

Research Article

J McIntyre-Mills*, J Karel, A Arko-Achemfuor, N.R.A Romm, L Serolong

Efforts to inspire transformative research with farmers in a small town in the North West Province of South Africa

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Abstract: The project review as outlined in this article explores the questions: What is transformative research and what is transformation as far as the community stakeholders are concerned? To what extent has the transformative research achieved its intended outcomes? The Bokamoso project (founded by Lesego Serolong as facilitator and investor) is an integrated development project designed to create employment and to enable the community to learn while they make a living through a diverse range of farming activities. The participatory research as discussed here is part of the University of South Africa's research and community engagement programme, and is set in a remote, arid zone. This research coupled with community engagement aims to transform lives and create opportunities by enhancing their participation in education, training and employment creation. The project (which has been running since 2015) supports indigenous ways of being, knowing and doing and has succeeded in enabling the farmers trained through Bokamoso to be less dependent on social benefits (government grants).

Keywords: Epistemic network; Transformation; Social and environmental justice

*Corresponding author: J McIntyre-Mills, Adjunct Associate Professor, Flinders University, Adelaide, South Australia, Email: janet.mcintyre@flinders.edu.au

J Karel, Department of Adult Education and Youth Development, University of South Africa, South Africa

A Arko-Achemfuor, Department of Adult Education and Youth Development, University of South Africa, South Africa

N.R.A Romm, Department of Adult Education and Youth Development, University of South Africa, South Africa

L Serolong, CEO of Bokamoso Impact Investments, Centurion, South Africa

1 Introduction: Aims, background and statement of the problem

In this article, in the context of exploring our involvement with a particular sustainable development project, we explore the questions: What is transformative research and what is transformation as far as the community stakeholders are concerned? To what extent has the transformative research achieved its hoped-for outcomes?

The extent to which community transformation has been achieved is a value judgement. Thus the voices of the project participants provide qualitative insights into these questions, as detailed in Section 6 below. Transformation needs to be carefully unpacked and to remain reflective if it is to avoid running the risk of becoming another form of modernization, where increased “standards of living” rather than “quality of living” becomes the goal of development. In the article we explore the potential of transformation conceived as social and ecological wellbeing, together with the people whose lives are most affected by the research. We concentrate on the development project undertaken in the village of Manyeledi – one of the villages in which Bokamoso Impact Investments has been operating. (For additional detail on the project background, please see the article by Arko-Achemfuor, Romm, and Serolong in this volume.)

The article aims to explore possibilities for strengthening institutional capacity to address the UN 2030 Sustainable Development Agenda through ecological engagement based on a “one village, many enterprises approach” to development to reduce rural poverty and rural to urban migration. The purpose of the research is for those involved to share some of the challenges associated with transformative-directed research in an arid zone, through a community of practice approach. The particular field visit in South Africa (which informs this article – namely, a visit in July 2018) followed on from the multi-site mixed methods and cross-cultural research symposium held in Australia (in line with Australia's Foreign Policy, 2017) and

West Java, which underlined the importance of collaborative research as equal partners in the so-called “One Village, One Enterprise Approach” (2014) decreed by the President of Indonesia, Jakowi. Through creating a community of practice network at a post-national level, we have considered the application of the “one village one enterprise” notion in the South African context.

- **Firstly**, this article reflects on the views raised by the participants in Manyeledi and the efforts to enable local leadership and ownership of the project through setting up support networks. It addresses transformation efforts in this drought-prone community in the North West (NW) Province by a team of resilient farmers, inspired and supported by Lesego Serolong, who received her education at the Tiger Kloof Educational Institution in Vryburg and became inspired to contribute to the development of surrounding communities. The article describes the motivation for the project, the empowerment process of drawing on support from the wider community (as part of the learning process) and then describes one of the iterative learning cycles with the stakeholders. It discusses how facilitators, farmer practitioners and community members engage in what can be called an integrated development project in order to co-create a shared epistemic community. The qualitative research relies on narratives shared by the participants and some reflection on the tangible outcomes achieved as a result of the project. Narratives and conversations that honor Indigenous wisdom (Kovach, 2009) constitute the so-called “research data”. Our brief was to observe progress in the community and to listen to their concerns about agricultural development in their area. The advice to the community draws on Kabeer’s (1999, 2015) approach to institutional power dynamics by extending the learning organization (Senge, 2006) and learning community approach to support “living systems” (Wadsworth, 2010). In this approach, as explained by Flood & Romm (2018) researcher-facilitated learning encourages people to focus not only on means to reach goals, but on how goals are discussed through learning encounters, while also paying attention to (shifting) power relations in processes of co-creating visions.
- **Secondly**, it explores the potential of transformative research to support social and environmental justice (McIntyre-Mills et al., 2019a,b; Romm, 2018a). It also considers the importance of creating a web of supportive relationships including academics, community workers, NGOs, the public, private sector and local residents living within the region. Together they

comprise a “community of practice” to inform the epistemic network to address the wicked problems of poverty and climate change in this remote region that is vulnerable to drought and the impacts of climate change (IPPC report, 2018). Wicked problems (Rittel & Webber, 1973) refer to multiple, interrelated variables at play that can be perceived differently by different stakeholders.

- **Thirdly**, it demonstrates how Manyeledi residents have been able to move away from a sole reliance on social benefits and to begin to establish themselves as sustainable famers. This has been achieved by matching learning approaches to the needs of the learners (Kameenui, & Carnine, 1998) to empower them (McKay & Romm, 1992).

2 Rationale

The rationale for this article is to discuss community engagement and the potential for Vocational Educational Training (VET) and Research rooted in concerns regarding food, water and energy security. In this case, the VET is provided through the University of South Africa’s (Unisa’s) Adult Basic Education and Youth Development Department and through Bokamoso Impact Investments. The article focuses on the importance of addressing the needs of farmers in regions that are increasingly vulnerable to climate change. The IPCC (2018) report makes it clear that global warming will exceed the 1.5 % benchmark and this has specific implications for Africa. Glasser (2018) stresses that globally we face cascading risks. One of these will be the impact of using unsustainable farming practices to produce large food crops in vulnerable food growing regions that face increased risks of drought, fires and floods. He then cites 45-80 % of Africa will be affected by climate change and that this will impact food security. One such area is the North West Province of South Africa (just south of Botswana at the edge of the Kalahari Desert). It has a low average rainfall and climate change has made the farming on marginal farming land more challenging than in previous years.

This article also considers the potential opportunities to address the challenge to support cross-sectoral collaboration by public, private and civil society partners to contribute to addressing the SDGs 1 (no poverty), 11 (sustainable communities) and 17 (partnerships to achieve goal 1 and 11). Challenges are intertwined across the social, environmental and economic spheres (UNRISD, 2017, Glasser, 2018, IPCC, 2018).

South Africa's unemployment rate increased to 26,7 % in the first quarter of 2019. This is a 0.5 % increase. The North West Province has an overall unemployment rate of 26.6%. It is worth pointing out that even though the overall unemployment in the NW Province is *lower than* in Gauteng which has an unemployment rate of 29% (South African Market Insights, 2019 it has the highest unemployment rate nationally, namely, 40,3% for young people aged 15-24 who are *not in employment or training*. This is (officially) the highest rate of employment for this age group in South Africa. But the rate of unemployment for this category is equally high for this age group. Our reason for working with Bokamoso in their project in Manyeledi, in the NW Province was to explore how transformative research collaboration across Unisa, NGOs, and the private sector (led by a visionary leader, Lesego) could make a difference by creating more employment opportunities in regional and rural areas geared to focus on sustainable farming for a sustainable future. One of the greatest challenges has been to address the so-called “not in employment education or training” category that covers young people aged 15-24 and to work with the wider community to ensure that this most vulnerable group is given more education, training and employment opportunities. Consensus exists within the Adult Basic Education, Training and Youth Development Department at Unisa about its identity as a facilitator of learning that is linked to scholarship and research to foster active community engagement and critical pedagogy (as Giroux, 2004, 2011, puts it).

3 Praxis approach to support social and environmental justice

“Indigenous people are all about place...land is our mother. This is not a metaphor. The natural world is in constant dialogue with us, although we do not always listen or respond ...” (Walker, 2013, p. 206, citing Manu-
lana Meyer). We are the land. Our history and choices are written in the landscape (prologue to *Planetary Passport*, McIntyre-Mills, 2017a).

Previously sociology and social anthropology, for example, were merely a study of human relationships. However, today it is a study of human beings' relations to one another (including sentient beings) and our ability to shape this generation of living systems and the next (McIntyre-Mills, 2017b, 2019a; Romm, 2017, 2018b).

The participatory action research approach (as we recount it here) to protect living systems can be called

transformative (Mertens, 2010, 2017, 2019; McIntyre-Mills, 2019b; Romm, 2015) in that as it is based on a learning community approach. It uses learning networks (Jones, 2004) to bring people together to pool resources in order to help to protect local habitat for living systems (Chilisa, 2017; Wenger, White & Smith, 2009).

4 Weaving together support networks to form an epistemic community of practice

Hesse-Biber expresses concern about “practical pragmatism” that boils down to a “what works” approach that tries to sidestep the hard “epistemological issues” that were emphasized by a more “philosophical pragmatic” approach (Hesse-Biber, 2015, p. 782). Hesse-Biber indicates that such a pragmatic approach can be problematic in that it does not consider questions such as:

Who gets to carve out and determine what knowledge becomes legitimated? To what extent does this process serve specific ends? What is lost? Who gets to challenge and reframe or rename a given concept? ... Just how the research question enters into the mixed methods research (MMR) project remains woefully unarticulated. (2015, p. 784)

The transformative research approach (e.g., Mertens, 2009, 2017; Mertens & Wilson, 2019) uses mixed methods, or indeed any method(s), with consciously transformative intent – and applies a learning community approach (Wenger et al., 2009) to cross fertilize ideas across stakeholders who bring different skills and resources to the project (McIntyre-Mills et al., 2019, McIntyre-Mills, 2019a,b). The rapid appraisal review of progress to date, involved all the authors who contributed to this article.

The team who engage in regular field visits is facilitated by Professor Arko-Achemfuor, third author, who is the project leader for Community Engagement in Adult Basic Education and Training at the College of Education at Unisa. Arko-Achemfuor (2013) has undertaken research on how partnerships foster vocational education and training. Joyce Karel, the second author is an academic, skilled translator from Setswana into English, a community development facilitator and adult educator who draws on Indigenous wisdom and her experience as a farmer, educator and community organizer.

Janet McIntyre and Norma Romm first and fourth authors, respectively, offer their insights drawn from local and international contexts. Weaving together strands of

knowledge and experience through dialogue to protect biodiversity and ecological living is the focus of this research using a community of practice (COP) to which all the authors contribute. COP refers to a group of people who self-organize together to achieve a common goal through the reciprocal sharing and managing of resources locally, nationally and internationally (Wenger, McDermott & Snyder, 2002).

Lesego Serolong, fifth author of the article, adds her skills and insights developed through her practical involvements in setting up Bokamoso's social enterprises, combined with her training locally and internationally (in South Africa, USA and UK) and her continued research.

The research team visited Tiger Kloof (TK) Educational Institution, where Lesego (founder of Bokamoso Impact Investments) graduated and continues to be a board member. The institution was set up at the request of the Botswanan royal family to develop leaders. The school closed during the dark days of Apartheid, but re-opened to continue its legacy "to create young leaders", to cite the TG history website. The motto of the school is to "create new paths in learning, doing and serving". Its approach to Internationalism, Democracy, Environmental Awareness, Adventure, Leaderships and Service, helped to inspire leaders such as Lesego. The school's conceptual structure was built on the principles of leadership and collaboration and the physical structure of local stone enabled the school to survive the unofficial advice to pull it down – according to one informant – so the stones could be used elsewhere. It was also mentioned that local stones were used in order to teach the value of the local environment and symbolized strength of spirit. The historical school buildings and the beautiful location help to inspire learners to understand their interconnectedness and dependency on nature.

Climate change, habitat loss, rapid urbanization and opportunities for women and young people will become increasingly important policy issues for peace and human security. The team members raised the question about the rights of women and gender dynamics in the community. International networks (supported by coalitions across municipalities) can help to make a difference by sharing ideas and contributing to changing policies towards eco systemic living by drawing on local wisdom (Cruz et al., 2009; Midgley et al., 2007; Stokols, 2018). In Indonesia the "One village, one product" (OVAP, Morihiko Hiramatsu – Governor of Oita prefecture, 1979, Yogyakarta, 2014) has been successfully established as a policy directive for Indonesia. This research takes the approach further by developing a learning community approach as a step towards further empowering women in order to reduce

their economic vulnerability (McIntyre-Mills, 2019b), but the process needs to be extended to expand women's role in the decision-making process in Indonesia and South Africa as the patriarchal structures in village society are prevalent although less so in Manyeledi as it is headed by a particularly enlightened chief, with some female counsellors as advisors. In the community meetings which we attended, the expression of agency by women appeared central to the success of the project. One of the key expressions of agency is by Lesego who has developed trust relations with the community, partly through the involvement of the chief and counsellors.

5 Embedding VET training through setting up a community of practice to address shared concerns

Four of the authors (the first four of this article) visited Manyeledi on the day after Barack Obama delivered the Mandela Memorial lecture. The visit was well timed as this region had faced civil unrest just a few months previously, because of the high levels of unemployment in the 15-24 age group and the lack of services. Cyril Ramaphosa (The President of South Africa) had to return from his visit to the Commonwealth Conference in Britain, because of the scale of the protests against the ANC-led government in the NW Province.

As indicated earlier, Manyeledi is a remote rural area where the majority of residents are unemployed and survive on farming and social grants. Few people are employed or working in the major town Vryburg as domestic workers, drivers and laborers. Those that are working leave their children with their parents. The majority of the grandparents who look after children are illiterate and are unable to assist them with homework. The road to Manyeledi from Vryburg travels through a changing landscape. The trees give way to dry low scrub. Goats provided the only sign of life amongst the dry grass and white stones. Some very attractive rondavels appeared over the horizon and demonstrated the aesthetic beauty of clay, stone and thatched houses.

The area is well known by Lesego as she attended the school and she is a Board Member of the TG Educational Institution that provides outreach to this community (as well as others). As part of her own initiative to capacitate farmers in Manyeledi, with a view to forming a farming co-operative. Lesego contacted Professor Arko-Achemfuor (past vice principal of TG and now Associate Professor in

Unisa's Department of Adult Basic Education and Training) to assist her in providing literacy training and support for the potential farmers. The focus of the programme is basic literacy and numeracy, entrepreneurship, bookkeeping and a sound sense of what is required to bring about development. Later they asked for additional training for entrepreneurship, bookkeeping and how to grow and manage different agricultural products to ensure food security. The awareness that life in big cities is threatened by high levels of unemployment that can become so-called food deserts for the vulnerable is what prompted Lesego, with the community, to facilitate the farming project here.

6 Reflection on “narrated lives”

Schafer and Smith (2004) stress that complex social justice concerns are best explored through narratives about what is meaningful and salient. This is part of the process of talking together (Christakis & Flanagan, 2010). Atkinson (2002) and Dobson (2012) stress the importance of listening carefully and building relationships of trust over time – this is all a *sine qua non* for collaborative engagement to underpin the capabilities approach (Yap & Yu, 2016). Pragmatically the challenge is to find a way to achieve better outcomes that draw on local wisdom and experience to re-generate the community and the environment on which they depend. Regarding the July 2018 visit on which this article reports, the Manyeledi community group awaited our arrival and we were shown around by the trainer and Chris (recently appointed as an agricultural manager). Nearby we saw the Eskom pump for water and the cleared plot of land that had been generously donated for the purpose of growing vegetables and fruit by the chief of the village and his council. The harshness of the landscape was revealed in the scraped patch, denuded of the resilient grass. We made a note to ourselves that wind-breaks were needed and that the cleared bush should be returned as mulch to prevent the wind blowing away the top soil. Olive trees could be a useful complement to the honey that they were producing successfully from the hives and would provide good wind breaks.

The Bokamoso programme has been running since 2015 in the Manyeledi community. The community comprises about 4941 people, of which 48% is male and 52% is female. Of the twenty five farmers who have been trained to date, nine are male and sixteen are female. The farmers are aged 25 to 68 years of age. In addition, an active after school programme (supported through Unisa) is run three times per week to support homework from reception to

year 12 and to nurture their basic reading, writing and literacy skills. It is attended by 45 students (aged 11-14 years) who attend on a regular basis. It was considered a vital part of the programme by the members of the community who attended our review and it was a key point stressed by three of the senior women. A gender mainstreaming approach (1999, 2015) informed by applied learning appropriate to local lived experience (Freire, 1974) ensures that women are given opportunities to work in decision making roles. Another important point made was the need to subsidize an “after school meal” to enable the children to concentrate on their studies. This was immediately put into place by Professor Arko-Achemfuor who organized the purchase and delivery of supplies after the meeting. Currently farmers are being trained and are actively engaged in the project. The curriculum is shaped to meet the needs of the participants. Those in need of basic literacy and numeracy were enrolled in Adult Basic Education and Training level 1 and received a certificate for successful completion. The ABET programme comprised reading, writing and arithmetic. Those who had passed the ABET level 1 or who met the requirements were trained in basic horticulture (level 1 Agriculture Sector Training Education Training Authority accredited) programme. All the participant learners obtained certificates in Setstwana, literacy, numeracy and life skills. All the courses comply with the national Curriculum and Assessment Policy Statement (CAPS). This is concise policy document introduced by the Department of Basic Education for all the subjects listed in the National Curriculum Statement for Grades from reception to year 12. It guides teachers on what they should teach and how to assess. Certificates of participation were also given to the learners in the business and entrepreneurship training workshops that were offered from time to time. The horticulture curriculum comprises information about the categorization of plants, preparing the soil for planting, how to grow, handle and care for plants and how to apply water to planted areas correctly. The programmes were delivered through facilitation with practicals at the hub.

Two staff members are employed to facilitate the practicals with one permanently stationed at the hub. The project has achieved some transformation in the lives of the participants by empowering them to earn a sustainable livelihood (Arko-Achemfuor, 2019; Romm, 2018b). This is indicated by enabling the 25 farmers who commenced training in 2015 to be less dependent on social grants (with some of the farmers taking part in the co-operative and some growing more produce on their household farms, thanks to their learning). The spirit of enthusiasm for the new project was infectious and clearly the

group had learned the principles of co-operative farming, although they still requested further training in this regard (which Arko-Achemfuor provided in December 2018). The community of farmers had already (prior to Bokamoso's involvement) been involved in rearing healthy goats that thrived on the local vegetation. They were being encouraged to take on mixed farming and a form of market gardening. In this instance, what works was being replaced with industrial scale vegetable farming in marginal countryside. We were told that the work was shared and the profits were being shared. During our visit of July 2018, we saw the small seedlings and heard of their disappointment when the soaring temperatures that year, coupled with the water table having fallen, destroyed some of their watermelon crop just before they were ready to harvest the crop. A little more investigation revealed that they did not have a ready market or enough transport. They also did not have shade or netting to protect the crops. The problem was that the truck that was meant to transport the watermelons broke down – so lots of the watermelons could not be sold. However, some were sold to the local community.

Professor Arko-Achemfuor opened the community meeting (July 2018) to review progress to date with a prayer and invited each participant to share their story. The challenges raised included the harsh climate, impatience on the part of some of the trainees, and general poverty amongst the population. We listened to each participant's story and some of the key points, as translated by Joyce as facilitator, are shared below:

"...I graduated from this project. It changed my attitude and thinking about farming. Bokamoso provided the seed and the fertilizer But they did not ask me to pay back as we did not make a profit. I also got a 5000 litres tank and then bought another. I intend to plant watermelon again and spinach. I need to have shade and/as I do not want birds and grasshoppers on the crops again."

"My name is Q. I am one of the four actively involved in planting last year. One challenge is to get water. We had to travel to the village to get water. We did plant, but the plants were destroyed by extreme weather. It reached over 42 degrees Celsius. Another problem is the lack of transport. Bokamoso provided seeds, fertilizer, but we lost heavily because it was so hot. In addition, the car was broken. We could not afford to fix the car." [Lesego later explained that profits were made overall, but not as much as originally anticipated.]

"I am M. I was in the first group trained by Bokamoso. I sold my spinach and tomatoes and onions. I have my own water and a borehole but it got damaged. I get water from the public pump

now. I decided to come back to this group. ... Some of us could not market them fast enough. But this is a bright light through Bokamoso and so it must go on..."

She wore the Zionist church star on her chest and beamed at the group as she concluded her account. The next member of the group said:

"... I have had many benefits from Bokamoso. I am a graduate from the second group. I was inspired. I know that I can grow cabbages for Shoprite. This was new for me...One of the challenges was the watermelons. We reduced the price to sell some of them. ...We do not have enough contact time to train the school children who end late. Then after school, they have to go home to eat. They need to eat lunch as we do not have lunch to give them. We are also afraid to release them late after they have worked here. We know the problems in today's world. The feeding scheme is at break time set at 11 am but by 2 p.m. they are hungry. So, they must eat and return. They do not bring food here. It is not automatic that they get three meals per day."

Another stated:

"...I am a delegate from the Chief's kraal. Yes, you are providing skills for adults and children and grandchildren. It needs people who can support them. Who will provide services? Please include each and every one in the family. Not only agriculture and farmers. Please include the educational courses. They need to improve their grades and they need help so the learners achieve more extended VET (Vocational Educational Training). ... We need more classes and more learning so that the children can progress. The parents give good comments about the children's work. ...I am enjoying working with small ones but my main problem is that majority of them are staying far. Coming to the center after a long day at school and spending hours here without food is a serious problem".

This spokeswoman stressed that more skills needed to be taught to enable young people to keep up with new technology. Another point raised by the women is the need to "put Manyeledi on the map" and to enable "our grandchildren to learn more about computing". This is indeed vital for stewarding both habitat and enabling Manyeledi to become a Vocational Education and Training (VET) Hub (Wenger et al., 2009) using decentralized webs of communication that could foster on-line empowerment..

Another delegate added:

"Teachers at school are impressed about the progress of our children who are attending here at Bokamoso. I am really proud of my grandson. It really helps him a lot - he is now confident and able to communicate with his peers that are visiting us from Vryburg."

The opportunities created by after school training classes are aimed at children as well as adults and are just a start-

ing point as parents believe that proficiency in English is beneficial for their children's educational growth and eventual economic success (Van der Merwe, 2011). Prof Arko-Achemfuor concluded: "Let us see what we can do. Lesego has got this passion. The politicians forget areas like this and we need to continue ...".

The chief Kgosiyaagae and his counsellors who are also passionate about the development of the community offered (communal) land for this project. The chief stressed that they needed to fence the area. He also stressed that the water from the new borehole would be used for the vegetables and that the cattle and goats need to use another.

The strength of the project is a motivated community and an active support team and funder who works actively with the team. Modernization approaches are not always better. Clearly it is important to work with and respect local wisdom. They succeeded in growing crops during the cooler season, but the hot dry summer proved almost impossible for the production of the suggested watermelon crops. The greatest threat is persisting with crops that can fail in 42-degree heat. Watermelons are vulnerable crops. Shade is needed for spinach and hardy crops such as tomatoes. Experimentation is currently underway with other hardy crops such as kale and Moringa trees.

It is possible that cheese making could add value to the already successful goat farming in the area and that the cleared area should be quickly re-vegetated and screened to avoid desertification. (However, as indicated by some community members, milk producing goats are not yet in this area and would need to be brought in from a neighboring village.) The first author of this article offered some input in the July 2018 visit by saying:

"You have gold in this community. It is the potential to milk the goats and cows and to make cheese and yoghurt. The honey is also a good idea [as you know from the honey boxes you have] and you could make the cheese flavored with local camelthorn seeds and local herbs. ... A small ecotourism village with a few rondawels would also be a good idea. The rooms could be used as classrooms and a place to sell the products directly to tourists who come to experience a natural, unspoiled area".

The potential to diversify and make goat cheese is being explored. Milking the goats could be a first step once a secure market had been achieved. Lesego, the funder and facilitator for this project confirmed that this had already been considered worth pursuing and she was researching ways to make goat cheese. Goats suitable for producing cheese could be brought in from the village called Taung if this is deemed feasible. This could support the current focus of the programme which is on entrepreneurship,

bookkeeping and a sound sense of what is required to bring about development.

A market for value added products that can be easily grown could be fostered through the links with the local mines, according to Lesego. Local stakeholders (led by Lesego) had a meeting with a platinum mine in Rustenburg, who said that they could supply clean water to the farms etc. They also had a meeting with a representative of the National School Nutrition Programme (NSNP) who agreed that the Government could pay for suitable high-quality produce and thus they could establish a formal market. This implies that the unemployment rate could be decreased in the Manyeledi area. By offering fresh vegetables for school meals, absenteeism could be reduced and the children would be well fed, thus being able to better concentrate.

Lesego (together with the chief and counsellors) hold regular meetings in the community to find pathways to effective solutions drawing on their own wisdom and resilience, while sharing ideas and options for action (including through the input provided via the research and community engagement of Unisa) for further sustainable development. Further regional links are needed, however, to stimulate and support inclusive participation to address challenges intertwined across the social, environmental and economic spheres (United Nations Research Institute for Sustainable Development 2017). This transformative research addresses the potential opportunities for co-operation by the public, private and civil society to contribute to the SDGs. Significantly, it identifies priorities for action that can also empower the most marginalized in regional and rural areas. Regional initiatives need to address issues ranging from food security, to human and animal rights (Nussbaum, 2006) using "road maps for social development more generally" (UNRISD, 2017).

7 Conclusion

To conclude, transformative research is an ongoing process of seeking means and ends to support social and/or environmental justice in ways that are valued by community stakeholders. In terms of outcomes, the transformative research enabled the community to work together across gender and age groups to learn new skills that build on indigenous local knowledge and practices, to achieve a measure of financial independence from social grants. Most importantly, it has broken the cycle of isolation and enabled members of the community to extend their net-

works locally and internationally to achieve their goal “to place Manyeledi on the map”.

We suggest that some of the further “outcomes” of this research, imaginatively considered, could:

- **Inform regional** social policy, in order to underpin the UN Sustainable Development Goals (SDGs). It is hoped that the engagement in the region will result in a successful model that could inspire others in South Africa on how to engage locally and through local coalitions (Arko-Achemfuor, 2019; Flood & Romm, 2018).
- **Enable** collaboration that adds to our understanding on the Indigenous production, consumption and re- distribution cycle and the potential to adapt and scale up the “one resilient village, one re-generative businesses” as a regional model to underpin the UN SDGs. Further research is needed to provide a lens for understanding the intersection of ecological humanities and ethics (Braidotti, 2018; Bird Rose & Fincher, 2015; Dobson & Eckersley, 2006; McIntyre-Mills, 2014; McIntyre-Mills et al., 2017; Raikhel, 2010), informed by a critical reading of development (Gibson-Graham & Miller, 2015), capabilities studies (Nussbaum, 2011) and on what it means to live in a non-Anthropocentric manner.
- **Extend a Vocational Education and Training approach** to engagement using, in part, a gender mainstreaming approach that foregrounds opportunities for women and children in remote areas with few employment opportunities and high levels of poverty. Policy research needs to promote opportunities for women and their children in South Africa, in line with the policy agenda announced during Women’s Week in South Africa by the African National Council to enable women to realize their full leadership potential at home, in the workplace as community leaders, and as a voice in government. It is suggested that setting up an Eco Village could enable participatory action research on education, employment and tourism.

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