In this article we are interested in "stepping back" to re-examine participatory arts-based approaches to working with war-affected children. What has guided our work has been a concern for the ethical dimensions of research with war-affected children. Clacherty's (2006) methodology is a good example of an approach that seeks to use the arts in ways that address the particular situation of the war-affected child. How might we look again at common arts-based tools and methods such as photovoice, drama, and drawing through the lens of ethics? What methodologies are appropriate for carrying out the stepping back process and how might they contribute to a deeper understanding of work with special populations such as war-affected children?

In the first section, we offer a brief overview of methodologies in arts-based research, focusing in particular on ones that are most frequently used in studies with war-affected children. In the second section of the article, we use a stepping back process to briefly describe and reflect on our methodology for carrying out the literature review. In the third section, we offer an analysis of four key areas of review related to ethics and arts-based research. We end the article with a consideration of the implications of this work for future research and programming.

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Arts-based research

There are numerous participatory arts-based research approaches that examine the lives and experiences of war-affected children. This section will focus on three methods: photovoice, drawing, and drama. We chose these methods because they engage war-affected children in an effective process of dialogue and creative expression. Furthermore, each research method contributes significantly to providing children with opportunities to understand and construct meaning from their past and present experiences in challenging and adverse settings.

Photovoice

Photovoice is a visual participatory approach whereby people can "identify, represent, and enhance their community through a specific photographic technique" (Wang & Burris, 1997, p. 369). Such an approach is primarily used to engage marginalised groups in artistic expressions of issues that are of significance to them. According to Wang and Burris (1997), photovoice has three objectives: firstly, it enables people to document the strengths and weaknesses of their community; secondly, it promotes grassroots knowledge construction and critical dialogue; and thirdly, it strives to impact policymakers through dissemination of photographs in the hopes of effecting social change. Through the use of cameras, participants are able to produce visual representations of their individual and collective narratives, which give insight into how they make sense of their surrounding environments and experiences (Green & Kloos, 2009). Numerous projects employing this method have been conducted with marginalised communities facing critical issues such as women's health (Wang, 1999), forced migration (Green & Kloos, 2009), and HIV and AIDS (Larkin et al., 2007; Mitchell, De Lange, Moletsane, Stuart, & Buthelezi, 2005).

Photovoice is a particularly useful method for youth who have experienced the devastating effects of war. They need programs that provide them with avenues for "emotional expression, personal support, and opportunities to enhance their past experiences" (Rousseau & Guzder, 2008, p. 534). Through creative and artistic expression, children can construct meaning and come to terms with the trauma experienced through armed conflict. In a study conducted in Sierra Leone (Denov, Doucet, & Kamara, 2012), photovoice was successfully employed to highlight the post-conflict lives of former child soldiers and their reintegration into mainstream society. The youth who participated were able to represent crucial issues that had an impact on their lives such as social connections, wartime experiences, economic survival, and education. Through intense discussions with researchers and fellow participants and reflection on their photographs, the youth were able to give voice to controversial issues as well as their own experiences. Furthermore, they played an integral role in choosing photographs to display for their exhibitions, which attracted the interest of the community, local and international non-governmental organisations, and policy-makers.

Drawing

Drawing, as an arts-based research method, is an important tool for contributing to the understanding of children's and adults' thoughts, memories, feelings, and aspirations formed by their sociocultural context (Mitchell, Theron, Stuart, Smith, & Campbell, 2011). As a form of knowledge production and sharing, visual images through drawing can sometimes be more accessible and powerful than academic text. Drawings require participants to reflect, contemplate, and conceptualise their responses to research inquiries. Researchers and participants collaborate to analyse and make meaning from their drawings. As producers of knowledge, participants are encouraged to contribute to the interpretations of their drawings, either verbally or through writing. This strategy can be used to educate others on significant social, cultural, and political practices as well as enable participants to promote community empowerment and social change (Literat, 2013).

War-affected children are encouraged to creatively express themselves through drawings and subsequent in-depth discussions. This strategy has been used in many studies to ascertain their psychosocial wellbeing and mental health (Jordans, 2009; Kalksma-Van Lith, 2007; Wessells & Monteiro, 2001). Drawings indirectly help children to learn how to express their emotions, communicate their ideas, and build relationships (Angel, Hjern, & Ingleby, 2001; Kalksma-Van Lith, 2007). In order to acquire a greater sense of meaning from drawings, it is essential for researchers and children to engage in a "shared analysis" by giving the child a voice to express his or her intentions. Through collaborative knowledge production, drawings can then be used to facilitate critical dialogue amongst war-affected children, researchers, and communities to advocate for social change.

International organisations, including Save the Children and UNICEF, have used drawings as a psychosocial support strategy for children affected by the current Syrian conflict. One such project took place within the Za'atari refugee camp in Jordan, where children aged 14 to 18 years were provided artistic avenues to express their thoughts, feelings, and experiences (Save the Children & UNICEF, 2013). Their visual work ranged from depicting prewar memories, to scenes of atrocities and death, as well as hopes of peace and security for the future. Drawings can thus serve the psychosocial needs of traumatised youth while mobilising community members to seek changes in policy and development within conflict zones.

Drama

Creative activities, such as drama, allow participants to transform themselves and represent others through role-play, movement, and storytelling (Moneta & Rousseau, 2008). Drama provides an innovative outlet to play with different identities while enacting stories, images, and emotions. Drama therapy is defined as "the intentional use of creative drama towards the psychotherapeutic goals of symptom relief, emotional and physical integration, and personal growth" (Johnson, 1982, p. 83).

Drama therapy programs encourage youth to create meaning and identity through their personal stories by visually representing internal reflections onto their external surroundings (Rousseau & Guzder, 2008). According to Emunah (1990), there is a significant relationship between creativity and healing whereby youth can ameliorate their emotional struggles by exploring them through artistic and imaginative strategies as well as in safe and nonthreatening spaces.

One study that employed drama therapy to address the psychosocial needs of refugees took place in a multiethnic neighbourhood in Montreal (Rousseau & Guzder, 2008). The goal was to give young immigrants and refugees a platform to voice their stories and construct meaning out of their past and present experiences. The drama therapy workshops successfully integrated the participation of youth in developing and sharing their stories through sound, movement, images, rhythm, and improvisation. As engaged and enthusiastic participants, the youth felt safe to express themselves and confront their past experiences through reenactment and metaphorical representations (Rousseau & Guzder, 2008).

Stepping back: About method

We are a team of Montreal-based researchers, working in a variety of national and global contexts (Palestine, Sierra Leone, Kenya, Pakistan) with war-affected children and using arts-based methods, who came together as part of a study on Children in Global Adversity[1] to consider critical issues related to arts-based research in this work. In our discussions over eight months, we began to raise what might be described as "productive unknowing" questions (Vasudevan, 2011): Why are arts-based approaches so

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[1] Myriam Denov and a multidisciplinary team of 15 Québec researchers launched this multi-institutional study in 2012. Funded by *Fonds de recherché du Québec–Société et culture* (FRQSC), this research aims to explore the complex realities of war-affected children living in Québec.

significant in work with war-affected children? Where is this type of work being done (which countries)? Where is it being published (journals, reports of NGOs)? Who is doing this research—independent researchers? NGOs? Who are the participants and how are issues of sex and age factored in? We also explored questions related to power and how it plays out in work with marginalised children. Coming out of this concern for power—and one that caused us to engage in stepping back—is the critical issue of ethics in arts-based work with war-affected children. While we found a rich body of work on ethics in working with children, more broadly—even (and perhaps especially) in the context of participatory visual research (Mitchell, 2011; Theron, Mitchell, Smith, & Stuart, 2011)—we became interested in deepening an understanding of the ethical issues related to arts-based research with war-affected children. This stepping back process provided us with an opportunity to look anew at some of the concerns that are unique to arts-based methods. For example, the fact that the children are themselves "producers" through their photos or drawings may put them in new positions of vulnerability. Are there particular issues related to the aesthetics of this work? We know that these methods are powerful in evoking stories, but how do we work ethically with those stories?

While the product of reviewing literature (the published review itself) might attract scholarly attention, the actual process behind its production typically does not. As a team, we started out by reviewing literature on arts-based research methods used with war-affected children. Using academic databases such as Academic Search Complete, PsycInfo, Medline, ERIC, Education Full Text, Art Full text, and Art Index Retrospective we searched out relevant article and chapters. In order to better analyse trends, we organised the literature by author/title, geographic location, methods, findings, terminology employed, age, and gender categories. But we also regularly shared our findings during face-to-face meetings over a period of six to eight months, and through email. It was in this context that we collectively realised that issues of power and ethics might be read in unique contexts because of the nature of the approach (creating artistic productions) and the participants (marginalised children), and that it was critical that we try to shed light on the question of "what counts as ethics, anyway?" in studies with war-affected children. This shifted the process somewhat to one where the review was less about being systematic and more about "digging deeper" and asking new questions even in relation to the literature we had already reviewed. Through an iterative process of review, reporting back, discussion, more review, and reflection, we arrived at four critical ethical issues that seemed to us to represent specific challenges in relation to children affected by war, but which were not always written about directly: (1) informed consent; (2) truth, interpretation, and representation; (3) dangerous emotional terrain; and (4) aesthetics.

Critical Issues

In this section we map out the scholarly terrain in relation to the four critical issues related to participatory arts-based work and ethics in work with war-affected children. While these are by no means the only issues, they are ones that might be seen as crosscutting in relation to arts-based research and that are particularly relevant to work with children in war-affected contexts.

Informed Consent

Any research involving children is delimited by the ethical guidelines of the professional field in which the research is situated. Research on war-affected children further extends these guidelines by raising important and unique developmental concerns that must be addressed when children consent to participate in research. Can children competently give informed consent to research (Newman, Risch, & Kassam-Adams, 2006)? It is generally believed that any competent participant is free to make a decision on the right to participate in research, because the participant understands what they are engaging in, that participation is voluntary, given freely, and not as a result of any kind of pressure (Canadian Institutes of Health Research [CIHR], Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2010). Yet, this becomes a fundamental ethical issue when

working with children. Embedded in policies and guidelines on ethics is the fact that because children "have varying degrees of maturity" (CIHR et al., 2010, p. 49) they are not considered to have the authority to consent to participate in research on their own. In most cases, children need to provide their assent as confirmation of a desire to participate in research. This differs from consent, which is granted from an individual who meets the age requirements—usually a parent with the legal authority to do so. Even very young children or those with limited cognitive ability can assent or indicate a desire not to participate which, in all cases, must be respected. If the individual giving assent is able to read and write, then assent is documented using an assent form, otherwise assent is obtained though a conversation with the participant (CIHR et al., 2010).

However, when designing research with children, several questions remain: is parental consent always necessary? At what age are children and adolescents truly able to give informed consent? In addition, the research agenda and ethical issues one has to consider when working with children who have been exposed to the trauma of war and/or forced migration is complicated by other belief systems. Björn and Björn (2004) stated:

> Within the broader area of culture there are many concepts of interest in the discussion of ethical aspects in treatment of refugees, such as autonomy of children, children's rights, education, women's liberation, socio-economic groups, freedom of religion, and other values and norms that might pose ethical questions into clinical praxis. (p. 194)

Culture-bound attitudes to research might influence the willingness of the child to fully participate in research. Therefore, lack of trust and communication issues should be considered. Striking a delicate balance between these issues is paramount for researchers not only to gain trust, but also to keep in mind the consequences that the decision to participate might have for the person in the future (Björn & Björn, 2004). Seedat, Pienaar, Williams, and Stein (2004) stated that "careful negotiation with the child and parent may be critical in trauma research, especially when a child's wish to please the parents or a fear of stigmatisation may impede his or her ability to make a truly informed and objective decision" (p. 265).

A study that examined children's assent to clinical research found the quality of assent in children younger than 9 years old to be poor; that is, children at this stage could not assent or consent to clinical research in any meaningful way (Seedat et al., 2004). The study recommended that children be consistently reminded of their right to refuse to answer any questions they choose, and that they may end their participation at any time (Seedat et al., 2004). Conversely, Dyregrov, Dyregrov, and Raundalen (2000) found that asking parents to inform their children about, and getting, consent is inadequate because, in their study, many parents consented without asking or informing their children, thus, precluding children from giving fully informed consent. In their study, children said it was acceptable that their parents gave consent on their behalf. In this case, the right of the parent to decide for their children was very evident. However, "the study reminds researchers of the vital ethical issue of informed consent and that it must be based on *real* understanding of each participant" (Dyregrov et al., 2000, p. 425).

What is the right thing to do at this moment from an ethical point of view? Can children give informed consent and/or is it always necessary to get parental or adult approval? Carried out sensitively and appropriately, informed consent by children can deepen the researcher's understanding while attending to the child's well-being (Newman, Risch, & Kassam-Adams, 2006). Given that much arts-based research is public and that participating children are credited for their contribution, public acknowledgement of research participants is the norm. In this case, informed consent becomes critically important to ensure adequate protection of the child so that the child will not face any repercussions when confidentiality cannot be assured (Social Sciences and Humanities Research Ethics Special Working Committee, 2008).

When designing studies that use arts-based methodologies, researchers are advised to consider the risks and benefits of children's participation and to develop specific protocols and safeguards to ensure that children understand the benefit of participating in research, that the participation is voluntary, and that informed consent is an ongoing process (CIHR et al., 2010).

Telling the story: Truth, interpretation, and representation

Whose truth is it?

Arts-based research with children affected by war conveys multiple meanings, complexities, and contradictions. This type of research can provide important insight into children's everyday wartime experiences, because it is based on what children (rather than adults) determine to be important. Researchers have suggested that adults are unable to be full participants in children's social worlds because the very nature of adulthood can never truly understand a child's point of view (Fine & Sandstrom, 1988; Hill, 1997; Punch, 2002). We suggest that this also serves as an ethical problem, begging the question, whose truth is being represented in the data—the child participant's or the adult researcher's?

Arts-based research can challenge the position of the adult researcher by providing child participants with a common tool to access the research project and minimise the adult researcher's potential "outsider" views. In other words, child participants may be more engaged with the methodologies than with the researcher. In this way, arts-based research helps move away from an adultist orientation that produces research *on* children to a more participatory and child-sensitive research *with* children (Alderson, 1996). Adult researchers should strive to abandon the assumption that adult-produced knowledge/truth is superior to knowledge/truth produced by children (Alderson & Goodey, 1996; Punch, 2002). Arts-based research provides a way to do this. Adult researchers must aim to uncover the multiple truths that might exist within their research projects.

Interpretation and representation

How do we best interpret and represent data from arts-based research with children affected by war? This question is based on the potential ambiguity of interpreting arts-based data as compared to other forms of "traditional" data. Critics suggest that the inherent polysemic nature of arts-based material creates a more subjective analysis, which can be problematic among certain research traditions. Yet, Knowles and Sweetman (2004) remarked that the alleged ambiguity of visual material is only challenging if one is "seeking to establish truths rather than interpretations" (p. 13).

Data from arts-based research methods with children has little meaning in and of itself. Rather, it is the interpretation and explanation from the child participant that is important. Boyden and Ennew (1997) recommended not conducting visual methods with children if there is no opportunity for children to explain or interpret the images they have produced, or if the researchers are not familiar with children's cultural "ways of seeing" (p. 116). The authors claim that visual research that fails to follow these basic procedures cannot be called participatory, will not likely be considered scientifically valid, and may be unethical. For example, Darbyshire, MacDougall, and Schiller, (2005) acknowledged that they did not create a space for children to discuss their visual documents (photographs and maps), leading to an adultist approach to their research. Upon reflection, the authors noted, "While a picture may indeed be worth a thousand words, we have no doubt that the children's thousand words would have enhanced this aspect of the study" (p. 429). Clark (2004) addressed the issue of interpretation in research with visual methodologies, not as a way to unearth one truth, but rather to provide children with multiple opportunities to express their views and experiences.

Furthermore, research with children affected by war should include a reflexive component, with researchers critically reflecting on both their role and their assumptions (Davis, 1998) and also, on their choice of methods and their application (Punch, 2002). In arts-based research—and especially when working with children's visual representations of their experiences of war—the researcher should allow for multiple ways of knowing, whether during data collection, analysis, or representation and dissemination of results. In practice, children must be allowed to provide insight into the representation part of the process—essentially becoming co-constructors of knowledge with adult researchers. Furthermore, the research process should allow child participants to challenge the interpretation that the adult researcher has given. If the interpretations are vastly different, another important ethical question is, how should divergent interpretations be understood and ultimately represented within the research project?

Dangerous emotional terrain

The benefits of employing arts-based methods, particularly with marginalised children, continue to be well documented. Emerging research has highlighted that art and music allow children to represent their experiences in contexts of reduced stress (Harris, 2007), and can promote activism and empowerment (Moletsane et al., 2007). Moreover, arts-based methods are said to be particularly successful with younger children, who often have limited vocabulary to verbalise their feelings (Gangi & Barowsky, 2009). At the same time, arts-based methods may plunge into "dangerous emotional terrain" (Boydell et al., 2012, pg. 4) for both the researcher and the researched. This section explores the ethical realities and implications of conducting arts-based participatory research, particularly as it relates to sensitive research topics, issues of power and accountability, and participant expectations.

Sensitive research: Exploring and depicting the realities of war

Lee and Renzetti (1993) defined a sensitive research topic as one that potentially poses a substantial threat for those involved in the research, and which may have an impact on the collection, holding, or dissemination of research data. Sensitive topics are those that seek to explore deeply personal and valued experiences—experiences that people being studied do not wish to be misused. When conducting sensitive research, there may be psychological or social costs to those being researched, including guilt, shame, or embarrassment. Importantly, the sensitive nature of the research can affect every stage of the research process, from formulation through design to implementation and dissemination (Sieber, 1993). When considering children affected by war, while gaining an understanding of children's perspectives and experiences is essential to recognising the diverse realities of children caught up in the maelstrom of war, this can have serious implications. Participants are being asked to delve into potentially traumatic and painful memories of war and violence that could evoke varying levels of distress. Those who are still suffering from the trauma of war and its related effects could experience heightened anxiety by reliving it through participatory research. Individuals who have begun to come to terms with their wartime experiences of violence and are beginning to move forward in their lives may feel that they are being asked to reopen old psychosocial wounds. Additional difficulties can arise as a result of participants' discomfort and anxiety in openly discussing their experiences, or from their fear of reprisal as a result of sharing their stories through art or other participatory approaches. Participants could also face social stigmatisation and judgment as a result of speaking about their direct involvement in violence. These diverse issues undoubtedly represent a few of the "ethical minefields" (Boyden & De Berry, 2004) that require constant care, attention, and mitigation in the research process. Moreover, while some research has found that sensitive topics, including war, may be easier to address through the use of creative arts (Harris, 2007), depicting acts of wartime violence—as victims, witnesses, and/or participants—remains relatively unexplored. For example, how can issues of vulnerability and safety be addressed and assured in the context of arts-based participatory research? How do issues of anonymity play out in the context of arts-based representations, particularly as they relate to children? What are the consequences of public disclosures and portrayals of war-related experiences for the individual children, their families, and

community? Little is known about the implications of portraying and/or embodying wartime or post-war experiences for both the child participant and the audience—both of which are critical to ensuring participant safety and security and researcher accountability.

Power and accountability

Traditionally, within research, children have been constructed as vulnerable, dependent, and "objects" of research (Boyden & De Berry, 2004). Moreover, while ethical issues are unquestionably present in all research—whether with children or adults—issues of power in the researcher–participant relationship present themselves more sharply when study participants are children. In light of these realities and given the increasing efforts to recognise children's rights and their capacity to act in competent and thoughtful ways, researchers have begun to include children as coresearchers alongside adults (Maclure, 2011). Alderson (2000) argued that using such participatory approaches may not only neutralise power differentials and ethical concerns, and engage children as active citizens, but may also increase reliability and validity. Importantly, in relation to war-affected children, research has revealed the high cost of not involving war-affected youth in projects where they are stakeholders. For example, programming on child soldiers has been deemed to be less effective when young people's views and perspectives are not included in program development (Peters, 2007). Indeed, giving greater control to participants ensures that the research process works to empower them and serve their interests. However, this can potentially bring forth ethical dilemmas for researchers. Key questions include: Who holds the "last word" in relation to project decision-making? What do adult researchers do when they perceive the project moving in an inappropriate direction, or in situations where children may be putting themselves or others at risk? In such situations, to whom are the researchers accountable? Who holds the reins and the power and authority to control and decide? The dangers and risks of tokenistic power are significant.

Participant expectations

Effective research depends on building relationships of confidence, trust, and openness with participants. Such conditions can be empowering to children who have experienced war and the adversity that often accompanies it. In fact, for some children, being involved in research may be the first experience where they feel they are being listened to and taken seriously. At the same time, there is a real danger for researchers to engender false hopes or make promises that cannot be realistically fulfilled through the course of the research. As such, while acknowledging their distress and providing reassurance is essential, it is vital not to mislead or raise unrealistic expectations. Many arts-based participatory approaches are said to include a component of social change, and scholarship has documented their transformative possibilities (Wang & Burris, 1994). Moreover, a goal for participatory arts-based methods is often to reach policymakers who have the power to implement changes within that community (Wang & Burris, 1997). However, what are the ethical implications when meaningful transformation is, at best, challenging or, at worst, an impossibility? For example, in a photovoice project with former child soldiers, Denov et al. (2012) noted that as a participatory method, photovoice was successful in raising community awareness of the youth's challenges within their community. Policymakers who were present at the photo exhibitions, were touched by the youth's photographs and voiced their outrage about the youth's socioeconomic conditions. However, discussions with policymakers during and following the exhibitions ultimately failed to yield concrete changes for the youth. This left the participants and the entire research team with concerns about the feasibility of photovoice as a truly viable tool for social change. What are the ethical implications of employing methods that seek transformation where such transformation can in no way be guaranteed?

Aesthetics

Because of the prominent place of artistic production in this work, we consider the issue of aesthetics. Boydell et al. (2012) outlined the discussions they had at a conference on ethics in arts-based health

research. When they turned to aesthetics and its role in ethics, they identified that the problem was how to determine what is "good" and who gets to determine this. They wrote that "aesthetics in [arts-based health research] highlight problems of emphasis in representations of complex human experience and whether the weight of judging the quality of 'goodness' of the work should rest with aesthetic principles and/or those of research" (p. 6).

They further noted that discussions about aesthetics frequently focus on the product (the artwork). However, Gladstone, Volpe, Stasiulis, and Boydell (2012) asserted that judging goodness in the context of producing data is linked to the "ethics as process" literature defined by Guillemin and Gillam (2004) as the exploration of ethically important moments; "the difficult, often subtle, and usually unpredictable situations that arise in the practice of doing research" (p. 262). These are factors that are key to the everyday practice of research, where even when it is clear what should be done there remains the possibility for harm.

Ethical moments

This idea of ethically important moments is what Varela (1999) defined as exploring lived everyday situations as "micro-worlds" (p. 10) where what we notice in those situations brings up questions for further reflection and inquiry. Rather than presenting a full review of aesthetics' role in the ethics of working with children affected by war, we examine a particular ethical moment in research (Spackman & Zaytzeff, 2012) that highlights the complex nature of working with children in terms of both aesthetics and issues related to power noted earlier. We hope that this will point to some emergent questions that need to be addressed when thinking about aesthetics and ethics, and further elaborate on the power dynamics noted earlier within arts-based research in particular situations.

In this ethical moment, researcher-practitioners worked with former child soldiers (between 12 and 18 years old) from Rwandan families living in Democratic Republic of the Congo (DRC). These children had either left Rwanda when they were babies or were born in DRC. They had then been abducted and forced to fight in the Congo alongside the *Forces démocratiques de libération du Rwanda* (FDLR). The boys had then escaped the FDLR to reach the United Nations mission in Congo and eventually ended up in Rwanda at a children's rehabilitation centre. The researcher-practitioners worked with these children to help them understand their experiences in DRC and talked about the difficulties of reintegrating into a country now considered their "home" but where they had never lived nor known anyone. The researcher-practitioners used theatre as a way for the youth to talk about their experiences in a safe, playful, and imaginative way. Through games, activities, and storytelling, the youth developed a story that, metaphorically and through puppets, conveyed their journey from children to soldiers to former child soldiers. In the story, Mahirwe (*Luck* in Kinyarwanda) magically flies back to visit his family, but he does not forgive them. Mahirwe leaves his family after showing them that, despite their rejection, he managed to do something with his life (Spackman & Zayteff, 2012). Adults who were part of the project raised concerns about Mahirwe's story, stating that the ending was too harsh and contrasted sharply with the research project's goal of reintegrating the former child soldiers into Rwanda. The adults felt that the conclusion needed to be reconsidered in light of the goal of the centre. However, the researcher-practitioners who had been working with the youth felt that this was a

> rupture in the tacit contract we had created with them. Our role was to create a framework for the boys to tell the stories they want to tell. Intervening to change their story would counter what we had already built. (Spackman & Zaytzeff, 2012, p. 328)

The youth eventually agreed to change the ending. The researcher-practitioners felt that the process of creating ownership and self-assertion had been strong. Though the youth understood why the original ending would not be appropriate, they explained that they had wanted to show parents that they

> should not reject their child because they cannot know how he will turn out in the future. The boys personally know kids disabled by war whose parents refused to take them back, and, yes, it makes them angry and sad. (Spackman & Zaytzeff, 2012, p. 328)

The researcher-practitioners concluded that "the point of our work with them was not to be literal but to encourage them to create metaphors—like the fish—in order to express their anger and other feelings in a safe way" (Spackman & Zaytzeff, 2012, p. 328). This example frames the question of ethics, aesthetics, and power in a focused way. Who decides what a good story is? What is the intention of telling stories? Who has the power when adults are working with children and how can that power be negotiated in terms of the production and process of story? How does it serve the children? The proposed audience? The parents? The future? The present? The past?

Boydell et al. (2012) suggested that "determining the goodness of art in terms of its role in research is even more complex, requiring attention to the aims of the research and the context in which the research is being conducted" (p. 12). By examining the ethics of the process in Rwanda we see that a complex inter-relationship of aesthetics, context, and purpose emerges. Clearly, then, each decision on a particular individual ethical micro-world will elicit more questions.

Conclusions and Implications

In an era of increased awareness of human rights in response to the global conflicts that continue to affect children, there is also increased attention to the specific ethical issues when working with war-affected children. As we have highlighted throughout, there has been an increased focus on participatory work. Children who are often denied basic human rights because of conflicts are the very children whose voices should be heard in programming and research in both schools and community settings. However, there are often new and complex issues that arise because of the nature of working in participatory ways with war-affected children. It is critical that children feel accepted and able to tell their story through arts-based methods such as photovoice, drawing, or drama. But there may be new ethical dimensions that we have not yet contemplated in relation to the story and what can be told. How do we ensure sensitivity especially in the public settings of schools and community centres where much of this work takes place? How do we stop the zealous researcher or practitioner from immediately displaying the work when the child who produced the drawing or photo may have no idea of what "making public" means and no power to say no?

Our intention was to highlight these critical issues with the idea that we have a responsibility to do least harm and most good as researchers. Part of that work is to deepen an understanding of the ways in which specific ethical issues may have an impact on war-affected children. The four areas we chose to focus on here—informed consent; truth, interpretation, and representation; dangerous emotional terrain; and aesthetics—have theoretical significance in relation to such issues as power and participation, as well as practical significance. But they also affirm the fact that as researchers we need tools for reflection. While there are various studies that highlight reflexivity in team research particularly in relation to the collaborative process of data analysis (see Holland, Ramazanoglu, Sharpe, & Thomson, 1999), we are not aware of studies that have drawn attention to team the role of reflexivity within the review process. The stepping back that we describe here calls for opportunities for back-and-forth discussion, continuous re-engagement with the literature, and a sense of what can be gained when we work collaboratively.

References

Alderson, P. (2000). Children as researchers: The effects of participation rights on research methodology. In P. Christensen & A. James (Eds.), *Research with children: Perspectives and practices* (pp. 241–257). New York, USA: Falmer.

Alderson, P. (1996). *Listening to children: Children, ethics, and social research*. Ilford, UK: Barnardos.

Alderson, P., & Goodey, C. (1996). Research with disabled children: How useful is child-centred ethics? *Children & Society*, *10*(2), 106–116.

Angel, B., Hjern, A., & Ingleby, D. (2001). Effects of war and organized violence on children: A study of Bosnian refugees in Sweden. *American Journal of Orthopsychiatry*, *71*(1), 4–15.

Björn, G. J., & Björn , A. (2004). Ethical aspects when treating traumatized refugee children and their families. *Nordic Journal of Psychiatry*, *58*(3), 193–198.

Boydell, K.M., Volpe, T., Cox, S., Katz, A., Dow, R., Brunger, F., . . . Wong, L. (2012). Ethical challenges in arts-based health research. *The International Journal of the Creative Arts in Interdisciplinary Practice (IJCAIP), 11*(Spring). http://www.ijcaip.com/archives/IJCAIP-11-paper1.html

Boyden, J., & Ennew, J. (Eds.). (1997). *Children in focus: A manual for participatory research with children*. Stockholm, Sweden: Rädda Barnen.

Boyden, J., & De Berry, J. (2004). *Children and youth on the front line*. Oxford, UK: Berghan Books.

Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada (2010). *Tri-council policy statement: Ethical conduct for research involving humans.* Retrieved from http://www.pre.ethics.gc.ca/eng/policy -politique/initiatives/tcps2-eptc2/Default/

Clacherty, G. (2006). The world in a suitcase: Psychosocial support using artwork with refugee children in South Africa. *Participatory learning and action. Mapping for change: practice, technologies and communication*, *54*, 121–127.

Clark, A. (2004). Commentary. In V. Lewis, M. Kellett, C. Robinson, S. Fraser, & S. Ding (Eds.), *The reality of research with children and young people* (pp. 157–161). London, UK: The Open University.

Darbyshire, P., MacDougall, C., & Schiller, W. (2005). Multiple methods in qualitative research with children: More insight or just more? *Qualitative Research*, *5*(4), 417–436. doi:10.1177/1468794105056921

Davis, J. M. (1998). Understanding the meanings of children: A reflexive process. *Children and Society*, *12*(5), 325–335. doi:10.1111/j.1099-0860.1998.tb00089.x

Denov, M., Doucet, D., & Kamara, A. (2012) Engaging war-affected youth through photography: Photovoice with former child soldiers in Sierra Leone. *Intervention: The International Journal of Mental Health, Psychosocial Work and Counselling in Areas of Armed Conflict, 10*(2), 117–133.

Dyregrov, K., Dyregrov, A., & Raundalen, M. (2000). Refugee families' experience of research participation. *Journal of Traumatic Stress*, *13*(3), 413–425.

Emunah, R. (1990). Expression and expansion in adolescence: The significance of creative arts therapy. *The Arts in Psychotherapy*, *17*(2), 101–107.

Fine, G. A., & Sandstrom, K. L. (1988). *Knowing children: Participant observation with minors*. Newbury Park, USA: Sage.

Gangi, J., & Barowsky, E. (2009) Listening to children's voices: Literature and the arts as means of responding to the effects of war, terrorism and disaster. *Childhood Education*, *85*(6), 357–363.

Gladstone, B., Volpe, T., Stasiulis, E., & Boydell, K. M. (2012). Judging quality in arts-based health research: The case of the ugly baby. *The International Journal of the Creative Arts in Interdisciplinary Practice (IJCAIP)*, *11*. http://www.ijcaip.com/archives/IJCAIP-11-paper2.html

Green, E., & Kloos, B. (2009). Facilitating youth participation in a context of forced migration: A photovoice project in northern Uganda. *Journal of Refugee Studies, 22*(4), 460–482.

Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative Inquiry, 10*(2), 261–280.

Harris, D.A. (2007). Pathways to embodied empathy and reconciliation after atrocity: Former boy soldiers in a dance/movement therapy group in Sierra Leone. *Intervention, 5*(3), 203–231.

Hill, M. (1997). Participatory research with children. *Child & Family Social Work*, *2*(3), 171–183. doi:10.1046/j.1365-2206.1997.00056.x

Holland, J., Ramazanoglu, C., Sharpe, S., & Thomson, R. (1999). Feminist methodology and young people's sexuality. In R. Parker & P. Aggleton (Eds.), *Culture, society and sexuality: A reader* (pp.457–472). London, UK: VCL Press.

Johnson, D. R. (1982). Principles and techniques of drama therapy. *The Arts in Psychotherapy*, *9*(2), 83–90.

Jordans, M. J., Tol, W. A., Komproe, I. H., & De Jong, J. V. (2009). Systematic review of evidence and treatment approaches: Psychosocial and mental health care for children in war. *Child and Adolescent Mental Health*, *14*(1), 2–14.

Kalksma-Van Lith, B. (2007). Psychosocial interventions for children in war-affected areas: The state of the art. *Intervention*, *5*(1), 3–17.

Knowles, C., & Sweetman, P. (2004). Introduction. In C. Knowles & P. Sweetman (Eds.), *Picturing the social landscape: Visual methods and the sociological imagination* (pp. 1–17). London, UK: Routledge.

Larkin, J., Lombardo, C., Walker, L., Bahreini, R., Mitchell, C., & Dubazane, N. (2007). Taking it global Xpress: Youth, photovoice and HIV/AIDS. In N. de Lange, C. Mitchell, & J. Stuart (Eds.), *Putting people in the picture: Visual methodologies for social change* (pp. 31–43). Rotterdam, Netherlands: Sense.

Lee, R., & C. Renzetti (Eds.). (1993). *Researching sensitive topics*. London, UK: Sage.

Literat, A. (2013). "A pencil for your thoughts": Participatory drawing as a visual research method with children and youth. *International Journal of Qualitative Methods, 12,* 84–98.

Maclure, R. (2011) The dynamics of youth participation: Insights from research fieldwork with female youth in Senegal. In M. Denov, R. Maclure, & K. Campbell (Eds.), *Children's rights and international development: Lessons and challenges from the field* (pp. 155–174)*.* New York, USA: Palgrave Macmillan.

Mitchell, C. (2011) *Doing visual research*. London, UK: Sage.

Mitchell, C., De Lange, N., Moletsane, R., Stuart, J., & Buthelezi, T. (2005). Giving a face to HIV and AIDS: On the uses of photo-voice by teachers and community health care workers working with youth in rural South Africa. *Qualitative Research in Psychology*, *2*(3), 257–270.

Mitchell, C., Theron, L., Stuart, J., Smith, A., & Campbell, Z. (2011). Drawings as research method. In L. Theron, C. Mitchell, A. Smith, & J. Stuart (Eds.), *Picturing research* (pp.19–36). Rotterdam, Netherlands: Sense.

Moletsane, R., De Lange, N., Mitchell, C., Stuart, J., Buthelezi, T., & Taylor, M. (2007). Photo-voice as a tool for analysis and activism in response to HIV and AIDS stigmatization in a rural KwaZulu-Natal school. *Journal of Child and Adolescent Mental Health, 19*(1), 19–28.

Moneta, I., & Rousseau, C. (2008). Emotional expression and regulation in a school-based drama workshop for immigrant adolescents with behavioral and learning difficulties. *The Arts in Psychotherapy*, *35*(5), 329–340.

Newman, E., Rich, E., & Kassam-Adams, N. (2006). Ethical issues in trauma-related research: A review. *Journal of Empirical Research on Human Research Ethics: An International Journal*, *1*(3), 29–46.

Peters, K. (2007). Reintegration support for young ex-combatants: A right or a privilege? *International Migration*, *45*(5), 35–59.

Punch, S. (2002). Research with children: The same or different from research with adults? *Childhood*, *9*(3), 321–341.

Rousseau, C., & Guzder, J. (2008). School-based prevention programs for refugee children. *Child and Adolescent Psychiatric Clinics of North America, 17*(3), 533–549.

Save the Children & UNICEF. (2013). *Then and now: Photostories and drawings by Syrian children of Za'atari Refugee Camp, Jordan*. Save the Children & UNICEF.

Seedat, S., Pienaar, W., Williams, D., & Stein, D. (2004). Ethics of research on survivors of trauma. *Current Psychiatry Reports*, *6*, 262–267.

Spackman, E.S., & Zaytzeff, A. N. (2012). Theatre with former child soldiers. *Peace Review: A Journal of Social Justice, 24*(3), 325–331. doi:10.1080/10402659.2012.704323

Sieber, J. (1993). The ethics and politics of sensitive research. In R. Lee & C. Renzetti (Eds.), *Researching sensitive topics* (pp.14–26). London, UK: Sage.

Social Sciences and Humanities Research Ethics Special Working Committee (2008). *A working committee of the Interagency Advisory Panel on Research Ethics (PRE)*. Retrieved from

http://www.pre.ethics.gc.ca/policy-politique/initiatives/docs/Creative_Practice_Chapter_Jan_2008_-_EN.pdf

Theron, L., Mitchell, C., Smith, A.L., & Stuart, J. (2011). *Picturing research: Drawing as visual methodology.* Rotterdam, Netherlands: Sense.

Varela, F. (1999). *Ethical know-how: Action, wisdom, and cognition.* Stanford, USA: Stanford University Press.

Vasudevan, L. (2011). An invitation to unknowing. *Teachers College Record, 113*(6), 1154–1174. Available at: http://www.tcrecord.org ID Number: 16136

Wang, C., & Burris, M. (1994). Empowerment through photo novella: Portraits of participation. *Health Education Quarterly*, *21*(2), 171–186.

Wang, C., & Burris, M.A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior, 24*(3), 369–387.

Wang, C. C. (1999). Photovoice: A participatory action research strategy applied to women's health. *Journal of Women's Health*, *8*(2), 185–192.

Wessells, M., & Monteiro, C. (2001). Psychosocial interventions and post-war reconstruction in Angola: Interweaving Western and traditional approaches. In D.J. Christie, R.V. Wagner, & D.A. Winter (Eds.), *Peace, conflict, and violence: Peace psychology for the 21st* century (pp. 262–275). Englewood Cliffs, USA: Prentice Hall.

Book Report

African Philosophy of Education Reconsidered: On being human
Yusef Waghid, New York: Routledge, 2014. 143 pp.

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African Philosophy of Education Reconsidered: On being human is worthy reading for scholars, teachers, and other people in the education community, as well as for general readers. The word *reconsidered* meaning *thought about again* is precisely what Waghid has done in this book. The author relooks what other African philosophers think African education should entail. Waghid juxtaposes his ideas with other writers' views as he concurs, and also disagrees, with other academics' assertions about African educational philosophy. He suggests that scholars of African education should be guided by African traditions.

The book centres on *ubuntu*, a concept on which the author has written extensively, and which "translates as humaneness, personhood and morality" (Letseka, 2012, p**.** 48). Hence, he includes *On being human* in the book title. This further illustrates what Waghid considers one of the main attributes of African philosophy of education: he argues that African education should be based on communality. Local contexts and historical and cultural knowledge such as beliefs and practices should be taken heed of during any teaching or learning process. He asserts that African philosophy of education must link European philosophy with African consciousness. There is further argument that African knowledge, much of which is transmitted through oral history, should be documented for it to be debated or validated and thus become a cornerstone of African education.

The seven-chapter book is user friendly with every chapter having its own heading and subheading. This makes for clear understanding of the content of each chapter. As a researcher of oral communication (focusing on teaching English oral communication to isiZulu-speakers), I became interested by the author's highlighting of Africa's institutes of democracy such as *inkundla, ibhunga or ibandla* (courts, councils or forums)*.* These institutes are colloquies where ubuntu, the idea that people live in a community where they share things and care for each other (Mkhize, 2004), and *ukama* (interdependent relationships) are nurtured. According to Waghid these are foundations of democratic citizenship that should be woven into Africans' ways of life through African philosophy of education.

Throughout the book, readers can note that the suggestion is that African beliefs and practices need to underpin African education. Waghid sees ubuntu philosophy as means of propagating the teaching, learning, and working together of communities (see also Caracciolo & Mungai, 2009). The author avers that human rights abuses can be counteracted through the concept of *ubuntu*. That is to say, an African philosophy of education that stresses oneness and communitarian existence can aid in averting the civil wars that ravage the African continent, and aid in preventing the horrific violence that has been prevalent in countries such as Democratic Republic of the Congo and Rwanda.

Reading this book has prompted my own self-introspection as a teacher and a researcher. Am I providing my learners with "transformative education" (Ball, 2004, p. 468)? How am I going to contribute to scholarly work that can help to cleanse my country of the inequities of apartheid in South African education?

Waghid's book is appropriate for teachers who aspire to interweaving traditional African philosophy with modern and global philosophies of education. It is a very informative book, particularly for researchers using *ubuntu* as theoretical lens for any study. The book is also an invaluable resource for scholars whose interest lies specifically in African philosophy of education.

References

Ball, J. (2004). As if Indigenous knowledge and communities mattered: Transformative education in First Nations communities in Canada. *The American Indian Quarterly, 28*(3 & 4), 454–479.

Caracciolo, D.M., & Mungai, A.N. (2009). *In the spirit of ubuntu: Stories of teaching and research.* Rotterdam, Netherlands: Sense Publishers.

Letseka, M. (2012). In defence of ubuntu. *Studies in Philosophy and Education: An International Journal*. Retrieved from http://link.springer.com/article/10.1007%2Fs11217-011-9267-2

Mkhize, N. (2004). Sociocultural approaches to psychology: Dialogism and African connections of the self. In K. Ratele, N. Duncan, D. Hook, N. Mkhize, P. Kiguwa, & A. Collins (Eds.), *Self, community & psychology* (pp. 5–31). Cape Town, South Africa: UCT Press.

Conference Report

Southern Africa Research in Science, Mathematics and Technology Education (SAARMSTE) Annual Conference, 2014, Nelson Mandela Metropolitan University, Port Elizabeth

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The Southern Africa Research in Science, Mathematics and Technology Education (SAARMSTE) hosted its annual conference at the Nelson Mandela Metropolitan University, Port Elizabeth, South Africa from 13-16 January 2014. The theme of the conference was "New avenues to transform Mathematics, Science and Technology Education in Africa".

SAARMSTE is a prestigious and dynamic organisation that has regional and international membership and is dedicated to the advancement of research in Mathematics, Science and Technology Education (MSTE). The organisation fosters the following aims:

- To advance Mathematics, Science and Technology Education (MSTE) in Southern Africa;

- To promote a sense of community amongst researchers in MSTE;

- To promote research to improve and develop MSTE programs in response to current and future needs; and

- To organise conferences at which the results of MSTE research can be presented.

SAARMSTE publishes the African Journal for Research in Mathematics, Science and Technology Education (AJARMSTE). More information about SAARMSTE can be obtained on http://www.saarmste.org/

The four plenary speakers – all formidable scholars – presented work which promoted interesting debate and interaction amongst the delegates. Prof Brahm Fleisch' plenary focused on Large-Scale Reform of Instructional Practice where he highlighted research conducted by Taylor, van der berg and Mabogane (2013) "that Grade 3 learners from former-white schools scored higher on the same test than Grade 5 learners from former-black schools, showing that already by the age of eight there are large inequalities in the educational outcomes of schoolchildren".

Prof David Treagust from Perth, presented his plenary talk on "Why is an understanding of multiple representations so important in learning science? He concluded by stating the following:

- Teachers tend to assume students have proficient understanding of multiple representations and therefore do not emphasize multiple representations.

- Research studies have found students often have difficulty understanding and integrating multiple representations

- Students focus on surface features of a representation (overloading)

- Students prefer to use only one representation

- Teachers need to understand how students interpret and use multiple representations

- Students need opportunities to actively use multiple representations in class.

Prof Tamsin Meaney, from Charles Sturt University, Australia, stimulated delegates with her talk on preschool mathematics. Her title was **"**The mythologising of preschool mathematics: what is it supposed to do? She illuminated the fact that across the world, interest in the mathematics that reschool children should engage with has become a hot topic. Her research considers how three myths:

- mathematics achievement leads to economic progress;

- poverty can be fixed by education; and

- testing contributes to raising standards

have been refracted into the discussion about what young children can learn about mathematics. According to her, the risk from this refraction is of two kinds. The first is that what young children are capable of doing mathematically is reduced to opportunities to engage with a restricted version of school mathematics. The second is that these children's own mathematical interests are ignored in the interests of their becoming not a member of a heterogeneous society, but a clone of the perfect, middle-class child. From an awareness of the role of these myths, she proposed an alternative mathematics education for young children built on different myths, also present in many Western societies.

Prof Mamoghekti Phakeng captivated and inspired delegates with her talk, "From language as a problem to language as a resource: Forty years of research on mathematics education and language".

This 14th SAARMSTE conference provided the platform for delegates to engage, deliberate and argue with each other to explore new avenues of transformation in Mathematics and Science and Technology Education considering the crisis in which Africa's education finds itself and issues of equity, language, teacher and learner support, and assessment were deliberated. The theme highlighted and acknowledged that new knowledge is required to transform the critical education situation in Africa and that 'more of the same' will not solve the multiplicity of teaching and learning challenges facing MST educators in Africa.