

**The role of expansive learning in the potential development
of rural youth as value creators:
A case study of youth farming activity in the
Amahlathi Local Municipality in the Eastern Cape**

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Abstract

Environmental sustainability and agriculture are key development and transformational concerns in South Africa while rural development and youth unemployment are key national issues pertinent in the Eastern Cape which ranks in the top three provinces for both concerns. As a formative interventionist researcher, working in a singular case study with youth in Lenye village located in the Eastern Cape Province of South Africa, I sought to investigate the following: Can, and if so, how can expansive learning facilitated by a change laboratory intervention contribute to the development of youth as potential value creators for rural development? This was investigated through the following sub questions: 1) What value is created at each point of the expansive learning process of the change laboratory process and for who? 2) What value can still be created at each point of the expansive learning process of the change laboratory? 3) How is that value created via an expansive learning process?

I collected data as I participated as a youth member through: extended contextual profiling via a focus group interview, individual interviews, note taking and document analysis. Furthermore, I attended village meetings, youth meetings and emergent youth development/youth in agriculture/agriculture opportunities. Additionally, change laboratory workshops were conducted and I used audio recordings and notes to capture data. The data collected was then analysed through second generation Cultural Historical Activity Theory using the concepts of immediate, potential, applied, realised and reframing value.

In conclusion, the expansive learning process may contribute to the development of rural youth as value creators for sustainable development through youth development, agriculture and community development. All forms of value were created along the expansive learning process for the formative interventionist researcher, the Lenye youth and the greater Lenye youth community. All forms of value may still be created for the Lenye youth, the formative interventionist researcher and the greater Lenye youth community.

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of working along side you in your flower garden and yard. I'm sure your consistency and affection for your garden sparked my green fingers as well.

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“If it had not been, for the Lord, on my side, tell me where would I be, where would I be?”

(Helen Baylor)

“You made a way, when our backs were against the wall and it looked as if it was over”

(Travis Greene)

“Mkhulumsebenz' owenzayo kulendawo yebo ndiyabona.”

(Khaya Mthethwa & Oasis Worship)

“Yehova ukahle, ukahle, Yehova ukahleeeeeeee.”

(Worship Saints)

“You covered me in the midst of it all, You loved me, gave me another chance, You saw my needs, when others saw my faults, You forgave me...You get the glory, You get the praise...Thank You.”

(Dr. R.A. Vernon & "The Word" Church Praise Team, Timothy Reddick Lead)

Dedication

I would like to dedicate this thesis to all youths around the world. It isn't easy being young, but it is a privilege, an opportunity and an honour to seize the opportunity to "find yourself" in your youth.

Seize it!

I also dedicate this work to the youth around the world who are defying the status quo "youths don't want to be in agriculture". You are role models. You are leaders.

Lead!

To all the rural youths who are, despite many challenges, striving to live a productive life for themselves and for those around them, you are role models, you are leaders.

Keep leading.

I would also like to dedicate this work to the many leaders and role models who make time to mentor and love young people. You are heaven sent and we appreciate you.

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List of Acronyms and Abbreviations

AAYFS	Annual AFASA Young Farmers Summit
AFASA	African Farmers Association of South Africa
CBO	Community Based Organisation
CHAT	Cultural Historical Activity System
CoGTA	Department of Cooperative Governance and Traditional Affairs
COIDA	Compensation for Occupational Injuries and Diseases Act
Contralesa	Congress of Traditional Leaders of South Africa
CWP	Community Work Programme
DAFF	Department of Agriculture Forestry and Fisheries
DRDLR	Department of Rural Development and Land Reform
ELRC	Environmental Learning Research Centre
EPWP	Expanded Public Works Programme
ECRDA	Eastern Cape Rural Development Agency
ESD	Education for Sustainable Development
FANRPAN	Food Agriculture & Natural Resources Policy Analysis Network
FCATI	Fort Cox Agricultural Training Institution
HSRC	Human Sciences Research Council
IDP	Integrated Development Plan
ISRDP	Integrated Sustainable Rural Development Perspective
LYG	Lenye Youth Group
MASDT	Mobile Agricultural Skills Development and Training
NARYSEC	National Rural Youth Service Corps
NDSP	National Spatial Development Plan
NDP	National Development Plan
NGO	Non-Governmental Organisation
NYP	National Youth Policy
NYDA	National Youth Development Agency
RDT	Rural Development Task Team
REID	Rural Enterprise and Industrial Development
SAYCO	South African Youth Congress
SGB	School Governing Body
UIF	Unemployment Insurance Fund

Chapter 1: Introduction

1.1 Introduction

In this chapter, I introduce the reader to the study by introducing myself, giving the background and context of the research, the research goals, questions and rationale, and an outline of how the research was conducted. The chapter also provides an overview of the chapters that follow.

1.2 Introducing myself

My name is Lwazi Mandilive Matiwane, a young woman passionate about growth and development as it pertains to my province, the Eastern Cape. I am very passionate about youth, agriculture and rural development. I grew up in King Williams Town and my father hails from Lenye Village in Keiskammahoek, locally referred to as Qoboqobo. I feel it necessary to introduce myself as the study is not only personal due to the study site being my family home, but also because it is both a research project and a personal/professional development process and often my reflexivity as a researcher was shaped by my personal/professional aspirations and interests as a development agent. As one passionate about rural development, youth development, sustainable rural livelihoods and sustainable natural resource management, particularly with a keen focus on agriculture; my ultimate interest is to play a key role in the flourishing of rural communities across South Africa. As such, this study is a step towards understanding, learning and beginning to play a key role in the flourishing of rural communities in my province, South Africa and ultimately Africa at large.

1.3 Context, background and rationale of the study

Some of the key developmental and transformational concerns in South Africa are rural development, youth unemployment, environmental sustainability and agriculture. As a result the aforementioned concerns are part of the *National Development Plan 2030: Our future-make it work* (NDP). The NDP indicates that there is a consensus from the planning commission and the citizens that indicates that the most pressing of issues for the country are unemployment and poor education outcomes (South Africa. NPC [National Planning Commission], 2012). Furthermore, the Commission concludes that active citizenship is needed in order for the development goals of the country to be met (ibid.).

Youth unemployment is not only a national concern, but is also at the centre of the national agenda for 2018 as the President highlighted in his State of the Nation address (South Africa.TP [The Presidency], 2018). Job creation particularly for the youth is also a provincial concern for the Eastern Cape (South Africa. SSA [Statistics South Africa], 2015) which experienced job losses from July 2017 to July 2018 (South Africa. SSA, 2018). According to the National Youth Policy (from here onwards referred to as the NYP), youth in South Africa are individuals who fall within the age group 14-35 years old (South Africa.TP, 2015, p. 10).

Statistics South Africa (2018) reported 35.1% of the unemployed population of the country hold a qualification of matric and 56.1% hold a qualification of less than matric. Youth unemployment statistics within the Eastern Cape in 2015 cited 40,3% unemployed youth, and 12,4% discouraged job seeking youth (South Africa. SSA, 2015). The Eastern Cape is one of the provinces with a large rural population, and discouraged job seekers tend to be concentrated in provinces with high rural populations (Mayer et al. 2011). These statistics drew my attention to the need for employment in the Eastern Cape, particularly the rural Eastern Cape.

The statistics also indicate a link between youth unemployment and rural development. Rural development is “the outcome of [a] series of quantitative changes occurring among a given rural population whose conveying effects indicate, in time, a rise in the standard of living and favourable changes in the way of life of the people concerned” (Conference on Regional Planning and Economic Development in Africa as quoted by Tersoo, 2012, p.30). Rural areas are generally characterised as places with low population densities and “an adherence to traditional value systems” (Hoggart & Buller, 2016, p. 9). They tend to be places with a strong sense of community and substantial natural land (Hoggart & Buller, 2016). Rural areas in South Africa, particularly in the Eastern Cape are additionally characterised by high unemployment, high poverty statistics and conditions, insufficient infrastructure and service provision of education, water and sanitation and health. Insufficient rural development and financial support from government, decreased dependency on subsistence agriculture and increased dependency on social grants and welfare grants are features of rural areas in contemporary South Africa (Westaway, 2012; Buhlungu, Daniel, & Southall, 2007).

Brent and Mulder (2005) argued that since agriculture forms part of the foundations upon which economic growth, social development and environmental management are based, it has historically played, and will continue to play, an important part in the development of South Africa. Agriculture has historically played an important role in the development of the Eastern Cape with Lenye village participating in numerous historical agricultural efforts, through most notably the Zanyokwe Irrigation Scheme (van Schalkwyk, Groenewald, Fraser, Obi, & van Tilburg, 2012; Aliber, 2011).



Figure 1.1: Satellite image of Lenye village, Amahlathi Local Municipality, Eastern Cape, South Africa (Google Maps, 2017)

Lenye village, the site of this study, is located in the Amahlathi Local Municipality in the Amathole District of the Eastern Cape Province of South Africa. Lenye village (Figure 1.1) is divided into three sub-sections, namely Lenye West, North and South with the fields of Lenye South shown in Figure 1.2. Lenye village is a promising agricultural village. Notably, in terms of agricultural history, the village participated in the Zanyokwe Irrigation Scheme that van Schalkwyk et al. (2012) noted as an example of black empowerment schemes at the apex of the Apartheid policies during an era colloquially referred to, within the Eastern Cape agricultural context, as *iXesha likaSebe*. These developments took place during and through Sebe's leadership (Davenport & Saunders, 2000). Chief Lennox Sebe was the president of the former Ciskei, a section of the Eastern Cape including Lenye. He travelled extensively to Israel and Europe (ibid.) where he secured agricultural development support in the form of training and farm management capacity building (Aliber, 2011).



Figure 1.2: Image of Lenye South Fields (from Aliber, 2011, p. 82)

Not only is Lenye village a promising agricultural village as a result of its agricultural history which testifies to the potential of a flourishing agricultural economy, the village is additionally promising due to youth participation in agricultural activity. In Lenye village many young people are either unemployed, or employed on a part-time basis and are able to participate in agricultural activities in 1) Sidalukukhanya Agri-Business Corporation (referred to as Sidalukukhanya in the rest of the report), an agriculture project in the village (Erasmus, 2009) or 2) the Community Work Programme (CWP), also referred to as Siyakholwa, the implementing agent of the CWP in the Eastern Cape (Siyakholwa, n.d) and thus the implementing agent of the CWP in Lenye village, or 3) the Expanded Public Works Programme (EPWP) and on farmer plots (L. Matiwane, personal communication, April 21, 2016; Jason, 2013; Aliber, 2011; South Africa. TIPS [Trade and Industrial Policy Strategies], 2010).

Employment and development initiatives in Lenye village

Initiatives, with different approaches, have been put into place to address the need for youth employment and rural development in the village. Youth in the village work for Sidalukukhanya which is a co-operative in partnership with the Eastern Cape Department of Agriculture, the Development Bank of South Africa and Rance Timbers, a private company. They produce paprika (*Capsicum annum*), a chilli relative sold to Unilever. Sidalukukhanya has also had knowledge and skills exchange with students from Fort Cox Agricultural College, now Fort Cox Agricultural Training Institution (FCATI) and the University of Fort Hare Agricultural Department through working with students from the respective institutions. This was noted as a potential model for the land reform programme (L. Matiwane, personal

communication, April 21, 2016; Erasmus, 2009). Additionally the CWP is being implemented by Siyakholwa in Lenye village primarily as a poverty alleviation strategy (Siyakholwa, n.d). Lastly, Ntinga Ntaba kaNdoda, a community development community based organisation (CBO) for Qoboqobo South, was formed in September 2002. Youth development and agricultural development form part of their sustainable development agenda, as these were identified by the CBO as pertinent issues for an organisation promoting community-self empowerment (Ntinga Ntaba kaNdoda, 2013). Although the initiatives have accomplished much, the agricultural potential and youth development potential in Lenye village remains largely untapped with much of the land now lying unused (Aliber, 2011). In addition, the youth in the village have yet to initiate additional programmes, projects or activities although they have ideas in mind. The initiatives to date have been change interventions rather than formative interventions as they have had predetermined objectives, for example job creation in the case of CWP (Phillip, 2010). These differ from formative intervention, such as the change laboratory/change laboratory method (section 2.2), that allow the youth and rural communities at large to create new concepts and principles of carrying out an activity i.e. rural development (Virkkunen & Newnham, 2013).

As mentioned, these employment opportunities are on a part-time basis as Sidalukukhanya employs most of the village youths over the harvest season (L. Matiwane, personal communication, April 21, 2016) and the CWP employs youth for eight days in a month as it is meant to supplement other livelihood strategies (South Africa. TIPS, 2010). The youths who access these employment opportunities consider themselves unemployed. They spend a considerable amount of time at home and thus expressed an interest in participating in my research project as I noted it would be a project focused on youth development, youth self-employment and rural development through agriculture. The youths expressed an interest when I introduced how my research project stems from a desire to work with fellow young people in leading development through us initiating the employment opportunities we hope for (Lenye youth, personal communication, April 25, 2016).

According to The Presidency (South Africa. TP, 2015), South Africa has the potential to develop. While it is recognised that development will be possible through a combination of the support of an effective government and citizens assuming responsibility and agency for their own development, little is said about how this will emerge in practice. Youth unemployment is not only a concern for the country, but it is also a potential driver of

solutions. Statistics South Africa (2015) reported the working age population of South Africa as 35,8 million, of which the larger portion (55,0%) were youth. The Eastern Cape has the second highest youth unemployment rate (40.1 %), lower than that of the Northern Cape (45.1%) and higher than that of Gauteng (39.8%) (South Africa. SSA, 2015).

In the National Youth Policy 2020 (South Africa. TP, 2015), youth are acknowledged as a key human tool for development. Furthermore, according to the United Nations (2017) by 2100 Africa will be home to half of the world's children. In undertaking this research, I postulated that as youth, we are rightfully a key human tool for development as we can be the human agents that can create jobs for ourselves and for others. As such, we can be the human agents who tackle the agricultural and development concerns of our villages.

I further postulated that perhaps as two of the three initiatives noted above have been predominantly job creation based (South Africa. TIPS, 2010), further substantiated in section 4.2, the initiatives have established initial development but failed to be a form of sustainable development defined as “the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.” (WCED as quoted by Warburton, 2009, p. 1). Had they been based on promoting and supporting learning, they could have developed in the youths the qualities that enable people to “critique, construct and act with a high degree of autonomy and self-determination” (Wals, 2010, p. 19) and develop the citizen responsibility and agency necessary for longer-term sustainable development.

According to Wals (2010, p. 23),

... as sustainability and sustainable development are increasingly seen as properties of collaborative learning, the creation of a more sustainable world above all requires learning and more specifically learning that leads to a new kind of thinking, alternative values and co-created, creative solutions, co-owned by more reflexive citizens, living in a more reflexive and resilient society.

Learning that ignites the above is required for developing youth that create value, have a sense of ownership/agency, are creative and reflexive, and continuously develop.

According to Wenger et al. (2011), there are potentially five cycles of value creation in social learning initiatives which could help to establish how such a process can be created:

- *Cycle One – immediate value* whereby interactions and activities are observed and identified as valuable.
- *Cycle Two – potential value/ knowledge capital*. In this cycle, the value is in possessing knowledge that may be useful in the future.
- *Cycle Three – applied value* – changes in practices. In this cycle, the value is in using knowledge to do something, particularly to do something new or different to what has been done before.
- *Cycle Four – realised value* – performance improvement. In this cycle, value is observed by noticing that doing something differently as a result of new knowledge has yielded positive results, has achieved the desired outcomes of the actions.
- *Cycle Five – reframing value* – redefining success. In this cycle, the value is observed when the participants have developed a new understanding of success and value.

Given an understanding of sustainable rural development as potentially a continuous and constant enabling of the future improvement of the lives in rural communities, I anticipated the community might also continuously experience some or all of these cycles of value creation, should enabling conditions arise, or should they exercise potential collective learning and agency.

I propose that the youth are a group in the community that could potentially be mobilised to exercise collective learning and agency. Apart from youth being more inclined to education, we are today and tomorrow's leaders, parents, role models. We have the potential to reframe what it means to be successful and to implement sustainable rural development and to continue reframing it over our longer life spans. We have the potential to reframe it then not only for ourselves but for future generations and to encourage continuous reframing. Investing in youth as potential value creators has great potential for more reinvestment. In this respect I proposed that the study has potential to contribute to Sustainable Development Goal number 8 (United Nations, 2015) which is decent work and economic growth, and the Global Action Programme on Education for Sustainable Development priority action area number 4 which focuses on empowering and mobilizing youth (United Nations Educational, Scientific and Cultural Organisation, n.d) and aspiration 6 of *Agenda 2063: The Africa we want* which notes African youth leading Africa's development as a priority (African Union Commission, 2015).

As Lenye village is surrounded by villages with cultural, nature-based and historical tourism activities (Fennell & Holden, 2013; Mnqeta, nd; Tourism activities, nd) and given that it is an agricultural village, there is potential that it could contribute to the tourism activity in the Amahlathi Local and Amathole District Municipalities through agri-tourism (Fennell & Holden, 2013; Erasmus, 2009). Therefore, the study also considers provincial goals as it is located in the west of the Eastern Cape, which as indicated, has experienced much agricultural investment during the apartheid era and offers a model for a flourishing rural economy for the east of the Eastern Cape (South Africa. ECPC, 2014).

1.4 Research questions and goals

With the above context and background, I undertook the research in Lenye village with the following research question and sub-questions:

Can, and if so, how can expansive learning facilitated by a change laboratory intervention contribute to the development of youth as potential value creators for sustainable rural development?

Sub-questions:

- 1) What value is created at each point of the expansive learning process of the change laboratory process and for who?
- 2) What value can still be created at each point of the expansive learning process of the change laboratory?
- 3) How is that value created via an expansive learning process?

The study was informed by a formative interventionist research orientation shaped by Cultural Historical Activity Theory as both a conceptual framework and analytical framework (section 2.2.1) and by social learning value creation as an accompanying analytical framework (section 2.2.4).

In addition, I had the following research goals in mind:

I hoped to understand youth's potential to contribute to local sustainable development, to learn and understand how expansive learning or formative intervention research can contribute to youth continuously learning and developing themselves and their communities.

I hoped to understand how this formative intervention method could be adopted and adapted as a possible intervention method of choice for working with youth for sustainable rural development.

I also hoped to understand what type of value and how value for sustainable rural development is created, and therefore how best to use the change laboratory process as a potentially important formative intervention tool for sustainable rural development amongst youth.

1.5 Overview of the chapters

In this chapter I have introduced the study and myself as the researcher. I then provided the context and background of the study site, the rationale of the study and the research questions, orientation and goals of the study. In Chapter Two, I discuss literature pertaining to the theoretical framework of the study and rural development, rural youth development as well as youth in agriculture as they relate to the study. In Chapter Three I present how the study was conducted outlining the methodological design followed by a description of how the data was collected, managed and analysed. In Chapter Four I present my data. In Chapter Five I discuss the results and recommendations I have made as a result of the study and I conclude and summarise the study.

In the next chapter, I aim to provide more depth of understanding from the literature, as well as the theoretical framework of the study.

Chapter 2: Theoretical Framing and Literature Review

2.1 Introduction

In this chapter I discuss the theoretical framework on which I framed my study i.e. Cultural Historical Activity Theory and the accompanying analytical framework, value creation. Additionally I discuss literature pertaining to youth development, rural youth development and youth in agriculture.

2.2 Theoretical framing

2.2.1 Cultural Historical Activity Theory (CHAT)

Cultural Historical Activity Theory (CHAT) proposes that learning happens within an activity system when contradictions observed within the activity are analysed and addressed (Virkkunen & Newnham, 2013). First, second and third generation CHAT have been developed from Vygotsky's (1978) initial research on learning and human development based on the evolution of how human development and learning can be understood. In first generation CHAT, Vygotsky proposed that meaning making was via a process of interaction between Subject, Object and Tools. This produced a widely used triangular model consisting of Subject, Tools and Object, which illustrates that human development occurs when the subject recognises the need for and use of mediating tools in order to meet their objective. In second generation CHAT, developed by Engeström (2001) drawing from post Vygotskian works of Leont'ev and Luria, which situates first generation CHAT in context, the triangular model (Figure 2.1) consists of relations between Subjects, Tools, Rules, Division of Labour, Object, Community and Outcomes all of which are culturally and historically formed over time.

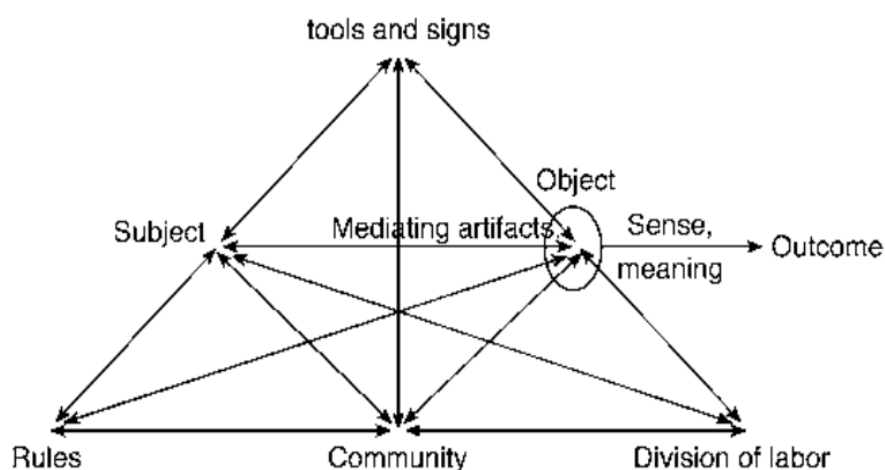


Figure 2.1: Second generation activity system (Engeström, 2001, p. 135)

Human development is observed via activity associated with the object through which the object is transformed or achieved (Engeström, 2001), hence Engeström described these interactions in terms of cultural historical activity theory (CHAT). Second generation CHAT was of interest in my study as it takes into consideration a number of elements being engaged with by the subject in order to transform or achieve the object. In undertaking the study I sought to understand how the different elements of the activity system influence the youth (subject) in terms of their potential as value creators (desired outcome). Third generation CHAT (Figure 2.2) describes how a primary activity system can be part of a larger more complex range of interacting activity systems (Masara, 2010; Engeström, 2001). The theory of expansive transformation in CHAT refers to the contradictions in this larger interacting activity system becoming more aggravated; individuals and then groups within the system begin to change norms and transform their activity and activity systems (Virkkunen & Newnham, 2013; Engeström, 2001).

Third generation CHAT (Figure 2.2) was also of interest to my study. In Figure 2.2 we see that the elements of a primary activity system can be constituted by related activity systems. A primary activity or central activity system, may be acted upon or complemented by activity systems that produce the rules, subject, mediating tools, division of labour and object of the primary activity system (Virkkunen & Newnham, 2013).

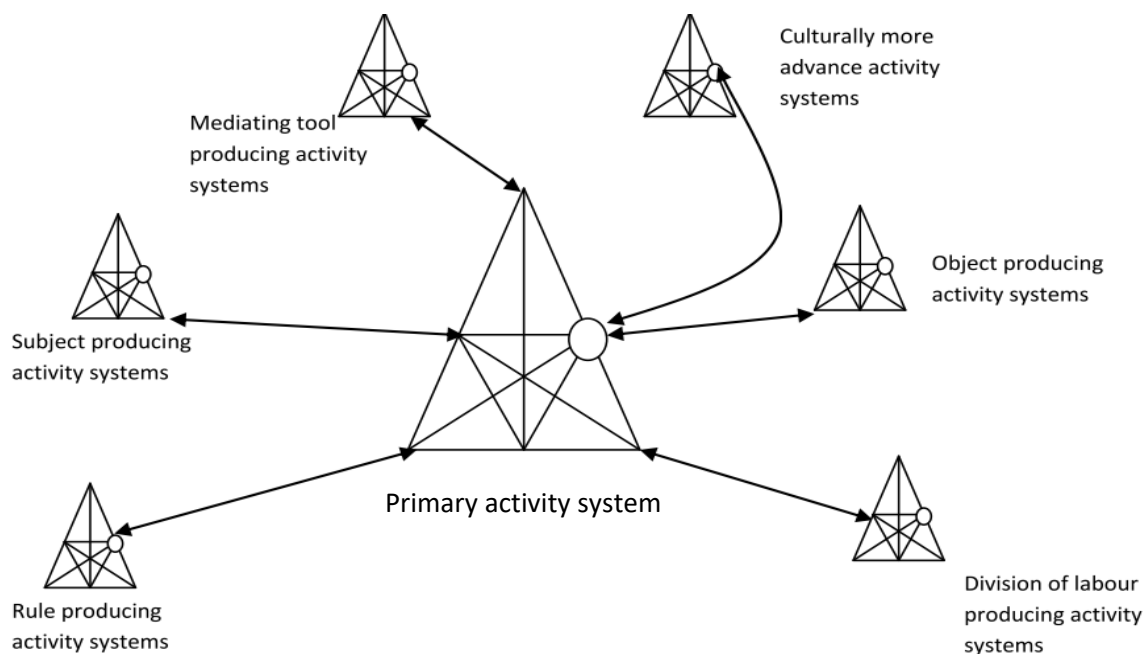


Figure 2.2: Third generation activity system (adapted from Engeström, 1987, image taken from Masara, 2010, p. 30)

As described in the first chapter, there are youths involved in the CWP programme, youths in Sidalukukhanya, and youths that desired starting a new project. I refer to the third group of youths as Lenye Youth Group (Lenye youth, personal communication, April 25, 2016). The youths in the CWP programme, Sidalukukhanya and Lenye Youth Group are subject representatives within their different activity systems. Additionally the youths are potentially collective subject representatives in an activity system where collectively, through their separate activity systems, the youths can work towards having greater sustainable development in the village (Virkkunen & Newnham, 2013). I introduced third generation CHAT in order to highlight that the pre-existing activity systems, the CWP, Sidalukukhanya and Lenye Youth Group activity systems could feed into a primary sustainable development activity system. The CWP, Sidalukukhanya and Lenye Youth Group activity systems are subject producing activity systems for the sustainable rural development activity system as I identified youth subjects from each of these activity systems who are subjects in the sustainable rural development activity system. Additionally, I had identified the CWP, LYG and Sidalukukhanya activity systems as potential tool producing, community producing, division of labour producing, outcome producing and object producing activity systems for the sustainable rural development activity system. I also draw on third generation CHAT to bring into focus the position of the sustainable development activity system when discussing the four levels of contradictions discussed in third generation CHAT. Level one refers to contradictions observed within the elements of a single activity system. Level two refers to contradictions observed between the elements of a single activity system. Level three refers to contradictions observed between the object of the primary activity system as it is currently understood/practised and the object desired/intended to be understood and practised. Lastly, level four refers to the contradictions that may be surfaced between the primary activity system, in this case the sustainable development activity system and the activity systems that feed into it (Masara, 2010; Engeström, 2001).

2.2.2 Expansive Learning Theory

Expansive learning is a theory developed from CHAT (Engeström & Sannino, 2010) that emerged from the theory of expansive transformation as a result of the idea of contradictions being the drivers for transformation (Virkkunen & Newnham, 2013). In my research site, previous interventions by creating jobs as the solution introduced actions into the community. Expansive learning is an activity that produces continuous and changing activity as opposed

to finite action (Engeström & Sannino, 2010, p. 4). Expansive learning involves activity in which “learning is transformed from isolated individuals to collectives and networks” and could be an approach worth exploring for sustainable rural development initiatives. An expansive learning approach could generate involvement in new activities and could expand and sustain development in the rural area, moving from action and tasks to collectively defined activity.

Expansive learning also engages the object in an activity system as the source of motivation and as the focal point of the transformation (Engeström & Sannino, 2010). An example of the object in an activity system as the source of motivation and as the focal point of the transformation was observed during initial contextual profiling. During discussion with the youth on potential livestock projects that the youth would like to establish to minimise the cost of meat (chicken costs = the price of chicken plus travel costs to town), an example emerged. I think that this example speaks to the relevance and applicability of this theory to my study. One member raised the concern of who was going to look after the livestock. Another member responded by saying that the people who believe in the project will run with it and those who do not in the beginning will join as they understand its value. Although the youth member acknowledges that subjects are needed to do work on the object, he identified the object as the source of motivation while the aforementioned speaker was possibly seeking motivation from support of subjects (Lenye youth, personal communication, April 25, 2016).

Expansive learning theory uses a change laboratory method as the tool for initiating expansive learning actions for development (Virkkunen & Newnham, 2013). The change laboratory method emerged from of the Developmental Work Research methodology developed in CHAT (ibid.) that can be used a) to support expansive learning around potential rural sustainable development activity, and b) as a foundational process to assess how expansive learning can contribute to sustainable rural development activity development and social learning.

The change laboratory method involves a researcher working with participants through a series of learning actions (1-7) (Virkkunen & Newnham, 2013) as depicted in the expansive learning cycle in Figure 2.3 below.

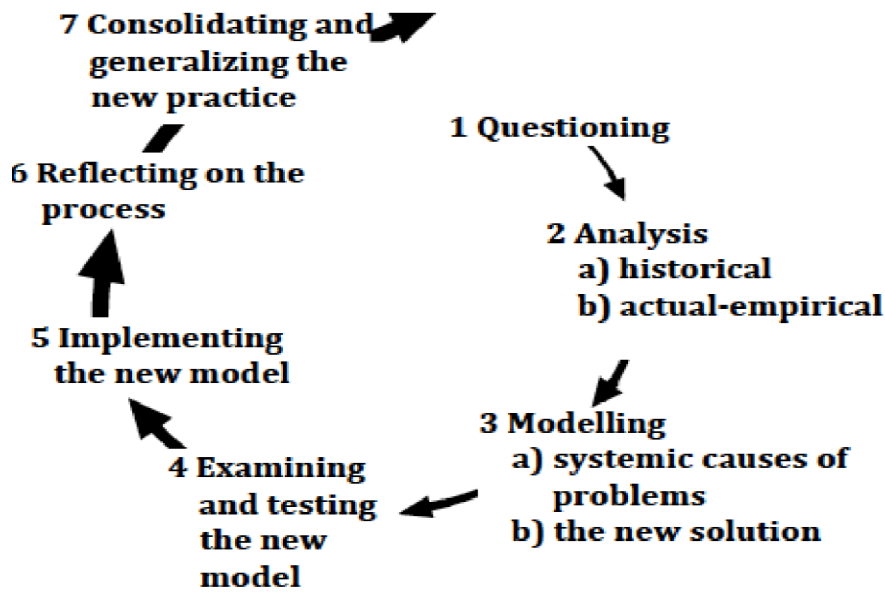


Figure 2.3: The ideal-typical cycle of expansive learning (adopted from Engeström, 1999; image from Virkkunen & Newnham, 2013, p. 51)

In learning action 1, a researcher engages with participants to question the current state of an activity. In learning action 2, contradictions are surfaced and analysed. In learning action 3, solutions are modelled and discussed. In learning actions 4-7, the solution(s) are implemented and then the participants reflect on the process and establish the best considered version of the new practice (Virkkunen & Newnham, 2013). The researcher has to think of the expansive learning cycle as having three phases: Past, present and future, each with mirror data, ideas/tools and model/vision in order to facilitate the expansive learning cycle as a change laboratory process. The past, present and future mirrors are used to look at past changes in the activity, “the activity to be jointly examined” (Virkkunen & Newnham, 2013, p.15) and participants’ experiences and knowledge with the new concepts and tools and already known future changes in the object and structure of the activity respectively (Virkkunen & Newnham, 2013). The model/vision is used for “modelling the past, present and future structure of the activity and the inner contradictions in its current structure” (Virkkunen & Newnham, 2013, p. 17) and the expansive transformation of an activity is used to envision the current and next stage of the activity. The Ideas/Tools surfaces are reserved for representing these as well as the participants gained insights as they move between experimentation and theoretical modelling (Virkkunen & Newnham, 2013). Figure 2.4 below illustrates the use of the surfaces of representation in a possible course of the analysis and design in the Change Laboratory. The numbers indicate how the process would take place if

it were a linear process and the arrows illustrate how the process can actually occur given it is not a linear process.

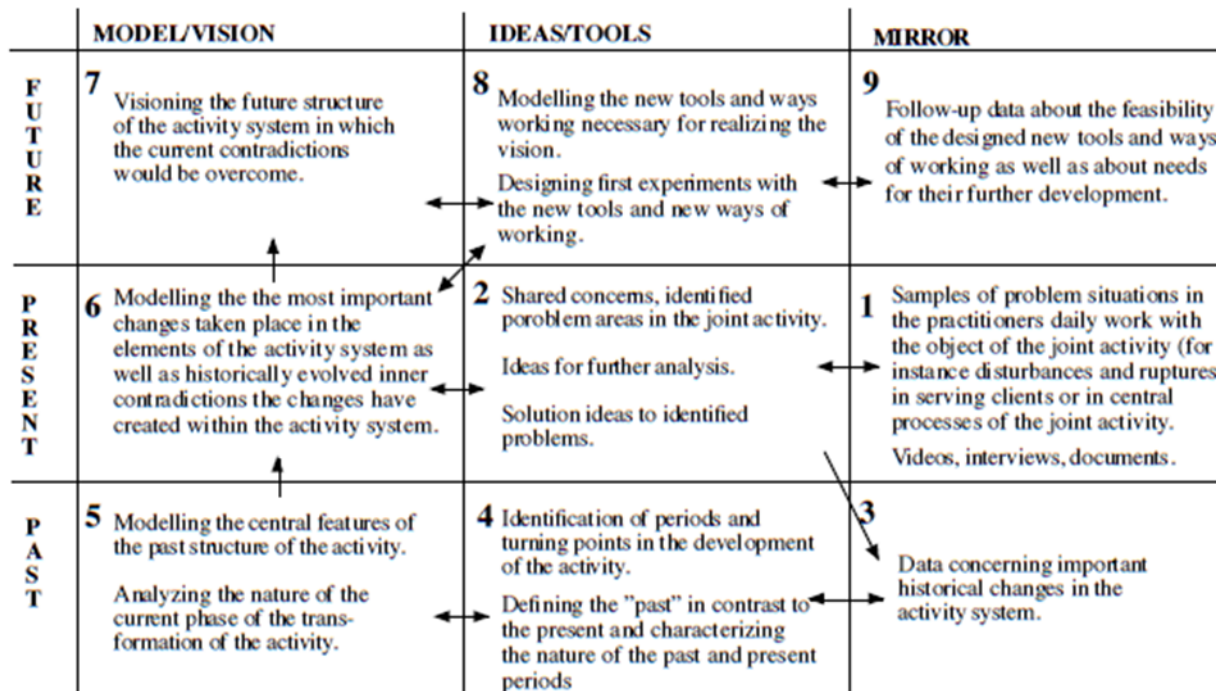


Figure 2.4: The use of the surfaces of representation in a possible course of the analysis and design in the Change Laboratory (image taken from Virkkunen & Newnham, 2013, p. 18)

Arguably, expansive learning may not be applicable or rather may be a contentious choice given South Africa’s climate and critique concerning the use of Western derived theory in the South African context (Ditshego, 2018; Oppong, 2015; Brown, 2006; Grange, 2004; Nash, 1999; . The expansive learning theory is a Western theory that has been used in African rural contexts. Mukute (2010) and Silo (2011), for example, applied CHAT in their PhD thesis with case studies in Zimbabwe and Botswana respectively while Masara (2010) applied CHAT in his master’s thesis with case studies in Zimbabwe and South Africa. The researchers selected CHAT for its cultural historical relevance and as it is an open process theory in which researcher(s) and participants learn together.

De Sousa Santos (2012) has critiqued the applicability of western theories in Africa arguing the origins of said theories can negate African realities through interrogating the applicability of the public sphere in Africa due to the political realities of Africa not being taken into account in the conceptualisation of the theory. The example of the public sphere in relation to the change laboratory workshops in rural South Africa leads me to reflect on the historical

political make-up of the country in that multiple voices in the community were illuminated in South Africa prior to reforms made by the apartheid government. Traditional authorities' power and community relations changed with state reforms initiated by the apartheid government with rural youth emerging as less powerful entities with less security in land tenure and participation in chieftaincy rule that is less consultative (Claassens & Cousins, 2008). Key to CHAT is the surfacing of historical, cultural and contextual matters of importance or concern and the representation of multiple voices (Roth & Lee, 2007). Arguably the surfacing of contextual matters contextualises the theory; it is a built-in process tool for contextualisation in the theory, and perhaps a contextualising instruction or guide for the researcher who has the responsibility to be context conscious in their approach. Additionally CHAT is not prescriptive in nature as it is a metatheory (Roth & Lee, 2007) lending flexibility for contextualising and prescriptive in taking into account context (de Sousa Santos (2012). Arguably, in the context of Lenye village, the multi-voice principle of the theory (Engeström, 2001) relates to that of the consultative and thus multi-voice tradition of rural communities and the communities' cultural and historical practices are to be taken into account as an application of the theory which then accounts for de Sousa Santos's concerns.

2.2.3 The role of a formative interventionist researcher

According to Engeström (2011) in formative interventions, the researcher facilitates practitioner-led and -owned expansive transformation processes. In terms of researcher role, Engeström (2011) noted that the formative interventionist researchers' starting point is understanding that participants have a problematic and contradictory object which is an essential part of their life activity. He described the positionality of the researcher as that of someone who understands that the contents of the intervention are not predetermined. A formative interventionist researcher, according to Engeström (2011), does not expect participants to execute the intervention without resistance which is different to a linear research process. In a formative interventionist research process, the intervention is begun through negotiation and is ultimately determined by the participants. The role of a formative interventionist researcher then is to facilitate the research process and to enable agency development so that the participants can take charge of the process. In describing the outcome of a formative intervention, Engeström (2011) highlighted the agency aspect of formative interventionist research as a key outcome. He contrasted formative interventionist

research outcomes with linear research outcomes. In linear research, the desired outcome is typically a standardised and transferable solution model that will reproduce the desired outcomes of the intervention whereas in formative interventions, the desired outcome is the production of adaptable new concepts that may be used by participants in creating new solutions that are applicable to the participants' context.

Engeström (2011) noted that an organised activity system, such as the CWP and the Sidalukukhanya activity systems in my case study, continuously experience intervention from multiple actors. If we consider the CWP activity system as an example, the activity system has outside agents such as the Siyakholwa implementing agent of the CWP that does not work directly with youths in the CWP programme but is an administrator of the programme and inside agent such as the supervisors who work closely with the youths in the activity system. The youths themselves as practitioners may also continually initiate their own interventions and therefore as researchers we should not expect “nicely linear results from our efforts” (Engeström, 2011).

2.2.4 Value creation as an analytical tool

Value creation is a conceptual framework one can use to promote and assess how value has been or can be created in communities and networks. Wenger et al. (2011) defined communities as collectives that aggregate to share knowledge and learning over a shared and common purpose or challenge and networks as collectives that are an aggregate of individuals who connect to learn and share knowledge over various issues. The intention of the framework is to create a foundation for networks and communities to combine various sources for communicating how these collectives create value. The participants of the networks and communities are the primary audiences of value creation results however value creation results, or value creation stories as Wenger et al. (2010) referred to them, are also valuable for the organisations and institutions that support the networks and communities. According to Wenger et al. (2011), there are potentially five cycles of value creation through which social learning initiatives can be monitored or analysed.

The value creation framework was of interest for this study as the Lenye youth were to meet in change laboratory workshops to share knowledge and learning on their farming practice and sustainable development. The Lenye youth were thus identified as a farming and sustainable development community in Wenger et al.'s (2011) terms. Furthermore, the

expansive learning process was identified as a social learning initiative. Use of the theory was envisioned for tracking the presence and potential presence of value created by youths for sustainable rural development in the expansive learning process.

As an analytical framework, the value creation framework has questions and indicators within the five cycles that are used to identify the presence of the five cycles of value.

2.2.4.1 Analysis of Cycle 1: Immediate value

There is immediate value when interactions and activities are observed and identified as valuable. In this cycle Wenger et al. (2011) noted that the overarching questions that enable an assessment of whether or not value is created are: “*What happened and what was my experience of it?*” as well as “*What were significant events?*”. With these questions and supplementary questions, one can identify the presence of and the level and quality of interactions and activities and determine whether and how immediate value is present in a community or network. One can analyse indicators such as participation, reflections, collaboration and networking through noting data sources such as meeting registers, reports, joint projects and new connections made (Wenger et al, 2011). In this particular study, the overarching question was adapted to “*What happened in the expansive learning process and what were significant events?*”

The questions posed by Wenger et al. (2011) are structured with personal pronouns as the value ought to be identified and reported by those learning and sharing knowledge together; however in this study, the approach of the value assessment is from the perspective of the researcher (as per reasons stated in section 4.4). This participant centred value assessment is very complementary to the participant-centred approach of CHAT further surfacing the view and knowledge perspective of the participant and community or network that the researcher is working with.

2.2.4.2 Analysis of Cycle 2: Potential value/knowledge capital

In Cycle two the value is in possessing knowledge that may be useful in the future. The value can be seen in five forms, namely personal assets also referred to as ‘human capital’ (Wenger et al., 2011), relationships and connections also referred to as ‘social capital’, resources referred to as ‘tangible capital’, collective intangible assets referred to as ‘reputational capital’ and through a transformed ability to learn referred to as ‘learning capital’. Capability,

according to Sen (1997), is different to capital as it refers to a person's ability and agency to enrich their lives and to contribute to further development both economically and socially. The concept of capital on the other hand is typically understood as a person's ability to contribute to further development that is external to one's self and limited to fiscal economic development (Sen, 1997). The concept of capability in our understanding of potential value is more fitting for this study. The acknowledgement of agency carried in the concept of capability, often neglected in the concept of capital (Sen, 1997), complements the formative interventionist approach of this study. In carrying out formative interventionist research, as discussed earlier (section 2.2.3), formative interventionist researchers support participant agency development. As such, considering potential value from a capabilities perspective, allows for a consideration of the formative interventionist researcher's role in the youth agency to create value. It also highlights that youths can be value creators for themselves and for others.

The overarching question to consider in noting the presence of or potential presence of potential value is: "*What has all this activity produced?*" Typical indicators for knowledge capital include confidence, level of trust, production of tools and documents to inform practice, skills acquired, information received, a change in perspective and inspiration. For the Lenye youth, the question posed was "*What has the expansive learning process produced?*" and then the indicators suggested were noted.

To attempt to understand and identify the potential value through questions that speak to the different forms of potential value, the overarching question suggested by Wenger et al. (2011) was "*How has participation changed?*" Some specific questions for identifying value within the different forms of potential value follow. With respect to personal assets or human capability, this question can be answered by considering what skills, information and perspective has been gained by Lenye youth through the expansive learning process. With respect to social capital, the overarching question to consider is *How has Lenye youth participation in the expansive learning process changed their social relationships?* With respect to tangible capital, *What access to resources has Lenye youth participation in the expansive learning process given them?* With respect to collective tangible assets, *What position has Lenye youth acquired?* Finally, with respect to transformed ability, *How has participation transformed their view of learning?*

2.2.4.3 Analysis of Cycle 3: Applied value

For the third cycle – applied value – changes in practices illustrate the creation of this value.

Value is in using knowledge, tools and social capital to do something, particularly to do something new or different to what has been done before. The overarching question in assessing the presence of this value is *What difference has it made to Lenye youth practice/life/context to participate in the expansive learning process?* Typical indicators of this value according to Wenger et al. (2011) include the implementation of advice/solutions/insights, change in practice, the use of tools and documents to inform practice, the reuse of products and the use of social connections.

2.2.4.4 Analysis of Cycle 4: Realised value

Realised value can be identified through performance improvement. In this cycle, value is observed by noticing that doing something differently because of new knowledge has yielded positive results, has achieved the desired outcomes of the actions. *What difference has it made to my ability to achieve what matters to me or other stakeholders?* Typical indicators include personal performance, organisational performance and organisational reputation (Wenger et al, 2011).

2.2.4.5 Analysis of Cycle 5: Reframing value

Reframing value or redefining success is value observed when participants have developed a new understanding of success and value. Wenger et al. (2011) suggested that the question *“Has it changed my or other stakeholders’ understanding and definition of what matters?”* can assist in identifying this type of value. Typical indicators include community aspirations, assessment, relationships with stakeholders, institutional changes and new frameworks.

Lastly, in discussing the value creation cycle and how value is defined and identified it is imperative to discuss how value is interpreted or communicated (ibid.). Wenger et al. (2011) postulate there are two types of narratives in which value creation stories can be told. There are *ground narratives* and *aspirational narratives*. The ground narratives give an account of what has happened as well as the day-to-day activities of a community or network (ibid.). The aspirational narratives on the other hand give an account of what value individuals or the collective at large expect the network or community to produce. While the ground narratives then give an account of what events have occurred in the formation of the network/community as well as what the day to day activities/ engagements and roles of

individuals are, the aspirational narratives give an account of the evolving expectations of what the network and community can/should offer.

In answering my first sub-question 1) *What value is created at each point of the expansive learning process of the change laboratory process and for who?* I give what Wenger et al. (2011) call a ground narrative. I narrate what has happened in the expansive learning process and what has happened as Lenye Youth Group has formed. Additionally an aspirational narrative is then given as I answer sub-question 2) *What value can still be created at each point of the expansive learning process of the change laboratory?*

The value creation framework greatly complemented the formative interventionist research approach I used. The value creation questions are posed to identify from the perspective of Lenye youth how value was created via the expansive learning process. Not only were these theories complementary in that the expansive learning process is a social learning initiative but also in that the value creation narratives are also designed to foreground the perspective of the participants.

2.3 Rural development in South Africa

The Rural Development Task Team (RDT) and Department of Land Affairs (1997) of South Africa define a rural area as:

Sparsely populated areas in which people farm or depend on natural resources, including the villages and small towns that are dispersed through these areas. In addition, they include the large settlements in the former homelands, created by the apartheid removals, which depend for their survival on migratory labour and remittances. (as quoted by van Schalkwyk, 2015, p. 75)

Unfortunately, rural areas, due to a historic lack of rural economy building policy (Buhlungu, Daniel, & Southall, 2007) do not have as lively an economy as urban areas. Migratory labour and remittances are what people in rural areas depend upon (Philip, 2010) due to lack of employment opportunities (Min-harris, 2009). As a result, rural youth are predominantly unpaid workers rather than farmers due to limited access to land, limiting customary laws being one example of why (Min-harris, 2009). Access to land for rural youth however is important for keeping youth in rural areas and the youth have been on the national land reform agenda as stated in the National Land Summit of 2005 (Ntsebeza & Hall, 2007). An

interesting reason cited by Min-harris (2009) for rural youth unemployment is the lack of opportunities for labour productivity, which is disputable if one considers the lack of employment in rural areas is more likely due to the absence of jobs or determined employment, rather than the absence of work (Marx, 1976).

Not only is the apartheid legacy threatening rural development through continued rural to urban migration of the working or labour force population as in Amahlathi Municipality (South Africa. ALM [Amahlathi Local Municipality], 2017) but so too through maintained apartheid style municipal financing. During apartheid and even reported in literature in 2007, the money that local municipalities allocated per household came predominantly from money collected from the taxes and rates paid by the people living in those municipalities and was minimally subsidised by national government. The subsidy was based on the maintenance cost and the current cost of previous expenditure on the municipalities. As a result, local municipalities with predominantly rural areas had less money to work with to address the unemployment and poverty that was as a result of the spatial planning of the apartheid government (Buhlungu et al., 2007). Buhlungu et al. (2007) reported that the spatial distribution of local government budgets tended to reinforce inequalities although it was apparent that more funding would need to be shifted to poorer municipalities, preferably with a spatial plan to avoid wastage in the face of urban migration. A new formula was intended for implementation in 2007; however, the new formula would determine allocation with a focus on households that had infrastructure. This new formula and the third policy response reported by Buhlungu et al. (2007), the National Spatial Development Perspective (NSDP) contradicted the first two (Integrated Sustainable Rural Development Programme (ISRDP) and Project Consolidate) that focused on developing infrastructure and capacity in rural areas. The new policy focused on developing capacity for rural-urban migration so as to dissolve homelands i.e. the focus was on dissolving rural areas rather than on developing rural spaces (Buhlungu et al., 2007). If rural youth development, according to the National Youth Development Agency (NYDA) Act 54 of 2008, ought to be facilitated at local government level within the means of local municipality (South Africa. TP, 2009), this places rural youth at a disadvantage in terms of financial resources. Furthermore, this enables the pull towards rural-urban migration created by urban orientated education (Min-harris, 2009). The Human Sciences Research Council (HSRC) in their 2005 study corroborated with Min-harris (2009) noting how youth aspirations were urban orientated in rural South Africa.

2.4 Rural youth development and unemployment in South Africa

2.4.1 South African youth fight for development

South Africa's youth is iconic, within terms of the role that young people have played in the country's democracy, most notably the Soweto uprising of 1976 (Ndlovu, 2006). Every 16 June, as a country, we celebrate the youth of 1976 who stood up against an education system that would further oppress them as it would prepare them to be better slaves to their oppressors rather than to be free thinkers, visionaries and problem solvers in theory and in practice (ibid.). In 2009 young people were celebrated in true honour of 1976 youth when the National Youth Development Agency was launched as an outcome of the Youth Commission established in 1996 (South Africa. GCIS [Government Communications], 2009) to, among other objectives, enable youths to realise their full potential (South Africa. TP, 1996). The National Development Agency, being the major tool for youth support in the country, recognises that supporting rural youth requires acknowledging "the peculiar needs of rural youth" (South Africa. TP, 2009). The question is what are the peculiar needs of rural youths and how does the NYDA cater to these?

Arguably, the NYDA or our National Government at large, being the 'tool' for fulfilling the Youth Commission Act and later the National Youth Development Act, has lost the visionary and abstract thinking of "realising youth potential" (South Africa. TP, 1996, p. 1). This realisation of youth potential, noted in the Youth Commission Act, has been reduced to realising youth employment which is the most notable function and rhetoric of the National Youth Development Act 54 of 2008 and of government at large. Instead of supporting youth in achieving, what Maslow referred to as self-actualising needs, much of the work is centred around supporting youth with what Maslow referred to as physiological and safety needs. Here, in management, employment is considered a safety or physiological need whereas self-actualisation is the need within which one fulfils one's full potential (Tanner, 2018; Jerome, 2013; Huitt, 2007). I am not making use of Maslow's hierarchy of needs because I agree with the idea that we live life according to that particular order of needs but rather to articulate the difference I see in the objectives indicated in the Youth Commission Act and those indicated in the National Youth Development Act and to critique the frame of mind or conceptual tools with which rural youth development and youth development may be framed. To the contrary, I believe, as Reitan (2013) articulated, that we live life darting between the spheres of needs articulated by Maslow. The expansive learning process is not necessarily a step by step

developmental process, although it can be if the agency to access other learning actions (in the case of the expansive learning process) or needs (in the case of Maslow's hierarchy of needs) is prohibited or disabled. In fact the expansive learning process is an iterative agency building developmental process (Sannino, Engeström & Lemos, 2016) more applicable to the rural youth development conceptualising first articulated in the Youth Commission Act 19 of 1996 than the perception of meeting basic needs first. The latter may be the conceptual thinking leading the shift in the youth development discourse of the core National Youth Development tool of the country. Arguably, the expansive learning theory's role in developing youths as value creators for rural development may be that it can be an effective conceptual tool for rural youth development at a national level, trickling down until or better still emerging from subject level within rural areas/villages.

In 2015 and 2016 South Africa's youth again stood up against the status quo of education in the country arguing, amongst other issues, that the education system be accessible to all and that it be more contextualised so as to equip youths for meeting the highly contextualised issues it faces and that are faced by the country (Mkancu, 2018). This, 30 years after 1976 and 10 years after the formation of the NYDA, was mandated to work with various sections of government to fulfil its mandate (South Africa. TP, 2009), including the Department of Education which is a key player in the shaping and equipping of young minds. The historic youth-led cries relating to education in our country can be seen as South Africa's youth fighting for Education for Sustainable Development as they fought for "the optimal conditions and support mechanisms which will allow them to develop themselves in the face of change" (Wals, 2010, p. 15). Additionally South African youth in the form of the South African Youth Congress (SAYCO) fought for development, contextualised rural development, by playing a key role in the formation of the Congress of Traditional Leaders of South Africa (Contralesa) (Claassens & Cousins, 2008).

2.4.2 South African youth unemployment

Statistics on youth unemployment and education, particularly in relation to rural youth (see section 1.3), are alarming. In this study I focus on rural youth between the age 18-35 that have a qualification of matric and below. As indicated in section 1.2, this study is situated in Lenye Village in the Eastern Cape and initially led me to seeking answers to research questions primarily with respect to rural youth in agriculture in Lenye village, Amahlathi

Municipality and the Eastern Cape. However, with limited literature on rural youth in agriculture (section 2.8) and with urban youth graduates and the older generation migrating back to rural areas, I had to consider youth more broadly in the literature review and in answering these questions: Why is this category of youth the youth with the highest population of unemployed youth? (section 2.4.2). What programmes are out there for these youths? (section 2.4.3) and How can these youths plug into employment or entrepreneurial or work opportunities? (section 2.5 and 2.6). I considered these questions to try to ascertain what conditions and mechanisms were available for youths to try to develop themselves.

The majority of unemployed youths in South Africa are living in rural areas (South Africa. NYDA [National Youth Development Agency], 2017) and/or are of rural origin. This is even in a context of rural youth tending to migrate from their rural homes to urban areas in search of employment and wealth (South Africa. TP, 2015; White 2012) and in spite of statistics for rural unemployment being under reported (or unreported even) in statistical reports comparing these population groups (Mayer et al., 2011). Globally, youth unemployment is also understood with the following in mind, that some youths with odd jobs consider themselves unemployed as well until they find desirable stable employment (Kimari, 2018; White, 2012) as was the case in Lenye village. These youths are considered the “working unemployed” as coined by White (2012). They are often skilled and qualified (White, 2012) which is not the case for Eastern Cape youths who are predominantly unemployed with a qualification of matric or less (South Africa. SSA, 2015).

Fortunately (and unfortunately) the probability of rural youth finding work in urban areas is arguably lower than the probability of finding work in rural areas due to this migration and due to rural youth’s ability to compete with urban youth (Mlatsheni & Rospabe, 2002). Arguably rural youths are better off seeking employment in rural areas where arguably there is less competition due to rural migration but much competition due to the lack of job opportunities in rural areas (Mlatsheni & Rospabe, 2002). Furthermore, rural youth cannot compete with urban youth due to being less qualified and having less resources. Rural youths seeking employment in rural areas would be an outcome beneficial to rural areas and to the cause of rural and agricultural development as increasing rural-urban migration poses a threat to agricultural development (Manyevere, Muchaonyerwa, Laker, & Mnkeni, 2014), rural development and economic rural development. The threat to agricultural, rural and rural economic development occurs as more young people move to work in urban areas leaving

few to work in rural areas perpetuating and sustaining the migratory labour pattern and inequalities entrenched by the apartheid system. The rural-urban migratory labour pattern entrenched by the apartheid system for the purpose of developing historically white populated cities, perpetuates the developmental pattern of developing urban areas at the expense of rural area economy (South Africa. ECPC [Eastern Cape Planning Commission], 2014; Buhlungu, Daniel, & Southall, 2007).

2.4.3 Skilling youth for rural development and agricultural development

According to the NYP 2020, South Africa has the potential to eliminate poverty and reduce inequality in the next two decades. However, this will only be possible through the combination of the support of an effective government and citizens assuming responsibility and agency for their own development (South Africa. TP, 2015). However, South African rural youth arguably lack agency for development as the rural youth often lack financial and skills resources (Min-harris, 2009). The employment and job creation rhetoric further cripples their own agency for envisioning development as it presupposes what development is needed and how it will be met particularly with respect to rural development.

One way in which our government is arguably enabling youths to see or build their agency is through acknowledging youth as a “major human resource for development” and aiming to create and implement long-term solutions, such as equipping the youth with skills (South Africa.TP, 2015) through various programmes. This approach and investment with youth is indeed an investment, as one step in learning represents one hundred steps in development (Vygotsky, 1982 in Zaretsky, 2016). Investing in equipping youth with skills is thus investing in youth development and equipping youth for development. However, how youths are treated in these initiatives is equally as important to consider, as youth may be invited to policy making platforms but not engaged properly (Gough, Langevang, & Owusu, 2013).

A few rural youth development and rural youth in agriculture initiatives and projects/programmes and policies have been designed and have been available to rural youth over the years. These opportunities are varied and include:

- the National Rural Youth Service Corps (NARYSEC), Rural Enterprise and Industrial Development (REID) (Department of Rural Development and Land

Reform, n.d), to mention those specifically designed for rural youth by our government,

- the Annual AFASA (African Farmers Association of South Africa) Young Farmers Summit (AAYFS) (AFASA Youth, 2017), to mention an agricultural initiative made available broadly through private and public partnership that accounts for financial assistance for travel and accommodation costs,
- Imvelisi (GreenMatter, 2019) to mention an ‘enviropreneur’ private and public sector partnership designed for youth at large accounting for accommodation costs,
- Activate (Activate!, 2019) to mention a youth development programme made available to youth at large, through accounting for financial assistance for travel and accommodation costs, co-financed by the Federal Republic of Germany and the DG Murray Trust.

There are also initiatives for in and out of school youths such as the Department of Agriculture Forestry and Fisheries’ (DAFF’s) Junior LandCare programme for in and out of school youths up to the age of 35 years old. This programme, according to DAFF, is particularly for rural youths (South Africa. DAFF [Department of Agriculture, Forestry and Fisheries], n.d.). According to the Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN) (2012), there are opportunities for African youth in the seed sector through the seed value chain to mention an example of a continental opportunity for South African youths, which is an interesting proposal in light of the current seed activism in the country (Resisting Corporate Seed Laws in South Africa, 2018).

There are also as yet underutilised opportunities for youth development in rural areas. For example, one of the barriers to agricultural and economic growth in many rural areas and in the Eastern Cape, Qoboqobo specifically, is mobility (South Africa. ALM, 2017). Consequently the urgent maintenance, construction and reconstruction of roads and bridges of Qoboqobo have been identified as a priority in the infrastructure needs of the Amahlathi municipality in order to create an enabling environment for employment, a sustainable economy and citizen access to actualising their full potential (South Africa. ALM, 2017).

The scope of work for youth in rural areas is vast including even enabling factors for agriculture as a tool for development. With respect to agriculture opportunities designed

specifically for graduates and youths with a strong maths and science matric, there is a comprehensive list of opportunities such as National Education and Training Strategy for Agriculture Forestry and Fisheries, and the Career Awareness Strategy aimed at developing researchers, scientists, skilled professionals and technicians in areas regarded as scarce and critical within the sector such as Veterinary Science, Bio-resource (Agricultural) Engineering, Plant Pathology, Soil Science, Entomology, Agronomy, Food Science and Technology and Viticulture. Additionally, there exists the External Bursary Scheme, Career Awareness Programmes, Experiential Training, Internship and Professional Development Programme, Entrepreneurship Development Programme, Young Professionals Development Programme, Agri Export Technologists Programme, the Legacy project (South Africa. DAFF [Department of Agriculture Forestry and Fisheries], 2015), amongst others. Arguably the education in these programmes, although urban centred, is principally applicable in rural areas through innovation and with the possible trend of graduates migrating back to rural areas and combining agriculture with alternative livelihoods (Gough et al., 2013). There is much promise for innovative rural development solutions as young graduates with educational knowledge may increasingly work alongside rural youth with contextual and indigenous knowledge.

Additionally, a number of agricultural learning institutions exist and are functional in the country. Agricultural learning opportunities are available online and physically within learning institutions. Although these programmes and institutes are directed at the smallest demographic within youth unemployment, university students, and certainly not primarily directed at rural youths due to the rural youth education demographic and the requirement of a matric certificate (South Africa. DST [Department of Science and Technology], 2017). Those situated in or near rural areas such as Fort Cox Agricultural Training Institute in the rural Eastern Cape where this study was conducted, certainly have learning opportunities accessible to rural communities (Fort Cox College, 2014).

2.5 Youth in agriculture, challenges and solutions

For some time in African and South African agriculture discourse, youths have been considered not interested in agriculture (South Africa. DST, 2017; South Africa.TP, 2015; Gough et al., 2013), a view also expressed in the Eastern Cape by local farmers (Masika, Averbek, & Sonandi, 2000). Arguably, youths are interested in Agriculture (FANRPAN,

2018), however there is a need for reconceptualising it, due to negative youth perspectives of agriculture and due to the reversible ‘doomed and saviour’ relationship between youths and agriculture (Gough et al., 2013, Sihlobo, 2015). Unfortunately, youths are often seen as human labour tools, an ideology contested by White (2012) as youths are more than labour. As such, all around the world, youths, particularly rural youths are expected to be the future of food security (Food and Agriculture Organization of the United Nations, 2014). Given this expectation, we need to ask and answer the question how do we attract, educate and retain young people in the agriculture sector? (FANRPAN [Food, Agriculture and Natural Resources Policy Analysis Network], 2011). In reconceptualising the relationship between youth and agriculture, there is a need to educate and encourage youths to become self-employed and employers in the agriculture system through national education systems in the continent (FANRPAN, 2018), country, province and villages. Educating youths on various opportunities in the agriculture sector and engaging youths on technological innovations in the agriculture sector can expose and encourage youths in terms of the future of the agricultural sector. This can encourage youths to take up agriculture or perceive agriculture as a tool for agency expression, transformation and development. These are some of the solutions reported when discussing the challenges and solutions faced by youths in the agriculture sector (FANRPAN, 2018; Mama, 2017; Engaging Youth in Agriculture, 2013).

According to the Food, Agriculture and Natural Resource Policy Analysis Network conference proceedings, youth challenges should be specifically targeted and not generalised (FANRPAN, 2018). This is true. Although the challenges and solutions above have been reported and identified worldwide and continentally, the different nuances and root causes that exist in the local contexts in which these worldwide and continentally described challenges exist, require equally nuanced and root cause specific solutions. This statement emerging from a pool of voices from the continent reinforces the necessity for working in the agriculture and rural development space with a CHAT approach that challenges one to carefully take into account the nuances in challenges and needed solutions as found in each context.

2.6 Accessibility of opportunities and solutions to rural youths

The government and other stakeholders have invested money and education opportunities to equip youth with skills and capabilities. One can ask then whether youths are then creating

economic value in their rural areas after being equipped, or being placed in jobs, or observing or being part of some youth employment or rural development initiative?

As opportunities are available, the question of concern is the accessibility of the available initiatives and projects. This relates back to the question posed in section 2.4.1. *What are the peculiar needs of rural youths?* There may be initiatives and programmes for rural youth development but the youth may not know about them, as these initiatives are not well publicised or made known through the information channels and platforms that are accessible to and commonly used by rural youths. Although for urban youths, information is increasingly accessible and attainable (Brown & Duguid, 2002), this is not true for youths in rural communities who have limited ability to readily attain information (Czerniewicz & Brown, 2014).

Additionally the continued concerning issue of young people migrating to bigger cities may be coinciding with rural neglect (Ajaero & Onokala, 2013) and the absence of development centres in rural areas. However, with increased discourse around rural investment (Mlambo, 2018; FANRPAN, 2018), perhaps this is soon to change.

2.7 Conceptualising youth development for rural development

Arguably due to the conceptual framing of youth development in youth development discourse and action and in education discourse and action and due to the perceptions of youths as a consequence of this discourse, even youths with skills are sitting at home not working. They remain unemployed as the end goal or the success story for development or the success target is skills development for employment or employability, arguably due to old economic theory dominating conceptual thinking around development (Gough et al., 2013). This is due to a lack of tackling issues from different angles or perspectives. This being but one and possibly the most prevalent current angle or perspective. As such, much focus is on the youth not having the qualifications and skills that match the available posts as opposed to youth lacking the skills and means to work on the issues they face around them. This argument holds true for rural youths in Africa and South Africa who experience curricula focused on academic progression and urban-based studies (Min-harris, 2009).

An economics school of thought that complements expansive learning theory particularly CHAT and which arguably may help in conceptualising and economically contextualising rural youth development for rural development through agriculture, is that of Raworth (2017). The first of Raworth's 'ways' in *Seven Ways to Think Like a 21st Century Economist* relates to addressing youth unemployment through agriculture for economic growth as it encourages a shift towards local to global economic growth much like the context specific rationale of CHAT. Similarly, the third way arguably relates to second generation CHAT as it motivates for an economic view of individuals in the economy being "social, interdependent, approximating, fluid in values and dependent upon the living world" (p. 23). This view is comparable to that of subjects living in a community with whom we share the responsibility to live within the means of the tool with which we mediate an ever-changing object. Finally, Raworth's sixth way of thinking like a 21st Century economist advocates for a circular economy wherein people engage within a resource use practice that is cyclical. This can be related to the expansive learning theory's cyclical learning actions wherein learning and development are a cyclical process, as it develops the reflexive activity also needed in a circular economy. An introduction to all seven of Raworth's *Seven Ways to Think Like a 21st Century Economist* is attached to this thesis as Appendix A.

Arguably the dominant frame of mind is not pro agency for youths as problem solvers and thinkers but rather sees them instrumentally as tools for the solving of problems (Gough et al., 2013). This perspective may also hold true in South Africa. For example, in light of climate change and its adverse effects on agriculture and food security in South Africa as increased drought conditions have had a significant effect on food availability and food pricing, the government wants to tackle youth unemployment by increasing the capabilities of youths, developing rural communities and contributing to the adaptation and mitigation of the effects of climate change to rural communities (South Africa. TP, 2015). The National Development Plan states that "Agriculture has the potential to create close to one million new jobs by 2030, a significant contribution to the overall employment target" (South Africa. NPC, 2012, p.219).

Arguably, our government needs to reframe success and agency when it comes to national youth development as perhaps the dominant way of conceptualising youth unemployment may not be applicable to youths in South Africa and as unemployment in Africa is difficult to define and measure (Gough et al., 2013) and is not easily resolved by skills intervention alone.

An additional consequence of apartheid and its residual education system in rural areas is the bank deposit phenomenon style of education (Freire, 1993) that has limited rural youth aspirations and framings of success (Human Sciences Research Council, 2005). Furthermore, the South African school system continues to be the training ground for the job market, now with a focus on job readiness for the fourth industrial revolution (South Africa. Department of Basic Education, 2018). Intriguingly, the MEC for Eastern Cape Rural Development and Agrarian Reform had this to say regarding youth development:

If as the Province we are to drive the radical economic transformation, the young people of the province must learn from these legends and be in the forefront of economic emancipation. The young people of this Province must position themselves to participate in the productive structures of our economy, transform the production systems, to be more equitable, and share the wealth of the country thereby reduce poverty and inequality. Youth development without entrepreneurship will not yield the envisaged economic transformation. They must position themselves as entrepreneurs and wealth creators rather than job seekers. The state must use its resources to support youth entrepreneurship to improve access to economic opportunities. (South Africa. Eastern Cape Rural Development and Agrarian Reform, 2017)

This is a slight difference here from the job creation rhetoric. Though visionary, it is, however, framing success for youth in mainstream economic terms.

My research question could have focused on the role of specific training programmes for youth employment in rural areas. However, Wals (2010) has described education as different from training and conditioning. Wals (2010, p. 19) said education plays a role in developing in people what is referred to as “dynamic qualities” so that people are able to “critique, construct and act with a high degree of autonomy and self determination”. In contrast, training and conditioning he associated with prescribing particular lifestyles or (codes of) behaviours which is problematic as it “stifles creativity, homogenizes thinking, narrows choices and limits autonomous thinking and degrees of self-determination” (p. 19).

Arguably, national development discourse and the use of the youth as tools is necessary to frame and position the youth in the discourse and to understand how to fulfil and guide the fulfilment of development discourse needs. Following this argument and with the current

president claiming, in his State of the Nation address, that in the second and third quarters of 2017, the Agriculture sector made the largest contribution to the country's improved economic growth (South Africa.TP, 2018), I focused my interest on youth opportunities for rural youth. My interest in rural youth opportunities is skewed towards rural agriculture based opportunities and what opportunities the Government is providing for rural youths in agriculture. Sihlobo (2015) suggested that job creation may be approached by introducing programmes into the secondary-school level. They argued that the national education system places little focus on developing skilled labour in the primary agricultural industry. This is a possible solution for youth that are not categorised as unemployed, for youth that are in the education system.

Increasingly governments are pushing for entrepreneurship and '*Vukuzenzele*' kind of solutions, which White (2012) has criticised due to the neoliberal stance of the push. *Vukuzenzele* which can be translated as "arise and act" or more colloquially "wake up and do it yourself" is the volunteerism campaign launched by former President Thabo Mbeki in 2002. He encouraged and called on South African citizens to work together in building the nation and tackling social needs (Twala, 2004). In fact, in South Africa, instead of agrarian reform being used to restructure the rural economy, Ntsebeza and Hall (2007) observed that the agrarian focus moved away from the rural poor to that of an African commercial farming class operating alongside the white commercial farming sector.

Current President, Cyril Ramaphosa, launched in 2018 a similar campaign urging fellow South Africans to be "agents of change" alongside him (South Africa.TP, 2018). The national campaign *Thuma mina* (translates to "send me") (South Africa.TP, 2018) is arguably an exceptional conceptual tool for encouraging agency in South Africans. With a combination of this conceptual tool and the kind of leadership and political will demonstrated by Thomas Sankara (Harsch, 2014), as South Africans (civil society and government) we could find ourselves making major strides in rural development and rural youth development. Thomas Sankara led an active participatory citizenry that voluntarily built train tracks, revitalised degraded lands, honoured and enabled the representation of women etc. in their efforts to collectively rebuild the nation (ibid.). Together the people of Burkina Faso and their government were able to accomplish much within the space of four years, not only through encouraging participatory citizenry but also through political will and participatory leadership. At times against the will of his government, Thomas Sankara enabled, supported and mandated the shared vision for change he and the people of Burkina Faso desired (ibid.).

Arguably at this point, due to the leading governmental action or rather lack thereof in Qoboqobo (Keiskammahoek), and subsequently due to municipal infrastructure burnings by communities in protest for rural development (Menzelwa, 2018), rural development in the area may fall into maintaining or re-establishing development rather than continuing development (Ricochet News, 2018). The leading government, the African National Congress (ANC) has been under fire as residents of Qoboqobo protested for service delivery (Menzelwa, 2018). The recent municipal buildings that were burnt and subsequently damaged during the service delivery protests (ibid.) may need to be rebuilt in order to continue with the work they were able to accomplish. The burnt buildings may be a setback, as they become a need that was already fulfilled prior to the service delivery protests.

2.8 More literature and research for rural youth

There are many rural youth initiatives; the question is what are the outcomes of these initiatives? Moreover, do the outcomes include youth upskilling and equipping that leads to rural development? Much has been said about what needs to be done to enable Africa's rural youth to participate in agriculture in various ways but not enough has been said on the tangible steps taken not only to meet food security or to meet youth unemployment but to enable, support, develop youth as value creators for the youth in agriculture problem.

Unfortunately I found little academic literature on rural youth in agriculture in South Africa, with some exceptions, for example a master's thesis on youth perspectives in Centane in the Eastern Cape (Mkra, 2014), youth in KwaZulu-Natal (Ntshangase, Ngiba, van Niekerk, & Zwane, 2016) and Limpopo (Tolamo, 2014). Though there is a considerable amount of literature mentioning rural youth in agriculture, the studies are about a different object with youths merely mentioned in the studies. Furthermore, I found little literature concerning the evaluation of rural agriculture projects with Brent and Mulder (2005) reporting on a proposed project proposal evaluation criteria of the Land Care programme in 2005 and reporting on the case study projects having had no needs analysis prior to implementation. I was unable to find literature consolidating what is available for youths in South Africa concerning agriculture. Equally, I found little literature qualitatively reporting on any of the rural youth development programmes. The lack of literature i.e. of evidence of academic research into rural youth in South Africa is rather concerning, alluding to academic researchers perhaps not researching or putting out research on South African rural youth that is rural youth centred.

Interestingly, the role of the researcher is transforming as research transforms, as more solution oriented than knowledge oriented research is needed (Future Earth, 2014). So too is the discourse on knowledge production as the legitimacy of non-academic knowledge is reconsidered, as the voice of communities is lifted and sought (ibid.). With the need for knowledge on rural youth in agriculture in South Africa prominent for effective context specific and thus relevant development, it becomes important to legitimise ordinary citizens as knowledge producers and research innovators with respect to rural youth. This can also affect the promises made to rural youths with respect to job creation, self-actualisation support etc.

Considering the need for information on rural youths and the increasing use of social media as a knowledge sharing platform among young people and with the increasing use of social media as a research medium and knowledge production platform (Francis & Hardman, 2018), in particular WhatsApp, Facebook and radio in rural areas (Lupele, 2017), there is much potential for social media use for rural youth research. Information relating to rural youths' lives, aspirations and perspectives on rural development could be easily accessible through social media use as a tool for mass data collection in a mixed methods data collection approach using social media and on-site data collection and through working with youths as knowledge co-creators. A municipal demarcations oriented research approach using social media may be both useful and resource efficient for a more contextual and systematic understanding of youth perspectives. Additionally, this may be an effective way of engaging and promoting youth agency for development. As our national government has promised to prioritise rural youth development, perhaps an action orientated response equivalent to that of the HIV/AIDS campaign (Simelela & Venter, 2014) is warranted to substantiate and put into action youth and rural development through an approach informed by articulation by rural youth of the challenges they face.

Although, according to the NYP 2020, numerous interventions aimed at youth development lack impact (South Africa. TP, 2015), I found very little literature on the monitoring and evaluation of these programmes to effectively substantiate this statement, including a lack of referencing to enable me to follow up on it in the NYP. I found a master's thesis on the "Evaluation and identification of critical success projects in the running of successful food security projects within the Eastern Cape Department of Rural Development and Agrarian Reform, in the Amahlathi Local Municipality" (Tali, 2013) which reported on changes in the

two rural development projects it considered in the study. Noting that the NYDA listed developing a nationwide monitoring and evaluation framework for tracking youth development programmes (South Africa. NYDA, 2017) as an objective, my next question was what informed those changes? What is the content and nature of the monitoring and evaluation that informs these changes and shifts to national projects? In-depth context-specific studies or shallow but wide ranging statistics? My hope is that the changes were informed by a combination of quantitative and qualitative monitoring and evaluation outcomes; however, these are national projects reformed at a national scale possibly informed by case studies or evaluation frameworks, which may not reflect the needs of all rural areas. Ideally, experts should not be moving in and out of rural communities as implementation agents of preconceived notions on what development is needed in rural communities but as co-conceivers moving in and out of the community to co-share knowledge/ideas with the rural communities. According to Thompson et al. (2009 cited in Tali, 2013, p. 14), “many projects in rural areas normally start with a general mission or objective which is that of Food Security, and less is mentioned of what would be the needs of the beneficiaries” whereas “a multi-purpose project will respond to the diverse economic and social needs of its members, often in the absence of local government or effective public services. The needs of the beneficiaries should be addressed and understood by the beneficiaries from the initial stages of the project” (p. 14). These sentiments are shared by Brent and Mulder (2005) who suggested that unmet community needs in projects may be a sign of a poorly designed project. Arguably non-compliance to community needs could be the result of various constraints to community participation in data collection processes as in “solving real world strategic problems, one must find not merely novelty, but novelty in the context of constraints, trade-offs and uncertainty, and that solution must be useful” (Loehle, 1996).

What I noticed about a number of government documents is the lack of referencing – the NDP (South Africa. NPC, 2012) and the *Eastern Cape Provincial Development Plan: Vision 2030* (South Africa. ECPC, 2014) are two key examples. In the academic community and in my own experience of referencing, referring to the source of one’s information not only proves validity for someone reading the work but challenges the writer to account for validity and reliability of the information used. It challenges one to be critical of what one is saying and allows for tracing of information. As the NYDA embargoes setting a national monitoring and evaluation framework for youth development, it is important that a research process is used as layered, extensive and as transparent as that of the Academy of Science of South Africa (South Africa.

DST, 2017) in tackling the need for 'Revitalising Agricultural Education and training in South Africa'. This is not only as a validity and transparency measure but as a means by which we as young people can effectively position ourselves and participate in the development project. Proper referencing in government development plans would significantly improve or enable citizens and other stakeholders to effectively and cohesively participate in development processes and plans.

Arguably the development of rural youth as value creators for rural development through agriculture exists in a 'zone of proximal development' which is the space between actual development and potential development (Vygotsky, 1978). This is due to two of the predispositions towards unsustainability articulated by Wals (2010) namely, failure to generate adequate support for action and taking action which is inadequate, mismatched to the problem or unsuccessful. For sustainable rural development, rural youth development perhaps needs an emancipatory approach that plays a role in developing dynamic qualities in young people (Wals, 2010).

Agriculture has been identified as a major potential area for immediate job creation in rural areas (South Africa. NPC, 2012), the village is an agricultural village with unemployed youth, the change laboratory is a 'job and development' formative intervention method whereas other initiatives have been based on job creation. The nature of the intervention and its outcomes may turn out to be different from these foundational ideas as the object is not fixed (Virkkunen & Newnham, 2013). The youth may have learnt that having a job can improve one's standard of living; however, they were not responsible for the initiatives. The change laboratory process is learning based and can be used for agency building (ibid.). The cycles of value mentioned are also learning based and they reflect opportunities for value to be created as a result of learning experiences potentially also providing an evaluative lens. Through the change laboratory, the youth can work towards job creation through multiple learning opportunities and those learning opportunities may result in the youth learning that they can create jobs, develop and improve the village themselves and that could spark the beginning of youth constantly initiating job creation and development as needed. There is potential for this research contributing, although very primarily, to job creation, possibly opening another pathway to job creation and agriculture sector growth and rural development in the village.

2.9 Conclusion

In this chapter, I introduced the theoretical and analytical frameworks of the study and discussed literature relevant to the study relating it to the proposed approach. In conclusion, my key argument is that young people are value creators and have been through their own agency, through self mobilisation. Youths can be value creators through being tools in the global, continental, national and even in local contexts if support is offered for equipping youths as such value creators. It is more sustainable and truer to agency rhetoric to support youths in seeing themselves as subjects in all of these contexts. It is truer to agency rhetoric to see young people as subjects rather than to see young people as tools. There is room for more research into the approaches that have been used thus far to support youth as value creators. Formative interventionist research may not only fill the gap for youth research but also enable youth agency for sustainable development.

Chapter 3: Methodology

3.1 Introduction

In this chapter, the research methodology of the study is explained starting with the research orientation, followed by an explanation of the case study design and justification for why I chose these approaches. I then introduce my participants and outline the two phases of my data generation process where observations, semi-structured interviews, a research journal and document analysis were used to generate data, along with an explanation on when and why audio and notes were utilised in the data generation process. The data management is then shared followed by an explanation of the data analysis process. This analysis is followed by a discussion on the validity and ethical considerations made in the research process and finally, a reflection on researcher reflexivity moments in the research process.

3.2 Methodological design

3.2.1 Research orientation

In Chapter Two, I discussed the concept of a change laboratory formative intervention and the role of a formative interventionist researcher. This particular orientation was chosen as a consequence of the research question which is formative and intervention oriented. As a researcher, I wanted to participate in whatever the youth would be doing, as a youth myself and an aspiring youth and sustainable development agent, while learning about young people as value creators for rural development through agricultural activity. This approach allowed for learning by doing (Roberts, 2012), in which I, as a formative interventionist researcher could also reflexively identify myself as a co-engaged change agent, a researcher who not only identifies subjectivities but works towards bettering a situation as a consequence of those subjectivities (O’Leary, 2004). Formative interventionist research was chosen for this study as I wanted to explore participants not only participating in a study that produces knowledge as in participatory and action research (O’Leary, 2004), but also predominantly leads the process in a co-engaged way, as is required for effective change which is cited to be the norm for formative interventionist research (Engeström & Sannino, 2010). The change laboratory methodology, the chosen methodology of the study is a formative intervention methodology that is also learning-centred. According to Roberts and Westin (2008), interventionist research unearths the theory being used by subjects rather than the theory that is accepted or intended but not particularly practised.

As different activity systems can be the foundation of the multiple voice representation required in change laboratory workshops, the Lenye Youth Group, Sidalukukhanya, CWP and Sustainable Development activity systems were chosen for this case study. The study explores the role of expansive learning in the potential development of rural youth as value creators. The Lenye Youth Group activity system was the youth platform that emerged out of negotiating access with Lenye youth as potential value creators for youth development and community development as described in section 4.2.3. The group unfolded as an agricultural youth group and was thus relevant for this study as a youth farming activity. The Sidalukukhanya and CWP activity systems were chosen as they were existing farming activity systems in the village that employ youth and have a development agenda (more information is given on these activities in section 4.2.2 and 4.2.1). The sustainable development activity system was an abstract and theoretical activity system initially used by the researcher to map and understand the relationship between the existing and concrete activity systems and the sustainable development activity of these activity systems and of the village.

3.2.2 Singular case study approach

For the purposes of this study, a singular case study approach was used: a case study of youth farming activity in the Amahlathi Local Municipality in the Eastern Cape, with a focus on one particular village called Lenye. According to Creswell (2007), “the case study method explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information... and reports a case description and case themes” (p. 73). This describes an appropriate approach for understanding how Lenye youth farming activities can be used as a tool for community and youth development.

It is important to note that the case study approach is useful for in-depth understanding of specific contexts and the results thereof may not be applicable in other contexts. As such, the report, i.e. the results, discussion and recommendations given in subsequent chapters, although applicable to Lenye youth, may not be applicable to youth at large. This principle of the case study approach is in line with the research orientation/ theoretical orientation of the study, CHAT, which highlights and values context specificity.

One advantage of the case study approach is that the approach enables the researcher to work in the concrete, which is a key part of formative interventionist research. A singular case study rather than multiple case studies was chosen for this study, as there was no need for comparative studies, in this particular case.

3.3 Participants

A few key individuals were consulted during the contextual profiling. The Lenye Community Work Programme Supervisor, the then director and co-founder of Siyakholwa, the then Ntingani Lootsha Programme Co-ordinator, a Sidalukukhanya supervisor, youths from Lenye Village and an older member of the community.

3.3.1 The elderly

There were four non-youth but key individuals consulted for the contextual profiling of this research. The Community Work Programme Supervisor, Ms Thembeke Xesi, is an elderly woman who lives and works in Lenye village. The then Ntingani Lootsha Programme Co-ordinator is an older (but young at heart) man, Mr Daluxolo Matanzima, who lives and works in Rhabula, home of the Ntinga Ntaba kaNdoda's offices. An older member of the community, Mr Vusumzi Matiwane, was elected as Chairperson of the village committee during the course of the research. The Sidalukukhanya supervisor, Ms Nothemba Matiwane, is also an elderly woman who lives and works in the village. The Siyakholwa administrator, Mr Norushe, was an elderly man who lived and worked in Keiskammahoek.

3.3.2 The youth

Twelve young people volunteered to participate in this research and were involved in both data generation and analysis. I noted the latter during our questioning workshops when participants began to analyse the mirror data I presented to them. Learning action two of the change laboratory process, which is the analysis of the historical and empirical evidence of the activity systems, was initiated within the questioning workshops. The youth who participated in the change laboratory workshops had the following profiles:

Table 3.1: Youth participants of the Change Laboratory Workshops

The following youth profiles were obtained through individual interviews in 2019. I asked youths to describe themselves stating their date of birth, what they like to do, what they are currently doing and their aspirations.

Name & Surname	Date of Birth	Gender	Activity system represented	Description
Odwa Booi	12/10/1991	Male	Lenye Youth Group	I am employed in Zanyokwe secondary co-operation. I would like to develop my village, especially with farming. My first career choice was agricultural management but because of challenges, I could not go to school and pursue that. I grew up in Lenye, grew up working in my father's farming practice. He taught us how to live through animal and plant production. My dad and other farmers inspired me to want to do agricultural management. Odwa is also a former CWP supervisor, and was identified as a Christian youth leader.
Nolusindiso Rala	02/01/1985	Female	Lenye Youth Group	I am working as a security officer in Tyeks security services. I'm not educated but I am a hard worker. I would like to be financially independent one day and run my own business and I surely believe that will happen.
Sisipho Makie	05/12/1997	Female	Lenye Youth Group	I am a passionate and accountable woman who likes to participate in youth development and agricultural business. I am all about developing young women's skills. I would like to be a youth representer one day because sharing knowledge and taking care of development is one of my leadership skills. SWOT (Strengths, Weaknesses, Opportunities and Threats test) makes me stronger every day.
Lundi Matiwane	29/11/1995	Male	Lenye Youth Group	Unemployed youth, aspiring musician. I am a body builder, I love to watch body building competitions and I wish to compete one day.

Mzwebongo Booi	22/10/1980	Male	Lenye Youth Group & Sidalukukhanya	I am a director, secretary and supervisor at Sidalukukhanya, a coach of a local football team called Lenye United Football Club. I am also a mentor at Lenye Youth Group. I love reading books and writing poems. I also enjoy new challenges related to youth and community development. I believe God is master of all creation. I am a shy guy, not talkative but I can discuss, explain and debate.
Nomazibulo Matshikiza	08/05/1985	Female	Lenye Youth Group & Sidalukukhanya	I am a Sidalukukhanya employee and Lenye Youth Group member. I am interested in the group regrouping and rather doing chicken farming. I am less interested in farming crops but would like to farm chickens. I am currently not farming because I do not have land/space or finances. I'm unemployed because I do not have anything to do however I like to work and keep myself busy or go work in the fields or help my mother with whatever she needs.
Odwa Matiwane	31/05/1998	Male	Sustainable development	I'm a Grade 12 high School pupil (2019), and aspiring extension officer. I am a soccer player, goalkeeper, and churchgoer. I like helping with farming practice of family and families of friends where we plant cabbage, tomatoes, butternut, corn/mealies, spinach, carrot, beetroot, potatoes etc.
Lwando Matiwane	02/021991	Male	Sustainable Development	I am humble, loving, don't like being upset and I love people. I completed matric. I like sport and I play rugby. I am a youth farmer, farming vegetables especially cabbage as there is a market for farming cabbage commercially other vegetables have a lot of work and I haven't yet pursued them commercially as I don't have a market for them. My goal is to sell to companies like Nicks Food and have my own employees from the village. I'd like to contribute to or

				have a day care for the elderly to meet and eat. I'd also like to share produce with the school and contribute to funerals with my produce. Lastly, I'd love to have my own tractors and trucks in my well established commercial farming business one day and be recognised as "Mr Matiwane".
Luzuko Xesi	01/05/1994	Male	Sustainable development	I love soccer. I played for St Gorgeous in Port Elizabeth but can not continue playing professionally due to an injury in my leg. I currently play for and am captain of the local soccer team. I am an unemployed youth but I do work part time in the Sidalukukhanya project during certain seasons. I am interested in being part of Lenye Youth Group and would love to work in the sports department. It does not matter what I do and for what sport as I love sport in general.
Athenkosi Tiso	5/01/1989	Male	CWP	Athi is a former CWP employee. He currently works at the bridge construction site. He also works with family as they have livestock (cows) in the family. He plays soccer.
Lungelo Ndlumdaka	28/05/1986	Male	CWP	I am a CWP employee. When I am not working in the CWP, I shovel community members' fields where they have planted cabbage, potatoes, butternut, beetroot, carrots, watermelon, and onions. I help around the house with whatever needs to be done, chores, errands... I like reading newspapers and would like to be a businessman. I would like to be independent and have my own company, business, or project etc. making cars.
Fikiswa Magoloza	15/12/1986	Female	CWP	I'm a single mother, independent young woman who loves to talk. I'm organised and I would love to own my own small business one day.

3.4 Data generation

The data collection in this case study was conducted in two phases and is thus reported in two sections. Section 3.4.1 Phase 1: Extended contextual profiling and section 3.4.2. Phase 2: Expansive learning actions implemented via a series of Change Laboratory sessions with the Youth. The data reported in section 3.4.1 was used for preparing data for the change laboratory process and then later for analysing and reporting on the thesis while the data reported in section 3.4.2 was used for analysing and reporting on the research process after the change laboratory workshops.

3.4.1 Phase 1: Extended contextual profiling

An extended contextual profiling process with the activity systems identified in the village as activity systems working on agricultural activity in Lenye village was conducted to clearly define the focus of the sustainable development activities that the youth are interested in focussing on. This was needed to clearly define the shared object of the CWP/Siyakholwa, Sidalukukhanya and Lenye Youth Group activity systems and the broader/primary activity system of sustainable rural development for Lenye village (Virkkunen & Newnham, 2013).

As a formative interventionist researcher, I worked with the youth who volunteered from the CWP/Siyakholwa activity system, Sidalukukhanya activity system and Lenye Youth Group activity system to understand their activity systems, and their interests, to prepare mirror data through deeper contextual profiling for the first learning action in the cycle. This was done as the CWP, Sidalukukhanya and Lenye Youth Group were observed as three interacting activity systems that had the shared object of agricultural activity through the different agricultural activities of the separate activity systems. Additionally, as described in section 2.2.1, these CWP, Sidalukukhanya and Lenye Youth Group activity systems were understood as activity systems that could produce the primary activity system of sustainable rural development through being the subject producing activity systems and potentially the producers of the other elements of this primary activity system.

3.4.2.1 Collecting data through participation in youth meetings

I called a youth meeting to officially negotiate my research project with all the youths in the village. The minutes/notes of that meeting and subsequent youth and village meetings that I attended and noted, were used for extended, continuous contextual profiling which I report on

in section 3.4.2. I attended and noted through telephonic follow-ups, 24 meetings during the course of this project. Thirteen meetings are reported in this section while 11 meetings are reported in section 3.4.2. I attended three Lenye youth meetings for negotiating working with Lenye youth through my research project and youth participation in a change laboratory process. The meetings were on 25 April 2016, 30 August 2016 and 14 September 2016 at Lenye Primary School. I also attended seven Lenye Youth Group meetings and noted (marked by an *) three youth meetings that I did not attend but followed up on via phone calls with other youth members. The dates for these meetings were 17 October 2016, 9 February 2017, 11 February 2017, *18 February 2017, 25 February 2017, *4 March 2017, 7 March 2017, 11 March 2017, 1 April 2017 and *9 April 2017. All these Lenye Youth Group meetings were held at Lenye Primary School with the exception of the meetings held on the 17 October 2016 and 7 March 2017 which were held at the Lenye fields. In addition to minutes or notes taken, photographs were taken in the meetings held on 17 October 2016, 7 March 2017, 11 March 2017 and 1 April 2017.

3.4.2.2 Collecting data through interviewing youths

With volunteers from the CWP/Siyakholwa activity system, I conducted three semi-structured focus group discussions: one focus group discussion with young women in the CWP at Lenye Primary school on 3 November 2016, and two focus group discussions with two male groups in the CWP on 3 November 2016 and on 7 March 2017. The women's focus group consisted of approximately five young women. I did not note down who and how many people were present, hence the approximation. The participants of the male focus group discussion on 3 November were unfortunately also undocumented however seven men were present and three participated in the focus group discussion. This particular focus group discussion was conducted in the village in the shade of a building where the group was resting during their lunch hour. The second male focus group discussion was conducted at Lenye Primary School in the CWP garden with two young men.

Additionally, I conducted one semi-structured focus group discussion which comprised Sidalukukhanya youth as well as youths interested in forming the Lenye youth activity system. The participants of this focus group discussion were Odwa Booi, Mzwebongo Booi, Sisipho Makie and Aviwe Ndolo. This focus group discussion was held on 11 October 2016 under a tree in Lenye village.

3.4.2.3 Collecting data through interviewing older informants

I also conducted semi-structured interviews with activity system supervisors. The Sidalukukhanya activity system supervisor's interview was on 30 January 2017 in the Sidalukukhanya fields of chillies and the CWP/Siyakholwa activity system supervisor's interview was on 3 November 2016 at Lenye Primary School in the CWP garden. I interviewed the then co-ordinator of the Ntingani Lootsha Programme in the local NGO Ntinga Ntaba kaNdoda at his residence in Rhabula village on 15 September 2017, near Ntinga Ntaba kaNdoda which is also located in Rhabula. Furthermore, I conducted a semi-structured interview with an elderly and young community member at their residence in Lenye. The basal questions used for all the interviews conducted in the contextual profiling are attached as Appendix B: Contextual Profiling Questions adapted from Silo (2011).

Semi-structured interviews, semi-structured focus group interviews and observations were chosen as they allow the researcher to focus on interest and provide room for participant initiated enriching insights (Galletta, 2013). The data collected was relating to a group's norms and processes (Gill, Stewart, Treasure, & Chadwick, 2008). A combination of audio (Stockdale, 2002), note taking and photographs was used in this process, according to the consent given by each group and individuals in the process. Notes and audio recordings were thus taken for the focus group discussion which comprised participants who were interested in forming the Lenye Youth Group and Sidalukukhanya employees. An audio recording and notes were utilised during the interview with the CWP/Siyakholwa supervisor and notes only were taken for the CWP/Siyakholwa focus group discussions as well as the Sidalukukhanya and Ntinga Ntaba kaNdoda supervisors' interviews. Furthermore, I conducted a semi-structured interview with the then Siyakholwa administrative director and took pictures in contexts with permission from the Sidalukukhanya and Siyakholwa supervisors and youths.

3.4.2.4 Collecting documents

Additionally, documents were collected during the interviews as they offered information on the history and purpose of the different activity systems. Documents according to Bowen (2009) can offer rich descriptions. Ntinga Ntaba kaNdoda provided 22 documents, two giving an overview of the organisation, four from their heritage programme, five on their Solidarity economy programme and 11 documents on their Ntingani Lootsha programme. Siyakholwa provided two documents, a PowerPoint presentation from the CWP Amathole monitoring and reporting meeting and a work record form on which all the work of the Lenye village CWP is

recorded. Both organisations as well as the CWP have information available online where additional data was sourced.

3.4.2.5 Generating an initial description of the activity systems

The data generated from the interviews and the two Ntinga documents giving an overview of the organisation and the Siyakholwa PowerPoint presentation were used to develop an initial description of the activity systems and identify conflict of motive, double binds and contradictions that existed within and between the activity systems in relation to the object of sustainable development. This was done by making use of second and third generation CHAT models of an activity system and interactions between activity systems. First, the elements of each activity system were investigated (see section 4.2). As each element was highlighted in the data and as each element's relationship with another was highlighted, conflict of motive, tensions and contradictions were surfaced (see section 4.3). Third generation CHAT was used to understand the relationship between the primary activity system i.e. the sustainable development activity system and the Lenye Youth Group, CWP/Siyakholwa and Sidalukukhanya activity systems that feed into the sustainable development activity system (section 4.2 and 4.3 combined) (Virkkunen & Newnham, 2013; Silo, 2011).

3.4.2. Phase 2: Expansive learning actions implemented via a series of Change Laboratory sessions with the youth

Sharing mirror data in the form of images and statements from Phase 1 initiated further questioning of the activity with youth groups via engagement in an expansive learning cycle and marked the first of the change laboratory sessions with the youth. I facilitated three two-hour change laboratory sessions. I refer to these change laboratory sessions as questioning workshop sessions because as a researcher I initiated further questioning of the current state of the activity systems (section 2.2.2) in these change laboratory workshops while other learning actions emerged as the discussions unfolded. There were three two-hour questioning learning action change laboratory sessions as there were many potential contradictions or matters of concern to question (Virkkunen & Newnham, 2013). We were only able to follow up on three change laboratory workshops, as there were disruptions to the change laboratory sessions as described in section 4.4.

Contextual profiling was extended during change laboratory workshops as well as between and after change laboratory workshops through continued participation in youth activities. The data collected during, between and after change laboratory workshops was used to additionally understand and profile the activity systems described in section 4.2.

3.4.2.1 Collecting data in change laboratory workshops

Data for each session was generated through notes and pictures to provide mirror data for ongoing reflection and engagement (Virkkunen & Newnham, 2013).

Learning action 1 - Questioning: The data was generated through completing Phase 1, the mirror data focussing on conflict of motives and contradictions. The mirror data was presented in the form of statements and pictures which were then analysed through a set of questions that stimulated discussion and stimulated the questioning learning action (Virkkunen & Newnham, 2013, p. 84). The questions enabled the youths to pull out and further define the contradictions within the elements of the activity systems which is also a form of member checking (Virkkunen & Newnham, 2013; Masara, 2010).

The questions and pictures also enabled the youths to begin **learning action 2 – historical and empirical analysis** – and in some cases **learning action 3**, as youths discussed the historical and empirical nature of the matters of concern and began **identifying the systemic causes of problems and some possible solutions**. Due to the change laboratory sessions being discontinued as youths became unavailable (as described in section 4.4), learning actions 4, 5, 6 and 7 were not explored in the change laboratory sessions. (Learning action 4 – Examining and testing the new models of the activity systems, learning action 5 – Implementing new model solution(s), learning action 6 – Evaluating the expansive learning process and learning action 7 – consolidating the new practice and living it out.) I did not have the opportunity to formally initiate learning actions 2-7 in change laboratory workshops. However, a reflection on the change laboratory process, i.e. learning action 6 from the researcher’s perspective, is written up in section 5.7 of this thesis.

Notes were taken and kept by Sisipho Makie in the planning workshop and then by myself in the two following workshops due to her unavailability in subsequent workshops as described in section 4.4. The minutes served as data for the research and as information for the participants in the change laboratory process (Virkkunen & Newnham, 2013). The four

change laboratory workshops were held at Lenye Primary School from 2-4 pm. The first, a planning workshop, was held on 5 May 2017. Minutes and audio recording was used to capture data. Sisipho Makie volunteered to take the minutes and scribe for the change laboratory workshops. Lungelo Ndlumdaka, Athenkosi Tiso, Sisipho Makie, Mzwebongo Booi, Odwa Booi, Lwando Matiwane, Nomazibulo Matshikiza and I were present. The following three change laboratory sessions were all workshops where mirror data was presented and discussed. The questioning learning action was initiated and thus I refer to the change laboratory workshops that follow the planning workshop as “questioning workshops”. The first questioning workshop was held on 21 July 2017. Lungelo Ndlumdaka, Mzwebongo Booi, Nolusindiso Rala, Odwa Booi, Lwando Matiwane, Odwa Matiwane and I were present. In the absence of Sisipho Makie, no minutes were taken in the first questioning workshop. We made notes on the photographs I presented as mirror data and used audio recording. In the second questioning workshop held on 11 August 2017 Nolusindiso Rala, Mzwebongo Booi, Nomazibulo Matshikiza, Odwa Booi and I were present. Additional guests were children who were playing at the school. I took notes and audio recorded. The third questioning workshop was held on 8 September 2017. Research participants who were present at the change laboratory workshops were Mzwebongo Booi, Luzuko Xesi, Odwa Booi, Lwando Matiwane, Nomazibulo Matshikiza, Lwando Matiwane and three additional young men whom I do not have consent from for mention in this thesis. I took notes and audio recorded. In all three of these questioning workshop sessions, I took the notes home with me where they were inaccessible until the next change laboratory session. On reflection, either a participant should have taken minutes and taken them home or although I wrote them, a participant should have taken the minutes home. I found myself wondering, where is the researcher in relation to the activity system? Am I part of the community or do I fall outside of the activity system? The workshop held on 8 September 2017 was the final change laboratory workshop.

Planting/ploughing season and other disruptions mentioned in section 4.4 marked the end of our change laboratory workshops. After the planting season, one change laboratory stakeholders meeting to recommence change laboratory workshops was planned in Lenye for 19 October 2017. The intention was to reconvene change laboratory workshops for continuity of the change laboratory process but to halt the research project. Due to unavailability of change laboratory participants, however, this final meeting did not take place and the change laboratory workshops ended.

Notes and audio recordings (Jewitt, 2012) were taken at every change laboratory session. These functioned as observation notes for what happened in the sessions.

3.4.2.2 Collecting data through a youth WhatsApp group

A WhatsApp group was also used within which voice recordings, conversations, pictures, ideas, reflections, meeting agendas and reminders, evaluations etc. were shared. The WhatsApp group was used as additional data to capture the expansive learning process (Lupele, 2017).

3.4.2.3 Collecting data through continued Lenye Youth Group meeting attendance

Furthermore, as mentioned above during the course of the research, I participated in Lenye youth and village meetings and other activities as a member of Lenye Youth Group. In 2017 I attended seven Lenye Youth Group meetings on 1 April, 5 May, 31 May, 14 July, 19 July, 14 September and 22 September. All Lenye Youth Group meetings were held at Lenye Primary School with the exception of the meeting held on 1 April, 7 May and 14 July 2017 which was held at the Lenye fields and the meeting held on 22 September 2017 which was held at Nolusindiso's house in Lenye. Data for these meetings was generated from minutes or note taking and photographs in the case of the meetings on 5 May, 14 July, 19 July and 22 September 2017.

3.4.2.4 Collecting data through Lenye village meeting attendance

I attended three village meetings on 28 January 2017, 30 January 2017 and 2 May 2018 which were all held at Lenye Primary School. I took minutes for the meeting of 28 and 30 January and took notes for the meeting of 2 May 2018. Additionally, I took notes and photographs for a dairy farm visit to Seven Stars Dairy farm in Qoboqobo which Sisipho Makie and I visited on 28 January 2017 to research the possibility of Lenye Youth's participation in dairy farming and community development. Notes were also taken on 29 January 2017 when we went to King Williams Town to research registering the group as a co-operative.

Additional notes were taken at the agricultural extension office on 30 January 2017 when we visited to introduce ourselves as Lenye Youth Group.

3.4.2.5 Collecting data through participating in Lenye Youth Group agricultural practice

I attended one Imvotho Bubomi Learning Network meeting with Lenye Youth on 30 March 2017. The Imvotho Bubomi Learning Network (IBLN) is a rainwater harvesting and conservation (RWH&C) based agricultural network in the Amathole District Municipality that emerged from the Amanzi for Food project. It is a project funded by the Water Research Commission to disseminate knowledge on RWH&C (Lupele, 2017). The meeting was held at Seven Stars Dairy farm and was followed by a visit to a farmer's house in Mathole. I took notes at this meeting as well as pictures. Lenye Youth Group participated in the Imvotho Bubomi Learning Network radio programme on Forte FM in Alice on 25 July 2017. Mzwebongo Boozi, Nolusindiso Rala and I represented the group. The script and flyer for the programme as well as photographs taken at Forte FM were collected as data.

Sisipho Makie and I attended one Youth in Agriculture and Rural Development (YARD) meeting in Qoboqobo at the Department of Agriculture offices on 10 April 2017. The meeting was a stakeholder meeting to introduce YARD to various stakeholders they can work with. A number of youth support stakeholders were present to inform YARD youth on the support offered by these structures. Present were representatives from the Department of Social Development, Amahlathi Municipality, the Department of Rural Development and Agrarian Reform noted as Land reform on the programme, the National Youth Development Agency (NYDA) and the Department of Economic Development and Environmental Affairs (DEDEA). I took notes for this meeting and for the Food for Us meeting I attended on 3 August 2017 as a Lenye Youth Group member. Food for Us is a project aimed at trialling the use of a mobile app for farm produce marketing to reduce food waste (Durr, 2019). Additionally, I collected a distributed register/contact list and pictures as data.

3.4.2.6 Collecting data through Lenye Youth Group community and youth development practice

Sisipho Makie and I additionally attended one Amahlathi Municipality Disaster Management Forum meeting on 1 June 2017 in Stutterheim. We took notes at this meeting and subsequently drafted a letter about two problematic bridges to the Amahlathi Municipality Disaster Management Forum along with photographs of the bridge. Photographs were taken on 5 May 2017 as part of Lenye Youth Group's community development activities. Additionally we collected the agenda for the meeting of the day and the report for the previous meeting as they were handed out to attendees.

Sisipho Makie and I also attended one meeting with a Public Works representative at Bhisho on 8 March 2017. The bridge request letter we drafted to present to the Public Works representative and the notes taken at this meeting were captured as data. I also took notes for Lenye Youth Group at an East London Department of Roads and Transport Bridge meeting on 28 August 2017 with Nqabisa Cilo where we met two government officials.

Furthermore, as Lenye Youth Group members, we participated in a number of youth development activities. I represented the group at Imvelisi ideation boot camp (5-9 June 2017) in Pretoria and at Activate meetings. The Activate programme consisted of two modules, which I attended on 6-14 May 2017 and 19-27 August 2017 in KwaZulu-Natal. I took notes at these programmes and collected my Activate Workbook/Notebook from both modules.

We attended two Ntinga Ntaba kaNdoda meetings: one Sizokuzondla farmers' meeting at Seven Stars dairy farm in Qoboqobo on 7 March 2017 for all Qoboqobo farmers. Six Lenye Youth Group members attended (Sisipho Makie, Aviwe Ndolo, Mzwebongo Booi, Odwa Booi, Lundi Matiwane and me). Odwa Booi and I also attended one Ntinga Strategic meeting hosted at Cata village from 16-23 June 2017. I took notes at these meetings.

3.4.2.7 Collecting data through student research practise

I participated in the following activities as a researcher and Lenye Youth member outside of Lenye village:

As my research began, through the research initiated new relationship formed with Ntinga Ntaba kaNdoda, I attended a Ntingani Lootsha workshop from 9-11 September 2016 as a student researcher. I later attended a heritage meeting on 22 October 2016 at Mgqeshe, as a researcher and as a Ntinga volunteer. Furthermore I attended a Ntinga Intern selection hike from 25-27 November 2016 in which I took pictures not as a researcher but as a youth participant in Ntingani Lootsha and as a Ntinga volunteer respectively.

I also attended the Researching Work and Learning Conference from 6-8 December 2017 at Rhodes University. I presented my research, took notes and collected conference material i.e. conference programme and the book of abstracts. I also attended a Keiskammahoek Professional Hub Development Institute meeting on the 15 July 2017 at Qoboqobo and took notes at this meeting.

Lastly, I audio recorded 33 written and nine audio recorded notes and reflections during the course of this research. These audio and written records of my reflections were taken before and after field work as well as sporadically following/during informal conversations with fellow students, researchers and community members.

In summary, data was thus collected by notetaking, WhatsApp communication, voice notes, audio recording, photographs and document analysis. All this data was unfortunately not part of the mirror data presented in the change laboratory sessions (noted in section 4) nor in the initial description of the activity systems; however it has been reflected in the activity systems described in section 4.2 of the thesis and in section 4.4 and 4.5 of this thesis. The data has also been discussed in Chapter Five.

3.5 Data management

Almost all notes and voice recordings were typed out and printed for easy data management and analysis. All data collected was stored in three folders, a green, white or lime folder, in chronological order and colour coded using sticky notes. As such, all data utilised in the analysis process is available on my laptop and/or in hard copy in the folders. The data was grouped, index labelled and colour coded and chronologically ordered by use of sticky notes according to the table below.

Table 3.2: Index codes for labelling and grouping each type of data

File name	File name extended	Data generating method and data source
CPDnumber (coded green)	Contextual Profiling Document_original file name/short description For example Contextual Profiling Document_Umthathi Training request letter	Any document collected during the course of the research that could offer contextual profiling information on the past, current and future of the Lenye, Sidalukukhanya, Community Work programme and Sustainable development activity systems was collected from the activity systems as described above were collected. Additionally the WhatsApp group was labelled as a CPD. Formal meeting minutes. As well as artefacts from the youth development programmes attended such as official programmes minutes and working documents

CPTnumber (coded orange)	Contextual Profiling Tool_original file name/short description	The activity system diagrams of the four activity systems at different intervals in the research process. Documents that were used to profile the activity systems and to profile the youth. Additionally tools that were used in the youth development programmes for profiling youths were also collected and labelled as CPT.
Inumber (coded pink)	Image_short description	All images taken during the course of the research were labelled image in chronological order
CPInumber (coded yellow)	Contextual Profiling Interview_short description	Contextual profiling interview transcripts and notes
CPN/ Rnumber (coded blue)	Contextual Profiling Notes /Reflections_ short description	Notes taken at meetings, research notes, reflections, and informal conversations.
PWNRT + QWnumber (coded purple)	Planning Workshop Notes Reflections and Transcript + Questioning Workshop_ number	The planning workshop notes and transcript + Change laboratory transcripts for change laboratory workshop 1-3 change laboratory notes for workshop 3

A comprehensive data list is recorded in an excel spreadsheet as per Appendix C: Example of data list.

3.6 Data analysis

The data analysis in this research was done in six phases as described below.

3.6.1 Descriptions of the activity systems

The first phase of analysis was done with the data collected in Phase 1 of the research project. The data was analysed using the elements of the second generation activity system. I colour coded the tools/instruments, rules, outcomes, subjects, community, division of labour and objects of the sustainable development, Lenye Youth Group, CWP/Siyakholwa and Sidalukukhanya activity systems and plotted quotes or paraphrase from the interviews as is indicated in Figure 3.1, which shows the way that I mapped out insights from the data (shared in detail in Chapter Four).

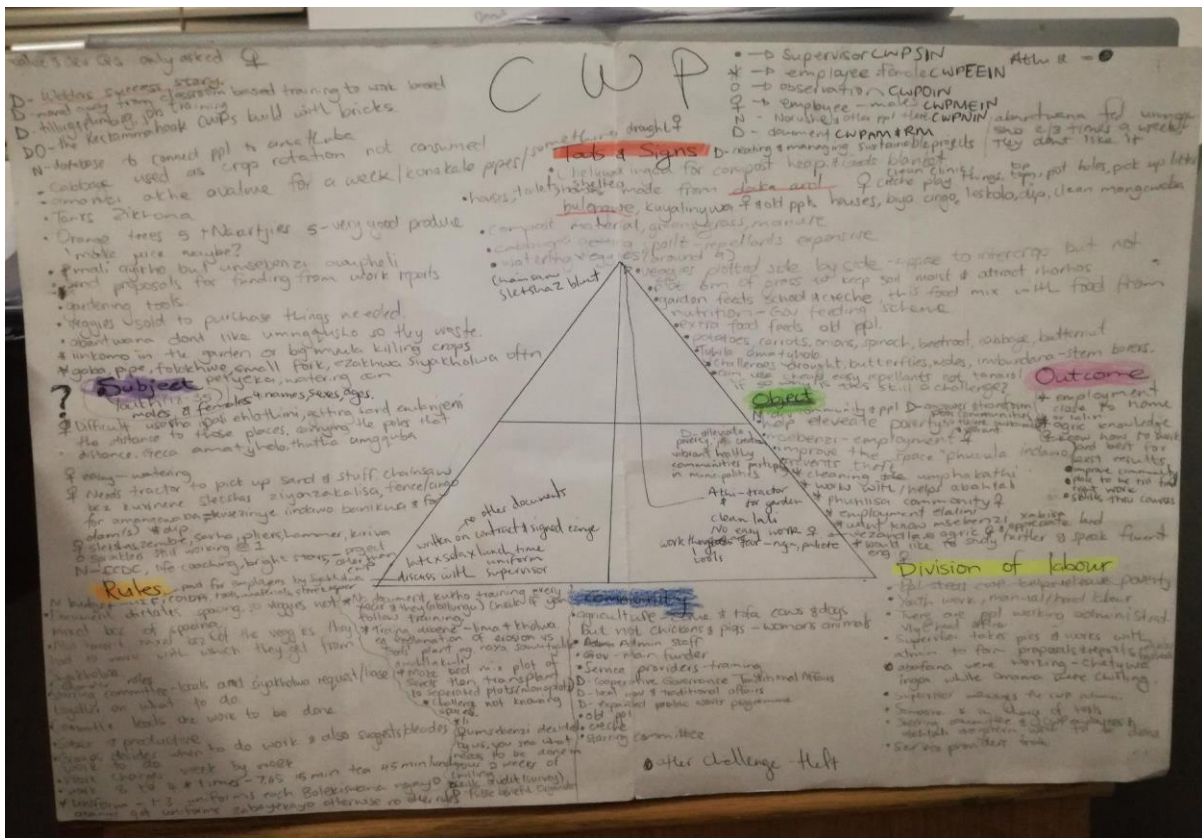


Figure 3.1: CWP activity system mapping (2 February 2017, shared in detail in section 4.2.1)

I noted matters of concern as I plotted. The matters of concern were listed separately for the sustainable development, Lenye Youth Group, CWP/Siyakholwa and Sidalukukhanya activity systems. Additionally I printed out images collected according to section 3.4.1 that represented matters of concern. This data is represented in the activity system mapping of the sustainable development, Lenye Youth Group, CWP/Siyakholwa and Sidalukukhanya activity systems (see section 4.2.). This data was additionally presented in the change laboratory workshops as mirror data (see section 4.3).

3.6.2 Analysis of the change laboratory workshops for learning actions

I then completed an analysis of the planning workshop meeting which preceded the change laboratory workshops. I coded learning actions taking place during the workshop according to the colours indicated below:

- Questioning
- Historical analysis
- Actual-Empirical analysis
- Modelling systemic causes of problems
- Modelling the new solutions
- Examining and testing new model
- Implementing the new model
- Reflecting on the process
- Consolidating and generating the new practice

I later added **Stakeholders** to the colour coding intended for analysing change laboratory workshops in preparation for the next workshop. This was due to the youth agreeing we would collectively identify which stakeholders to invite to subsequent workshops. We agreed following the change laboratory workshops in which the questioning learning action was initiated that we would invite key stakeholders to join the change laboratory workshops. I coded the learning actions to keep track of how the change laboratory workshops progressed. Additionally, the stakeholders coding was for compiling a list of stakeholders already identified through the change laboratory discussions. I thought this would support the youth in compiling a comprehensive list of key stakeholders for subsequent workshops.

I colour coded and commented on or interpreted the data on the planning workshop notes and transcript (Appendix D: Example of Transcript with learning action and value creation coding) and change laboratory workshops. This analysis was conducted in order to prepare for subsequent workshops.

3.6.3 Thematic analysis of the expansive learning process

The theme for the 2018 Researching Work and Learning (RWL) conference was “Transitions, Transformations and Transgressions in Work and Learning & Work and Learning Research” and the conference sub-theme was ‘Educating and Learning for a sustainable world’. I developed a poster for the conference (see Appendix E) which showed how we were exploring various learning and working possibilities in Lenye Village. The poster was a consequence of a thematic analysis of the images taken in the research process.

3.6.4 Analysis of the change laboratory workshops for surfaced contradictions

I analysed the change laboratory workshops according to the analytical memo in Appendix F (Analytical memo for the change laboratory workshops). This analysis was completed in order to summarise the change laboratory workshops. In this analysis I took note of the matter of concern/stimuli reflected in the workshop, whether the stimuli represented contradiction(s) and how the contradictions manifest as well as what key discussions emerged from the workshop for each stimuli.

3.6.5 Analysis of the expansive learning process for a thorough description of the activity systems

An Excel spreadsheet was used to capture and interpret all the data cited in section 3.4.1 and section 3.4.2. A separate Excel spreadsheet was created for each activity system. The spreadsheets were analytical memos for each of the activity systems (see Appendix G: Spreadsheet used for analysing the expansive learning process as an activity system and for value creation). These analytical memos allowed for an overarching analysis of the activity systems throughout the whole expansive learning process. I coded the data according to tools/instruments, rules, outcomes, subjects, community, division of labour and object of the sustainable development, Lenye Youth Group, CWP/Siyakholwa and Sidalukukhanya activity systems and described each activity system as can be seen in section 4.2. I added a column for the contradictions we had identified in the change laboratory workshops.

3.6.6 Analysis and review of the expansive learning process for value creation

In order to interpret and evaluate the presence of value in the expansive learning process, the five value creation cycles described in the Wenger et al. (2011) value creation framework (see section 2.2.5) were used to code the data that was logged into each activity system analytical memo as per Appendix G.

The data logged into the activity systems was analysed to track value creation indicators (Wenger et al., 2011) for sustainable development as per the definition given in Chapter Two of this research. I chose to use youth development and community development as the unit of analysis in terms of value, as community development and youth development were shared objects amongst all the activity systems and for myself as a formative interventionist researcher. Furthermore, this decision corresponded with the unit of analysis used in the CHAT analysis, as in third generation CHAT the foremost unit of analysis is the shared object of the activity systems being analysed (Engeström, 2001). All the data generated was subjected to an overarching analysis using the Wenger et al. (2011) framework to reflect critically on the value created by the expansive learning process. This helped me to assess the presence of immediate, potential, applied, realised and reframing value created for sustainable development amongst the participating youth in Lenye Village. Wenger et al. (2011) suggested assessing value creation through thinking of value as different types of value as seen through the value creation cycle and through identifying the value created

through indicators. In terms of the value created for youth development, community development and agricultural activity, I noted for whom the value was created. Later I noted how and by whom the value was created to answer the first two sub-questions: What value is created and for who? What potential value can still be created at every stage of the change laboratory?

Connections between the value creation cycles and the value creation data plotted in the activity systems were then noted to answer the sub question: how was the value created?

3.7 Validity and ethical considerations

3.7.1 Validity and trustworthiness

To ensure the validity and trustworthiness of the data, Bassey's (1999) research considerations were taken into account. As is evident in Chapter Four, the claims and information recorded in this report were systematically recorded and cross-referenced.

Triangulation by observation of multiple sources of data was a means of ensuring validity (Wilmot, 2005). Member checking, specifically with the youth, took place throughout the process via the use of mirror data. This was also a useful means of ensuring validity and reinforcing reflection as a key concept or step in a change laboratory (Wilmot, 2005). The mirror data in the form of images and statements was presented in the change laboratory workshops and allowed for further discussions on the nature of the CWP, Sidalukukhanya, Lenye Youth Group and Sustainable Development activity systems (see section 4.3).

Although the value creation framework is often applied so that participants can identify what value they have experienced in a given community or network, this was not the case in this research. Due to disruptions discussed in section 4.4, I was unable to conduct a post change laboratory focus group discussion in which value was to be discussed with participants. As a result, the value creation assessment was applied in this research mainly from the perspective and view of the researcher.

3.7.2 Ethical considerations

According to Bassey (1999), it is important in research to consider keeping in mind a conceptual understanding and practice for respect for truth, respect for democracy, respect for

persons and an additional ethical guideline for educational researchers, respect for educational research itself.

The ethical value of “respect for democracy” honours the researcher and gives the researcher the freedom to conduct research and to publicise the results of their enquiry. Researchers have the liberty to not only conduct enquiry and share their own ideas and findings, but the freedom to critique other researchers or literature as well. Bassey (1999) noted that this ethical value and freedom is practised by the researcher within the confines of “respect for truth” and “respect for persons”. In honouring the respect for truth, researchers are expected to be honest in their data collection, analysis and reporting of findings, being careful not to deceive themselves or others, be it intentional or unintentional deception. In honouring the respect for persons, a researcher is expected to recognise that the persons who share data with researchers are the initial owners of the data. Researchers are moreover expected to recognise and respect data owners’ and research participants’ entitlement to dignity and privacy.

To ensure respect to democratic ethical values was extended to personal ethical value, in my study, permission, confidentiality, consent and privacy was discussed with the participants and visual material was co-owned and decided with participants (Mitchell, de Lange, Moletsane, Stuart, & Buthelezi, 2005). Permission to conduct research was obtained from the relevant stakeholders and participants and permission to use the school premises was obtained from the School Governing Body (SGB) chairperson. Appendix H: Example of consent forms, illustrates the content of the consent forms that guided the ethics of this research.

An effective balance between these values was established. For example, I respected an instance where research participants were willing to discuss and resolve an issue but requested we did not record and report the discussion. I had the freedom to investigate however, the responsibility to respect the privacy requested by participants and we collectively respected the truth as we engaged, discussed and tried to find a resolution.

In my study, in order to uphold the image of researchers and to sustain an ongoing researcher and researched ethos in the village, I promised to bring back the results to participants.

Additionally, respect for persons and the validity or trustworthiness of results was further taken into consideration in the change laboratory planning workshop. Video recording the change laboratory workshops was resisted; however, we negotiated audio recordings and the use of video recordings during any practical activities we decided to do. Concerns for video recordings were raised concerning the validity and participation of change laboratory members in the discussion. The issue raised was that shy members might not participate if video recording was used and that this would have an impact on the quality of the discussion as they may withhold important contributions. This would have also affected the representation of diverse voices in the change laboratory discussions, which was a very important point, considering one of the principles of change laboratory workshops is the plurality of voices (Jewitt, 2012; Bassey, 1999).

Furthermore, participants were given copies of drafts of the thesis to review the parts of the report to which they had contributed and their comments and corrections were effected.

3.8 Researcher reflexivity

I needed to be very careful of being overly involved and responsible not only as an ethical consideration but as a consideration of practicality (Mukute, 2010). I kept a reflective journal and audio recorded some reflections as well as continuously reflected with peers to assure ongoing reflexivity in the research process (Wilmot, 2005). The intention was to work with a research/field work assistant who would help with videoing and capturing notes and observations while I facilitated. A collegial relationship formed with one of the participants, Sisipho Makie, whom I worked very closely with in the Lenye Youth Group and village activities. She assisted the research process greatly as she took minutes in the first change laboratory workshop for which she was present. Furthermore, she enabled me to be immersed in continuous contextual profiling. As a fellow youth member, she constantly alerted me of village meetings and kept me updated on activities regarding the developmental work we had collectively begun. Through this relationship, I learnt the value of relationship with and support for rural youth in community development.

In the beginning of the change laboratory processing during negotiations towards the change laboratory workshops, I had suggested that the project cater primarily to youths who were ‘completely unemployed’. When this was given as a possible reason for low numbers I

explained that “it was merely a suggestion, however I apologise it was my mistake.” (CPN/R37). According to Virkkunen and Newnham (2013), during the questioning phase, participants may respond to mirror data by directing blame towards someone or by self-blaming in order to diffuse the emotionally charged atmosphere that mirror data often elicits. I fell victim to various concepts a formative interventionist researcher manages in a workshop: I felt responsible for the low numbers and blamed myself initially rather than surfacing the potential contradictions raised and allow the potentially emotionally charged discussion that could ensue. Although the atmosphere itself was unclear, I felt emotionally charged with guilt. As a result, questioning and historical and actual-empirical analysis of the statement “low numbers in youth project” was not done. Although Mzwebongo clarified that all youths who are able to participate in Lenye Youth Group activities and contribute the joining fee were welcome, we missed the opportunity to model solutions for improving the membership of the group effectively.

Given my identity as a rural youth was due to rural descendancy rather than rural residence, I often had to be cautious of my perception, understanding and imposition as an “outsider” (Mbembe, 2001). I had to be mindful of and manage the dissonance and politics that came with identifying as a rural youth without current immersive lived experience.

3.9 Conclusion

Data was collected by note taking, WhatsApp communication, by written and voice recorded journal entries, photography and document collections through a two-phase process with the change laboratory shaping the theoretical, methodological and analytical framework of the study. Additionally, the value creation framework was used as an analytical tool on the methodology of the research. In the next chapter I present the data collected in the study through presenting the Lenye youth activity systems and expansive learning process.

Chapter 4: Lenye Youth Group's Expansive Learning Process

4.1 Introduction

In this chapter I give an account of what happened during the research process and present the data produced through interviews, notes or photographs, Lenye Youth Group and Village meeting minutes and participation primarily in the Lenye Youth Group activity system and consequently in the Sustainable Development activity system.

I begin the chapter by presenting the contextual profiling results of Phase 1 along with contextual profiling data collected over the course of the research by giving a description of the Lenye Youth Group, Sidalukukhanya, Siyakholwa/CWP and Sustainable Development activity systems (Section 4.2). I then give an account of the questioning workshop's key findings or discussion outcomes (Section 4.3), followed by a report on the disruptions, in Lenye Youth Group as well as in the change laboratory process, that occurred throughout the duration of the project (Section 4.4). Lastly, I report on the value creation cycles, which were experienced and potentially experienced during the project (Section 4.5). In section 4.5, I answer the first two sub-questions of my research: 1) What value is created at each point in the expansive learning process of the change laboratory process and for who? 2) What value can still be created at each point of the expansive learning process of the change laboratory? In sections 4.2 and 4.3 I begin to answer my third sub-question. "How is that value created via an expansive learning process?". In describing the aforementioned activity systems I prepare to discuss how value was created via an expansive learning process. In Chapter Five, as I discuss how value is created, I make use of the different elements of the activity systems as well as the change laboratory workshop to describe how value was and may potentially be created.

4.2 Description of activity systems

Having completed the contextual profiling I mapped out the activity systems, which I continuously edited as new information and clarity emerged in the research process. The activity systems are mapped out from the lens of a formative interventionist researcher trying to understand the agricultural and sustainable development activity of the activity systems, the role and position of youth in these activity systems and the role of these activity systems

in sustainable development in the area, particularly through agriculture. As a result, the youth are the subject of each activity system and the Sustainable Development activity system is a joint object of the Lenye Youth Group, Sidalukukhanya and Siyakholwa activity systems as illustrated in Figure 4.1 (see subsequent activity system figures for activity system descriptions).

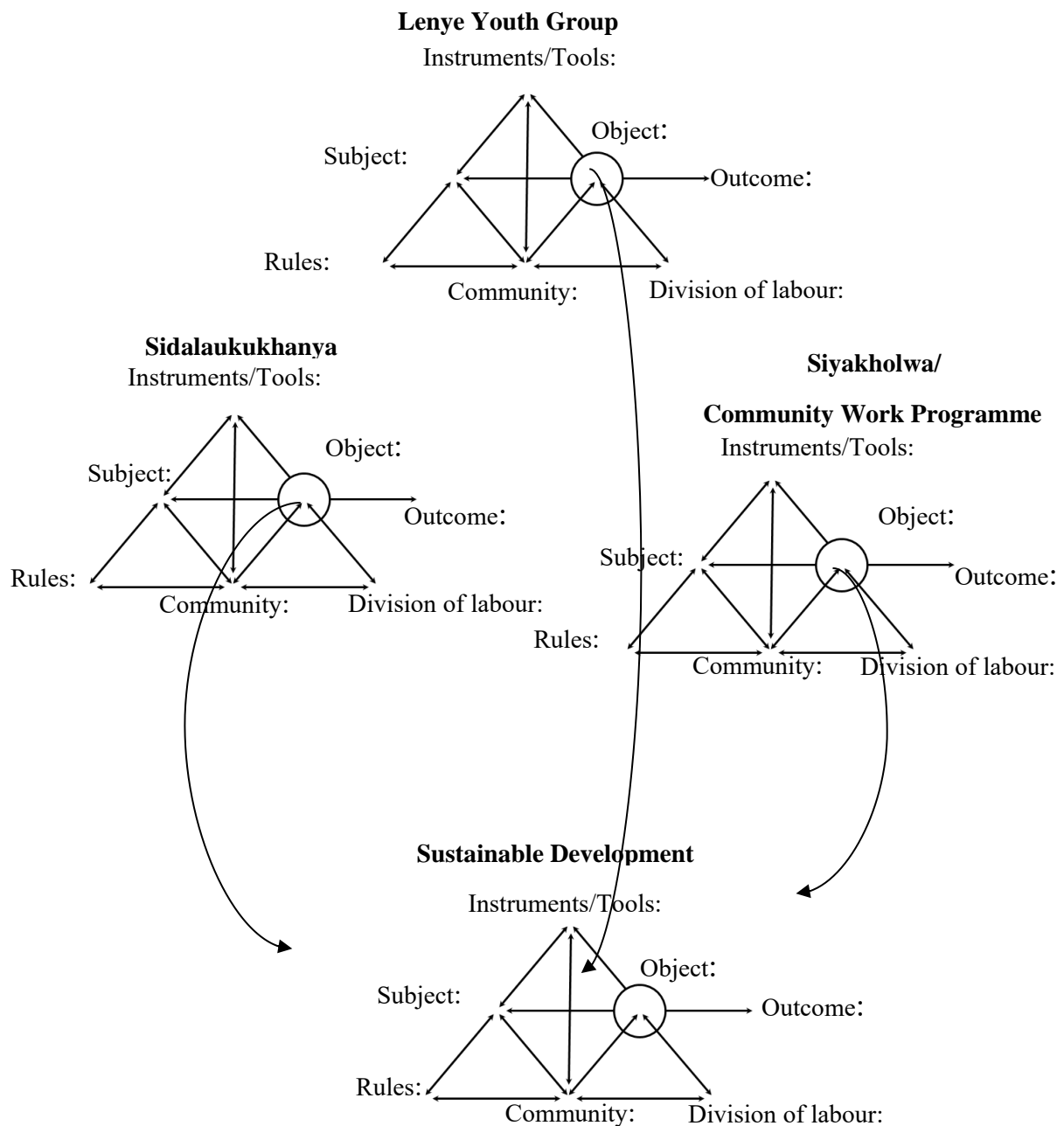


Figure 4.1: Third generation CHAT illustration of the Lenye Youth Group, Sidalukukhanya, Siyakholwa/CWP and Sustainable Development activity systems in Lenye Village

4.2.1 The Siyakholwa/Community Work Programme activity system

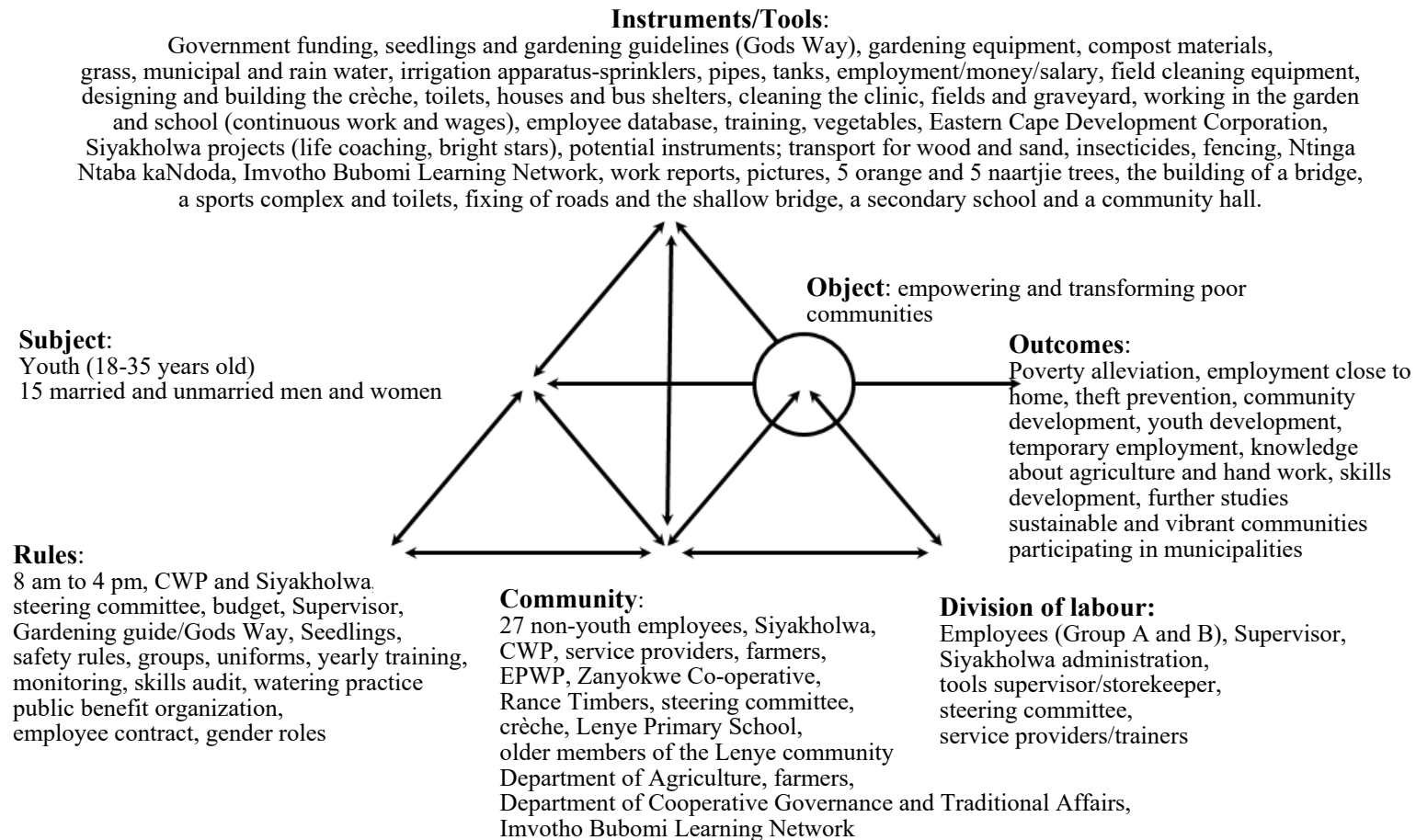


Figure 4.2: The Siyakholwa/Community Work Programme activity system

The Community Work Programme, as described in Chapter One of this thesis, is a government initiative. It is implemented by organisations such as Siyakholwa in the case of Lenye Village. Siyakholwa is a public benefit organisation (CPD21)

4.2.1.1 Subjects

The subjects, according to my positionality as a formative interventionist researcher interested in youths in the Community Work Programme, are individuals between the ages 18-35 years old. This is due to the youth parameters in South Africa being 14 -35 years old and the working age parameters of the country, the working age group being the target age group of the CWP (section 1). According to this definition, there were 15 youths in total (CPI11). During the study, although this was my working definition for youth, I found it was not the practised barometer for identifying youths within Siyakholwa and the community at large. Social standing or positionality also determined who identifies and is identified as youth (CPI8, QW2). The CWP has married and unmarried young men and women (CPI8). Young women in the CWP who are married did not consider and were not considered youths as their social standing qualified them otherwise (CPI8). As such, these individuals may have attended community meetings but they did not attend youth meetings, as was the case with the community committee's then secretary who was at the village meeting (CPN/R11) but not at youth meetings. I noted this possible internal contradiction in the youth definition; however; I did not bring it up in the change laboratory workshops due to oversight.

4.2.1.2 Rules

The rules I found in Siyakholwa and the Community Work Programme were:

- Work hours, Siyakholwa employees work from 8 a.m. to 4 p.m., taking lunch from 1 to 2 p.m. and tea from 10:00 to 10:15 a.m.
- The CWP framework and Siyakholwa whose head offices are in Qoboqobo also provide rules (CPI11) as they are the implementing agents who give direction to the CWP in the Eastern Cape (CPI13). One such rule is the work records filled in by the CWP supervisor. These work records are discussed as a tool in section 4.2.1.5.
- Another rule set by Siyakholwa is the use of the school garden for income generation. Siyakholwa hopes that the employees can generate an income from the garden which they see as an entrepreneurial venture. The implementing agent dictates that the

employees are economically self-supported through the garden as discussed in section 4.3.3 (QW2).

- The budget includes but is not limited to the Unemployment Insurance Fund (UIF), Compensation for Occupational Injuries and Diseases Act (COIDA), tools, materials and the storekeeper (CPI13). The budget dictates how money is spent in the CWP.

Rules are additionally dictated by the supervisor who enforces the rules she knows (CPI10). The gardening guide, in the form of a document, which has ‘Gods way’/organic agricultural practice or permaculture as underpinning knowledge, is an additional set of rules that dictate how the school garden is tended and it dictates spacing within the garden. According to the supervisor, the garden was not mixed, i.e. it was monocropped because of the spacing guidelines (CPI11). I noted this as a possible contradiction within the rules of this activity system as the gardening guide or principle reported (CPI11, CPI8) by the supervisor and employees as ‘God’s way’/permaculture/organic farming practice would advocate for mixing of crops according to its spacing recommendations. Additionally, I observed mono cropping although seeds are mixed for seedbeds (CPI8) due to the small quantity of seeds available (CPI11). Although the supervisor stated that there was a document denoting the spacing (CPI11), the female working group noted one of the challenges was not knowing what spacing to apply in the garden (CPI8). Unfortunately, due to an absence of CWP participants who work in the garden during change laboratory workshops, I opted not to bring this into the change laboratory workshops.

The steering committee, which is a community based committee, states what work should be done by the CWP employees (CPI11, South Africa. TIPS, 2010) and the work that is done is then decided by the employees (CPI9) through discussion by the employees and the supervisor (CPI14, QW1, QW2). Additionally, all employees have to adhere to the basic safety rules of being sober and productive (CPI11) and the compulsory dressing in uniform (CPI8, CPI14). Uniforms (CPI8) were also noted as a matter of concern within the rules of the activity system as the CWP female employees noted that not everyone has a uniform although everyone is expected to have one. It was reported that some only received their uniforms after having left the job. I did not introduce this into the change laboratory workshop as a possible contradiction/matter of concern, as it did not seem to impede on development /the work done as uniforms were borrowed from others. The CWP employees are separated into Group A and group B, who alternate working every 8 days, 4 days per

week except the supervisor who works 5 days per week, monitoring and evaluating work on the fifth day (CPI11, QW2). Both Group A and B have people working in the crèche, garden, school and generally doing work in and around the village. ‘Gods way’ training is undertaken every year (CPI8, QW1, QW2).

Siyakholwa is directed by a monitoring and skills audit (CPD21) and the public benefit organisation status of the implementing agent, Siyakholwa (CPD21) whilst the Lenye employees are governed by an employee contract (CPI14, QW2) the only document according to employees whereas the supervisor mentioned a garden dictating document. I noted this as a possible internal contradiction and brought it into the change laboratory workshops (section 4.3).

Gender roles also dictate the work done by the CWP employees. Work such as collecting grass for compost and digging in preparation for building is done by the men in the group. The women in the group (CPI11) are responsible for *ukutyabeka* or cementing and plastering by application of a mud and cow dung mixture.

4.2.1.3 Community

In total, there are 42 employees in the CWP (CPI11) and the primary community members of this activity system are the 27 employees who are over the youth age bracket of South Africa (see above). The greater Siyakholwa community (the implementing agent personnel) are also part of the community – the Siyakholwa administrative staff (CPI11, CPI10) and most notably the Siyakholwa organised service providers who are responsible for conducting the training of Siyakholwa employees (CPI11).

Zanyokwe co-operative, is also part of the village although there seemed to be no relationship or clear relationship with the co-operative other than they too are an agricultural activity system in the area and are thus potential partners in the agricultural activity of the CWP. Zanyokwe co-operative is for all local farmers for collectively mediating their crop farming. There are farmers in the village that could assist in the school gardening project (CPI10).

Rance Timbers is the company that is also part of the agricultural activity in the area, providing the financial capital of the Sidalukukhanya cooperative’s agricultural activity and thus a potential partner of the CWP (CPI10, Erasmus, 2009). Ntinga Ntaba kaNdoda is an

NGO in the community that participates in the agricultural activity of the area through their solidarity economy programme (CPI16, Ntinga Ntaba kaNdoda, 2013).

The Siyakholwa community is additionally made up of the steering committee, which is a group of community members that meet to discuss what work can/should be done by the CWP employees (CPI11, QW2). The local crèche and Lenye Primary School are part of the Siyakholwa community as some CWP employees work in crèche and school (CPI11, QW2). Older people form part of this activity system as they are assisted by CWP employees (CPI11). The Department of Agriculture immunises cows and dogs in the village but not the pigs and chickens, which are considered women's animals (CPI8, CPI11) – CWP employees own both immunised and non-immunised livestock. I noted the non-immunisation of pigs and chickens as a possible contradiction, in the community (Department of Agriculture) of the CWP and the outcome (agricultural development) of the Sustainable Development activity system as the livestock farming practices of the CWP employees formed part of their farming in the village and is not within the practice of the CWP work schedule. However, I neglected to raise this matter of concern in the change laboratory due to an oversight on my part. Lastly, the Siyakholwa community includes Government that is the main funder of the CWP (CPI11), namely the Department of Cooperative Governance and Traditional Affairs (CoGTA) and the Expanded Public Works Programme (EPWP) (CPD21).

4.2.1.4 Division of labour

Within the Siyakholwa activity system, work is divided in the following ways: the employees in the CWP do the work i.e. tending to the school garden, fixing toilets and desks, fencing the school etc., while the supervisor manages reports and the register and liaises with the people from Siyakholwa (CPI11).

The steering committee decides what work the CWP employees do along with the CWP employees, the supervisor and the community at large (CPI11, CPI9, CPI14, QW2). Service providers/trainers offer the various trainings made available by Siyakholwa to the CWP employees. A storekeeper is in charge of the tools; he/she packs and locks them up in the storage facility (CPI11). The Siyakholwa administration administratively manages the CWP employees and liaises with Government.

4.2.1.5 Instruments/Tools

4.2.1.5.1 Practical tools for farming practice

The instruments or tools used by the CWP in mediating the CWPs work are government funding, seedlings and gardening guidelines (CPI11), gardening equipment (CPI11), which according to the employees is not of good quality or durable (CPI8). I noted this as a matter of concern within the tools (slashers and field cleaning) of the Siyakholwa activity system (section 4.3). Compost materials were another tool, which includes cabbage – the cabbage usually rots (this I noted as a matter of concern between the tool (cabbage) and the tool (school garden) as the cabbage could be used as a source of nutrition and could contribute to well-being as is the intention of the school garden for the school feeding scheme). This matter of concern was discussed in the change laboratory workshops (section 4.3).



Figure 4.3: Ms Thembeke Xesi, CWP supervisor standing by the CWP compost heap and the grass used for mulching (3 November 2016)

The cabbage was explained to be of poor quality because of lack of insecticides due to the expense of Tamron, an insecticide (CPI11). I noted this as an additional matter of concern and possible contradiction between the rules ‘Gods way’ and the known/desired tool indicated by the supervisor, as Tamron is not an organic insecticide. This was discussed in the change laboratory workshops as is reflected in section 4.3. Other greens are also used in the CWP, including grass which is stacked to keep the soil moist and foster insect growth in what is referred to as ‘Gods blanket’ (CPI11) (see section 4.2.1.5.2).

Although watering the garden was listed as easy work (CPI9), water is at times unavailable due to damaged pipes (CPI11) or drought (CPI8). As such, I noted the watering practice as a matter of concern, a possible contradiction between the tool (water) and the rule (the watering practice) as the practice negates or is contrary to meeting the challenge of water being a

scarce resource (section 4.3.5). The tanks at the school, where the garden is situated, are used for watering the garden at times as well as for drinking and other activities requiring water such as cleaning the classroom.

Additionally, field cleaning equipment namely an axe, pliers, hammer, wheelbarrow (CPI9) and slashers, which should be a chain saw (CPI9, CPI14), were listed as tools. The slashers were noted as difficult to use as they are blunt and cause injuries given the density of the field (CPI9). I listed this as a potential contradiction within the tools (slashers and field cleaning) and brought the matter of concern it into the change laboratory workshops (section 4.3). An additional tool is the Siyakholwa employee database, which is a tool for mediating the permanent employee/employment development objective as the employee database is used to connect CWP employees with work opportunities (CPI13).

Work reports are used to develop funding proposals (CPI11). The work record forms (Appendix I) are used to log all the work done by the CWP employees. The reports act as an analytical tool or analytical memo for the work done by the CWP employees. With this data, as well as pictures taken by CWP supervisors, reports can be written by Siyakholwa to report on the work done by CWP employees. The reports are progress reports that mediate the continuity of the CWP. The reports thus mediate the object of poverty alleviation by substantiating the funding needs of the CWP for poverty alleviation.



Figure 4.4: *CWP employee working in the CWP garden (3 November 2016)*

The vegetables illustrated in Figure 4.4 (potatoes, carrots, onions, spinach, cabbage (QW2), beetroot and butternut) are sold to purchase things that are needed, such as tools, or used in

conjunction with the food from the government funded school feeding scheme. Samp and beans, which are used to feed school children two to three times a week, are usually wasted because the children do not like eating samp and beans (CPI11). Unfortunately, I neglected to bring up the samp and beans waste into the change laboratory workshop due to oversight. Other challenges in the garden included butterflies, moles, stem borers (CPI11) and theft (CPI14).

4.2.1.5.2 Conceptual tools for guiding the farming practice

‘God’s blanket’ is a conceptual tool in the CWP that is more commonly referred to as mulching (Denison, Smulders, Kruger, Ndingi & Botha, 2011). Water, for watering vegetables from about 9 a.m. till the end of the working day (CPI11, QW2) by use of a sprinkler through a pipe from the village tap just outside the school (CPI11, CPI10, QW2) which was still watering at 1 pm (CPI10) is another tool/instrument.



Figure 4.5: Community Work Programme school garden at 1:22pm (3 November 2016)

Figure 4.5 is an image of the Community Work Programme garden at about midday on 3 November 2016. The garden is very close to the Lenye Village crèche which is the brightly coloured building in the background; also visible in the image are the orange and naartjie trees located in the garden. The fruit of the five orange trees and five naartjie trees in Figure 4.5 are meant to be sold by the CWP employees to supplement their CWP income but are often subject to theft (CPI11).

Additionally, the supervisor noted continuous work, noted below, [to uplift and develop the community] was another tool in the CWP activity system and added the continuous work was done in spite of low wages (CPI11). I noted low wages as a possible contradiction within the tools. The possible contradiction between work and money as work, through which the object of employment is mediated, is paying a small amount of money (R80+ per day), which is the tool that justifies or qualifies the work as employment. I also thought it was a possible

contradiction between the tool that is work and the outcome of poverty alleviation or rather a contradiction between the subject and/or the supervisor and the outcome of employment of the activity system. The CWP is not a full-time employment opportunity but rather a holding place and supplementary income opportunity while one finds more suitable employment (South Africa. TIPS, 2010) – the issue of low wages may not be a challenge in essence. This I did not bring into the change laboratory workshop due to oversight.

The continuous work done by employees include the following: cleaning the clinic and designing/building the crèche playground, filling potholes, cleaning the graveyard (CPI9), cleaning the fields (CPI11) collecting sand and cow dung as mediating tools for the community development work of building bus shelters, toilets and houses (CPI11,CPI9). Collecting sand and cow dung was another mediating tool listed as difficult to complete due to the long distance to the river where sand is collected. Unfortunately, I neglected to bring this matter of concern to the change laboratory workshop due to oversight. Additionally cutting down bushes and collecting cow dung were also listed as difficult mediating tools as well as carrying poles (CPI9). I did not bring these into the change laboratories due to oversight as well.

Selling the vegetables in Figure 4.4 supplements the CWP employees' income further mediating the outcome of poverty alleviation while using the vegetables in the school-feeding scheme mediates the object of community development. A contradiction concerning the outcome of poverty alleviation through the CWP garden is further discussed in section 4.3.3.

Additional tools include the Eastern Cape Development Corporation (ECDC), life coaching, bright stars – Siyakholwa projects other than CWP (CPI13, Siyakholwa, n.d). Unfortunately, CWP employees did not communicate these programmes and this may be a matter of concern, which I neglected due to oversight. In the interviews with CWP employees, I only asked the first male focus group discussion the value and development questions and they listed the following desires concerning development in the CWP activity system: transport, a tractor, for the collection of wood and sand, which is a desired tool (CPI9). Additional desired tools included fencing for dams, graves and dips as additionally mentioned in the second questioning workshop in section 4.3.3, the building of a bridge, a sports complex and toilets, fixing of roads and the shallow bridge, a secondary school and a community hall (CPI9).

Furthermore, training as a tool to mediate the temporary employment/youth development outcome led to much discussion in the change laboratory workshops as reflected in section 4.3 (CPI11, QW1, QW2).

4.2.1.5.3 Organisational tools for structuring and guiding interactions and co-operation

Ntinga Ntaba kaNdoda is a potential mediating tool, although CWP interviewees or documents identified no explicit relationship. Ntinga may be a partner in mediating, through the food sovereignty programme (agriculture), the poverty alleviation object of the CWP. Moreover, Ntinga may be a mediating tool for the outcome of youth development, through the Ntingani Lootsha youth programme of the organisation. CWP youth employees may benefit from opportunities or activities in the organisation.

There additionally is an opportunity to collaborate with Amanzi for Food and the Imvotho Bubomi Learning Network. Siyakholwa produces food for the school on school premises but with no clear involvement of the school learners or teachers in learning which could be achieved through engagement with the network (CPD40).

4.2.1.6 Object

The object of the CWP activity system is empowering and transforming poor communities through a focus on community development (CPI14, CPI8, CPI9, CPI11, CPD21) and poverty alleviation (CPI11, CPD40).

4.2.1.7 Outcomes

The outcomes or desired outcomes of the CWP activity system are poverty alleviation (CPI11) and employment close to home (CPI8), theft prevention (CPI11) agricultural knowledge (CPI8) know how to work the land for best results (CPI9) community development, temporary employment and skills development (CPI14). Youths in the CWP noted that they would like to study further and speak fluent English (CPI8, CPI9). Siyakholwa ultimately wants to see sustainable and vibrant communities participating in municipalities (CDP40).

4.2.2 The Sidalukukhanya activity system

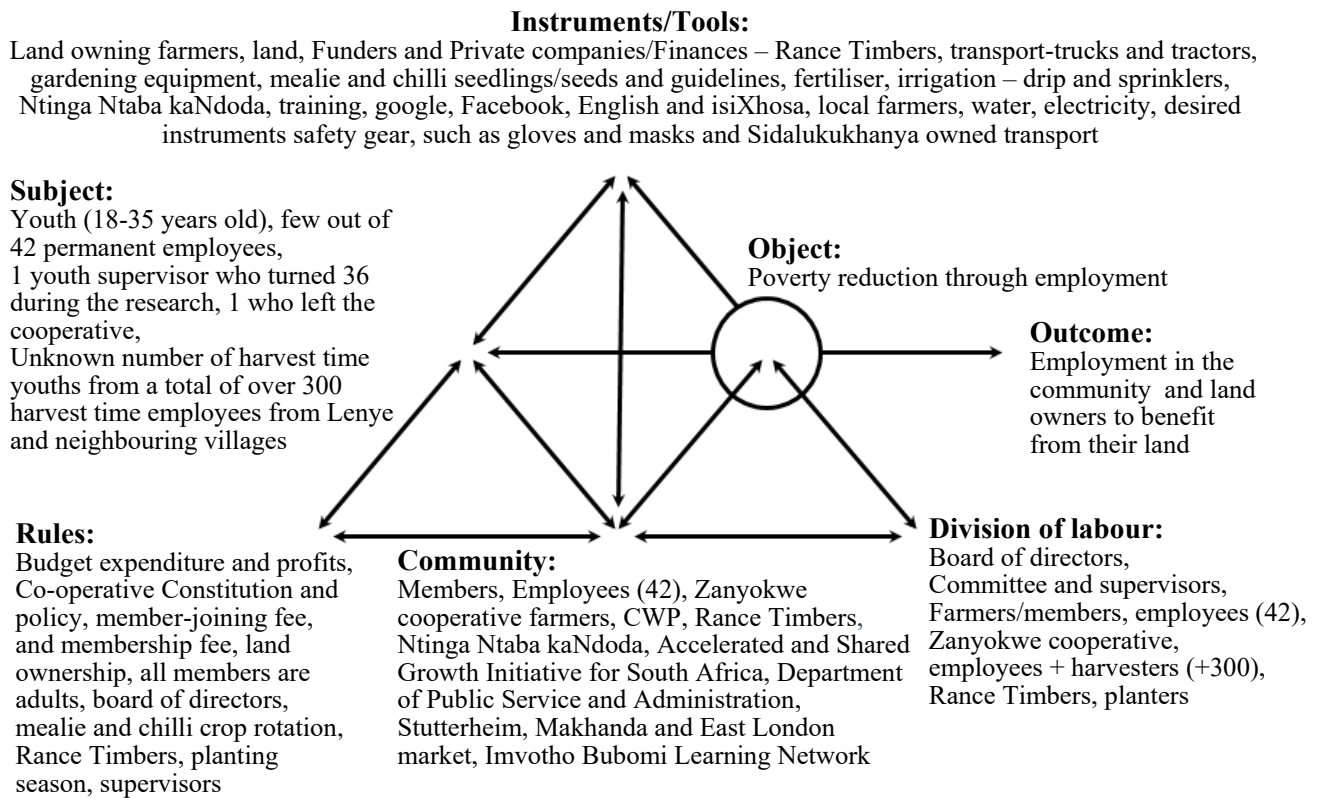


Figure 4.6: *The Sidalukukhanya activity system*

The Sidalukukhanya cooperative farms chillies and mealies depending on the season (CPI12). It started in 2008 farming cabbages, butternut, paprika and mealies; however people used to steal spinach and therefore they have stuck to vegetables that are less likely to be stolen in the village i.e. mealies and chillies. Furthermore, the co-operative used to sell to Nicks Foods and surrounding shops. They now sell to Rance Timbers who takes produce to “the market” (CPI12). They used to give some vegetables to the community, to the elderly (CPD80, PWNRT)

4.2.2.1 Subjects

The cooperative has very few youth employees that are under Mzwebongo’s supervision. The supervision team had two youth members at the beginning of the research project, one of which was still part of the co-operative further along in the contextual profiling (CPI12) but turned 36 in 2017 during the course of the project (CPD80). The cooperative has over 300 employees over harvesting season who are predominantly young people (CPI10, CPI3) from Lenye Village as well as neighbouring villages (CPI12). Forty-two employees are permanent,

the permanent employee base is both young and old but predominantly old (CPI12). The Sidalukukhanya co-operative employees are a mix of genders i.e. both males and females (CPD80).

4.2.2.2 Rules

The rules that govern the co-operative are the budget expenditure and profits, with the budget expenditure denoting how many employees can be employed within the bounds of a fair/palatable wage rate. The standard co-operative constitution and policy/own developed rules document (an appendix to the constitution) denotes that land ownership is a rule that dictates membership. Membership is gained through a contribution of land as well as a membership fee. A once-off joining fee of R200 and a R50 membership fee that is renewed every year constitute the membership fee. As a result, the cooperative has 16 adult members, as young people in Lenye village do not own land and membership is dictated by land contributions (CPI12). Additionally the co-operative has a Board of Directors meeting yearly where the financials and any other business of the co-operative are discussed. Furthermore, the guidance and instructions of the supervisors denote the rules (CPI12). During harvest season everyone is paid R20 per crate of chillies harvested (CPI3, CPI12). During contextual profiling to cut costs and as a result of delayed crop rotation, the chillies were bush cut rather than uprooted and replanted. Rance Timbers (explained below) delayed in collecting the mealies. The chillies and mealies are farmed by crop rotation. Black plastic is used to reduce weeding i.e. used as mulching and the chillies are planted a metre apart. In September and October, latest 22 October, the land is prepared so that by 15 November all plants are planted.

Furthermore, Sidalukukhanya employees work from 7:30 am to 4:30 pm (CPI12).

Additionally, Rance Timbers and Sidalukukhanya have a 50:50 partnership in which Sidalukukhanya contributes land and water and Rance Timbers provides the capital for inputs and transport costs. Rance Timbers subtracts the expenses for the input and transport capital they provided and then shares the profits with Sidalukukhanya via a 50:50 ratio. Through the partnership, Rance Timbers dictates some rules through the budget and the gardening guidelines or suggestions they make. For example, Rance Timbers suggested brush cutting of the chillies when they delayed in collecting corn in 2016. The company used to delegate work; however as it is the co-operative's third year planting chillies, the supervisors and employees work smoothly and share work in the field (CPI12). Additionally, Rance Timbers

advised that the co-operative employ a maximum of 42 employees between harvest time at a rate of R10/h for employees and R12/h for supervisors. As a result, Sidalukukhanya employees earn around R80/R96 per day, R1500 and R1900 per month respectively. The argument is that total expenses spent on wages has to be managed in order to ensure there is an amount from the profit that is distributed as shares for the shareholders in the co-operative. Rance Timbers handles the books; however Sidalukukhanya co-operative would like to be trusted with managing money as well and desires skills transfer in that regard (CPI12). I noted low wages (CPI3), the delay on collecting corn (CPI12) and the high cost of the activities limiting the gains of the people, as matters of concern (CPI12,CPI4) for further questioning. However due to oversight on my part, I neglected to bring these matters of concern into the change laboratory workshops.

4.2.2.3 Community

The community that makes up the Sidalukukhanya cooperative's youth partners in agricultural activity and development are the land owning members of the co-operative (CPI12), the non-youth population of the 42 permanent employees, Zanyokwe co-operative as some members of the Sidalukukhanya co-operative are members of the Zanyokwe co-operative (CPI12), Rance Timbers the company that contributes the financial capital (CPI12). An additional member of the community is Ntinga Ntaba kaNdoda as the farmers benefit through the solidarity economy programme of the NGO (CPD30) and lastly the CWP, as they too are participating in agricultural activity and development in the village.

Before Rance Timbers, Sidalukukhanya received financial capital through the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) who supplied the co-operative with a truck that unfortunately broke down and was never repaired. Before receiving financial support from AsgiSA the co-operative was funded by the Department of Public Service and Administration (DPSA) (CPI12). Additional community members of the Sidalukukhanya co-operative include the Stutterheim, Makhanda and East London market place to which Rance Timbers transports the chillies (CPI12).

Lastly, Sidalukukhanya has been introduced to the Imvotho Bubomi Learning Network through Mzwebongo (CPN/R16). A strengthened relationship with the IBLN could help reduce the input costs of the co-operative.

4.2.2.4 Division of labour

The labour/work is divided in the following way: The board of directors oversees the financials or profits received after Rance Timbers expenses and 50% deduction and discusses any urgent matters pertaining to the co-operative (CPI12). The committee and supervisors consisted of three youths and two older members of the community during the initial contextual profiling (CPI2); during the extended contextual profiling there remained one youth, who turned 36 during the course of the research and two older members of the community (CPI12). The committee/supervisors ensure work is done, decide what work needs to be done, supervise permanent employees and harvesters and check the quality of produce. Additionally, the supervisors liaise with Rance Timbers (CPI12) who are responsible for collecting the mealies and chillies and transporting them to the market and purchasing and transporting the agricultural inputs needed by the cop-operative (CPI12). The agricultural inputs are the chillies, mealies, fertiliser, pesticides, herbicides and fungicide from Rance Timbers (CPD80). Sidalukukhanya is a primary co-operative to Zanyokwe co-operative, formerly Zanyokwe irrigation scheme which is a secondary co-operative. Zanyokwe lends tractors to Sidalukukhanya in exchange for money. Rance Timbers and Sidalukukhanya share a 50:50 partnership in which Sidalukukhanya contributes land and water and Rance Timbers contributes agricultural input capital (CPD80). The farmers/members who are landowners contribute to division of labour through their land and shareholder meeting attendance. Lastly, the harvesters harvest the chillies during harvest season whilst the permanent staff along with supervisors work the land (CPI12). Planting in the Sidalukukhanya activity system is done by everyone – anyone who has the strength and is willing to work. This includes schoolchildren and those in college during the Basic Education and Training (BET) and Higher Education and Training (HET) vacation periods. When there is a lot of work, the supervisors join in the work as this encourages people (CPI12).

4.2.2.5 Instruments/Tools

4.2.1.5.1 Practical tools for farming practice



Figure 4.7: The fertilising, chilli, mealie and sprinkling tools used in the Sidalukukhanya activity system (30 January 2017)

Figure 4.7 shows the fertiliser tank used in the Sidalukukhanya activity system. Liquid fertiliser is inserted in the top of the fertiliser tank which is connected to the irrigation system the Sidalukukhanya fields are simultaneously watered and fertilised. Figure 4.7 shows a part of the mealie fields where black plastic is used in the mealie field to curb weed growth and as mulch.

The tools for mediating the object(s) of the Sidalukukhanya cooperative/activity system are the mealie and chillies that are farmed, the farmers who own the land that is farmed and the land (CPI12).

The co-operative also uses gardening equipment i.e. hoe, shovel, pick and fork used by the permanent employees (CPI12). Fertiliser, mealie and chilli seedlings and drip (for chillies) and sprinkler (mealies) irrigation systems (CPI12) are additional tools used.

Desired instruments currently not in the activity system are safety gear such as gloves and masks etc. (CPI7), and a tractor for land preparation and transporting goods as owning the transport would make a difference in costing and ultimately profits of the co-operative (CPI12).

4.2.1.5.2 Conceptual tools for guiding the farming practice

Guidelines given by Rance Timbers are conceptual tools in the Sidalukukhanya co-operative. For example, the black plastic used for weed control is another form of mulching (CPI12). Additionally Ntinga Ntaba kaNdoda's solidarity economy programme may be a tool for the co-operative as it mobilises farmers and tries to support farmer's needs and development and has a vision for the growth of Qoboqobo agriculture (CPD30) which can be seen as a tool for all farmers' agricultural development in the area.

4.2.1.5.3 Organisational tools for structuring and guiding interactions and co-operation

The funders and private companies/finances are needed by the co-operative; currently Rance Timbers provides and then subtracts capital for the trucks that transport the harvesters that come from different villages and transports the mealies and chillies to Rance Timbers and the tractors that reap the mealies (CPI12).

Training was a tool in the Sidalukukhanya activity system. Previously the co-operative received training from the Department of Agriculture and the Eastern Cape Rural Development Agency (ECRDA), when it was called AsgiSA. Training was mostly on farming, chemicals, fertilisers and soil. The training was conducted through workshops (CPD80). The contract expired with Sidalukukhanya and so collaboration/working together ceased. In order to source information, Sidalukukhanya now makes use of google, sharing knowledge as farmers in English and isiXhosa (CPD80).

Additionally Sidalukukhanya have a Facebook page, which is usually active during harvest season, when someone is curious about the co-operative, or when someone is looking for employment (CPD80).

The water used in the co-operative due to gravity, flows naturally into the pipes used on the Sidalukukhanya fields on left of the village while on the right side, the water has to be pumped onto the fields through electricity, which Rance Timbers provides the capital for (CPD80, QW1).

4.2.2.6 Object

The Sidalukukhanya's object of activity is poverty reduction through employment (CPI12).

4.2.2.7 Outcomes

The desired outcomes of the co-operative are employment in the community and landowners benefiting from their land (CPI12, CPD80).

4.2.3 The Lenye Youth Group activity system

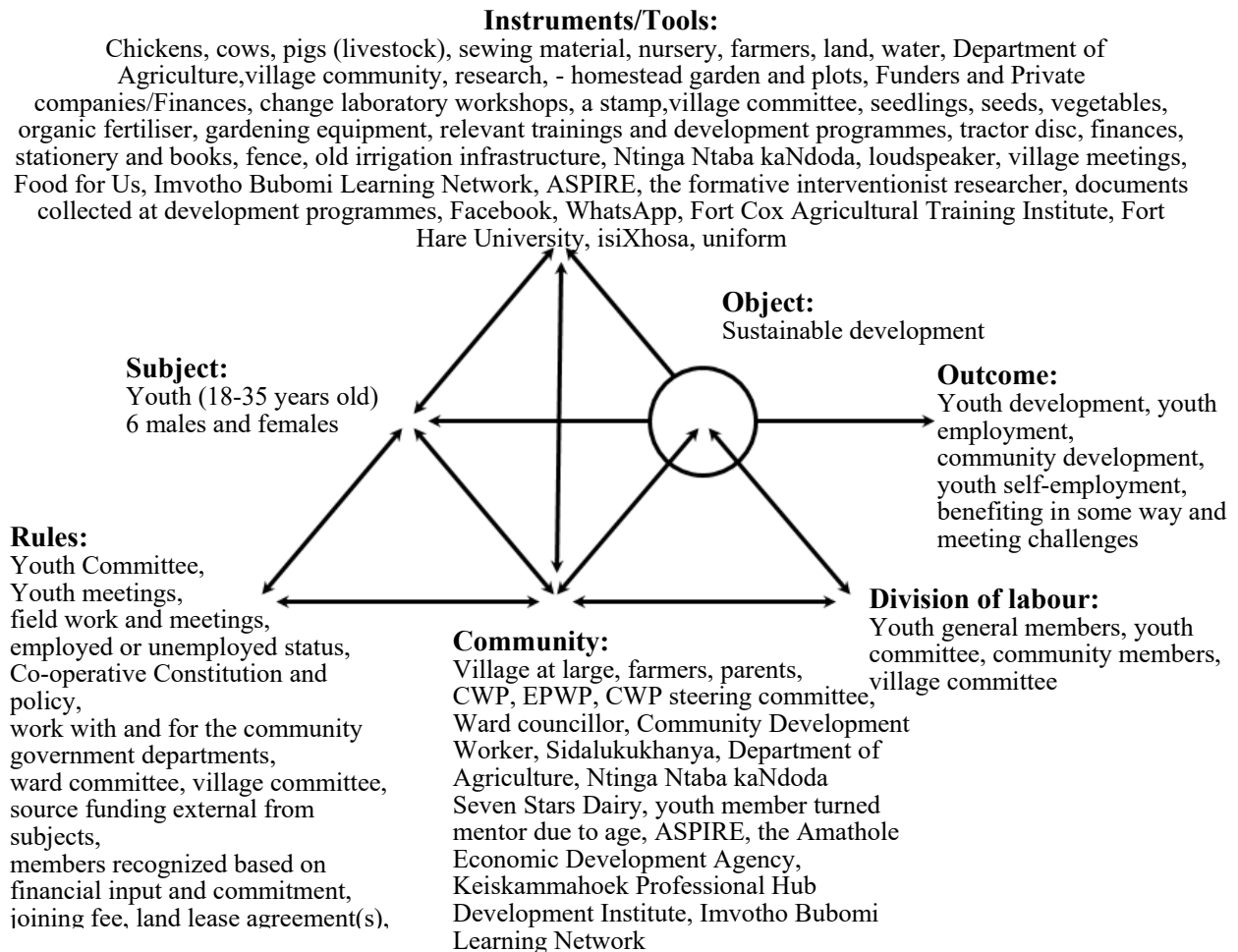


Figure 4.8: *The Lenye Youth Group activity system*

Lenye Youth Group was formed in 2016 after a few meetings with Lenye youth where we had discussed pursuing different youth interests (CPN/R1, CPI7). A few youths agreed that starting with agricultural activity was a suitable starting point for the desired youth and community development initiatives the youths have (CPI7). Agricultural activity particularly crop farming was a platform with easier access for the youth. Crop farming was also identified as it had the potential to generate income and resources for the other interests (CPI7 and CPN/R37).

4.2.3.1 Subjects

The group is for any and all of Lenye Youth Group (CPD16); however as it was forming into a co-operative and consolidating membership based on commitment, it became reduced to six youths between the ages 18- 35 and a youth mentor aged 36 (CPN/R37, QW2, CPD84, CPD40). It was established in 2016, following three youth meetings to discuss Lenye youth participation in a research project about youth in rural development. In these meetings, we also discussed what development the youth would like to see in the village and my desire to participate in that development through a research project. The youth group was first comprised of a committee nominated from different youth structures (CPD16) and then nominated from within the youths who continued going to meetings (CPD26, CPD27) as per the agreements made in the youth meetings (CPD16, CPD26).

4.2.3.2 Rules

The rules of the youth group, as the group is still forming, were developed mainly in meetings. Rules that have been developed are the roles and responsibilities of the committee (CPD27) which were outlined as follows:

Chairperson

- Chair the meeting
- Sign documents
- Represent the project, most things will be dependent on him
- No decision made without chair, everything has to go through the chairperson
- No meeting without chair or at least the deputy chair
- All letters are to be received by the chairperson
- Work with secretary and deputy chairperson to set meeting agenda
- Chairperson is the only person who can call for meetings, no other member, the chair communicates meeting plans with the secretary and organiser
- When there is an issue or concern, the first person to talk to is the chairperson who will call a meeting to address the concern

Deputy Chairperson

- Takes on the chairperson's duties when the chairperson is unavailable

Secretary

- Writes minutes and letters
- Minutes have to be written during the meeting
- Reads the meeting minutes before the agenda at every meeting

- Responsible for the register

Deputy Secretary

- Takes on the responsibility of the secretary when they are unavailable

Treasurer is responsible for

- Fundraising
- Keeps the money until a bank account is opened
- Gives a financial report every Saturday
- To collect for signatories, the chairperson and secretary will be involved

Deputy Treasurer

- Assists the treasurer
- Though the deputy may collect money, the treasurer is the only one who may keep collected money

Organiser

- Responsible for organising the venue and keys to the venue,
- Communication of irregular meetings
- Communication with the groups' community
- Responsible for making things happen
- Is not the spokesperson
- Everyone should be prepared to assist the organiser when the group needs to delegate people for outside representation or duties
- Marketing

Membership in Lenye Youth Group is based on a joining fee of R30 (CPD27) and display of commitment as noted by a daily register. All who are not employed but form part of the group have to report to the fields and work during the week from 8 a.m. to 1 p.m.(CPD26, QW2). Employed youth are expected to work in the field on Saturday from 8 -1 p.m., go home for lunch and return for a general meeting in the afternoon until agenda items of the day are addressed (QW2, CPN/R37). Lastly, it was decided that there would be a weekly general meeting for an hour on Monday and Wednesday as the group was still forming and needed to keep up with developments (CPD16).

Other sources of rules and guidelines for the LYG include the village committee, as the group has to operate within the bounds of the village committee rules and village rules at large. This was demonstrated when meetings were unattended due to village rules concerning funeral

attendance and preparations and family functions, common practices in the village (CPD27, QW1). Additionally if/when, the group registers as a co-operative, they will have to adhere to the standard co-operative constitution (CPD27).

Furthermore, work done with and for the community may also be governed by village practices and norms, government departments that the youths may seek assistance from (CPD32), the ward committee, funding sourced externally from the subjects. In future, gender norms may also emerge as rules for the group as the group grows in numbers (QW1).

Furthermore, the youth may have to additionally pay a farmer-joining fee in the Zanyokwe co-operative and follow their rules (CPN/R10). Lastly, the group currently and in future has to make use of and abide to lease agreement for use of land by youth from parents/farmers owning land (CPN/R37).

4.2.3.3 Community

Currently the community of the youth group is the village at large through the village committee, farmers who give advice when asked and support the youth initiative, parents in the community who are supportive through financial assistance, land and verbal support communicated in the meetings and personal communication with individual youths (CPN/R11, CPN/R9). The CWP are partners or potential partners in development work as they too have development as an outcome in their activity system (CPD21). Furthermore, Mzwebongo is a Sidalukukhanya supervisor and LYG mentor (CPI12, CPN/R37) and youths are employed in the CWP and Sidalukukhanya activity systems. The steering committee of the CWP/the community work programme employees are also potential partners as youth members from the CWP may share agricultural knowledge and skills through working in the group on off days or even in offering advice or workshopping.

The Department of Agriculture is already an active part of the community. LYG have worked with the extension officers through participation in the Youth in Agriculture and Rural Development (YARD) programme and have received inputs from the department (CPD32, QW2). Ntinga Ntaba kaNdoda is a part of the community as it aims to work with farmers and youths for development and already started by inviting youths to meetings and offering trainings and co-operative support services (CPD30, CPN/R35). In the municipality, the ward councillor, Vuyani Tshaka, who supported and advised youths (CPD84) and the Community Development Worker, Nqabisa Cilo (CPD61), who was instrumental in supporting the youth

in community development work through research, meeting attendance and mentoring for the bridge (see section 4.5), were also key community members. The LYG community also consists of Seven Stars Dairy who are fellow farmers participating in dairy farming (CPN/R76, Figure 4.9).



Figure 4.9: *Sisipho Makie conducting research at the Seven Stars dairy farm (28 January 2017)*

ASPIRE; the Amathole Economic Development Agency (AEDA) could form part of the community of Lenye youth. ASPIRE assists the Amathole District Municipality in effecting a participatory developmental (Weppelman, 2018).

Since the group has been introduced to the Keiskammahoek Professional Hub Development Institute, a group for Keiskammahoek graduates working towards the development of Keiskammahoek, through the formative interventionist researcher who is also a youth member, the hub is part of the LYG community (CPD55).

As the group is interested in developing a RWH&C demonstration site in the form of a nursery, it is part of the Imvotho Bubomi Learning Network and Sisipho has undertaken the training of trainers course; the IBLN is part of the group's community (CPD40, section 4.5).

4.2.3.4 Division of labour

The division of labour is clear according to the rules in theory but not in practice. I noted this as a matter of concern but considered it was due to the youths unpacking an understanding the activity system as the group develops. Still it was discussed in the change laboratory

workshops (4.3.4). The committees' roles and responsibilities were discussed in a youth meeting (CPD27); therefore, this co-defined set of rules should be governing the group's division of labour (4.2.3.2). Additionally, all youths in the project are expected to work in the field and attend meetings. The co-operative constitution may in future shed light and prove to be a stimulus for clarity and discussion (CPD27, CPN/R41). The village committee and community members at large were partners in the youth's development initiative in the case for the bridge (see section 4.5 and Chapter 5) offering financial and advisory support (CPN/R11).

The division of labour in future may even include community members, which it does not at the moment, through *Ilima* practice. *Ilima* which comes from the root word "ukulima", which means cultivate the land in isiZulu, is the practice of collectively cultivating the land. According to Twala (2004), members of the community would collectively cultivate the land, moving from family to family without monetary compensation. The provision of beer and food would be a sufficient reward or token of appreciation to those who assisted in cultivating the land.

4.2.3.5 Instruments/Tools

4.2.1.5.1 Practical tools for farming practice

The tools initially envisioned by Lenye Youth group included chickens, cows, sewing material (CPN/R1, CPI7). Below Sisipho Makie and the Booi family's residential area was land. It was envisioned that the land along with planks and a net could be used for growing pigs, seedlings and calves. It was discussed that chicken layers would be more profitable. It was envisioned that chicken layers would have a quicker turn around than selling chickens. Furthermore, it was envisioned the eggs would have a market place, the local spaza shop. Due to a lack of resources, planting was settled upon as a starting point. The idea was to start with crop farming and then to use the finances and other resources collected along the way to establish the other interests (CPI7). It was additionally noted that there was water in the fields and the garden we had been offered by community members. The Department of Agriculture and the village community were identified as support tools to mediate the desired outcomes or visions of the Lenye Youth activity system. They were identified as tools for acquiring the tools needed by Lenye Youth.

Additional practical tools are seeds/seedlings for mixed vegetable farming, organic fertiliser in the form of chicken manure, 12 plots of land, which were lent to the group by parents in the village one of which was planted and another which was not planted. The soil was prepared but not planted due to a land use dispute (CPD26, CPD80, CPN/R9, CPN/R37, QW1). The land is located within a larger communal farming space and protected by a communal fence. Within this communal farming space Lenye youth are making use of old irrigation infrastructure that is usable but needs regular maintenance, as there are frequent breakdowns (CPD40, PWNRT).

Government funders and private companies that offer finances such as IMVABA Eastern Cape Provincial Co-operative Development Fund, SANCO (South African National Civic Organisation) and NYDA (National Youth Development Agency) (CPD30, PWNRT, CPN/R35, CPN/R28) emerged as possible tools in the future of the youth's activity system.

Additional practical tools used in the youth's farming practice include gardening equipment, a stamp with which to officiate letters (CPN/R37, CPD19), a tractor disc which the youths have much trouble acquiring due to the financial needs for hiring the disc which cost R300 for a plot of land. Finances which can and have assisted the group in renting a tractor and attending meetings in Qoboqobo also offered a valuable tool. Another is organisational culture, the group is still figuring out a way and means to organise themselves (QW2, QW3). Lastly, the following stationery needs were identified and used by LYG:pens, 72 page books, an exam pad and file for documenting work (CPD26).

ASPIRE, the Amathole Economic Development Agency (AEDA) (Weppelman, 2018), is a potential learning tool for Lenye youth's development agenda/vision or a financial tool. The interventionist researcher was seen as a tool for acquiring knowledge capital (CPI4). A loudspeaker with which youth meetings were often called (QW3, CPD84, CPN/R37) was another useful tool. A library may be useful for research purposes. The village youth expressed that the ability and resources for conducting research were a challenge in realising their entrepreneurial and farming potential (4.3.4).

4.2.1.5.2 Conceptual tools for guiding the farming practice

It was hoped that the village community would donate what they could, for example farming tools, or that some members of the community would invest in the youth project by buying chickens for the youth to farm (CPI7).

A draft proposal to the Department of Agriculture for requesting calves was also proposed as a tool (CPI7).

For a new group still in the process of forming, research was a tool for establishing and testing ideas (CPI7).

Mixed cropping seemed ideal so as to be able to harvest and sell vegetables at different times. This could result in funds becoming available for fertilisers and pesticides needed for slower growing vegetables (CPI7).



Figure 4.10: *Lenye Youth Group members Mzwebongo and Odwa Boo, assessing and fixing the fence of the homestead garden lent to the Lenye Youth (17 October 2016)*

The main tool used by Lenye Youth Group initially was a homestead garden (Figure 4.10) offered to the group by Sisipho Makie's mother. As the group was interested in developing a rainwater harvesting and conservation demonstration site in the form of a nursery, learning support from the Imvotho Bubomi Learning Network (CPD40, section 4.5) would be helpful.

Additional potential tools that Lenye youth could still explore include the documents and youth profiling tools encountered in the various youth development programmes participated in, namely:

- The contextual profiling questions I used in my research. The contextual profiling questions were basic core questions for gaining an understanding of the nature of the activity system (CPT3) (see Appendix B).
- The Activate Connect, Inspire, Provoke and Influence form. This form was used in the Activate programme along with an activity. Information and images of leaders from different fields were laid out in the room. As Activate participants we could reflect on our own leadership as we reflected on the information provided on the various leaders reflected/modelled in the room (CPT10).
- The Activator Module 2 Workbook (CPT11). The workbook contained various self-modelling/introspection activities. These could be used by the youth to further define the subjects of the LYG activity system.
- Imvelisi Enviropreneur notes (CPD48). These notes were compiled in conjunction with Nqobile Lushozi, one of the Imvelisi participants. The intention was to be able to share from our personal notes, the knowledge acquired at the bootcamp, with others. Youths could use these to design further and outline other potential activities for business models.
- The Amanzi for Food Youth Network Funding Proposal (CPD72). Together with Mxumbu Youth Agricultural Cooperative, Lenye youth drafted and submitted a funding proposal in response to a call for proposals by a company pursuing the fulfilment of their corporate social responsibility (see Appendix J: Extract from Amanzi for Food Youth Network Funding Proposal). Youths could use this as an example for further applications.

4.2.1.5.3 Organisational tools for structuring and guiding interactions and co-operation

These tools include farmers for advice and support (CPI7, CPN/R9). Additionally the Department of Agriculture (CPN/R76, CPN/R37) offers knowledge, support, networks (CPD32) and inputs in the form of seedlings. The relationship the youths have with the Department of Agriculture is through the agricultural extension officers in Qoboqobo (CPD40).

Organisational tools that structure and guide interactions include the change laboratory workshops (QW1, QW2, QW3). There are also relevant trainings, two have been attended by the group so far – one with Umthathi Training Project (CPD19, CPN/R37, CPD84) and another with Umthiza organised by an agricultural extension officer in early 2017 (CPD26, CPN/R76). Additionally Odwa participated in many training opportunities with Ntinga Ntaba kaNdoda towards the end of 2017 and was then able to contribute much permaculture knowledge in the change laboratory discussions (CPN/R35, QW1). Sisipho regularly attended YARD meetings (PWNRT). Furthermore the group attended development programmes through Activate, Imvelisi and African Farmers Association of South Africa (AFASA).

The youth may perceive Ntinga Ntaba kaNdoda as a tool as it aims to work with youths and farmers for development in their Ntingani Lootsha and Solidarity Economy programmes (CPI16).

The village committee was instrumental as it enabled the youth to hold village meetings for their development initiatives (CPN/R11, CPN/R72).

Lenye Youth used several social media channels to mediate communication for meetings, activities and information on youth opportunities, which were mainly centred on agricultural activities. A couple of WhatsApp groups, a “Lenye Youth (agriculture)” group which never really got going and a “Lenye Youth in Action” group that initially included approximately more than 10 Lenye youth before the group was reduced to 6 members (CPD82, CPD83, CPD84). Additionally, the youth group created a Facebook group “Lenye Youth Group” and two Facebook pages “Lenye Youth Group” and “Lenye Youth Co-operative”. WhatsApp was the preferred mode of communication initially as it was easiest for those mostly involved; however, it may not have been the best for an organisation still developing membership. Some interested youths in the village did not have cell phones or WhatsApp enabled cell phones and were unaware of meetings having missed the rules and meeting times set in our initial meetings and reminder messages and new information shared on WhatsApp (CPD84). I missed this matter of concern during the expansive learning process.

Fort Cox Agricultural Training Institute (FCATI) and Fort Hare University were tools in the Lenye Youth Groups activity system. A training and registration opportunity for youth co-operatives emerged. The training was to be conducted in FCATI and the launch for the

initiative was to be held at Fort Hare University (CPD84). FCATI was thus a training tool for mediating youth development and Fort Hare perhaps an organisational tool for supporting the organisational needs of the programme. The change laboratory workshops were an additional tool as they allowed for group reflections on progress (see section 4.3.1, 4.3.4 and 4.5).

An additional communication tool is the isiXhosa language. Ntinga Ntaba kaNdoda publishes all communication to farmers in isiXhosa. One Lenye Youth Group member communicated difficulty following conversations that were too English ridden (CPD84).

The Food for us App, a mobile application for farmers to sell directly to consumers, is a potential tool for LYG as produce by the group may be sold on the mobile application in future (Durr, 2019).

An additional desired tool in the Lenye Youth Group is a uniform. Blue overalls, gumboots and caps were suggested (CPN/R17).

4.2.3.6 Object

The object of the youth group is to first establish youth crop farming. The intent is to build capital through the crop farming to finance all other youth dreams (CPI7, CPN/R37). The crop farming is to be followed by chicken farming, livestock farming, potentially dairy farming, sewing and beadwork, all the interests of the youths (CPI7, CPN/R76, CPN/R37). The idea is that sustainable development can be achieved through creating work around various youth interests.

4.2.3.7 Outcomes

The desired outcomes of the group are youth development, youth employment, community development (CPD16), youth self-employment (CPD26), benefiting in some way and meeting challenges (CPD16).

4.2.4 The Sustainable Development activity system

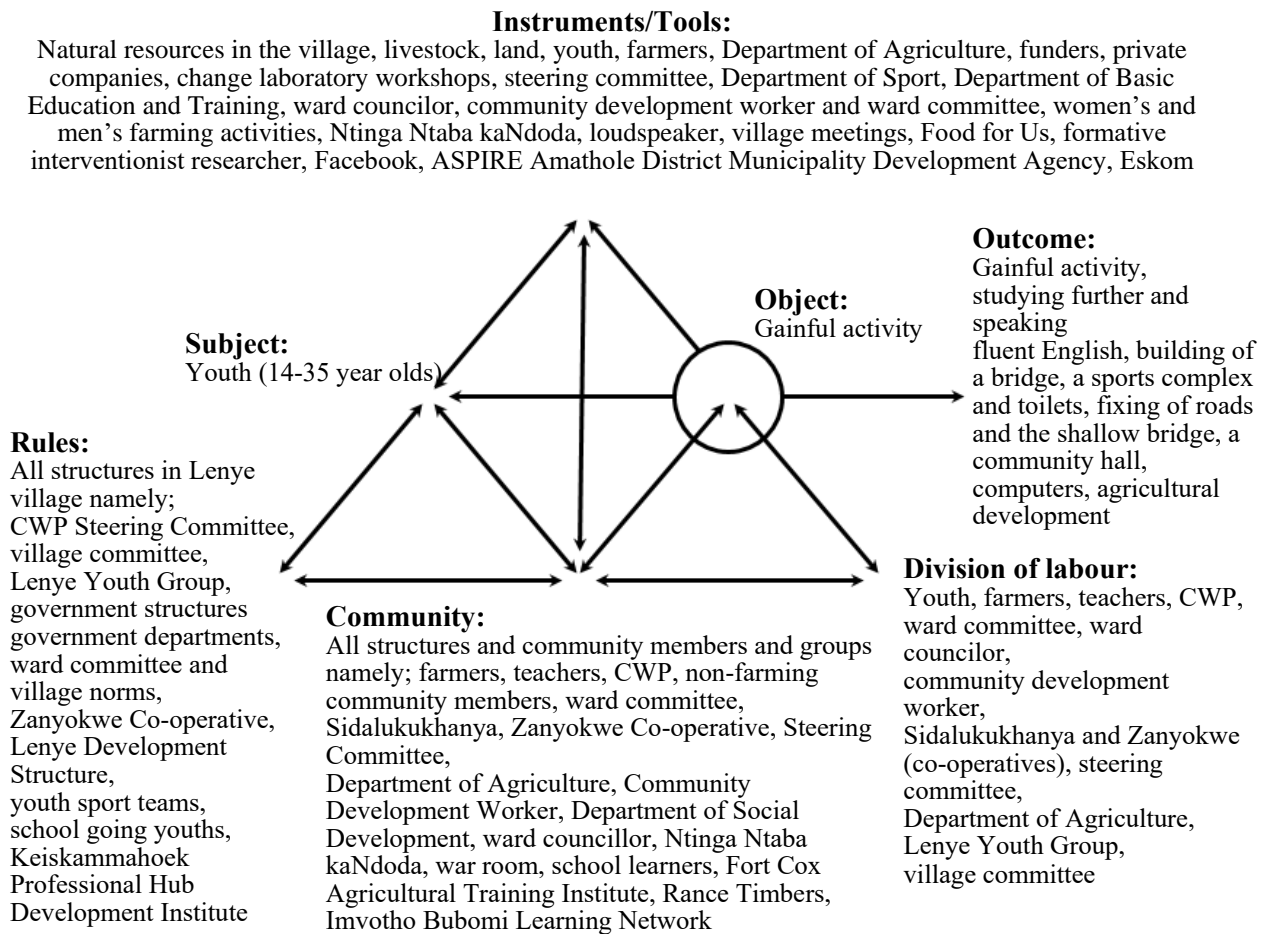


Figure 4.11: The Sustainable Development activity system

The Sustainable Development activity system is the collective object of Lenye Youth Group, Sidalukukhanya co-operative, CWP, myself the formative interventionist researcher and the community members of the different activity systems and the village's community members at large. Much of the description below, although rooted in the current state of the context, is largely a result of how the sustainable development activity system could optimally function according to my understanding of people's visions for the village including my own. This is due to the activity system not being an explicitly existing activity system. It is an abstract rather than a concrete activity system hence the desire for the establishment of a structure for this activity system (CPD34).

4.2.4.1 Subjects

The subjects of this activity system, due to my interest in youth as a formative interventionist researcher and the countries definition for youths, is all youth in the village between the ages of 14-35 years old. Arguably, the subjects for this activity system are all members of the community; however my focus is on the youth and as such in this study, the subjects are all the youths in the village, namely:

- school learners, upcoming out of school youths who may offer their time, knowledge, strength, ideas and desires for sustainable development in the village
- male youth soccer and rugby team may lend themselves to development as they grow and expand their practice; female sports teams as well as mixed gendered sports and cultural activities may also lend themselves to being a space of growth and expansion for youths in the village. They may provide a space in which young people can experience development (see section 4.3.1)
- Youth who are not in any particular structures but show interest in youth initiatives when aware. These youths are additional enablers of development through investing their time, energy and other resources to certain initiatives of their choice. The youths who were present for the youth meeting in which we planned and volunteered for the Mr and Ms Lenye programme are an example.
- Lenye Youth Group is a youth collective that contributes to the sustainable development of the village through working on agricultural practice, youth development, community development and youth self-employment.
- Keiskammahoek Professional Hub Development Institute is a collective of educated youth and elderly dedicated to the development of Qoboqobo who may work more actively with Lenye Village in future as Lenye graduates may form part of this network.

4.2.4.2 Rules

An amalgamation of all the structures that are working towards development in the village, as well as the unspoken rules and traditions of the village, contribute to the rules of the sustainable development activity system. These rules will be set by an abiding to rules within and between the many structures in the village. The structures working towards development in the village are all those listed in the other activity systems (4.2.1-4.2.3), namely the steering committee (CPI13), the village committee (CPN/R9), government departments such

as the Department of Agriculture, government structures such as the ward committee (CDP32, IDP, 2017).

The unspoken rules and traditions of the village are mainly related to funerals and traditional ceremonies which are collectively planned and organised by the village, according to age and gender. For example, young men in the village are responsible for digging a grave during funeral preparations in the village (QW1). Lenye Youth Group rules, as described in 4.2.3.2, and Zanyokwe co-operative rules may also inform this activity system as Zanyokwe meeting times and the constitution inform sustainable development practice in the village since farmers collectively practice crop farming through this co-operative. In future, the rules may include those set by a Lenye Development Structure (CPD34) (to be discussed in Chapter Five). Youth sport teams, school going youths, Keiskammahoek Professional Hub Development Institute are additional groups in the village whose rules may influence development practice; however, further investigation into the rules of these structures is needed as data on this was not collected during the course of this research study.

4.2.4.3 Community

The community consists of all community members and structures operating in the village, namely:

- Farmers – can contribute to sustainable development through their expertise, experience and mentoring for youths working in the agriculture sector for sustainable development in the village;
- Teachers – contribute through sustainable development through facilitating learning for the primary school youths in the village;
- CWP – facilitate sustainable development through providing youths and older community members with a space to work on developmental tasks, as described in the CWP activity system description in section 4.2.1;
- Non-farming community members – facilitate sustainable development through supporting young people with their various resources, such as village meeting times in which finances, knowledge, fields, skills etc. can be offered;
- Ward committee – a collective of ward representatives with their role in the sustainable development activity system being to act as a mouth piece to and from the

Lenye village into the government structures or platforms that the ward committee can access;

- Sidalukukhanya co-operative – a development organisation in the village that offers youth employment in sweet chilli and mealie farming, experience and potentially excess or shareable tools for development through agriculture;
- Steering committee – the CWP committee that outlines CWP tasks, according to needs observed in the village and thus contributes to sustainable development through flagging development needs and may continue to do so in sustainable development meetings, contributing to identifying sustainable development activity rather than development action/tasks;
- Department of Agriculture – enables and supports youth and elderly farming development and growth in the village;
- Department of Social Development – a government development organisation with offices in Qoboqobo that facilitates various development tasks in the country;
- Community Development Worker – a member of government’s development portfolios under the Department of Cooperative Governance structures. She assists in bridging the gap between Amathole Municipalities Ward 10 community and government;
- Ward councillor – as Lenye village falls within ward 10 of the Amahlathi Local Municipalities geographical demarcations, the ward councillor is responsible for representing the development needs of the village to council;
- Ntinga Ntaba kaNdoda – a community based organisation working in the village for whom sustainable development is a mandate;
- War room – a multi-stakeholder group initiated by the current government to fight against social injustice (CPD34 and IDP, 2017);
- FCATI – an additional member of the community and tool that is not evident in the village and in surrounding villages but offers training to farmers on a temporary basis and to full-time agriculture students. Additionally FCATI offers agricultural resources through community engaged learning experiences (Fort Cox College, 2014);
- Rance Timbers – works with Sidalukukhanya and with local farmers contributing capital for mealies and chillies, subtracting expenses and sharing the profits on a 50:50 ratio. In the Sidalukukhanya activity system, I noted low wages (CPI3) and the cost of the activities being too high and limiting the gains of the people as matters of

concern (CPI12, CPI4) for further questioning. However, due to oversight on my part, I neglected to bring these matters of concern into the change laboratory workshops;

- Zanyokwe co-operative – youths may form part of the co-operative as fellow youth farmers in the village;
- Imvotho Bubomi Learning Network – as described in 4.2.1, 4.2.2, 4.2.3. Additionally Zanyokwe co-operative farmers may also form part of the IBLN to encompass all the farming groups in the village.

4.2.4.4 Division of labour

All the structures listed in the community of the activity system can and should have a role and responsibility. The youth of the village could be responsible for being the major hands and feet of the village, and the core eyes and ears of the sustainable development work of the village at large through fulfilment of various sustainable development ideas expressed as Lenye Youth Group began to form (4.2.3). Farmers in the village could be mentors through more intentional engagement with youth in their farming practice, imparting their farming knowledge and expertise in young people (the current relationship between farmers and youth in the village is discussed in section 4.3.4). Teachers, through their teaching practice, already contribute to sustainable development as they educate and equip primary school learners with literacy and numeracy skills (the role of teachers or education further discussed by youth in section 4.3.4). The CWP contributes to sustainable development primarily through poverty alleviation as described in section 4.2.1 and further shared in the change laboratory sessions. The ward committee, ward councillor and CDW can act as the bridge between the community and government (4.2.3). Sidalukukhanya co-operative contributes to sustainable development through poverty reduction and employment as described in section 4.2.2. The Lenye Youth Group through agricultural practice, youth development and community development contribute to sustainable development as described in section 4.2.3 and section 4.5. The CWP steering committee contributes to sustainable development through continuous discussion and mandating of developmental tasks through mandating the CWP (see section 4.21). The village committee contributes to sustainable development through convening as a committee and bringing together the village to meet on matters arising in the village. The Department of Agriculture contributes to agricultural practice development through the extension officers' engagement with local farmers. Zanyokwe co-operative contributes as described in section 4.2.2.4.

4.2.4.5 Instruments/Tools

4.2.1.5.1 Practical tools for farming practice

The instruments of this activity system may be the natural resources of the village, which include lemon, aloe, *Lengana/Artemisia afra* commonly known as Sagewood or Wormwood. There is an aloe production project running in Port Elizabeth. The healing properties of these natural resources have great potential commercial value (CPI4). Additional resources are land on which members of the community farm and livestock. Community members currently throw away the skin and milk the cows for their milk. There used to be a man who makes/made walking sticks but sadly, he has passed on (CPI4). There are bees occurring naturally; commercial beekeeping could be an option (CPI4). Goats are additional tools in the Lenye community (CPD84). Eskom is also a tool in the Sustainable Development activity system. Farmers on the right side of the village, as you enter Lenye from Zanyokwe, Zingcuka or Keiskammahoek, require electricity for pumping irrigation water onto the fields (QW1). In essence, agricultural practice is a tool of the sustainable development activity system.

The formative interventionist researcher was identified as a tool for acquiring knowledge capital (CPI4). The youth can be considered as a form of labour or human capital, farmers may provide land; the young people do not have land, however they do have energy. Some of the farmers have both land and the strength, energy and will to continue working while others do not have the will, strength and/or time (CPN/R9).

The Department of Basic Education and Training is also a tool, as the desire for a secondary school was communicated as a desired outcome (CPN/R9, CPI9). Additionally, the Department of Agriculture is a tool in many ways. It is a source of funding, equipment, inputs, knowledge and social capital, as they are able to link the village to other departments (CPD32, CPD33).

Funders and private companies offer tools through various means i.e. finances, equipment and knowledge through community engagement initiatives as illustrated through Sidalukukhanya 4.2.3 through their funding community.

Finally in terms of practical tools, a loudspeaker is used to announce village meetings (QW3, CPD84). A library may be useful for research purposes as described in section 4.2.1.5.1.

4.2.1.5.2 Conceptual tools for guiding the farming practice

Change laboratory workshops are additional potential tools in the sustainable development activity system as they may assist in facilitating dialogue needed for development initiatives or visions in the village. The steering committee, as described in section 4.2.1, as well as the Department of Sports Arts and Culture and Recreation, may be a tool to support youths' sporting desires and unity desires for sustainable development (PWNRT). The ward councillor, community development worker and ward committee are tools, as described in section 4.2.4.3. Lastly, the immunisation of women's livestock, as indicated in section 4.1.2.3 needs to be investigated as part of the sustainable development practice of the village to enable maximising of the agricultural productivity of the village.

Additionally, the farmers have knowledge and experience and may be present as tools in this regard. The Food for Us App can be a new pathway used by the village for selling village produce (Durr, 2019).

4.2.1.5.3 Organisational tools for structuring and guiding interactions and co-operation

A number of development initiatives are accessible to the area through Ntinga Ntaba kaNdoda's five programmes:

- 1) a community heritage, arts and culture programme that hosts heritage festivals. The festivals often have indigenous; dances, games and food. Additionally, the festivals host choirs, poetry, soccer, netball, horse dressage and horse riding hosted by and for Qoboqobo and non-Qoboqobo residents (CPI6). One such festival is held annually in September and is centred on Maqoma who was a great Xhosa chief (CPD17).
- 2) a Solidarity economy alternative for sustainable livelihoods and development programme. During Sebe's rule, as mentioned in section 1.3, of the former Ciskei, the fields of Qoboqobo dwellers were well-used, agricultural activity was flourishing in the area (CPI6, Davenport & Saunders, 2000). The programme aims to reinvigorate this agricultural flourishing (CPD30).
- 3) a Quality Public Education programme that organised computer labs and tutors from tertiary institutions (CPI9)

4) a Ntingani Lootsha programme led by Mr Madiba. This was aimed at learners' personal development and involved many activities in which youths were challenged to work in teams, plant trees, remove alien plants/trees, plant indigenous ones, and complete a 20 km one-day hike. There is a vision for a youth commune – a live-in educational programme for young people that allows for theoretical and practical training and learning. The youth commune is designed to teach technical agricultural skills and life skills so that graduating youth have social, political and technical knowledge with which to work in their respective communities. In 2016, the programme was handed over to the youth to govern, so it is a space where youth are supported to solve their own problems and to do their things through the youth commune vision. A closed school has been noted as the potential site for the youth commune. Through the youth commune, Ntinga Ntaba kaNdoda aims to work with the Department of Labour in order to get accreditation for the youth commune from the Services Sector Education and Training Authority (Services SETA). The Services SETA aims to facilitate quality skills development for employment and entrepreneurship in the Services Sector for national economic growth (CPD11-15).

- Lastly, Ntinga has a Rights-based participatory democracy programme that is a tool for knowledge sharing and awareness on rights and participatory democracy approaches and channels.

The village could further make use of a Facebook Group in which updates and information on development initiatives and opportunities may be shared (I31). Additionally, change laboratory workshops may assist in facilitating the working together of different groups in the village community/sustainable development activity system.

ASPIRE (Weppelman, 2018) is also a tool for the sustainable development activity system of the Lenye community as it is the Amathole District Municipality Development Agency. Lastly, village meetings are a tool for the village convening on development issues.

4.2.4.6 Object

The object of this particular activity system is gainful activity. I note gainful activity as youths expressed sustainable development as everyone having something to do (CPI9, CPI14).

4.2.4.7 Outcomes

The desired outcomes of the sustainable development activity systems, as collectively outlined by the participants of this study, are:

- gainful activity as youths expressed sustainable development as ‘everyone having something to do’ (CPI9);
- road maintenance as roads are gravel roads that need continuous smoothing (CPI9);
- computers for school children (CPN/R9);
- a community hall, currently lacking in Lenye village, where village meetings and events may be held. Lenye Primary School currently doubles as the village hall, making use of a classroom in the school that is twice the size of the other classrooms. The classroom is just big enough to host those who attend village meetings and is accessible to community members, through the SGB chairperson, as a communal and central place to meet (CPI9),
- a bridge on which the Keiskamma river may be crossed (CPI9),
- agricultural development as Lenye village has historically had and could still have greater agricultural productivity (Chapter Two, CPN/R9)
- lastly school/education (CPI9) – out of school, post-matric youths in the CWP noted that they would like to study further and speak fluent English (CPI8, CPI9).

From an initial description of the activity system, 46 matters of concern were noted for bringing into the questioning workshops for further questioning. Those that were brought into the questioning workshops are listed and expanded upon in section 4.3 where the mirror data and results of the questioning workshops are reflected. Matters of concern that were not brought in for questioning have been mentioned in section 4.2 in the description of the activity systems and may be engaged in future change laboratory workshops if still relevant.

4.3 Questioning towards a shared object of sustainable development

After an initial description of the activity systems, following the contextual profiling interviews and observations, we managed to have our planning workshop on 5 May 2017 and subsequent questioning workshops on 21 July, 11 August and 8 September 2017.



Figure 4.12: Youth participants in the change laboratory signing the commitment form, to attend change laboratory workshops (5 May 2017)

In total in the initial and expanded contextual profiling I identified 46 matters of concern:

1. The youth are lazy
2. The youth don't understand you have to work for money
3. The youth are uninterested in agriculture
4. The youth are captured by alcohol *
5. There are water costs/drought/shortages, however water usage is unreflective*
6. Costs of the activity are very high and limit the gains of the people *
7. Desire to use land as productively as possible *
8. Youth unemployment *
9. Low wages for those employed *
10. Youth not part of committees/ Youth not part of the leadership structures in the community
11. Youth not heard/listened to
12. Youth don't attend community meetings
13. Rance Timbers took long to collect corn from Sidalukukhanya **

14. People pretend they have done more crates than they have **
15. Samp and beans wasted in the school feeding scheme**
16. The rain and cows ruin the garden
17. Using a slasher in a dense forest is dangerous
18. The CWP gardening/field equipment is not of good quality or durable**
19. Dams, graves and dips are not fenced
20. Cabbages are spoiled and used as manure and for crop rotation. The cabbage is being eaten by moths and other insects (butterflies, moles, stem borers) and Tamron (an insecticide) and other repellents are expensive
21. Youth would like to be trained in handy work
22. Some said there was a document and others said there wasn't
23. Not everyone has a uniform although everyone is expected to have one **
24. Livestock considered women's livestock is not immunised i.e. pigs and chickens **
25. Mono-cropping. No intercropping. Sidalukukhanya farmers are supposed to plant 1 metre apart, that's not done and the 1 metre seems like a waste of land **
26. Lenye shelters, toilets etc. made from cow dung and other natural materials whereas Qoboqobo shelters are made from bricks **
27. Theft e.g. fertiliser gets stolen
28. Difficult to move poles and sand due to distance **
29. LYG division of labour unclear
30. LYG do not hold meetings
31. Youth don't want to be entrepreneurs or self-employed; they would rather be employed
32. LYG community unclear – involvement of larger youth vs involvement of committee to be discussed/ Is the Lenye Youth Group committee the youth committee for the whole youth community?
33. LYG activity system not fully formed and imagined ***
34. LYG rules not yet established ***
35. LYG object not shared/shared object unconfirmed ***
36. LYG tools and signs loosely discussed ***
37. LYG youth/subjects not clearly defined **
38. Do people get re-elected in the [village] committee?
39. No meetings for the steering committee all year

Additionally I took six images that presented matters of concerns that I noted during the observations (see section 4.3.2).

Matters of concern marked with * were brought into the planning workshop but not engaged with. Matters of concern marked with ** were not brought into the change laboratory workshops due to oversight on my part as noted in section 4.2. I propose/ recommend these matters of concern be brought to the attention of Lenye Youth and the village at large as discussed in section 5.6. Matters of concern marked with *** were not brought into the change laboratory workshops as they were addressed after they had been noted, prior to the change laboratory workshops.

4.3.1 Planning workshop

The planning workshop was held at Lenye Primary School, as were all the workshops. The planning workshop was scheduled for 2 pm on 5 May 2017; however ,it started at 3:37 pm, as some participants were late.

The youth present at the planning meeting were Odwa Booi, Sisipho Makie, Lundi Matiwane, Mzwebongo Booi, Nomazibulo Matshikiza, Lwando Matiwane, Athenkosi Tiso and Lungelo Ndlumdaka.

We opened in prayer and Sisipho agreed to be the scribe. I gave a quick update on the progress of my research project. I then described the change laboratory workshops, i.e. the learning cycle; there were some questions and answers along the way.

I shared matters of concern 1-12 (in the list above) as statements to illustrate what I had picked up and to illustrate what kind of statements we could engage with in the change laboratory workshops. Additionally, I listed matters of concern 1-12 to illustrate and discuss the importance of the change laboratory workshops, as suggested by Virkkunen and Newnham (2013).

I then requested permission to use a voice-recording device to capture everything we said. I reaffirmed that we would collectively choose what would go into the report and what would not.

After the list had been presented, participants questioned a few matters of concern. Discussion focused principally on two of the matters of concern. The first was the statement “The youth are captured by alcohol”. I had noted this matter of concern as a potential contradiction between the subject of the sustainable development activity system (youth) and the object of the sustainable development activity system (gainful activity). Mzwebongo said, “We need to get to the root source or else we will never address this issue” (#1). Lungelo responded saying, “Parents need to ask why youth are drinking and doing drugs. For example we all know people are not employed/working” (#6) and added, “We have long wanted a field(s) for youth activities. The older generation grew up playing sports; if they really wanted to see change, they would have long gone to Keiskammahoek/Qoboqobo and requested/demanded recreational facilities for youths.”(#12)

The second matter of concern that the youth responded to was: “Youth don’t attend community meetings”. I had noted this as a potential contradiction between the subject (youth) and tool (community meetings) of the sustainable development activity system. Youths noted that youth are not part of the decision making of the village, not through structure and neither through their ideas being recognised in community meetings. Furthermore, Lungelo had this to say about the nature of village meetings. “The discussions and decisions are held by four people only, when there are many people there is no way forward. That is why most people don’t go to the meetings.” (#16)

I paused the discussion promising that we would work more thoroughly with these statements in subsequent workshops and then led us into a discussion on the object of the change laboratory workshops. The discussion focused on the object of youth and community development through the combined objectives emerging from the multiple voices in the workshop. In summary we collectively contributed the following short- and long-term goals to construct the youth and community development object of the change laboratory workshops.

- Change that is felt or affects the whole village
- Addressing the drought challenge
- To awaken a group of youth that wants an active youth and development in Lenye, and for that group of youth to not only want active youth but to be that active youth that works on activating other youth and the development they want to see

- Youth helping each other with youth development, every youth to lead in their structure and to commit to attending these meetings and following through on other commitments
- Grow food for school children, crèches and old people (Easter and end of the year)
- Addressing the animals getting into people's plots, e.g. through camps
- A way for youth to work with old people, so we aren't enemies and youth to be part of structures then we draw closer to what we hope
- Return of sharing vegetables when there are funerals for the family of the deceased
- Revival/building/ establishment/maintenance of sports grounds
- Build unity through sport, organising a tournament
- Establishing a nursery
- Reviving concerts and music

We then decided on dates for the workshops and agreed we would call in other stakeholders after having completed the questioning learning action i.e. after having gone through the matters of concern and identified contradictions. Having identified contradictions through questioning, we would then call upon stakeholders, which we determined we would have identified better through identifying the contradictions.

Before the end of the workshop we discussed the use of a video recorder for the workshops and agreed we would not use video recording in our data capturing as it might impede our discussions.

Finally, members of the then to be Lenye Youth Co-operative briefed those present on the group's progress. We gave an account of the group meeting times, membership status, current activities and knowledge on youth opportunities and then closed the meeting (Extract from transcript shared in section 4.5.2).

4.3.2 Questioning Workshop 1

This workshop was held at Lenye Primary School on 21 July 2017 at 2:30 pm for two hours
In the first questioning workshop, we reflected on the images that depicted matters of

concern. As a group, we discussed each image and decided whether there were any contradictions emerging from the images or subsequent discussions.

The youth present in the first questioning workshop were: Lungelo Ndlumdaka, Mzwebongo Booi, Nolusindiso Rala, Odwa Booi, Lundi Matiwane, Lwando Matiwane and Odwa Matiwane. Sisipho Makie and Athenkosi Tiso were absent due to communication constraints and life changes as cited in section 4.4.

We started the workshop with a group cohesion activity. I poured water into a white polystyrene cup. I then reminded everyone that we had discussed our objectives and thus our object and that we had agreed we would work together. For the activity, we shared a drink of water from the cup as we silently promised or affirmed and recollected our discussion and commitment to work together.

We then set new dates for the change laboratory workshops as the initial dates had now gone by (see section 4.4 for discussion of disruptions that resulted in the setting of new dates) and then continued with the change laboratory workshop.

I presented the following images and discussions unfolded.



Figure 4.13: *Irrigation pipes near Lenye Youth Group plots (1 April 2017)*

I brought in Figure 4.13 as a matter of concern as the pipes/ irrigation tools looked old and were not being maintained. The discussion that unfolded as we observed this image revealed three contradictions. The first contradiction was a second level contradiction between the tool (land) of the sustainable development activity system and the outcome (agricultural development). The second contradiction was a level one contradiction within the tool

(irrigation system) of the sustainable development activity system. The third contradiction existed as a level two contradiction between the tools (irrigation system) and subject (women) of the sustainable development activity system. The contradictions manifested in the following ways: The fields on the right side of the village are covered in grass when they should be covered in vegetables or crops. The watering system in the field is old; it leaks and is scarce material. Additionally the watering system requires great strength thus watering needs to be a male role or responsibility. New technology was suggested for success and ease in farming activities. New irrigation technology could allow for the activity of watering the crops to be a gender neutral activity and could mitigate against the effects of the leakages on agricultural productivity.



Figure 4.14: *Sidalukukhanya chillies near Sidalukukhanya chillies fields (30 January 2017)*

The matter of concern I had hoped to bring into the change laboratory workshops through Figure 4.14 was the surplus chillies that Sidalukukhanya had left over after planting season. I had hoped that these could be shared with Lenye Youth or other farmers. In this image, we identified two contradictions. What we noted but did not question was the excess seedlings in the Sidalukukhanya project, which had gone to waste on the wayside. One such contradiction was a level four contradiction between the Sidalukukhanya tool (sweet thorn) and the outcome (agricultural development) of the Sustainable Development activity system. This complex and interesting contradiction manifests as follows: The fields on the left side of the village are covered in sweet thorn. Although *Vachellia karroo*, colloquially known as sweet thorn, provides shade for the Sidalukukhanya workers and seedlings in summer, it is also a hindrance to farming in the area as it covers and makes much of the land not arable and needs to be removed or at very least trimmed. The land cannot be farmed where there is sweet thorn. The sweet thorn provides a windbreaker effect, making farming cabbage where sweet thorn is most abundant, a high risk farming activity due to increased heat in that area.

The second contradiction, a contradiction within the tools (water, Eskom and farmers) of the sustainable development activity system, was also discussed in terms of how it manifested: The fields are covered in sweet thorn due to the unavailability of water because of unpaid Eskom tariffs for pumping water onto the left side of the fields. Due to the topology of the village, the fields on the left side of the road have access to water due to electrical pumping of water onto the fields.



Figure 4.15: Lenye Primary School (17 May 2017)

Figure 4:16 was brought in as mirror data due to the absence of tanks on the tank platforms situated near the South African flag. This had been noted during contextual profiling as a possible contradiction within the tools of the CWP activity system. Two empty tank stands i.e. two empty water storage facilities in light of the drought and water shortage concerns of the CWP activity system were noted by the formative interventionist researcher in this image. We did not discuss this matter of concern as anticipated. The image of the school solicited discussion on many matters of concern that were social, educational, health and safety related matters of concern for the object of sustainable development. These matters of concern were not questioned and determined to be contradictions however, solutions were suggested.

The first matter of concern was the state of the school: it is unappealing and needs maintenance. The first example mentioned was the school fence. The possible contradiction raised was between the tool (fence) of the CWP activity system and the outcome of theft prevention, which is an outcome of the CWP activity system.

#90 Odwa Booi: ... a better fence than the one we have here. When we hear the history of the fence it was fences from our grandfathers, for example Tamza will bring one [roll of fencing that will span] from that side to that side, it's not from government. Even the building, government built one block and the rest was through the community and its funding. The school is not safe, we're lucky to not hear that something happened to a child or that there has been a break in.

Many changes are needed to improve the school's infrastructure; there should be a caretaker and construction practitioners/experts (such as bricklayers) are required.

As Siyakholwa facilitates trainings, I facilitated questioning around the training offered thinking that the trainings could facilitate equipping CWP employees for the issues raised. An interesting discussion on the CWP supervisor emerged, flagging a contradiction between the tool of supervisor and the outcome of trainings or rather youth development. Odwa Booi, a former CWP supervisor, explained the Siyakholwa training culture from his perspective. As we probed the issue, the discussion points shifted from suggesting that employees may receive knowledge and information more readily from external supervisors to concerns that the supervisor was discouraging and that possibly, as a consequence of old age, was unable to keep up with technology.

#180 Lungelo: She does share, it's just that she's discouraging. She says, "If you want to". It's discouraging, whereas you think, "this is my thing..."

#182 Lungelo: For example Ta Ace is the person who usually is working in building work. She will never say come there's training for this.....and I mean perhaps age also is an issue because these days they use laptops and things and maybe she gets left behind...She doesn't know those things.

More maintenance issues were raised and there were requests for additional classrooms, a school flag, a suggestion for strainers for the school tanks as a more consistent cleaning strategy (these are dirty and often cleaned by Siyakholwa employees), a drawing to beautify the school and a school logo. There was also discussion regarding the danger and health risks linked to the school toilets. It was noted there was a need for the school toilets to be locked and drained. Moreover, it was noted that teachers leave early.

We then discussed the image that follows in Figure 4.16 of the school water tanks.



Figure 4.16: *Lenye Primary School tanks (17 May 2017)*

The tank on the right side of this picture was not in use at the time of taking this picture. I noted a potential contradiction between the tools of the CWP activity system and the desired outcomes of vegetable production in their garden practice. It was not found to be a contradiction; rather solutions were suggested for the maintenance of the tanks for their continued use. It was suggested that the tanks should be locked and chained.

Mzwebongo of the Sidalukukhanya co-operative arrived as we were about to discuss the following Sidalukukhanya image in Figure 4.17.



Figure 4.17: *Sidalukukhanya mealie fields (30 January 2017)*

I had taken this image, as it appeared the sprinkler was watering the road. This I noted as a matter of concern as drought and water scarcity were challenges in the farming practices of the village. In the change laboratory workshops, this image resulted in much discussion. A contradiction between the rules set by the Department of Agriculture, Forests and Fisheries and the tool, which is agricultural practice, was identified within the broader sustainable development activity system as it affects all the farmers. This level two contradiction manifests as warthogs and monkeys eat and spoil the corn crop in the field. The Department

of Agriculture, Forests and Fisheries speaks against animal cruelty prohibiting farmers from killing warthogs and monkeys without providing an alternative solution to mitigate against the crop damage they cause. This causes a significant loss to the farmers and alternative solutions need to be discussed.

Additionally a contradiction within the rules of the sustainable development activity system was identified. This level one contradiction manifests through the presence of shorter maize in the field, which may be due to the absence of crop rotation and the growth of the previous season's maize or due to poor watering.

The last image we discussed was CWP related image (Figure 4.4 in section 4.1) reproduced as Figure 4.18 below.



Figure 4.18: CWP garden

I intended to use this picture in the change laboratory workshop to raise the issue of monocropping and chemical insecticides. I expected a contradiction between the desired tool of a chemical insecticide and the 'God's way' rules of the CWP activity system. I anticipated Siyakholwa using 'God's way' as a farming strategy and therefore no insecticides. The discussion revealed however that CWP employees do not use organic methods to get rid of garden pests or to reduce pest-induced spoil such as planting marigold and onions or intercropping etc., which were raised as a solution in the workshop.

We ended the workshop by agreeing on identifying a list of possible additional stakeholders to join forthcoming workshops. We agreed we would talk to those people and bring a list of names to the following workshop. One youth encouraged a diversity of stakeholders noting the diversity of issues raised in the workshop.

Finally, we closed the workshop. We repeated the exercise we had begun the meeting with and followed the activity by signing a commitment form, committing to our involvement in the change laboratory workshops and the expansive learning process.

4.3.3 Questioning Workshop 2

The youths that were present at Lenye Primary School on 11 August 2017 from shortly after 2pm for two hours were Fikiswa Magoloza, Nolusindiso Rala, Mzwebongo Booi, Nomazibulo Matshikiza and Odwa Booi (who joined during the change laboratory workshop). Additionally, a few young children were playing in the classroom while we held the change laboratory workshop. Athenkosi Tiso, Sisipho Makie, Odwa Matiwane, Lundi Matiwane and Lwando Matiwane were unable to make the change laboratory workshops due to life fluctuations listed in section 4.4.

We repeated the activity which we opened the first change laboratory workshop with (section 4.3.2) and then proceeded to discuss statements presented as mirror data for questioning.

The first matter of concern I presented was that the cabbage in the CWP programme rots and is used for compost and crop rotation due to the absence of Tamron. We first discussed the issue of the cabbage being used for compost and crop rotation. We could not determine whether this had been a once-off event or contradiction in the CWP activity system. The contradiction it poses is one between the tool of cabbage and the outcome of food for the community and income for the CWP employees. The garden is meant to be an additional source of income for the CWP employees. Due to spoilage, unsold goods and theft of tools, the proceeds of the garden have not produced any profits. In fact, instead of taking money home, CWP employees end up taking unsold vegetables home on credit intending to pay for them from their CWP income; unsold goods affect income available for the purchase of seeds and seedlings for the following planting season. The money that comes from produce is used to buy tools and seedlings for the garden so the garden does not usually make any profit. Lack of transparent communication concerning the proceeds was also mentioned. Additionally, it was discussed that good quality cabbage should be sold and used in the crèche and for old people while only the poor quality cabbage should be removed and placed on the compost heap.

#70 Mzwebongo: So if I'm hearing you correctly you're saying you choose the good ones and sell them and leave the rest for like three months while waiting for something else to be planted because now on the space there is nothing to plant. You

wait for other seeds, say beetroot, and only then will you be removing the remainder of the cabbage and I'm saying that practice is not right.

#73 Mzwebongo: Instead of waiting that long I wish immediately after choosing those that will be sold, they should take out the rest that are not in good condition for sale and give it to people. Alternatively, take it out and use it then for the compost but be using the available soil to plant. Rather than letting it rot in the soil, let it rot while it's already out of the soil.

We could not pin down this practice as a contradiction or a once-off occurrence as Fikiswa was unfamiliar with ways of working in the garden. She had worked as an assistant teacher and had little experience with the garden. We found we were mostly questioning with few answers. We resolved that since a new steering committee had recently been appointed to commence functionality in September, answers would become known following the committee's commencement. Mzwebongo Booi was on the new elected steering committee and would be able to shed light in subsequent workshops.

The next matter of concern raised was that I had noticed watering during the day, as opposed to in the morning or in the late afternoon. Mzwebongo Booi shared knowledge on watering practices and advised that watering be ideally done in the cool of the day when the pores of the plants are open and when there is little evaporation.

The next statement we reflected upon was "Youth would like to be trained in handy work". This I had noted as a possible contradiction between the outcome (skills development), as well as the tools (supervisor) and rules (training) of the CWP activity system. This contradiction manifests as an issue around CWP training that was raised in the planning workshop as well. The supervisor's role in ensuring relevant and desired training was raised. The contradiction manifests essentially as concerns and questions around the supervisor's role or responsibility in facilitating communication in general and for training and an incongruence in training as well as ineffective supervision. Competency evaluation was suggested as a solution as it was noted that one of the reasons people desire training is the proof or qualification it provides of competency, i.e. some youths do not desire the training as such but the qualification as they may already possess the skill.

The next matter of concern discussed briefly was “some said there was a document and others said there wasn’t”. Employees mentioned the employee contract as the only document in the activity system whereas the supervisor had denoted a garden dictating document. One employee noted that the spacing requirements slow down work, as they have to be confirmed with the supervisor. I noted this as a possible contradiction between the tools and the division of labour of the CWP and brought it into the change laboratory workshops. However, the only member of the CWP that was present, Fikiswa, explained that the contradiction manifests in the following way. There are different working groups and they do not have equal knowledge or understanding of the work. Furthermore, she suggested communication could be strengthened perhaps through notices and uniform communication. I noted communication as a recurring matter of concern in a number of scenarios in the CWP.

The next statement presented as mirror data was “the rain and cows ruin the garden”. The statement was intended to question whether there was a contradiction between the tool in all the activity systems (rain) that contradicts with the tool (working in the garden) of the CWP activity system; at times rain ruins the garden when flooding damages the vegetables and other times drought is the concern. I noted that rain, an essential tool, presented a possible contradiction. Rain is often absent, presenting a possible internal contradiction for all the activity systems although not mentioned in others. Additionally the discussion around what damages or interferes with the success of the garden led to corroborating that theft and livestock ruin the garden. The contradiction was between the tool of the sustainable development activity system (livestock) and the tool (working in the garden) of the CWP. What followed was an interesting conversation concerning some values/rules in the village that may or may not exist regarding conflict/crime that may contradict the object of sustainable development, as incidents of theft are allegedly not reported to avoid conflict. The issue of theft seemed to present a contradiction between the outcomes of the CWP activity system and the rules (unspoken but lived or practised) of the village i.e. the community of the CWP.

The next matter of concern I presented was “using a slasher in a dense forest is dangerous to use as they are blunt and cause injuries given that the field being cleaned is very dense”. This I listed as a potential contradiction within the tools (slashers and field cleaning) of the CWP activity system. Lungelo who had raised this challenge was absent while Fikiswa who was present disputed the matter, saying:

I don't use slashers so I don't know. (#204).

Perhaps we can get safety equipment but also be careful and cautious and take initiative where you can, not everything should be a challenge. What are you also doing about your safety? If it's loose or something try fixing it, what are you doing about your safety? We can be responsible for checking our equipment is in good condition. (#206)

I moved on to the next matter of concern without further querying the quality of the tools as I assumed we would not be able to engage fully on this matter in the absence of additional CWP employees.

The next statement I presented was "dams and graves and dips are not fenced". A discussion around the second level contradiction between the division of labour (supervisor) and the outcome of training emerged. The contradiction manifests as concerns and questions around the supervisor's role or responsibility in facilitating communication with Siyakholwa and manifests as further concerns with the supervisors 'age' impeding her being able to work at full capacity. Fikiswa who was absent from the first change laboratory workshop shared similar sentiments to those shared by Lungelo in the first change laboratory workshop (4.3.2) as she said:

...that is the top challenge we have. (#209).

Perhaps a good supervisor is someone with good listening skills who is young and fresh and will question and challenge or investigate things rather than to just accept what you're saying without engaging. (#211).

We then moved on to matters of concerns I had noted for Lenye Youth Group. The first was "division of labour unclear". The matter of concern had been noted not as a possible contradiction but a clarifying statement in order to, at the time of noting, urge for clarity on this element of the activity system. It was useful to bring into the change laboratory as the group was still taking shape. The discussion yielded the flagging of a possible contradiction between the subjects and the division of labour of the group.

As we discussed division of labour, we also discussed the statement or possible contradiction between the subjects and the rules. A contradiction between the rules and the subjects manifests as the subjects lack of commitment and perhaps the need for further questioning or

defining of the activity system or the activity systems subjects' motivation/ the activity systems rules.

#237Mzwebongo: In the plots we had decided on how to work but we didn't quite commit because others are working, others studying... we need to commit, because we can say something will go or should go this way but then we don't do that because we don't commit ourselves.

#238Live: With what he is saying, we had said those who aren't working need to go to the plot everyday but those who work can go to the plot over the weekend. So are we saying that's fine we just need to actually do it?

#240Fikiswa: And the non-working person agreed to work the whole week whilst others come on weekends?

#242Fikiswa: So you go to work at eight, and expect them to work during the week then Saturday comes and there's something happening at someone's house or you've been paid and then you go to town... not considering the person who was working all week?

#243Mzwebongo: Didn't we say whenever someone has failed to come through they should pay a fine? We do not commit to any of our decisions. The division of labour is theoretically sound; it is just difficult to follow through with.

This discussion was disrupted by a discussion on theft on the youth plots where an unspoken but possibly practised contradiction between the community of LYG and the rules of LYG and subsequently of the sustainable development activity system was re-expressed as discussed for the CWP activity system.

Following the end of our workshop after two hours, the group decided to go to the plots to discuss the matter on site.

4.3.4 Questioning Workshop 3

The third workshop was held on 8 September 2017 at Lenye Primary School from 3:20 pm for two hours.

Youths that were present at the third and final change laboratory were Odwa Booii, Lundi Matiwane, Mzwebongo Booii, Nomazibulo Matshikiza, Luzuko Xesi and Lwando Matiwane. Athenkosi Tiso, Sisipho Makie and Odwa Matiwane were unable to make the change laboratory workshops as noted in section 4.4. However, Luzuko Xesi and two additional young men who had expressed an interest in joining Lenye Youth Group and thus participated in the workshops.

In the third questioning workshop I presented statements. Key discussion outcomes are discussed below. The list was predominantly from Lenye Youth Group's identified matters of concern and broader sustainable development matters of concern.

The first statement we questioned was "Youth don't want to be entrepreneurs or self-employed, they would rather be employed" (CPI7, CPI12). This was affirmed as a level one contradiction within the subject. The contradiction manifests as many challenges faced by youths regarding employment/work in the village.

The discussion unfolded as follows to reveal these challenges:

The first reason Odwa gave for why youths do not want to be entrepreneurs or self-employed was that we do not seem to understand that it takes a long time to make money. This point was supported and further illustrated through an example in the village by Mzwebongo who said youths claim they don't want to join the Lenye Youth Group because of having to work in the field/ farming but will definitely go and work elsewhere for pay. Lwando proposed that youths are lazy, Mzwebongo espoused that youth are afraid of failure, not lazy, because if they are called to work for money they go and work.

Odwa added from his perspective that the system has taught us to aspire to other things but not to be entrepreneurs. That youths are taught to be and aspire to fill specific occupations based on what they see, for example police officers and doctors and had never learnt about or considered owning their own business.

Lwando repeated that youth are lazy and don't want to think, however he was rebutted by Mzwebongo who reported that youth lack knowledge and early experience or exposure to realise what they are capable of [and may truly aspire to] and that youth know themselves and their capabilities late in life. To support his argument, Mzwebongo gave a personal example,

adding that youths, even within family homes and within the community, are not encouraged and taught agriculture. Instead youths are sent to do specific tasks like closing the tap and therefore do not learn how to farm or how to self-govern within farming practice.

There isn't anyone encouraging even at home. For example, we farm here in the village but there are few people who encourage like "Here's some cabbage go ahead and plant and farm it". What they want is to say, "Hey go change the water I'll give you money to buy yourself a cold drink, I'll pay you". They don't teach you to know how to farm the cabbage, they just tell you to go change the water and for him he's done teaching you in that way. Or he'll say go and shovel once I'm done shovelling there isn't anything else that he'll show you but when he speaks he will say 'They don't want to do anything, they're not serious about anything.' (Mzwebongo#25)

In further contextualising and explaining this challenge, Lwando added that as youths we lack the resources and skills with which to conduct research. Resources and skills which were inaccessible, not taught and not learnt whilst young people were in school.

Another thing that's a problem is, when we were at school, you'd get an assignment and have to do your whole assignment based on what is in the [text] book because we don't have internet. That's another challenge that may cause us to be or appear lazy because some things are out of our reach. (Lwando#26)

Mzwebongo supported this statement noting that as youths we don't know about places that may assist us [to turn work into self-employment]/we don't have access to information/we don't know how and where to do research and our aspirations involve leaving and living the dream elsewhere where dreams are lived.

The next matter of concern reflected upon was "Youth don't want agriculture". I brought it into the change laboratory workshops as I had noted it as a possible contradiction between the tool of agriculture in the Lenye Youth Group and the subject. This second level contradiction manifests as youths lacking knowledge and understanding of the field. Youths reported that youths would want to be involved in agriculture if we were taught about it and saw the benefits. Furthermore, it was reported that some youths are boldly and greatly involved in agriculture due to the way they were raised and participate in the agricultural process at different times for different reasons. It was also reported that some youths are not interested because of the way they were introduced to it or because of the connotations associated with

it, some do not want to be dirty and some are ashamed of agriculture and look down upon it. Mzwebongo had this to say on the matter,

For example, I am his son. He just wants me to plant and change water. Then he will call me again when he wants me to spray. And all he does is to give me R20. He can't show me the practicality of sowing cabbage and tell me tricks of when to spray and all those things. People are paid for working in the fields but others do not even pay you when you plough for them (perhaps due to sharing the same household), and that tends to be discouraging, causing them to conclude that we do not want agriculture and we are not serious about anything. Little do they know I sometimes wished I had cabbage, but I can't afford to buy it with that R20 but I would have other needs, such as buying airtime because you can't do anything else with that money, you can't boost yourself with R20. Sometimes they mock us by saying, 'That is your cabbage', and we would know they're just saying it to get your attention. They do not motivate us enough, if they motivate us at all. (#31)

The next statement analysed was "Is the Lenye Youth Group committee the youth committee for the whole youth community?" A contradiction within the subject of the Lenye Youth Group was surfaced. The level one contradiction manifests as confusion as the initial plan was for it to be for the whole youth community of Lenye village. The intent was for the whole youth to be part of the co-operative but in different divisions; hence initially everyone voted and hence the way it was structured but over time the committee was re-elected and not everyone has joined the co-operative so it is now a committee for the [aspiring] co-operative currently known as Lenye Youth Group. Within the workshop, it was discussed that a new committee for the youth at large needs to be re-elected.

In this discussion emerged the concern about the poor attendance of female youths in meetings. We urged the few young females who attended to encourage others and suggested that we ask that the rule about meeting attendees and job recipients in the village being congruent be reinstated. Absence of employment opportunities at meetings was the main reason given by Nomazibulo who shared her perspective on female meeting attendance.

The next matter of concern reflected upon was "LYG do not hold meetings". This statement brought into question the presence of a contradiction between the subjects and the rules. The contradiction identified in the workshop was described as a contradiction within the subject,

which manifests as: LYG meetings no longer happen because we lack CPR- Commitment, Punctuality and Responsibility.

We have changed times and days for meetings often but it boils down to CPR ‘I think we have been changing times a lot, and days. The time we use now cannot be changed otherwise there will never be another time that is suitable to everyone. I think the reason is what I call “CPR” which stands for Commitment, Punctuality and Responsibility. (Mzwebongo #172)

The third and final change laboratory questioning workshop was the last one we had. We resolved that we would meet the following Wednesday at a youth meeting to group the various contradictions according to the categories that emerged such as education, health, etc. and decide which to tackle first and as such which stakeholders to call upon that Friday. Subsequent change laboratory workshops did not take place due to various disruptions discussed in section 4.4.

4.4 Disruptions in group cohesion of change laboratory and Lenye Youth Group due to planting season, life fluctuations/changes, conflict as well as change in leadership

Various life fluctuations disrupted the change laboratory workshops and the Lenye Youth Group.

4.4.1 Funerals and traditional events (village culture)

As mentioned in section 4.2, various funerals as well as various traditional events disrupted the change laboratory workshops as well as Lenye Youth Group activities (CPD27, QW1).

4.4.2 Ill health and alternative priorities/events

Additionally Lungelo, one of the CWP representatives was sick and hospitalised for a few weeks (CPD84). An active member in the Lenye Youth Group, Sisipho Makie moved to Cape Town to look after her aunt (CPD85). Odwa Matiwane and Lwando Matiwane had other commitments on the days they were not available.

4.4.3 Change in leadership

Change in leadership disrupted the Lenye Youth Group. The youth elected a committee (CPD16), however the committee was re-elected (CPD27) and re-elected (CPN/R37). The change in leadership was due to inactivity and lack of availability of the first committee as committee members (CPI7), such as the first elected Deputy Chairperson, left the village in pursuit of work opportunities. Youth leadership was also changed for compliance with South Africa's youth definitions according to government standards. With the definition of youth in South Africa being 14-35 years old, the chairperson of the group Mzwebongo Booi could no longer be chairperson of a youth co-operative due to him turning 36 in 2017 (CPD80); he thus became a mentor in the youth group (CPN/R37). These changes resulted in inconsistency of meetings for the group. During Mzwebongo's leadership in 2016 into 2017, the group met regularly. During the leadership of the chairperson succeeding him Odwa Booi, who had been the secretary of the group, the group did not meet as regularly. (CPN/R51).

4.4.4 Pursuit of employment

The pursuit of employment additionally disrupted Lenye Youth Group. Sonwabile Booi, who was the first elected Deputy Chairperson of the emergent youth group (CPD16), found employment soon after the project had started and opted to follow the employment opportunity presented to him, leaving the village (CPN/R37). Lundi Matiwane left the group to look for work in Port Elizabeth. Odwa Booi the current chairperson of the group, was offered employment and has since not been easily available to the group and the change laboratory workshops (CPN/R51). Furthermore through employment opportunities in the village when planting season started for the Sidalukukhanya Co-operative, some members of the group were employed in the co-operative and were not readily available for the change laboratory meetings or the Lenye Youth Group meetings due to temporary and permanent employment in the co-operative (CPN/R48).

The notion of youths looking for employment rather than work was first encountered in the youth meetings we held in which I introduced the project and negotiated working together as illustrated by these contextual profiling notes,

...questions probing to understand the nature of the employment opportunity/opportunities that I am proposing were raised. I repeatedly had to explain

that I am not proposing a project that has money to employ people, that I am not going to be employing anyone, and that I do not have money. What I am proposing and bringing to the table is myself, as a researcher and as a potential member of the youth group, and any knowledge and information that I may have or easily have access to (CPN/R1).

This view was further supported through interviews with community members young (CPI7) and old “youth are lazy they would rather be employed than work in the field” (CPI12) and corroborated again in the change laboratory workshops (QW3 as cited in section 4.3.4).

4.4.5 Conflict

Conflict disrupted cohesion in the group (CPD84, CPN/R28). Conflict between Sisipho Makie and Lundi Matiwane disrupted group cohesion with Lundi stepping down from the youth group to avoid conflict. The conflict was a consequence of a misunderstanding around the division of labour in the group and poor communication. Sisipho Makie, the group co-ordinator, was constantly attending meetings in Qoboqobo representing the group while others worked in the plots. It appeared as though Sisipho would go to town while other members worked hard in the field. It was discussed in a LYG meeting that attending meetings should be a rotated and shared responsibility (CPD30) however the conflict was only resolved much later through a conflict resolution meeting in July 2017 where we held a communication workshop (CPN/R28).

4.4.6 Miscommunication/misunderstanding

Miscommunication additionally disrupted change laboratory group cohesion. Athenkosi of the CWP lost his phone (CPD84) and was difficult to get hold of; he was in a different working group to the other two participants who would otherwise be able to effortlessly remind him. Interestingly on the 14 July 2017 the planned change laboratory workshop was disrupted on a day a community member had a traditional event. Due to miscommunication a youth meeting with Lenye Youth males who were attending the event and others who would be attending took place instead (CPN/R37). Mzwebongo of the change laboratory workshops invited the young men he was working with as he was under the impression that we were having a youth meeting. We ended up having a youth meeting with the men present. We reported on the progress of Lenye Youth Group and my research project. Two challenges

were raised and one was reflected upon in this youth meeting: 1) too low membership numbers, and 2) not harvesting the planted vegetables. There were seven youths listed in the project which is a small fraction of the youth population or anticipated or desired youth participation of 20 members suggested in the meeting (CPN/R37). The low membership numbers were discussed in the youth meeting to have been influenced by my suggesting the project focus on completely unemployed youths.

Luzuko: Perhaps we ought to consider the fact that it was said those that have jobs shouldn't participate

Live: I had asked that preference be given to those who do not have a job at all but it was my mistake to say that.

It was additionally stated that the age restriction inhibited the participation of older members who wanted to help (CPN/R37) i.e. the membership number was influenced by uncertainty or disagreement around who the subjects of the Lenye Youth Group activity system are or ought to be.

4.5 Identifying value in the expansive learning process

Despite the struggles reported above, there were various activities undertaken by the youth in our expansive learning process that demonstrated expansive co-learning towards the shared object. I discuss these around the social learning processes that emerged between, during and after the questioning workshops.

During the course of the research all the value creation cycles (see section 2.2.4) were repeatedly created except for reframing value. In the section below, I share and discuss some examples of the value created and the potential value yet to be created. The value created predominantly developed from the emerging agricultural practices of Lenye Youth Group members and through the pursuit of the erection of a bridge as the youth's community development outcome. The examples emerged within the context of different ways in which the youth did and may collectively organise and collaborate in order to maximise existing opportunities. The examples show the process and potential of expansive co-learning in the development of youths as value creators for sustainable development.

The data is organised into the following categories:

- 1) Before change laboratory questioning;
- 2) During change laboratory questioning;
- 3) Between change laboratory questioning; and
- 4) After change laboratory questioning workshops.

4.5.1 Before change laboratory questioning

The focus of this section is the period from 1 April 2016 (initial contextual profiling) to 5 May 2017 (first change laboratory workshop – not the actual planning workshop but activities on the day, prior to the workshop).

4.5.1.1 Immediate value and knowledge capital created for the formative interventionist researcher and Lenye Youth Group

Before we began with change laboratory workshops, I conducted semi-structured interviews and held youth meetings to negotiate and initiate the research project with young people as described in section 3.4.1. The interviews and meetings created immediate value and knowledge capital for the formative interventionist researcher and Lenye Youth Group. Casual conversations were also opportunities for immediate value creation and knowledge capital.

For example, as a formative interventionist researcher, I was able to identify youth aspirations or local youth ideas for sustainable development in our first meeting to negotiate working together in the research process (CPN/R1). Additionally, immediate value and knowledge capital was created for both researcher and youth in the Lenye Youth Focus Group Interview, an opportunity to discuss youth progress and the development of Lenye Youth Group.

...we discussed different ideas like chicken farming and I suggested the idea of farming. We can't get chickens now as we don't have the resources for chickens yet but we have the resources or can get the resources for planting... The other thing we had talked about is the Project name, we were gonna come up with a project name and we decided we should have three names... (Sisipho, CPI7)

Originally, the plan was to develop various interest groups but ultimately only an agricultural interest group was formed following the focus group discussion on 11 October 2016.

4.5.1.2 Knowledge capital for the formative interventionist researcher, applied value, realised value and knowledge capital for Lenye Youth Group, potential knowledge capital for the Lenye development community

Lenye youth created a WhatsApp group to communicate with each other. Knowledge capital on the use of WhatsApp groups as a research medium came from knowledge on the use of the Amanzi for Food project's Imvotho Bubomi Learning Network WhatsApp group, which is used for knowledge sharing. This was knowledge capital acquired by the formative interventionist researcher, which was used to inform practice and created applied value for Lenye youth (CPD84). The "Lenye Youth in Action" WhatsApp group is additionally potential knowledge capital for the formative interventionist researcher, LYG and development agents on youth capabilities/strengths.

4.5.1.3 Applied value, realised value and knowledge capital for Lenye Youth Group

Applied value was created for LYG as we began working in the garden mentioned by Sisipho in the focus group interview on 17 October 2016 as illustrated in Figure 4.10 in section 4.2.3. Following the suggestion made by a Lenye Youth Group member in the focus group discussions, a stamp was purchased (CPD18) and used to officiate a training request letter sent to Umthathi Training Project (CPD19) on 19 October 2016. This was a suggestion made by the formative interventionist researcher i.e. knowledge capital was created for Lenye Youth Group in the focus group discussion and then in the midst of Lenye Youth Group gardening activity, as the Umthathi Training suggestion emerged while we worked on the garden. The applied value, sending an Umthathi Training request letter (CPD19), then created realised value when Lenye Youth were able to participate in a training programme with Umthathi Training Project. The full two weeks of the programme were not completed as the training had to be postponed and was never commenced (CPD84).

Realised value for Lenye Youth Group was created with respect to youths being able to start their own agricultural practice. Below is an image of Lenye youth working on their plots.



Figure 4.19: Lenye Youth Group Meeting (7 March 2017)

On 7 March the youths had moved out of the backyard garden, into plots alongside other farmers in the village and planted a mixture of vegetables (see section 4.5.3.3). Youths began meeting to assess and manage the progress of their farming practice, focusing on irrigation management once all seeds were planted (I9). Following this realised value were meetings centred on their agricultural practice, immediate value opportunities for the youth prior to the change laboratory workshops.

Much knowledge capital was created for Lenye youth as we attended various meetings. We attended Youth in Agriculture for Rural Development (YARD) meetings where assistance in youth agricultural practice was offered. A project profile was one of the tasks requested of youths in the YARD programme (I10). We additionally attended a stakeholders meeting hosted by YARD at the Agricultural extension offices in Qoboqobo where various stakeholders communicated various youth assistance opportunities in the area (CPD32, CPD33) and an Imvotho Bubomi Learning Network (IBLN) meeting (Figure 4.20) where IBLN farmers meet to share knowledge on rainwater harvesting and conservation practices (CPN/R16).



Figure 4.20: Lenye Youth Group attending Imvotho Bubomi Learning Network meeting (30 March 2017)

4.5.1.4 Knowledge capital for the formative interventionist researcher and potential knowledge capital for other sustainable development stakeholders

Immediate value was created for the formative interventionist researcher who began attending village meetings as part of research and Lenye youth activity. In these village meetings, knowledge capital for the formative interventionist researcher and potential knowledge capital for other

community and rural development stakeholders was created. Knowledge to inform development agents on the community determined development needs (CPN/R9, CPN/R11).

4.5.1.5 Reframing value for Lenye Youth Group and potential realised value for the greater Lenye community and Lenye Youth Group

Immediately after one particular village meeting where sustainable development and agricultural development was discussed (CPN/R11), following a recent discussion between Sisipho Makie and a local farmer, Sisipho and I set off to Qoboqobo to conduct research for Lenye Youth as seen in Figure 4.9 in section 4.2.3. Potential realised value for two tasks was investigated, hollowing the dams required in the village, as well as Lenye youth's agricultural practice of cow rearing. There was immediate value in attendance of the village meeting which created knowledge capital and applied value as well as potential realised value in these unpursued ideas and suggestions.

Sisipho Makie had initiated the hollowing of much needed dams as Lenye Youth Group's development task; however, she then decided to tackle the bridge between Mkhubiso (Burnshill) and Lenye village, taking on community development as a self-determined full-time job (CPD85). At the very beginning for Sisipho Makie, the expansive learning process had created reframing value as she came to value community development as a self-determined full time job. This reframing value then created immediate value and knowledge capital as shown in this extract from research notes.

30 January 2017: [Sisipho Makie and I] met with construction [workers who were working in a neighbouring village, Rhabula,] got [their] numbers called for a [village] meeting to give feedback [on bridge pursuit] also went to SASSA [to enquire re their assistance or potential role in our developmental goals] budget will be out in April so request food parcels and uniform around then. (CPD84, CPN/R11)

Construction workers at the bridge directed us to Mr Mlandeli Tsengiwe for assistance. He gave us advice on how to tackle the bridge construction request and helped us draft the bridge request letter (CPD26, CPD31). Immediate value and applied value were created before the change laboratory workshops, as the youths were able to submit the bridge request letter to the public works department at the Departments of Public Works' Bhisho offices (I6).

4.5.2 During change laboratory questioning

The focus of this section is value creation within the change laboratory sessions, which took place from 5 May 2017 to 8 September 2017.

4.5.2.1 Applied value for the formative interventionist researcher

For the formative interventionist researcher, the knowledge capital created before the change laboratory workshops was used for mirror data production to determine matters of concern for the questioning action of the change laboratory workshops. The images and statements used in the change laboratory workshops, as discussed in section 4.3, were all applied value for the formative interventionist researcher as this was my first time working with data in this way and it informed my change laboratory practice.

4.5.2.2 Knowledge capital and potential applied value for Lenye youth and Lenye community at large and Lenye development stakeholders

The change laboratory sessions were analysed initially with the following analytical coding for efficiently facilitating and following the learning actions in the change laboratory workshops. In each change laboratory workshop, various change laboratory actions were observed.

Questioning Historical analysis Actual-Empirical analysis Modelling systemic causes of problems Modelling the new solutions Stakeholders

From the questioning learning action up to the modelling of new solutions learning action, the change laboratory sessions produced knowledge capital. The change laboratory workshops produced knowledge capital and potential applied value for Lenye youth, the Lenye community at large and Lenye development stakeholders. Matters of concern and contradictions discussed are potential sustainable development or youth development initiatives. The parts of the change laboratory sessions that involved historical analysis may be used as potential knowledge capital for documenting the history of Lenye or Lenye development (see Appendix D: Example of transcript with learning action and value creation coding). In other words, the development objectives mentioned by participants in section 4.3.1 as well as all the rich discussions by Lenye Youth change laboratory participants discussed in sections 4.3.2 - 4.3.4, were knowledge capital for development needs that may inform the development practice of Lenye development community.

Moreover, the contradictions discussed in section 4.3 can be seen as knowledge capital for Lenye Youth Group reconceptualising work, for identifying potential future problems in their activity. As well as knowledge capital/potential value knowledge of possible solutions to current problems, there was knowledge capital, potential applied value in the form of a community development initiative knowledge capital for the researcher to identify some key development stakeholders with and within the youth participants.

4.5.2.3 Immediate value and potential realised value for all change laboratory participants

Additionally, the change laboratory workshops were immediate value opportunities for Lenye Youth and change laboratory workshop participants. Change laboratory representatives from different activity systems were able to learn more about the activity systems in which they are part of the community (as opposed to subjects of) and had the opportunity to learn from each other regarding their respective practices. For example, in this particular workshop Sisipho gave feedback on Lenye Youth Group progress as well as of youth opportunities that had been discovered:

Nomazibulo Matshikiza, Sisipho Makie, Odwa Booi, Mandilive Matiwane, bhut' Mzwebongo, Nolusindiso Rala, Lundi Matiwane so 7 people. We had a meeting in Qoboqobo, the YARD meeting we went to. There were many interesting things there, the first being a YARD programme where all Qoboqobo youth participate in an activity. For example, last week they had a drug abuse event hosted by the Qoboqobo police in Elukhanyweni we thought the NYDA training of five days was worth following up on. For them to do the training they require 30-50 people to participate, there are about six of us at the moment, we need more people who want to do the training, we'll all get a certificate and the co-op people can get funding of about 50 000. In the YARD meetings, everyone has the platform to speak. So yeah the NYDA opportunity is a great one, you could have something to write on our CVs. We meet every first Tuesday of the month, next week there is a meeting Monday to Wednesday in Qoboqobo, crop and livestock farmers are welcome. In the NYDA programme any activities one would like to do are fundable.... (#109PWNRT)

What Sisipho shared was also potential realised value. According to Wenger et al. (2011), completing assignments or courses is an indicator of realised value.

4.5.3 Between change laboratory questioning

In this section, the focus is on the social/co-learning activities that took place between 5 May to 8 September 2017, outside the change laboratory sessions.

4.5.3.1 Immediate value, knowledge capital, applied value, realised value and reframing value for Lenye Youth Group

On 5 May 2017 after the planning workshop, we held a Lenye Youth Group meeting in which we discussed some preliminary ideas for a nursery. It was with these ideas that we submitted an application to the Imvelisi ideation programme (CPD36).

We applied to attend Imveisi's Ideation bootcamp and Activate Change Drivers, as well as the AFASAYS. Applied value was produced as a consequence of knowledge capital on these youth development opportunities. Between change laboratory workshops, we were able to attend a Food for Us meeting, represented by myself, this meeting introduced youths to a new marketing and selling pathway for farmers which is potential applied value for youths and Lenye village at large (CPD56). We were additionally able to attend permaculture training through Ntinga represented by Odwa, Activate Change Drivers represented by myself, the AFASAYS represented by Sisipho (CPD84) and the Imvelisi bootcamp represented by myself, i.e. realised value was created through the expansive learning process.

The Imvelisi boot camp, AFASAYS, Activate and Ntinga trainings were activities that led to knowledge capital in the form of the notes we compiled (CPD48). They also led to knowledge capital in the form of the documents/tools identified and produced in the programmes such as a draft business plan (CPD57) and increased social connections. For example, through Imvelisi (an enviropreneur incubator with an ideation bootcamp and mentoring programme), the nursery idea and need in the village of a rain water harvesting and conservation vegetable nursery (Figure 4.21) which has the full backing and support of the local farmers forum was refined producing reframing value for LYG. The current form of the idea is knowledge capital for informing LYG's desired rainwater harvesting nursery, which is potential realised value.

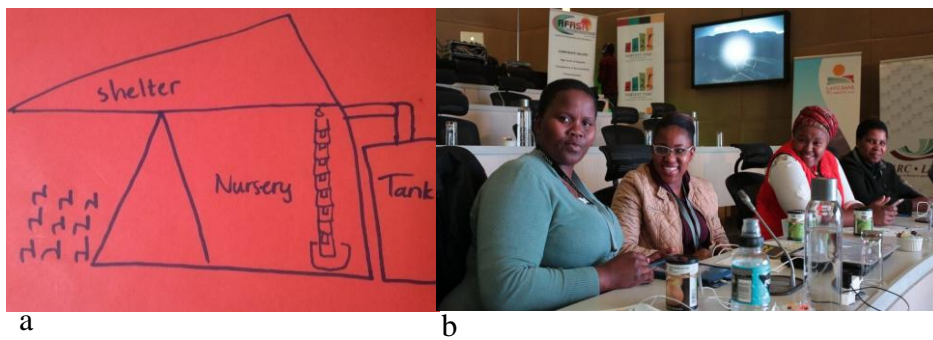


Figure 4.21: *Lenye Youth Group attending development programmes a) Lenye Youth Group nursery vision for a Rainwater harvesting and conservation learning nursery designed at Imvelisis (9 June 2017) b) Lenye Youth Group member at AFASAYS (14 – 15 August 2017) (image taken from AFASA Youth, 2017, p. 18)*

4.5.3.2 Immediate value, knowledge capital, potential applied, potential realised value for Lenye Youth Group

Immediate value and knowledge capital from the meetings attended by the youth is now potential applied and potential realised value in the form of plans and ideas left unpursued. One example is the Mr and Ms Lenye event planned by Lenye youth (I21). As a fundraising initiative for Lenye Youth activities, a Mr and Ms Lenye event was planned during a Lenye youth meeting following the accidental youth meeting that took place on 14 July 2017. The meeting took place at Lenye Primary School. A young artist drew a draft poster for the Lenye youth event (I27). Connections made at the disaster management forum meeting and other bridge request attempts were suggested as potential judges and speakers for the event to motivate youth on crime prevention and other youth activities (CPN/R81). The event is still in its planning stages due to above-mentioned disruptions (section 4.4).

4.5.3.3 Immediate value, knowledge capital, realised value and potential reframing value for Lenye Youth Group and Lenye youth at large



Figure 4.22: *Lenye Youth Group reflecting on progress made in the plot and pulling together a plan of action (14 July 2017)*

Realised value was created for Lenye Youth Group, as we were able to harvest produce in our farming practice (see Figure 4.22). In terms of immediate value created, when we held a meeting on the plots to follow up on our farming practice, we found we had successfully grown butternut and potatoes with minimal watering and organic fertiliser. We had planted two beds of cabbage, two beds of beetroot, 10m single lines of pumpkin and two beds of mixed seeds (CPD26). The minimal watering was due to disruptions in group cohesion and thus group work. Organic fertiliser was used due to lack of finances for commercial fertiliser(s) and due to knowledge of and access to organic fertiliser. Unfortunately, beetroot, the mixed seeds and cabbage, did not survive (CPN/R37). Odwa sold cabbage seedlings due to our not being able to transplant them. Unfortunately, the successfully grown butternut was mostly rotten by the time we organised each other to collectively check on the harvest and it was suggested we use the spoilt butternut for compost or sell them as feed to livestock farmers in the village (CPD84). Our first attempt at farming practice as a youth collective yielded knowledge capital for future farming attempts as well as potential reframing value for youth farming practice with the participating group as a case study or example for other aspiring and yet to aspire youth farmers. Furthermore, this attempt presented potential reframing value for Lenye community members who hold the view “youth are not interested in agriculture”.

The immediate value and knowledge capital for Lenye youth in general from Lenye Youth Group was illustrated at a Lenye youth meeting on 14 July as we reflected on Lenye Youth Group’s progress (section 4.4.6). A Lenye youth who had yet to join the group commented: “we should keep in mind that FAIL stands for First Attempt In Learning...” (CPN/R37).

4.5.4 After change laboratory questioning workshops

The focus of this section will be social and co-learning activities that took place after the change laboratory workshops i.e., from 8 September 2017 to 30 August 2019.

4.5.4.1 Re-defining success value for the formative interventionist researcher

My initial dream or plan [for sustainable rural development before conducting this research] was to pull together a “team of experts” with whom to work with for sustainable rural development. When I started the research I sought to understand how my team of experts and I could work with young people for sustainable rural development. However I have since reflected and think the experts can be found within the context (CPN/R82) and supported and enabled to conduct research for local development. This is schematically outlined in my

Activate Module 2 Notebook where the experts would be the youths of that community (CPT11, CPD60). An activity in the second module of the Activate programme was the use of your skill-set and your passion for activating change. In my Activate Workbook I began to outline a PhD thesis in which I could work with youths as researchers in various parts of the research process as co-producers of the thesis (Appendix K: Skeletal draft of a potential PhD thesis extracted from Activate Workbook).

4.5.4.2 Realised value for Lenye Youth Group and potential realised value for Lenye youth

According to Wenger et al. (2011), one of the indicators of realised value is when the reputation of a network or community results in that network or community is known and the group is called upon. Realised value was created for Lenye Youth Group as our ward councillor via cell phone communication (CPD84, CPN/R78) invited us to IDP forums as our reputation as development agents was established.

Potential realised value for Lenye youth may still be created. In the RWL conference I attended (6-8 December 2017) I learnt about recognition of prior learning through topics such as “Recognition of Prior Learning (RPL): Transgressing boundaries between formal and Informal learning: An epistemological case study” presented by Frederika De Graaff (CPD70). Work acquired skills and workbased learning can be documented and accounted for via qualifications or work promotions through compiling a work portfolio (CPN/R66).

4.5.4.3 Immediate value, knowledge capital and realised value created for Lenye Youth Group, potential knowledge value for Lenye community at large

A last example of immediate value, knowledge capital and realised value created for Lenye Youth Group lies in the youth participation in the Amanzi for Food led Training of Trainers course. From 3 November 2017, Sisipho Makie participated in the Training of Trainers (ToT) course (CPD67, CPD68), a rainwater harvesting and conservation (RWH&C) knowledge sharing course funded by the Water Research Commission and co-ordinated by the Amanzi for Food project based at Rhodes University. Realised value was created for Lenye Youth Group as Sisipho Makie completed the ToT course, finalised assignments (CPD37, CPD86) and graduated with fellow participants on 11 October 2018.

4.5.4.4 Realised value for LYG and Lenye village at large and the greater Lenye development community

Finally, the bridge initiative led by Sisipho Makie was ultimately a success story for Sisipho Makie, Lenye Youth Group, the village as a whole and the greater Lenye development community including the Department of Public Works, the Community Development Worker under CoGTA and their development partners in the initiative.

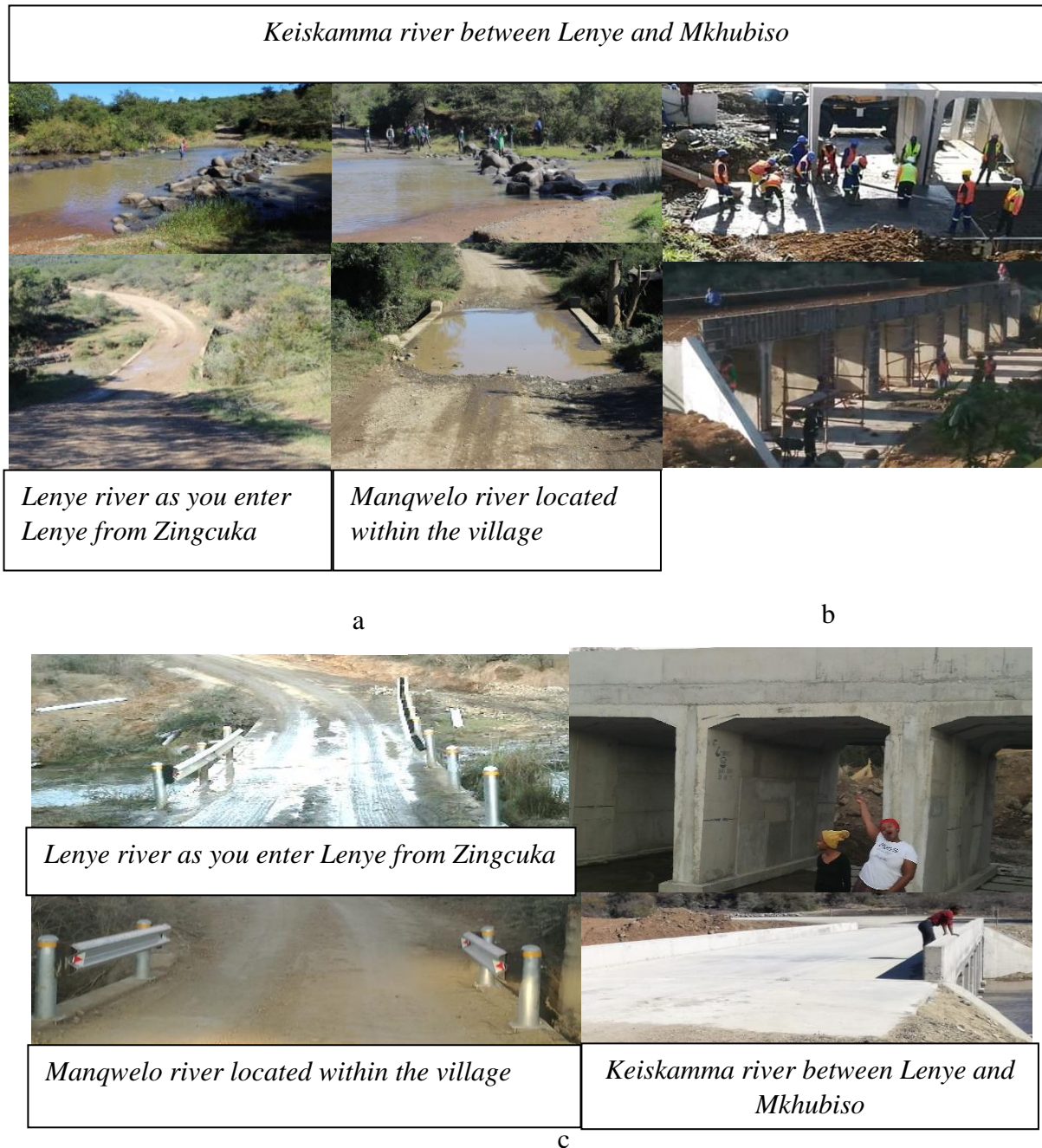


Figure 4.23: Photographs of the construction developments a) before (5 May 2017) b) during (April 2019) and c) after the bridge construction (23 July 2019), construction was not complete at this time

4.6 Conclusion

In this chapter I have presented my data, reported my findings in the expansive learning process, sharing value creation opportunities and challenges that occurred in the expansive learning process within the activity systems participating in the change laboratory workshops. In the following chapter, I discuss these findings as they relate to research questions of the study and make recommendations.

Chapter 5: Value Creation in Zones of Emerging Development

5.1 Introduction

In this chapter, I discuss my findings and make some recommendations for the youth and their partners and potential partners in youth, agricultural and community development. I outline the findings in this way as youth mediated the object of sustainable development (the sustainable activity system) and the object of the sustainable development activity system (gainful activity) through the youth development, agricultural development and community development practice. Due to the scope and context of this research, the recommendations are concrete ones that the youth may be able to follow up on with immediate effect. The recommendations touch on issues and stakeholders that are more broadly involved in the activity systems and in youth development and could be investigated as a model for rural youth development /rural development/rural youth research for post-school youths. I also summarise the findings of the study (Figure 5.1) and reflect on these in relation to the research questions.

The research questions are:

Can, and if so how can, expansive learning facilitated by a change laboratory intervention contribute to the development of youth as potential value creators for rural development?

Through the sub-questions:

- 1) What value is created at each point of the expansive learning process of the change laboratory process and for who?
- 2) What value can still be created at each point of the expansive learning process of the change laboratory?
- 3) How is that value created via an expansive learning process?

In section 4.5, I answered the first two sub-questions. In Chapter Five, the focus of discussion is on how the value was created and may still be created via an expansive learning process.

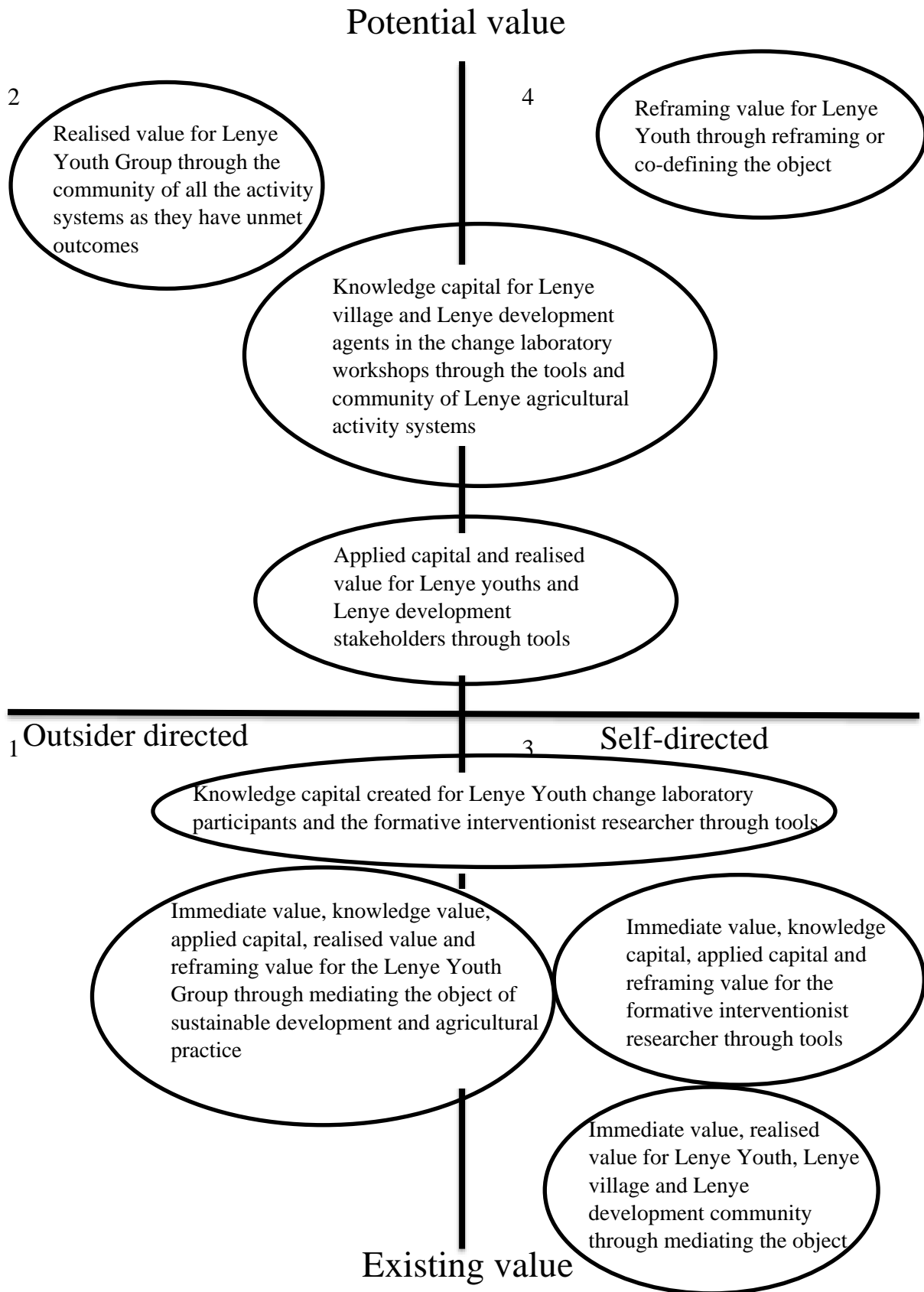


Figure 5.1: Summary of value creation and expansive learning which presents a Zone of Proximal development (Vygotsky, 1978) for youth's sustainable development and learning

5.2 Potential reframing value for reconceptualising employment with youth in Lenye village

In this section, I discuss the potential reframing value for reconceptualising work with youth in Lenye village. I discuss Lenye youth notions of work and employment and some of the challenges and opportunities faced by Lenye youth in working and being employed. This relates to the research question in that it considers the development and orientation of youths as value creators for sustainable development. If youths are to be value creators for sustainable development, then we need to ‘sow’ the value creation activities and be supported in sowing the value creation activities that lead to sustainable development. This section discusses the challenges and manifestations of youths as value creators that relate to youth development and youth employment in Lenye village.

5.2.1 Potential reframing value for Lenye youth through mediating a contradiction within the subject

My research has shown that some Lenye youth would rather be employed than be self-employed (section 4.3 and 4.4.4). Potential value/knowledge capital on the insights and notions of work and employment within a rural youth community was created, that now informs the need for reframing value and redefining success.

According to Wenger et al. (2011), this last cycle of value creation is achieved when social learning causes a reconsideration of the learning imperatives and the criteria by which success is defined. This includes reframing strategies, goals, as well as values. The expansive learning process created the opportunity to collaboratively define/redefine and frame/reframe success as work and not employment for not only my research project but future projects or initiatives that may precipitate in or come to the village. Such an engagement, as early as the negotiating stage of the change laboratory process, could facilitate the shift from the change intervention mind frame to a formative intervention mind frame (section 1.3).

5.2.2 Potential for formative interventionist researchers to create reframing value for youths through co-defining the object

As a formative interventionist researcher and sustainable development agent, expansive learning provided an opportunity to redefine/reframe success in the negotiation of the project (section 4.4.) in a collaborative manner (Virkkunen & Newnham, 2013). A recommendation I

will take forward in this learning is to, in coming engagements as an agent for youth development and sustainable development, engage fellow youths on these notions more actively so as to open up the zone of proximal development (2.8) created by these differing views, and chart a clearer agreement in terms of a way forward (see section 5.4).

Employment is formalised work, work that has been formalised often by someone other than yourself and is rewarded through monetary value. This is a classical level one contradiction (section 2) with roots in the Marxist dialectic of use value (work for oneself) versus exchange value (work in formalised employment) (Marx, 1976).

5.2.3 Lenye youth created realised value for sustainable development through mediating the object after reframing value was created for Lenye Youth Group

Although some youths struggled to equate work and employment, some youths challenged that contradiction not only through discussion (4.3.4) but also through action (4.5). Sisipho Makie, the youth coordinator, recognised the classical Marxist contradiction and left her salon job to commit to the project full time (CPD85), reconceptualising work for herself. Sisipho's example and the emergence of Lenye Youth Group illustrates that negotiating an undertaking of the expansive learning cycle or negotiating for change laboratories can produce immediate value and applied value for community development (section 4.5). Additionally, it indicates that the negotiation and contextual profiling engagement may also lead to realised value for community development and youth employment as the bridge is being constructed, and Lenye youth are employed in the construction process (CPN/R72 and section 4.5). The construction of the bridge between Mkhubiso and Lenye village (CPN/R11) is the actualisation of Sisipho Makie's transformational agency (section 4.5).

5.2.4 Lenye youth creating potential reframing value for sustainable development through intending to mediate the object, through thorough engagement of the sustainable development community

Furthermore, Mzwebongo and Andile approached me with the idea of starting an organisation that would be devoted to addressing the development needs of the community (CPD34); however, the idea has yet to take off. This is arguably due to the challenges and possible contradictions between the youth and their community listed by Mzwebongo and Lwando in the change laboratory workshops, namely that youth lack the resources and research means with which to become entrepreneurs or self-employed in any form (section

4.3). This, post change laboratory workshops, I note as a possible interesting manifestation of a contradiction between the subjects of Lenye youth and their community, community in this case being the Department of Basic Education and various youth development, youth entrepreneurship and youth assistance based institutions listed and unlisted in the contextual profiling of the Lenye activity systems. It is interesting with respect to the role of education in developing the youth as value creators with agency or as bank deposits or employees (section 2.4.1, 2.7) and the role of Ntinga Ntaba kaNdoda in the Lenye Youth and Lenye Sustainable Development activity systems. Ntinga Ntaba kaNdoda may assist Andile and Mzwebongo, however the idea of a Lenye development structure would need to be further explored as Ntinga Ntaba kaNdoda forms part of the community and division of labour of the Sustainable Development activity system that is the emerging shared object of the Youth activity systems analysed and already holds that mandate (section 4.2). The need to establish an additional organisation needs to be brought in as mirror data in upcoming change laboratory workshops with Ntinga representatives. It may be a manifestation of a contradiction or a proposed model solution. The researcher, through this interaction, was seen as a tool for acquiring knowledge capital with which to, in turn, convert to applied value and ultimately realised value in the form of establishing a new development structure in the organisation or in the village.

5.2.5 Potential realised value for Lenye youths through mediating the desired outcome of employment

Potential realised value for Lenye youths may lie in youth pursuing accreditation or recognition for their skill set for self-employment or increased employability. Through pursuing recognition of prior learning pathways (4.5.4.2), Lenye youths may find a means to address the desire for training for acquiring qualifications or certification for skills they already possess (4.3.3) and which could be further developed.

In working with youths in such a context, if the youth orientations could be to look for work rather than employment, particularly in spaces that do not have a plethora of employment opportunities, i.e. rural areas, small towns, less developed areas, then youths could find work to supply their needs as individual youths and the need for growth and development in their communities. The contradiction that seems to arise between notions of work and employment

has the potential to become a rich space for generative solutions within a formative intervention research tradition.

5.3 Potential reframing value for Lenye youth through reconceptualising agriculture

In this section, I discuss the potential value/knowledge capital reported in the context of my study concerning some of the challenges, barriers, and opportunities that youths face in participating in the agriculture sector. Additionally I discuss the absences in the activity systems of Lenye village that constrain youth activity in the agriculture sector. Much knowledge capital was found in the questioning change laboratory workshop concerning youth perspectives on agricultural opportunities. This means that applied value may be explored and will be discussed. Furthermore, I will discuss the potential for reframing success in the form of reframing agriculture as success, as well as reframing success within the current agricultural practice of the village.

5.3.1 Lenye youth community creating knowledge capital for youth to fully mediate the object of agriculture

It is commonly believed that the youth do not want to participate in agriculture (see Chapter Two) and this was equally true in rural Eastern Cape's Lenye village.

As argued in section 2.4.5, some youths are interested in agriculture (section 4.3). What emerged in discussions and was noted in section 2.4.5 was the need for reconceptualising both agriculture and the way we work together with or as young people in agriculture.

In tackling the challenges faced by youth participating in agriculture and in entrepreneurship, as we reconceptualise the relationship between youth and agriculture, we can make connections between some of the programmes and opportunities that use language that helps us describe and understand agriculture in different ways. In the State of the Nation address, the President spoke of black industrialist programmes as a tool for re-industrialisation and developing 'women producers' and of a keen interest in investment in township and rural businesses (South Africa.TP, 2018). Every farmer, in addition to being a producer, is essentially an entrepreneur/business person; food producer/ entrepreneur/ businesswoman/ businessman may be more appealing titles than farmer. With the Presidency's mandate and

belief in the essential role of small business in the growth of the economy of the country (South Africa.TP, 2018), there is much hope for rural youth with such aspirations and rural youths that are yet to develop such aspirations. Another example is the LIMA-MALI slogan from Ntinga Ntaba kaNdodas agro ecology team (QW3) which notes how closely related agriculture and money are in the isiXhosa language and hopes to transform the attitude or understanding towards agriculture as a business and livelihood. *Lima* means ‘plant’ and *mali* means ‘money’.

The content of the knowledge capital may be around farming practices but may not be limited to farming practice since not all young people want to be hard labourers and some enjoy different parts of the agricultural process. Fortunately, the opportunities potentially at their disposal are not limited to agriculture in the traditional sense (farming); hence, there is no need for the distancing of some youths from agriculture (QW3). Agriculture is not limited to the ‘dirty work’. Many different skills/talents/interests may be utilised in the sector or the agricultural value chain. Developing a value chain capacity building programme or exposing youths to various levels or spaces in the agricultural value chain, as done by FANRPAN in their Limpopo Basin Development Challenge, may be beneficial for agricultural development in Lenye village (FANRPAN, 2011). South Africa is one of the SADC countries listed as participants in the Harmonised Seed Security Project (HaSSP) by FANRPAN (2012). In light of this project, youths in Lenye have the opportunity to sovereignly run a nursery and seed haven in Lenye village and neighbouring villages. The current revision of seed legislation is threatening this opportunity in South Africa and potentially for Lenye Youth Group. However, with increasing/ heightened seed activism and seed freedom (section 2.4.3), the potential and opportunity for a nursery and seed haven may continue.

Additionally, the use of innovative ideas such as mobile trucks may be worth exploring. MASDT, a training organisation in Mpumalanga Province, is currently making use of the mobile truck innovation whereby they travel to a training site in their truck and share agricultural knowledge and understanding in the truck (MASDT, 2019). The mobile truck idea may be taken up by Ntinga Ntaba kaNdoda as part of the Ntingani Lootsha programme and solidarity economy programme. The CBO could facilitate on-site training and information days along with the multiple stakeholders that can support youth in reconceptualising work and agriculture. Villages in close proximity may be clustered for training in a central village. Mobile trucks may be an effective way of educating and

conscientising young people about the agricultural sector. Curricula may be sourced through partnership with various stakeholders hosted in the mobile truck. This may be a useful model for rural development information dissemination.

5.3.2 Lenye Youth Group subjects further defining division of labour to demonstrate reframing value for Sustainable Development youth subjects

Through an effective division of labour in the Lenye Youth Group and the Sustainable Development activity system some youths may be tasked with administrative duties. Nursery occupations range from supervisor to business manager with marketing and sales opportunities as well. These occupations involve administrative roles which some youth may more readily take up as ‘clean work’ in Lenye village’s agricultural practice. Furthermore, as the youth reconceptualise work and identify farming as work, through outlining the division of labour in the Lenye Youth Group activity system in detail, activities and practices such as assessment and planning (illustrated in 4.5.3.3) and irrigation management (mentioned in 4.5.1.3) may be intentionally noted as applied value in order to produce realised value. This can ultimately enable reframing value in the form of redefining success for youths.

Additional administrative duties explored include participating in research opportunities through attending Imvotho Bubomi Learning Network and other network meetings and participating in research tasks that are guided by the networks (4.5.1.3). The context is already rich with research opportunities/potential value/knowledge capital that have been identified by the youths as a challenge: “lacking research skills and resources” (section 4.3.4).

5.3.3 Lenye Youth Group subjects mediating tools and their community to create applied value

The manner in which youth in rural areas may learn to do research, a challenge raised in the change laboratory workshops as reported in section 4.3.4, is more practical on the job and a consequence of need rather than education output. Learning to do research is possible and may not necessarily require monetary assistance. The Imvotho Bubomi Learning Network Meeting was attended by members of the Lenye Youth Group (4.5.1) as an outcome of applied value in the form of social capital from the formative interventionist researcher, alternatively understood as a synergistic relationship between the subject and the community of the sustainable development activity system or subject and community of the Lenye Youth

Group activity system. Mzwebongo and Sisipho who attended, were assisted by a willing and supportive member of the community who drove them to the meeting. We may also recognise this as a means to learn how to, as well as a manner in which to do research. This addresses how youths may reconceptualise work, while tackling a core reason for the maintenance of the internal subject contradiction of exchange value vs use value i.e. monetary needs.

5.4 Reframing value and potential realised value as Lenye youth reconceptualise community development in reconceptualising work

In this section, I discuss how youths in Lenye have reconceptualised and may further reconceptualise work through reconceptualising community development for rural development as work. I discuss Sisipho Makie's case of reframed and realised value and note Andile Makie and Mzwebongo Booi's case of potential applied and potential realised value.

As illustrated in section 4.5, Lenye youths created value for their village through their community development practice as they conducted and participated in conducting research.

5.4.1 Lenye youth create value as they create, identify and mediate their tools

One of the barriers to agricultural and economic growth and ultimately sustainable development in many rural areas and in the Eastern Cape, Qoboqobo specifically, is mobility (CPD30, section 2.5).

LYG's Sisipho Makie's case of reframed value that led to immediate value, knowledge capital, applied value and ultimately realised value (section 4.5) illustrated how challenging the internal contradiction within the subject can create reframing value and lead to creating, identifying and mediating tools to create value for sustainable development in Lenye. Youths may add attending relevant municipal meetings to their tools and rules for mediating the object of sustainable development. The minutes of the 1 July Disaster Management meeting and the contents of the meeting and social capital acquired illustrated the immediate value and knowledge capital value that may be acquired as a continued spin-off of the change laboratory negotiations (4.5.3.2). Lastly, the discussion with a government official at the disaster management forum yielded not only knowledge capital but also applied value in the form of the planning of the Mr and Ms Lenye event (section 4.5.3). We were encouraged to

participate in such youth activities and to get in touch with a municipal officer through whom the Lenye Youth and Sustainable Development community was expanded to include a member of the Amathole District Municipality Community Services department. He also encouraged the use of the municipality's youth budget and remarked on the absence of youth from our region in youth activities such as Mr and Ms Amahlathi. This illustrates an absence/absences in the Sustainable Development as well as the Lenye Youth Group activity systems (the municipality and its resources did not come up in contextual profiling interviews, not in the tools nor in the community of either activity systems). In fact, a number of organisations were 'stumbled across' in the contextual profiling and during the change laboratory process i.e. between initiating the process and facilitating the last questioning workshop. Additionally this encounter illustrated potential realised value and potential reframing value for the development of youths in Lenye and in rural areas in general. Moreover, it supports or substantiates the Mr and Ms Lenye plan, which I recommend we follow up on and enact as applied value by working with the above-mentioned tools and community shared with us by the municipal officer. I also recommend following up more broadly on how the Amathole District Municipality may relate to Lenye youth as a tool in the Lenye Youth Group and Sustainable Development activity systems.

5.5 Knowledge capital and potential applied and realised value as youths strengthen relationships with their community and tools

In this section, I discuss how youths may create desired immediate value between youth and their communities and between youth themselves by using the tools in the Sustainable Development activity system for community development and agricultural practice.

5.5.1 Creating knowledge capital through strengthening the relationship between youth subjects and their community across all activity systems

Youths expressed a desire for unity and an active relationship/immediate value in the village between young and old and between the youths (4.3.1, 4.3.4, 4.4.4).

An active relationship between the subjects and the community within the Sustainable Development activity system gave access to the division of labour. Much contextual profile information and the research that Sisipho needed to do for backing up the bridge claim was

accomplished within a community meeting and through testimonials from community members of the Sustainable Development activity system (CPD87).

Through asking “who can we work with?”, the youth may access free means of participating in farming and community development and also may access funding pathways. The IDP has funding for youth programmes, for example. With relationships established with the ward councillor and other government officials who are well versed in government initiatives and government funding pathways, Lenye youth may more readily find the answers to how to provide for the initiatives they wish to achieve.

Members of the Lenye village community are another example as they offered support and were willing to assist. As Sisipho has done, youths in Lenye could identify community development projects or needs; raise them in community meetings to source support, financial and otherwise. Financial limitations for transport costs was a common reason given by the youths for being unable to attend network meetings such as the Imvotho Bubomi Learning Network meetings, Youth in Agriculture and Rural Development (YARD) and the farmers’ association meetings. Identifying a need shared by the community led to financial support in the form of airtime and transport (CPN/R11). Sisipho’s individual agency of identifying a community need, collecting information on how to address it and giving feedback in a community meeting created, within the community meeting, a zone of proximal development for collective agency. Sisipho and present community members pulled resources together to act on the common outcome of building a bridge to achieve the object of ease of mobility in the village. One recommendation for further studies in Lenye village and for unpacking the role of expansive learning in developing youths as value creators would be an investigation into the role of youths in transformative agency development (Lotz-Sisitka, Mukute, Chikunda, Baloi, & Pesanayi, 2017). Additionally, this is an example of how Lenye Youth Group members and Lenye youth in general may approach their work. Raworth (2017) called it ‘thinking like a 21st Century economist’ in her Chapter Three wherein she explored a shift in economic thinking from rational economic human to collective agency.

5.5.2 Continuous engagement with their community or establishing working relationships with their social capital can help inform youth's organisational culture or rules and create applied and realised value for Lenye Youth Group

Furthermore, we could refine our envisioned organisational culture/rules through learning by doing as we interact with and learn from the community of the LYG and Sustainable Development activity system. For example, working with Sidalukukhanya co-operative may also observe organisational culture as co-operative constitutions and other co-operative specific organisational practices can be observed and modified. Working with these multiple organisations should enable youths to draw from different organisational cultures and structures and formalise or choose a culture and institution that works for Lenye Youth Group's object and desired outcomes.

5.5.3 Creating knowledge capital for LYG community in order to create applied value for LYG

Through support from Activate (4.2.3) and the NYDA, Ntingani Lootsha and/or Lenye Youth Group and other localised youth development programmes, our national government could profile local youth's aspirations and skills from a youths as subjects and youths as agents of change perspective. There is a relative sea of broad youth development opportunities and the focus of the Integrated Youth Development Strategy 2020 is on the effectiveness of existing structures (South Africa. NYDA, 2017). Profiling youths in this way could assist in directing governmental and non-governmental assistance where it is most wanted, needed, and applicable for sustainable and catalytic development. Profiling youths in this way could play a key role in ensuring the effectiveness of existing structures.

Additionally, the establishment of a library and computer laboratory in Lenye village could assist youths with research and research skills development (4.3.4, 4.2). Working with Ntinga Ntaba kaNdoda who established a computer laboratory with tutors from tertiary institutions (4.2.1.5.3) is a promising prospect. Collating useful resources noted in the research process (4.2.1.5.2, 4.5.3.1) is additionally a promising start to establishing a resource library in the village.

5.6 Reflections on CHAT use in a rural context from a formative interventionist's perspective and a participating youth's perspective

In this section, I reflect on CHAT use in the case of this study from a formative interventionist youth perspective. I reflect on how value was and can be created for and by a formative interventionist youth. I note the lessons learnt along the research journey and understanding of the application of the theory learnt from practical experience.

5.6.1 Formative interventionist research as a catalytic tool for value creation

Much of the value that was realised arguably was initiated by the onset of the change laboratory intervention, which was a catalytic activity opening space for questioning and reflections, as well as use of tools in the field of practice that helped with mediating the object of sustainable development.

5.6.1.1 Interviews and formative interventionist research negotiations as a catalytic tool for creating knowledge capital

The contextual profiling interviews and negotiation meetings created immediate value for the formative interventionist researcher and the Lenye youth. Furthermore, the interviews and formative interventionist research negotiation meetings were arguably the tools that catalysed subsequent value cycles that emerged from the youth mediating the object of sustainable development as the dams, the bridge, the Lenye Development Structure and Lenye Youth Group emerged after the change laboratory intervention was initiated.

5.6.1.2 Mirror data as a catalytic tool for creating knowledge capital

The pictures shared in section 4.3.2 were very useful because they were tools that provided a stimulus for knowledge capital on sustainable development needs. Many matters of concern were raised and discussed when the images were used (4.3.2). Perhaps presenting images with possible matters of concern could be a way of holding development meetings in the village. People can take pictures around the village and meetings can be spent analysing what needs to be done with respect to those pictures. For example, we can use the Facebook group for Lenye youth where people can post pictures and complaints, which can then be brought to steering committee meetings by the secretary and the chairperson.

5.6.2 Immediate value through to reframing value created in the expansive learning process through mediating the object

Continuous reflection on the activity system, particularly the object of the activity systems provides clarity and helps refine exactly what the object of the activity was (Virkkunen & Newnham 2013). Repeated reflection on the object from the perspective of an individual subject as well as the perspective of one activity system and the perspective of the collective of activity systems with a shared object, as suggested by Engeström & Sannino (2010), was an appropriate approach in the context of this study for both the researcher and the participants.

My intention with Figure 4.15 (section 4.3.2) was to highlight the absence of tanks on the tank foundations situated near the South African flag at the school, and to highlight some issues with the tanks near the gate to the courtyard as they relate to agricultural development. However, the discussion unravelled extending beyond the frame of the image and beyond agricultural concerns. As a researcher, I may have limited the potential for change and the stimulus that highlighting agriculture for sustainable development can have in a community. I may have underestimated the scope of issues that one can access and cover through this initiative in trying to focus on a very specific scope for the research. The agriculture sector is broad and varied, so too are the challenges one can tackle and address in thoroughly engaging in working with agriculture as a tool for sustainable rural development. The case of the bridge and mobility is an additional example. The object of activity, according to Engeström and Sannino (2010), has an inherent ambiguity. It is “an invitation to interpretation, personal sense making and societal transformation. One needs to distinguish between the generalised object of the historically evolving activity system and the specific object as it appears to a particular subject, at a given moment, in a given action. The generalised object is connected to societal meaning, the specific object is connected to personal sense” (Engeström & Sannino, 2010, p.6), as was illustrated in this case study. I did not anticipate that the image of the school tanks would trigger other social issues.

5.6.2.1 CHAT as a conceptual tool for developing youths as value creators

Although the reflective youth meeting held on 14 July 2014 (section 4.4.6) was not a questioning workshop, the principles of questioning could have been applied. When it was raised that the reason for low numbers was the specification that it was only for those who are

100% unemployed, I clarified immediately that “it was merely a suggestion, however I apologise it was my mistake”. In retrospect, mirror data emerged from the meeting, (from the participants) and I did not identify an opportunity to apply the principles of the questioning learning action in appropriately co-defining who the project is for. Every interaction has the potential to be a learning action. If I aspire to do transformative and/or generative work, then as a formative interventionist researcher I should be ever ready to apply myself as a formative interventionist researcher. In this instance, not only was there potential for the learning action of questioning to take place, but it was also an example of how change laboratory workshops can be tools for creating immediate value and knowledge capital for sustainable development.

As the change laboratory workshops do not progress linearly from learning action 1 – 7 as discussed in section 2.2.2, the mistake I made was to treat what I called a questioning workshop as if it is devoid of other learning actions by not highlighting them in the change laboratory workshops. I was then unable to challenge us to work on what solutions emerged from the workshop as soon as they emerged in the workshop or were flagged in my in-between change laboratory workshops analysis, be it short term/long term solutions to challenges and contradictions. I got side tracked or stuck on going through all the matters of concern and neglected addressing what emerged in the discussions in the change laboratory workshops.

The change laboratory has potential for applied value, realised value and reframing value but only if it really is a multi-stakeholder multi-voiced group with representatives from each activity system. Otherwise, it becomes a focus group interview to contextualise further the activity system (knowledge capital) for the researcher but can also be knowledge capital for other members in the workshop (4.5.2.2 and 4.5.2.3). The expansive learning process had various knowledge capital production opportunities for Lenye Youth. As the inability to research which was an issue flagged in the change laboratory workshops, it is important to note the potential for change laboratory interventions or formative interventionist research as an approach that enabled or opened up opportunities for research or knowledge capital acquisition, as illustrated in section 4.5.

The change laboratory process can help the youth and ultimately the community, envision, design, and experiment with a new way of creating jobs for the youth and looking at rural development. It can provide an approach different to that of the running initiatives, which is

to give the community actions rather than supporting them to think of, design and implement an activity, and enable an approach where the youths and community at large create the jobs that are needed for the work that needs to be done in the village. “Furthermore it can provide rich data on individual and collective learning and development” (Virkkunen & Newnham, 2013, p. 27), hence the change laboratory was the social learning environment in which the youth can participate in their own development. The running initiatives are great as they are tools in youth activities for fulfilling their development ambitions whilst the expansive learning process is a conceptual tool through which to frame and understand what they wish to see regarding development. Arguably what is lacking in the running initiatives is a foregrounding of the agency being purported or eluded to in the intentions of the CWP and the Ntinga Ntaba kaNdoda as they are tools for enabling agency but the youths in Lenye village not only need support in terms of the enabling tools for agency but in the mental foregrounding that propels agency. The support and tools that the CWP and Ntinga Ntaba kaNdoda offer are unfortunately largely not accessed by youth in Lenye village (section 4.2.1.5, 4.2.2.5, 4.2.3.5). Concerning the training that the CWP offers, when youths go to the training, the CHAT expansive learning process provides a conceptual tool for implementing the knowledge acquired. Youths do not need to know only how to do specific things they also importantly need to know how to self-actualise for the benefit of society or their community.

5.6.3 Potential realised value and reframing value for the formative interventionist researcher through mediating the object

Through working with Ntinga Ntaba kaNdoda, the ELRC, the YARD programme, the NYDA and Activate, I would love to work on the establishment of and within a youth network for sustainable development in Amahlathi Local Municipality. This is potential realised value for beginning to affect the reframing value created for the formative interventionist researcher (4.5.4.2). The realised value is additionally a knowledge capital tool for a potential PhD proposal.

5.6.4 Continuing change laboratory workshops to further facilitate continued value creation

Given that prior to disruptions, the expansive learning theory did indeed play a role in the development of youth as value creators for rural development in the pre-change laboratory and questioning change laboratory workshops and given the desire for youths to continue

after the disruptions, I recommend that we continue the change laboratory workshops. I propose that learning actions 2-7 may still be a suggestive process for Lenye Youth as was initially envisaged in the planning phase of this project. I/We will collect the data as we go along which, with consent, may then be utilised for future studies by myself or other students or researchers and/or utilised by the youths through accessible knowledge production platforms.

I propose that we will continue with learning action 2-7 in several ways. I propose we begin with a feedback session(s) to the village and to key stakeholders through a collectively designed feedback process. At our disposal as change laboratory participants will be the recordings, notes, transcripts, this thesis and all other data collected in the process of this thesis as contributing artefacts for the feedback session to reinitiate the change laboratory process.

Following this we can commence with learning action 2 – Historical analysis: The data for this phase will involve bringing my understanding of the historical formation of actions to the fore, together with empirical views of the historical situation generated through members of each activity system producing a time line in the form of posters. Members will be divided into two groups: oldest members and newest members. This session will involve non-youth members of the activity systems. The groups will be asked to collect data for putting together the timeline prior to the session. The timelines will be presented by hanging the posters on the wall with some questions for elaboration (Virkkunen & Newnham, 2013). This may take two change laboratory sessions.

Learning action 3 – Modelling solutions: the participants will generate the data for this exercise. Each participant will be given a template of the second generation CHAT activity system to model the future of the activity system. The models will be discussed and analysed through the activity systems model as well as the dimensions of increasing collectivity and flexibility of their current models of activity so as to envision wider possibilities, effectively creating shared zones of proximal development (Figure 5.2) (Virkkunen & Newnham, 2013). This model will be oriented towards discussing the idea of these activity systems feeding into a primary or more advanced sustainable development activity system as this model discusses a progression of work from tradition-oriented craft and craft-like work (the job opportunities/actions introduced by the development projects in Lenye Village) to team based

innovation-oriented work and organisation (the potential of shared sustainable development activity) represented by the shared Sustainable Development Activity system in formulation in this study. Analysing the new models and suggestions of how work can be done through this model can help the youth in balancing the type of work that needs to be done, in shaping the activity systems to effectively contribute to sustainable development as an activity as opposed to an action (Engeström & Sannino, 2010).

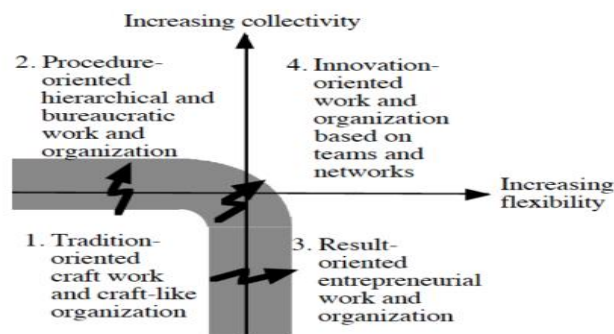


Figure 5.2: Historical types of work and organisation depicted in relation to dimensions of increasing collectivity and flexibility, as ZPD depicted as value creation in my model (Figure 5.1) (image taken from Virkkunen & Newnham, 2013, p. 95)

The suggestions that have already emerged for modelling solutions in the data will form the starting points for these workshops. My own preparation will include pre-workshop designed activity systems from the data collected and analysed as well as Figure 5.2.

In Figure 5.2 Engeström (1995, p. 28 in Virkkunen & Newnham, 2013, p. 95) presents an illustrative diagram that can be used to plot and design ideas concerning the new form of the activity. The dimensions used in Engeström’s model can be related to those in my Figure 5.1 model. In Figure 5.1 I have already plotted my ideas concerning the new form of the activity. Instead of increasing flexibility and increasing collectivity, my dimensions are outsider (youth community) directed to self-directed (youth directed) and existing value to potential value (section 5.1). Although the dimensions of my model are different, the principles underpinning the four quadrants of both models are comparable. In the first quadrant existing value that was outsider directed was arguably tradition oriented work and organisation (Virkkunen and Newnham, 2013). Much of the value and outsider directed tools and definition of the object was based on the youth community tradition oriented and organisational practices. For example, the youth agricultural practice was rooted in stimulus

from extension, training and farmer practice. It was rooted in the tradition oriented agricultural practices of long-standing community activity systems (4.5.1).

In the second quadrant the value created was centred around result oriented entrepreneurial work and organisation, for example the community development practice which was rooted in the bridge construction and led to job creation (4.5.1.5, 4.5.4.4) and the nursery (4.5.3).

The nursery would be entrepreneurial and community development based (CPD57).

The third quadrant may be procedure oriented hierarchical and bureaucratic work and organisation. Potential realised value such as the Mr and Ms Lenye event where Lenye youth will increasingly work with their community (for example competing within the District Municipality youth pageant and other youth activities) who have procedural, hierarchical and bureaucratic processes that Lenye youth will have to adhere to as part of their own practice (4.5.3.2).

The fourth quadrant may be populated with innovation oriented work, value, and organisation based on teams and networks (Virkkunen & Newnham, 20113). From the formative interventionist researchers perspective there already exists the example or suggestion of reframing value for Lenye youth through reframing or co-defining the object (5.2.2).

Reframing or co-defining the object involves re-visiting the multiple interest groups initially envisioned by Lenye youth (4.2.3.6, 4.5.1.1). This suggestion encompasses both innovation and organisation based on teams and groups.

Learning action 4 - Examining and testing the new model: This will be done by discussing and experimenting around what is feasible by the youths and other partners and exploring how they think they can be involved. Scenarios and problems that can be anticipated will be considered to refine the model based on the suggestions and solutions to the problem scenarios posed by participants. I will have to prepare questions that will enable us to examine whether the contradictions surfaced are addressed sufficiently by the new model(s) (Virkkunen & Newnham, 2013). An additional example of a model solution that can be deliberated in this way would be the potential for youth to investigate a new product value chain or the viability of developing a co-operative business plan that can contribute to sustainable development, for example, the nursery discussed in section 4.2, 4.5 and 5.3 (to be defined with the youth *in situ*) (Chaminuka, Lalendle, Nompozolo, Viljoen, & Brouwers, 2016). Another possibility will be to expose youth to other programmes in the Eastern Cape

in nearby villages where innovative youth development programmes are taking place, so that they are able to access insights into their proposed initiatives. This could require a field trip to a neighbouring village or inviting contributors to share insights.

With support from myself and other relevant stakeholders, they can then begin to implement the solution(s) of choice and we could reflect on this process and evaluate implementation to improve it further. The implementation will be done/tested for four to six weeks and the evaluation in four follow-up sessions in the four to six weeks (expansive learning actions 5-7) (Virkkunen & Newnham, 2013).

Learning action 5 – Reflecting on the model solution: A more interactive and thus agency building means of recording and collecting data about the implementation will be planned when the model of the new activity system has been finalised. For now, video recordings and bi-weekly reflections are the only proposed means of collecting data on the implementation stage of the change laboratory, which we will analyse through discussion and some pre-set questions as guidelines for reviewing the new model (Virkkunen & Newnham, 2013).

Learning action 6 – Evaluation: For this session, I will prepare snippets of pictures, videos, WhatsApp conversations in the form of an exhibition. Interested youths may present a drama, of 10-15 minutes, narrating the process (members of the community will be invited). We could sit at the centre of the exhibition room and discuss (using a discussion board) covering the main questions of “what was learned about the central inner contradictions in the activity system and possibilities of overcoming them, what new problems and possibilities become visible, as well as what and whose actions are needed to support progress in the development of the activity?” (Virkkunen & Newnham, 2013, p. 104).

Learning action 7 - Consolidation: This session will be a discussion and document drafting session. Participants will collectively draft a document to have in writing the new established form and elements of the activity system (ibid.).

5.7 Answering the research question in summery

In this section, I summatively answer my research question and sub-questions. As mentioned earlier, my main research question was *Can, and if so, how can expansive learning facilitated*

by a change laboratory intervention contribute to the development of youth as potential value creators for sustainable development? The subsequent **sub questions** were 1) What value is created at each point of the expansive learning process of the change laboratory process and for who? 2) What value can still be created at each point of the expansive learning process of the change laboratory? 3) How is that value created via an expansive learning process?

5.7.1 Can, and if so, how can expansive learning facilitated by a change laboratory intervention contribute to the development of youth as potential value creators for sustainable development?

Through this research I found that expansive learning facilitated by a change laboratory intervention can contribute to the development of youth as potential value creators. I illustrated my findings through presenting the Lenye youth case study (Chapter Four) and presenting my reflections as a youth formative interventionist researcher and participant (Chapter Five). I found that value was created in the expansive learning process and that Lenye youths were value creators (section 4.5). I illustrated how Lenye youths were value creators and how they may still be value creators through the expansive learning process in Chapter Five drawing from the value creation story presented in section 4.5 and the expansive learning story and activity systems presented in sections 4.2- 4.4.

5.7.1.1 What value is created at each point of the expansive learning process of the change laboratory process and for who?

Before the change laboratory workshops' immediate value and knowledge capital was created for the formative interventionist researcher and Lenye Youth Group (4.5.1.1). Knowledge capital was created for the formative interventionist researcher, applied value, realised value and knowledge capital was created for Lenye Youth Group (4.5.1.2). Applied value, realised value and knowledge capital was created for Lenye Youth Group (4.5.1.3). Knowledge capital was created for the formative interventionist researcher (4.5.1.4) and reframing value was created for Lenye Youth Group (4.5.1.5).

During the change laboratory workshops applied value was created for the formative interventionist researcher (4.5.2.1). Knowledge capital was created for Lenye youth and Lenye community as a whole and Lenye development stakeholders (4.5.2.2). Immediate value was created for all change laboratory participants (4.5.2.3).

Between the change laboratory workshops immediate value, knowledge capital, applied value, realised value and reframing value was created for Lenye Youth Group (4.5.3.1). Immediate value, knowledge capital and realised value was created for Lenye Youth Group (4.5.3.2 and 4.5.3.3) and Lenye youth in general (4.5.3.3)

After the change laboratory process of the expansive learning process the following value was created. Redefining success value for the formative interventionist researcher (4.5.4.1), realised value for Lenye Youth Group (4.5.4.2), immediate value, knowledge capital and realised value was created for Lenye Youth Group (4.5.4.3), realised value for LYG, Lenye village as a whole, and the greater Lenye development community (4.5.4.4).

5.7.1.2 What value can still be created at each point of the expansive learning process of the change laboratory?

Before the change laboratory workshops, potential knowledge capital can be created for the Lenye sustainable development community (4.5.1.2 and 4.5.1.4) and potential realised value for the greater Lenye community and Lenye Youth Group (4.5.1.5).

During the change laboratory process, knowledge capital and potential applied value can be created for Lenye youth, the Lenye community at large and the Lenye development stakeholders (4.5.2.2). Potential realised value can be created for all change laboratory participants (4.5.2.3).

Between the change laboratory workshops, potential applied and potential realised value can be created for Lenye Youth Group (4.5.3.2). Potential reframing value can be created for Lenye Youth Group and Lenye youth at large (4.5.3.3).

After the change laboratory workshops, potential realised value can still be created for Lenye youth (4.5.4.2). Potential knowledge capital can also be created for Lenye community at large (4.5.4.3).

5.7.1.3 How is that value created via an expansive learning process?

In discussing Lenye Youth as a case study, I identified the potential for reframing success for agriculture, employment and community development as discussed in sections 5.2, 5.3 and

5.4 while presenting the value that was and can still be created during the research process in each section.

In section 5.2, I discussed how potential reframing value for reconceptualising employment with youth in Lenye village can be created through mediating the primary contradiction of work vs employment within the subject (5.2.1). I further discussed how potential reframing value for youths can be created through co-defining the object of sustainable development (5.2.2). I illustrated how Lenye youth created realised value for sustainable development through mediating the object after reframing value was created for Lenye Youth Group (5.2.3). I illustrated how Lenye youth created potential reframing value for sustainable development through intending to mediate the object, through thorough engagement of the sustainable development community (5.2.4). Lastly, I noted how potential realised value for Lenye youths may be created through mediating the desired outcome of employment (5.2.5).

In section 5.3, I discussed how potential reframing value for Lenye youth can be created through reconceptualising agriculture. In order to achieve this, I discussed how the Lenye youth community may create knowledge capital for youth to fully mediate the tool of agriculture (5.3.1). I discussed how the emergent group, Lenye Youth Group subjects may create reframing value for the Sustainable Development youth subjects by further defining division of labour (5.3.2). Lastly, I illustrated how applied value was and can still be created for Lenye Youth Group subjects by mediating their tools and their community (5.3.3).

In section 5.4, I discussed how Lenye youths created reframing value and can still create realised value for community development as they reconceptualised and may still reconceptualise work. I noted how Lenye Youths created value as they created, identified and mediated their tools (5.4.1).

In section 5.5, I discussed how knowledge capital and potential applied and realised value may be created as youths strengthen relationships with their community and tools. I discuss how the youth may create knowledge capital through strengthening the relationship between youth subjects and their community across all activity systems (5.5.1). I further discuss how continuous engagement with their community or establishing working relationships with their social capital can help inform youth's organisational culture or rules and create applied and realised value for Lenye Youth Group (5.5.2). In section 5.5.3, I

discussed how the Lenye Youth Group community may create knowledge capital in order to create applied value for LYG and youth in general as value creators.

Lastly, in section 5.6, I reflect on CHAT use in a rural context from a formative interventionist's perspective and a participating youth's perspective. I talk about how formative interventionist research was a catalytic tool for value creation. I discuss how interviews and formative interventionist research negotiations were a catalytic tool for creating knowledge capital for Lenye Youth Group and the formative interventionist researcher (5.6.1.1). Furthermore, I share how mirror data was a catalytic tool for creating knowledge capital for all change laboratory participants (5.6.1.2). I discuss how immediate value through to reframing value was created in the expansive learning process through mediating the object (5.6.2) and CHAT as a conceptual tool for developing youths as value creators (5.6.2.1). I discuss how potential realised value and reframing value can be created in the expansive learning process for the formative interventionist researcher through mediating the object of sustainable development (5.6.3) and propose a continuation of change laboratory workshops to further facilitate continued value creation in Lenye village (5.6.4).

5.8 Conclusion

In conclusion, development and research with rural youth in agriculture may be done simultaneously as was proposed and attempted in this study with the analytical component varying as required contextually. Although the conceptual tool used in this study has an accompanying analytical framework, various analytical tools may be applied to the same data set to attempt to answer other questions. For example, the value creation framework was applied to this study; furthermore, a social network analysis may have been applied to this study to ascertain the potential key community members for effective rural development. This may be done in learning action 2 as outlined above.

In this chapter, I have discussed the working and learning happening in Lenye village and how the working and learning can further be highlighted and understood as working and learning that can be channelled or is being channelled for youth, community and agricultural development. I also presented reflections on how the youth can engage with the community to strengthen their networking in and around the village to achieve growth and development in agricultural and rural development practice. This chapter also included some reflections on

the use of change laboratory workshops/expansive learning with youths in the village, reflections from a formative interventionist's perspective and a participating youth's perspective. The chapter described how the youth in Lenye village learnt and may continue learning together how to work in our own workspaces. I see this as providing useful information for the Eastern Cape considering it is one of the provinces with the largest population of rural and discouraged job seekers (see section 1.3).

In essence, within the context of this study, the role of expansive learning facilitated by a change laboratory intervention in developing youth as value creators for rural development was that it was/is a conceptual tool for setting up the conceptual framework for me as an aspiring rural development agent and for the youth in Lenye as emerging experts and agents of change in the sustainable development of Lenye Village. It is a useful tool to help us articulate our vision in a reflexive and implementable form, as is outlined in this study.

Finally, as a young formative interventionist researcher, I have learned much about how to conduct generative, formative interventionist research. I have learnt the value of local knowledge and local actors as agents for change. I have learnt how to work with young people in a rural context, for creating value and conducting research that can contribute to the sustainable development of their context. Though the knowledge and experience I have acquired is not necessarily transferable and repeatable, I have learned about data collecting, data analysis and data reporting tools and concepts that I may adaptively apply in future research with potential value creators in a rural context.

References

- Activate! (2019). *Activate change drivers*. Retrieved September 20, 2019, from <https://www.activateleadership.co.za/>
- AFASA Youth. (2017). *AAYFS Annual AFASA Youth Farmers Summit 2017*. Retrieved from <https://afasayoungfarmers.org/wp-content/uploads/2018/08/Report-for-AAYFS-2017-.pdf>
- African Union Commission. (2015). *Agenda 2063: The Africa we want (Popular version)*. Retrieved November, 28, 2018, from https://au.int/en/Agenda2063/popular_version
- Ajaero, C. K., & Onokala, P. C. (2013). The Effects of Rural-Urban Migration on Rural Communities of Southeastern Nigeria. *International Journal of Population Research*, 2013, 1–10. <http://doi.org/10.1155/2013/610193>
- Aliber, M. (2011). Strategies to support South African smallholders as a contribution to government's second economy strategy. *Institute for Poverty, Land and Agrarian Studies*, 2(41)
- Bassey, M. (1999). Methods of enquiry and the conduct of case study research, pp.65-90, Philadelphia: Open University Press.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9 (2), 27–40.
- Brent, A. C., & Mulder, J. (2005). Selection of sustainable rural agriculture projects in South Africa: Case studies in the LandCare programme. In *IEEE International Engineering Management Conference*. <http://doi.org/10.1109/IEMC.2005.1559136>
- Brown, W. (2006). Africa and international relations: a comment on IR theory, anarchy and statehood. *Review of International Studies*, 32(01), 119. <http://doi.org/10.1017/S0260210506006954>
- Brown, J.S. & Duguid, P. (2002). Local knowledge Innovation in the Networked Age. *Management Learning*, 33(4):427-437.
- Buhlungu, S., Daniel, J., & Southall, R. (2007). *State of the Nation: South Africa 2007*. HSRC Press.
- Chaminuka, P., Lalendle, L. L., Nompozolo, S., Viljoen, M., & Brouwers, J. H. A. M. (2016). *Transformation through institutional peering - Agricultural Training Institutes learning from each other*.
- Claassens, A., & Cousins, B. (2008). *Land, Power & Custom: Controversies Generated by South Africa's Communal Rights Act*. Cape Town: UCT Press.

- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd Ed.). London: Sage.
- Czerniewicz, L., & Brown, C. (2014). The habitus and technological practices of rural students: a case study. *South African Journal of Education*, 34(1). Retrieved from <http://www.sajournalofeducation.co.za>
- Davenport, T., & Saunders, C. (2000). *South Africa: A Modern History*. New York: St Martin's Press Ltd.
- Denison, J., Smulders, H., Kruger, E., Ndingi., H., & Botha, M. (2011). *Water harvesting and Conservation Volume 2 Part 1: Technical Manual and Farmer Handouts WRC Report No. TT 493/11*
- de Sousa Santos, B. (2012). *Public Sphere and Epistemologies of the South*. <http://www.jstor.org/stable/24484031>
- Ditshego, S. (2018). *The models of ancient African constitutions have much to teach us*. Retrieved December 29, 2018, from <https://www.iol.co.za/sundayindependent/analysis/the-models-of-ancient-african-constitutions-have-much-to-teach-us-13886361>
- Durr, S. (2019). *Enabling social learning to stimulate value creation towards a circular economy: The case of the Food for Us food redistribution mobile application development process*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Engaging Youth in Agriculture – The Key to a Food Secure Future?*. (2013). Retrieved May 6, 2018, from <https://farmingfirst.org/2013/08/engaging-youth-in-agriculture-the-key-to-a-food-secure-future/>
- Engeström, Y. (1987). *Learning by expanding: An activity theoretical approach to developmental research*. Helsinki: Orienta-Konsultit.
- Engeström, Y. (2001). Expansive Learning at Work: toward an activity theoretical reconceptualisation. *Journal of Education and Work*, 14 (1), 133-156.
- Engeström, Y & Sannino, A. (2010). Studies of expansive learning: Foundations, findings and future challenges. *Educational Research Review*, 5 (1), 1–24.
- Engeström, Y. (2011). From design experiments to formative interventions. *Theory & Psychology*, 21(5), 598–628.
- Erasmus, J. (2009). Paprika farming boosts economy. Retrieved December 10, 2018, from <https://www.brandsouthafrica.com/investments-immigration/economynews/paprika-farming-100309>
- Fennell, D., & Holden, A. (2013). *The Routledge Handbook of Tourism and the Environment*. Canada: Routledge

- Food Agriculture Natural Resources Policy Analysis Network. (2011). *Developing Capacities and Opportunities for Youth Engagement in the Agricultural Value Chain and Transformation Policy Brief Series Issue no. 2: Volume XI October 2011*. Retrieved https://www.fanrpan.org/sites/default/files/developing_capacities_and_opportunity_20121018.pdf
- Food Agriculture Natural Resources Policy Analysis Network. (2012). *Newsletter Dialogue Series February 2012 Opportunities for Youth in the Seed Sector*. Retrieved from https://www.fanrpan.org/archive/documents/d01449/hassp_newsletter_revised_20121119.pdf
- Food Agriculture Natural Resources Policy Analysis Network. (2018). *Communique of the Food Agriculture Natural Resources Policy Analysis Network (FANRPAN) side event convened during the 14th Comprehensive Africa Agriculture Development Programme Partnership Platform (CAADP PP): “Women and Youth Championing Policy Development to Transform African Agriculture”*. Retrieved from https://www.fanrpan.org/sites/default/files/events/FANRPAN_Side%20Event_14th%20CAADP%20PP%20Communique.pdf
- Food and Agriculture Organization of the United Nations, Technical Centre for Agricultural and Rural Cooperation and the International Fund for Agricultural Development. (2014). *Youth and agriculture: Key challenges and concrete solutions*. Food and Agriculture Organization of the United Nations, Technical Centre for Agricultural and Rural Cooperation and the International Fund for Agricultural Development
- Fort Cox College, 2014 Rural Development Centre
<http://www.fortcox.ac.za/units&support/rdc.html>
- Francis, S., & Hardman, J. (2018). # Rhodesmustfall : Using Social Media To “ Decolonise ” Learning Spaces for South African Higher Education Institutions : a Cultural Historical Activity Theory Approach, 32(4), 66–80.
- Freire, P. (1993). The “banking” concept of education. *Pedagogy of the Opressed*, 52–67.
<http://doi.org/10.4324/9780203861073>
- Future Earth Strategic Research Agenda 2014 published*. (2014). Retrieved December 23, 2018, from <http://www.futureearth.org/news/future-earth-strategic-research-agenda-2014-published>
- Galletta, A. (2013). *Mastering the semi-structured interview and beyond: From research design to analysis to publication*. New York: New York University Press
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *BDJ*, 204(6), 291–295.

- Google Maps. (2017). *Lenye*. Retrieved November 28, 2017, from <https://www.google.co.za/maps/place/Lenye/@-32.7516827,27.0691401,5237m/data=!3m1!1e3!4m5!3m4!1s0x1e63f94b287685c7:0xc6215d53e0c24717!8m2!3d-32.7538568!4d27.0801437>
- Gough, K., Langevang, T., & Owusu, G. (2013). Youth employment in a globalising world. *International Development Planning Review*, 35(2), 91–102. <http://doi.org/10.3828/idpr.2013.7>
- Grange, L. I. (2004). *Western science and indigenous knowledge: Competing perspectives or complementary frameworks?* Retrieved from http://utlo.ukzn.ac.za/libraries/november_2011_conferences/le_grange_1.sflb.ashx
- GreenMatter. (2019) *Imvelisi Developing Enviropreneurs*. Retrieved September 20, 2019, from <http://www.greenmatterza.com/>
- Harsch, E. (2014). *Thomas Sankara: An African Revolutionary (Ohio Short Histories of Africa)*. Athens: Ohio University Press.
- Hoggart, K., & Buller, H. (2016). *Rural Development: A geographical perspective*. Abingdon: Routledge.
- Huitt, W. (2007). *Maslow's hierarchy of needs*. *Educational Psychology Interactive*. Valdosta. Retrieved December 18, 2018, from <http://www.edpsycinteractive.org/topics/regsys/maslow.html>
- Human Sciences Research Council. (2005). *Emerging Voices: A Report on Education in South African Rural Communities*. Cape Town: HSRC Press
- Jason. (2013). *Community Work Programme*. Retrieved May 1, 2016 from <http://siyakholwa.co.za/community-works-programme-cwp/>
- Jerome, N. (2013). *Application of the Maslow's hierarchy of need theory; impacts and implications on organizational culture, human resource and employee's performance*. *International Journal of Business and Management Invention ISSN* (Vol. 2). Online. Retrieved from www.ijbmi.org
- Jewitt, C. (2012). An Introduction to Using Video for Research. *National Centre for Research Methods Working Paper*, 1–22.
- Kimari, W. (2018). Fear of a young planet. *The New Internationalist*
- Lenye youth. (2016, April 25). Youth, Lenye village, Keiskammahoek. Personal communication.
- Loehle, C., 1996. *Thinking Strategically: Power Tools for Personal and Professional Advancement*. Cambridge: Cambridge University Press.

- Lotz-Sisitka, H., Mukute, M., Chikunda, C., Baloi, A., & Pesanayi, T. (2017). Transgressing the norm : Transformative agency in community-based learning for sustainability in southern African contexts. *International Review of Education*.
<http://doi.org/10.1007/s11159-017-9689-3>
- Lupele, C. (2017). *A review of the development and enactment of a radio programme on rainwater harvesting in expanding social learning interactions: A case of the Imvotho Bubomi Learning Network in the Nkonkobe Municipality, Eastern Cape, South Africa*. Unpublished masters' thesis, Rhodes University, Grahamstown.
- Mama, M. (2017). Black youths must be made aware of agri sector careers. *Farmers Weekly* 13 October 2017.
- Manyevere, A., Muchaonyerwa, P., Laker, M. C., & Mnkeni, P. N. S. (2014). Farmers' perspectives with regard to crop production: An analysis of Nkonkobe municipality, South Africa. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*.
- Marx, K. (1976) *Capital: A Critique of Political Economy. Vol. 1*. (B. Fowkes, Trans.). New York: Penguin. (Original work published 1867).
- Masara, C. (2010). *Learning commercial beekeeping: Two cases of social learning in southern African community natural resources management contexts*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Masika, P. J., Averbek, W. Van, & Sonandi, A. (2000). Use of herbal remedies by small-scale farmers to treat livestock diseases in central Eastern Cape Province, South Africa. *Journal of the South African Veterinary Association*, 71(2), 87–91.
- Matiwane, L. (2016, April 21). Unemployed youth, Lenye village, Keiskammahoek. Personal communication.
- Mayer et al. require full reference (2011). *Towards a youth employment strategy for South Africa*. Development Bank of Southern Africa (28)
- Mbembe, A. (2001). Ways of Seeing: Beyond the New Nativism. Introduction. *African Studies Review*, 44(2), 1-14.
- Menzelwa, Z. (2018). <https://www.dispatchlive.co.za/news/2018-04-24-building-up-in-flames-as-protests-in-keiskammahoek-continue/>
- 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.

- Min-harris, B. C. (2009). Youth Migration and Poverty in Sub-Saharan Africa : Empowering the Rural Youth. *Tropical Review Digest: Human Rights in Sub-Saharan Africa*, 159–186.
- Mkancu, S. (2018). What Lies Ahead For The #FeesMustFall Movement?. Retrieved December 26, 2018, from https://www.huffingtonpost.co.za/siphokuhle-mkancu/what-lies-ahead-for-the-feesmustfall-movement_a_23395555/
- Mkra, Z.P. (2014). *Rural agriculture and youth empowerment: perspectives of the youth and community members in Centane, Eastern Cape, South Africa*. Unpublished thesis, University of Fort Hare, East London.
- Mlambo, V. (2018). An overview of rural-urban migration in South Africa: its causes and implications. *Archives of Business Research*, 6(4). <http://doi.org/10.14738/abr.64.4407>
- Mlatsheni, C., & Rospabe, S. (2002). *Why is Youth Unemployment so High and Unequally spread in South Africa ? Development Policy Research Unit UCT*.
- Mnqeta, S. (nd). Heritage Sites. Retrieved April 14, 2016, from <http://www.amathole.gov.za/index.php/tou/heritage-routes>
- Mobile Agricultural Skills Development and Training (NPC). (nd). *Our background, History and results*. Retrieved online October 26, 2019 from <http://www.masdt.co.za/index.php/the-company/background-history-results>
- Mukute, M. (2010). *Exploring and expanding learning processes in sustainable agriculture workplace contexts*. Unpublished Doctoral thesis, Rhodes University, Grahamstown.
- Nash, A. (1999). *The Moment of Western Marxism in South Africa. Africa and the Middle East*. Retrieved from https://www.sahistory.org.za/sites/default/files/moment_of_western_marxism_in_sa.pdf
- Ndlovu, S. M. (2006). The Soweto Uprising. *The Road to Democracy in South Africa, Volume 2, 1970-1980, 1* (February 1977), 317–368. http://doi.org/http://dx.doi.org/10.1111/dme.30_13048
- Ntinga Ntaba kaNdoda. (2013). Ntinga Ntaba Newsletter 2nd edition. Retrieved online May 2, 2016 from <http://www.ntabakandoda.org.za/index.php/programmes>
- Ntsebeza, L., & Hall, R. (2007). *The Land Question in South Africa: The Challenge of Transformation and Redistribution*. Cape Town: HSRC Press.
- Ntshangase, W. M., Ngiba, S. C., van Niekerk, J. A., & Zwane, E. M. (2016). The sustainability of small scale cane growers through youth involvement in North Coast region of Kwazulu Natal, South Africa. *S Afr. J. Agric. Ext. Ntshangase, Ngiba*, 44(2), 42–51. <http://doi.org/10.17159/2413-3221/2016/v44n2a378>

- O’Leary, Z. (2004). *The Essential Guide to Doing Research*. London: Sage.
- Oppong, S. (2015). A Critique of early childhood development research and practice in Africa. *Africanus Journal of Development Studies* (Vol. 45). Retrieved from <https://upjournals.co.za/index.php/Africanus/article/viewFile/252/199>
- Philip, K. (2010). Towards a Right to Work: The Rationale for an Employment Guarantee in South Africa. *Institute for Poverty, Land and Agrarian Studies*. Retrieved from <https://www.plaas.org.za/sites/default/files/publications-pdf/philip.pdf>
- Raworth, K. (2017). *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. Chelsea Green Publishing.
- Reitan, A. (2013). *Maslow’s Theory of Self-Actualization, More or Less Actualized*. Retrieved December 26, 2018, from <http://brainblogger.com/2013/01/08/maslows-theory-of-self-actualization-more-or-less-actualized/>
- Resisting Corporate Seed Laws in South Africa*. (2018). Retrieved December 26, 2018 from <https://www.acbio.org.za/en/resisting-corporate-seed-laws-south-africa>
- Ricochet News (2018). *Masualle addresses Qoboqoboviolence, DA blames ANC* <https://www.rnews.co.za/article/masualle-addresses-keiskammahoek-violence-da-blames-anc>
- Roberts, J.W. (2012). *Beyond Learning by Doing*. New York: Routledge.
- Roberts and Westin. (2008). Interventionist research – the puberty years: an introduction to the special issue
- Roth, W. M., & Lee, Y. J. (2007). “Vygotsky’s Neglected Legacy”: Cultural-Historical Activity Theory. *Review of Educational Research*, 77(2), 186–232. <http://doi.org/10.3102/0034654306298273>
- Sannino, A., Engeström, Y., & Lemos, M. (2016). *Formative Interventions for Expansive Learning and Transformative Agency*, *Journal of the Learning Sciences*, DOI: 10.1080/10508406.2016.1204547
- Sen, A. (1997). Editorial: Human Capital and Human Capability. *World Development*, 25(12), 1959-1961.
- Sihlobo, W. (2015). *The youth are agriculture's future*. Retrieved May 26, 2018, from <https://mg.co.za/article/2015-06-18-the-youth-are-agricultures- future>
- Silo, N. (2011). *Exploring opportunities for action competence development through learners’ participation in waste management activities in selected primary schools in Botswana*. Unpublished Doctoral thesis, Rhodes University, Grahamstown.

- Simelela, N. P., & Venter, W. D. F. (2014). A brief history of South Africa's response to AIDS. *South African Medical Journal = Suid-Afrikaanse Tydskrif Vir Geneeskunde*, 104(3 Suppl 1), 249–51. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24893502>
- Siyakholwa Development Foundation Projects. (n.d). Retrieved September 12, 2018, from <https://siyakholwa.co.za/companies/siyakholwa-development-foundation>
- South Africa. Amahlathi Local Municipality. (2017). *Draft Integrated Development Plan 2017- 2022*
- South Africa, Department of Agriculture Forestry and Fisheries. (n.d). *DAFF Youth*. Retrieved May 30, 2018, from <https://www.daff.gov.za/daffweb3/DAFF-Youth>
- South Africa. Department of Basic Education (2018). *Three-Stream Model; Fourth Industrial Revolution: Department progress report*. Retrieved December 28, 2018, from Basic Education <https://pmg.org.za/committee-meeting/26296/>
- South Africa. Department of Rural Development and Land reform. (n.d). *Programmes*. Retrieved August 12, 2018, from <http://www.ruraldevelopment.gov.za/about-us/programmes>
- South Africa. Department of Science and Technology. (2017). *Revitalising Agricultural Education and training in South Africa: Consensus study*. Pretoria: Academy of Science of South Africa (ASSAf)
- South Africa. Eastern Cape Planning Commission. (2014). *Eastern Cape Vision 2030 Provincial Development Plan*. Retrieved from http://www.ecdc.co.za/media/1643/ec-vision-2030-plan_271014-2.pdf
- South Africa. Eastern Cape Rural Development and Agrarian Reform. (2017). *MEC Mlibo Qoboshiyane: Eastern Cape Rural Development and Agrarian Reform Prov Budget Vote 2017/2018*. Retrieved November 2, 2018, from <https://www.gov.za/speeches/mec-qoboshiyane-eastern-cape-rural-development-and-agrarian-reform-budget-vote-20172018-8>
- South Africa. Government communications (GCIS). (2009). *A new era in youth development*. Retrieved June 20, 2018, from <https://www.vukuzenzele.gov.za/new-era-youth-development>
- South Africa. National Planning Commission. (2012). *National Development Plan 2030: Our Future-make it work*. Boksburg: Sherino Printers.
- South Africa. National Youth Development Agency. (2017). *Integrated Youth Development Strategy 2020*.

- South Africa. Statistics South Africa. (2015). *National and provincial labour market: Youth*. Pretoria: Government Printer.
- South Africa. Statistics South Africa. (2018). *Quarterly Labour Force Survey Quarter 3: 2018*. Retrieved from <http://www.statssa.gov.za/publications/P0211/P02113rdQuarter2018.pdf>
- South Africa. The Presidency. (1996). *National Youth Commission Act 19 of 1996* <https://www.gov.za/documents/national-youth-commission-act>
- South Africa. The Presidency. (2009). *National Youth Development Agency Act 54 of 2008*. Retrieved from https://www.gov.za/sites/default/files/gcis_document/201409/3178013.pdf
- South Africa. The Presidency. (2015). *National Youth Policy 2020*. Government Printer.
- South Africa. The Presidency. (2018). *State of the Nation Address by President of the Republic of South Africa, Mr Cyril Ramaphosa*. Retrieved from <http://www.thepresidency.gov.za/state-of-the-nation-address/state-nation-address-president-republic-south-africa%2C-mr-cyril-ramaphosa>
- South Africa. Trade and Industrial Policy Strategies. (2010). *Community Work Programme Annual Report 2009/2010*. Pretoria: Government Printer.
- Stockdale, A. (2002). Tools for digital audio recording in qualitative research. *Social Research Update*, 38(38), 1–4.
- Tali, P. (2013). *Evaluation and identification of critical success projects in the running of successful food security projects within the Eastern Cape Department of Rural Development and agrarian Reform, In the Amahlathi local Municipality*. Unpublished masters' thesis, Rhodes University, Grahamstown.
- Tanner, R. (2018). *Motivation – Applying Maslow's Hierarchy of Needs Theory*. Retrieved December 30, 2018, from <https://managementisajourney.com/motivation-applying-maslows-hierarchy-of-needs-theory/>
- Tersoo, P. (2012). Agribusiness as a Veritable Tool for Rural Development in Nigeria. *International Letters of Social and Humanistic Sciences*, 14(3), 26–36.
- Tolamo, T.J. (2014). *Mobilising youth participation in agriculture using Participatory Extension Approach (PEA): A case study of Ga-Mothiba village*. Unpublished Doctoral Thesis, University of Limpopo, Mankweng.
- Tourism activities*. (nd). Retrieved April 4, 2016, from <http://amahlathi.gov.za/tourism/activities>

- Twala, C. (2004). The 'Letsema/Ilima' Campaign: A smokescreen or an essential strategy to deal with the unemployment crisis in South Africa. *Journal of Contemporary History*, 29(1). Retrieved from <http://journals.ufs.ac.za/index.php/jch/article/view/409/392>
- United Nations. (2015). *Sustainable development goals: 17 goals to transform our world*. Retrieved June 20, 2016 from <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- United Nations Educational, Scientific and Cultural Organisation. (nd). *Empowering and mobilizing youth*. Retrieved June 20, 2016 from <http://en.unesco.org/gap/priority-action-areas/youth>
- United Nations, Department of Economic and Social Affairs, Population Division. (2017). *World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP/248*.
- van Schalkwyk, H. D., Groenewald, J. a., Fraser, G. C. G., Obi, A., & van Tilburg, A. (2012). *Unlocking markets to smallholders*. <http://doi.org/10.3920/978-90-8686-168-2>
- van Schalkwyk, B. B. (2015). *Challenges in Realising Sustainable Community Development in Rural South Africa, Agriculture, Forestry and Fisheries*, doi: 10.11648/j.aff.s.2015040401.19
- Virkkunen, J. & Newnham, D. (2013). *The Change Laboratory*. Rotterdam: Sense Publisher.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge: Harvard University Press
- Wals, A. (2010). *Message in a Bottle: learning our way out of unsustainability*, Inaugural lecture presented at the Wageningen University.
- Warburton, D. (2009). *Community and Sustainable Development: Participation in the future*. London: Earthscan.
- Wenger, E., Trayner, B., & de Laat, M. (2011). *Promoting and assessing value creation in communities and networks: a conceptual framework*. The Netherlands: Dutch Ministry of Education, Culture and Science.
- Weppelman, S. (2018). *Aspire: Who we are*. Retrieved July 9, 2019, from <https://www.aspire.org.za/beta/index.php/about/who-we-are>
- Westaway, A. (2012). Rural poverty in the Eastern Cape Province: Legacy of apartheid or consequence of contemporary segregationism? *Development Southern Africa*, 29(1), 115–125. <http://doi.org/10.1080/0376835X.2012.645646>
- White, B. (2012). *Agriculture and the Generation Problem: Rural Youth, Employment and the Future of Farming*. <https://doi.org/10.1111/j.1759-5436.2012.00375.x>

- Wilmot, P.D. (2005). *Teachers as recontextualisers: A case study of out-comes based assessment policy in the Human and Social Sciences Learning Area of Curriculum 2005 in two South African schools*. Rhodes University
- Zaretsky, V. K. (2016). Vygotsky's Principle "One Step in Learning - One Hundred Steps In Development": From Idea To Practice. *Cultural-Historical Psychology*, 12(3), 149–188. <http://doi.org/10.17759/chp.2016120309>

Appendices

Appendix A: Raworth's *Seven Ways to Think Like a 21st Century Economist*

Appendix B: Contextual Profiling Questions (adapted from Silo (2011))

Appendix C: Example of data list

Appendix D: Example of Transcript with learning action and value creation coding

Appendix E: RWL conference poster

Appendix F: Analytical memo for the change laboratory workshops

Appendix G: Spreadsheet used for analysing the expansive learning process as an activity system and for value creation

Appendix H: Example of Consent Forms

Appendix I: CWP work record form

Appendix J: Extract from Amanzi for Food Youth Network Funding Proposal

Appendix K: Skeletal draft of a potential PhD thesis extracted from Activate Workbook

Appendix A: Raworth's *Seven Ways to Think Like a 21st Century Economist*

Kate Raworth is a 21st Century economist who has re-envisioned economics so that it is more sustainable and applicable to the world we live in. In her book *Seven Ways to Think Like a 21st Century Economist* she outlines seven shifts in economic theory that can enable society to collectively function such that we are socially and ecologically sustainable. What makes her work important for this study and in the world in general is that much of the decision making infrastructure(s) of our world is governed by economic thought and theory. As such developmental theory is also embedded with economic thought and theory. She suggests seven ways in which we can shift economic thought for sustainable development.

The first theory she challenges is Gross Domestic Product (GDP), a country's income, as a primary measure of progress. She argues that GDP is in fact not a good measure of a nation's development and thus the world's development as GDP has become the world standard for national and thus global growth assessment. She requests a shift for measuring national growth or a nation's success according to its ability to meet the human rights of every individual without damaging cost to the environment. She calls her first chapter "Change the goal *from GDP to the Doughnut*".

The second thinking approach she challenges and reimagines is the limited idea or portrayal that we have of the flow of goods and services due to traditional economic theory. She notes how this portrayal of the flow of goods and services allows for developmental thinking that preaches the market as a stand-alone and efficient system for development. She notes how this argument is accompanied by an understanding that government and community centred/governed developmental systems are incompetent and do not work. She urges for a shift in mind set that understands the flow of goods and services to encompass public-private partnership and to understand that the flow occurs within a social system, or within society, with society as its foundation. She calls her second chapter that expands on this notion "See the Big Picture *from self-contained market to embedded economy*".

Raworth's third chapter is entitled "Nurture human nature *from rational economic man to social adaptable human*". In this chapter, she asks us to debunk the idea that we ought to at an individual level cater to our individual needs even at the expense of the environment. She calls for a way of living and thinking where we work together as people and with the environment to meet our collective needs.

In her fourth chapter "Get savvy with systems *from mechanical equilibrium to dynamic complexity*" Raworth calls for a shift from linear economic systems thinking to dynamic economic systems thinking. This means we understand that flow of goods and services is not determined and controlled but managed and responded to.

The fifth chapter titled "Design to distribute *from 'growth will clean it up again' to distribute by design*" disputes the flawed economic theory that says inequality is an inevitable part of the development process. Raworth argues that we can work towards economic systems that prioritise wealth (land, knowledge, technology, the power to create money and business)

redistribution rather than working on economic systems that anticipate wealth redistribution as a consequence of prioritising national income growth.

Raworth then calls us to “Create to regenerate asking us to shift *“from growth will clean it up again” to regenerative by design*”. In this chapter she argues against the notion that ecological degradation and pollution are a normal consequence of national income growth. She calls for letting go of linear industrial processes and calls for an uptake of circular economies. In circular economies, industrial processes do not result in environmentally crippling dumping of industrial waste. Industrial waste is, in one way or another, reused. As such pollution need not be a by-product of growth and a burden felt by the poor as is the economic adage of old economic theory.

The seventh thinking process she calls for us to reimagine is outlined in her chapter titled “Be agnostic about growth *“from growth addicted to growth agnostic*”. Kate Raworth calls for an abandonment of GDP growth as a measure of national success in her first call to economic transformation. As she closes she calls for abandoning conceptualising ever increasing growth as our socially, politically and financially embedded understanding of success. She asks us to consider how we can transform the social, political and financial standards that drive us to perpetuate GDP as a measure of success in spite removing GDP as a primary measure of success.

Appendix B: Contextual Profiling Questions

Date:

Time:

Venue:

Present:

Interview questions

General questions

What activities/work do you do in the field?

What activities/work do you do off the field?

Which ones do you find are the easiest and why?

Which ones do you find are the hardest and why?

Do you do any subsistence farming?

Community: Who else takes part in the work that you do? How?

Tools: What is needed for the activity to run smoothly?

What tools and materials do you work with?

Which are the easiest to work with which are harder to work with and why?

Rules: Who decides how you should work in the field?

Are there any rules that govern how you work in the field?

How do people know about these rules?

Are there documents that guide how you should do things, or state the rules?

How are rules reinforced?

Object: What lead you to start this activity?

Value questions

What do youth in the village value?

What is rural development to you or what development do you wish to see in the village?

Appendix C: Example of data list

	A	B	C	D	E	F
	File name numbered	File name	File name extended	Date	Location/source	Folder
1		Ix_LYM	Imagex_Lenyeye Youth Meeting		17 Oct 16	Laptop
2	I1	Ix_CWP	Imagex_Community Work Programme		03 Nov 16	Laptop, Black A5 Notebook, Audio
3	I2	Ix_DFV	Imagex_Dairy Farm Visit		28 Jan 17	Laptop
4	I3	Ix_SUC	ImageX_Sidala ukukhanya Cooperative		30 Jan 17	Laptop
5	I4	Ix_LYGM	Ix_Lenyeye Youth Group Meeting		07 Mar 17	Laptop
6	I5	Ix_BPWBM	Imagex_Bisho Public Works Bridge Meeting		08 Mar 17	Laptop
7	I6	Ix_LYGM	Imagex_Lenyeye Youth Group Meeting		11 Mar 17	Laptop
8	I7	Ix_IBLNM	ImageX_Imvotho Bubumo Learning Network Meeting		30 Mar 17	Laptop
9	I8	Ix_LYGM	Imagex_Lenyeye Youth Group Meeting		01 Apr 17	Laptop
10	I9	Ix_N	ImageX_Notes		10 Apr 17	Laptop
11	I10	Ix_FCLW1	ImageX_Failed Change Lab Workshop 1		01 May 17	Laptop
12	I11	Ix_BC	Imagex_Bridge Condition		05 May 17	Laptop
13	I12	Ix_AN	ImageX_Activate Notes		12 May 17	Laptop
14	I13	IxAfFCP	Imagex_Amanzi for Food Contextual Profiling		17 May 17	Laptop
15	I14	Ix_AMDMDFA	IxAmahlathi Municipality Disaster Management Forum Agenda		01 Jun 17	Laptop
16	I15	Ix_AMDMDFA	IxAmahlathi Municipality Disaster Management Forum Report for April/May		01 Jun 17	Laptop
17	I16	Ix_IGP	Imagex_Imvelisi Green Cape Presentation		06 Jun 17	Laptop
18	I17	Ix_IGW	Imagex_Imvelisi Group Work		07 Jun 17	Laptop
19	I18	IxIPND	Imagex_Imvelisi Presentation Nursery Design		09 Jun 17	Laptop
20	I19	Ix_LYGM	IxLenyeye Youth Group Plot Meeting		14 Jul 17	Laptop
21	I20	Ix_LYM	IxLenyeye Youth Meeting		19 Jul 17	Laptop
22	I21	Ix_QW1	Ix_QW1		21 Jul 17	Laptop
23	I22					

Appendix D: Example of Transcript with learning action and value creation coding

#68 Live: no I just took the picture.

#69 Lungelo: that thing is light theres no shade

#70 Lwando: Ill tell why theres mnqa, the plots that said , on your right as you drive in aren't like the ones this side. See the problem is they have water problems so theyve fallen for a long time so they have to pay an engine so each person doesnt want to pay and plant because maybe someone else will just plant without paying so it's a problem even if there was no umnqa.

Knowledge capital, potential community development initiative

#71 Mandilive: ooooh this side you have to pump this side you dnt have to pump.

#72 Qdwa Booi: This side works with electricity and this side doesn't. so eskom closes it because ...Its closed even now but the white guy who plants the chillies pays for the time he is going to work there. When hes done, if he wouldn't go plant then it would be closed again if he woudnt work, then as the mnqa increases it goes to what Lwandos saying because they don't have watermost people cant work the land because they odnt have water. So these places, theres contoures divinding the plots to say this blongs to Lungelo, Lundi, Funiwe, now that the plots aren't work the mnqa grows fast and so its increasing/expanding its like plandeshi its going deeper in the plots and peoples land is increasingly becoming smaller and its another problem that needs to be looked at because there should be a wway to deal with that debt because we cant say who would be blame for that debt.

Knowledge capital potential community development initiative

#73 Live: so the water its been paid for for a long time and theres a debt now and askoms closed the pump because of an electricity debt.

#90 Qdwa Booi: at school the biggest problem we see ...at the places with teachers that teach here those schools have a better fence than the one we have here. When we hear the history of the fence it was fences from our grandfathers, for example tamza will bring one from that side to that side its not from government even the uildig they government built one block and the rest was through community and its funding. the schools not safe were lucky to not hear that something happened to a child or that theres been a break in.

#91 Live: what would be stolen?

#92 Qdwa Booi: Food peanut butter etc,

#93 Cleaning detergents

#94 Qdwa Booi: even us we end up taking advantage of that we jump the fence because it allows for such we want to play at school. somebody sees their cows almost dead or going to labour soon they'll lock it up in the school so that they find it close by. The school children, every morning they have to sweep

#95 Lungelo: its us who do that

#96 Qdwa Booi: yeah its become their job. their garden gets broken into and they don't have space because they've been using this land for a long time. Its suppose to take a break. theres lots of problems here

#97 Lungelo: another thing, the school really needs a care taker. other places have a care taker for instance a care taker...theres no shade for the kids when its hot. we had made them a shelter similar to the one but it was destroyed by the children and the cows. This thing needs care taker. Care taker is the person who looks after the school and sees around and says alright! they need flowers and cahris and shelter for when they eat at 10:30 am.

#98 Lund: Did they stop instructing children, before they go into class, to according to their classes, collect papers in the school yard?



Lwazi Matiwane

New mirror data emerged from this pic or new questions

Change laboratories with youth to reconceptualise work, in Lenye village, SA

Lwazi Mandilive Matiwane
mlmatwane28@gmail.com

Motivation for research

- * Sustainable Development Goal number 8: Decent work
- * Global Action Programme on Education for Sustainable Development priority action area number 4 : Youth empowerment and mobilisation
- * Rural development, youth unemployment, environmental sustainability and agriculture
- * Job creation, agriculture sector growth and sustainability in Lenye village

Methods

- * Activity system analysis and contextual profiling
- * 3rd generation CHAT¹ (Cultural Historical Activity Theory) to map and understand the relationship(s) between agricultural activity systems in Lenye village
- * In depth questioning and using mirror data in change laboratories
- * Value creation² framework to analyse and review the expansive learning process

Results and recommendations

A need to develop concepts and practices of collective organising and collaborative work amongst youth, to maximise existing opportunities for employment and change (see examples in figures)

Lenye village



Figure 1: Scala ukukhanya mealle and chilli farming

- * Community Work Programme school garden farming
- * Youth farmers
- * Intermittent youth labourers



RHODES UNIVERSITY
Witwat' buleni kum



environmental
LEARNING RESEARCH CENTRE



Figure 2 : Lenye Youth volunteers in Change laboratory workshops

Lenye youth:

- * Are impatient with entrepreneurship
- * Do not know how to do research
- * Do not have access to information
- * Not encouraged and taught agriculture



Figure 3: Lenye Youth Group approaching community development and farming as a full time job



Figure 5: Learning how to participate in research opportunities 5a) Attending Invotho Buboni Learning Network meetings, 5b) Attending Youth in Agriculture and Rural Development meetings and participating/co-operating in activities such as completing project profile requests



Figure 6: Establishing Lenye Youth Group Nursery with the farmers association



Figure 7: Attending Municipal meetings: doing and further learning how to do community development work



Figure 8: Working with Government to deliver youth programmes and events



Figure 9: Lenye Youth Group and older community members meeting to reconceptualise working together

References

1 Engeström, Y. (2001). Expansive Learning at Work: toward an activity theoretical reconceptualisation. *Journal of Education and Work*, 14 (1), 133-135.

2 Wenger, E., Trayner, B., & de Laat, M. (2011). Promoting and assessing value creation in communities and networks: a conceptual framework. The Netherlands: Dutch Ministry of Education, Culture and Science



Appendix F: Analytical memo for the change laboratory workshops

Planning workshop 5 May 2017 (PWNRT)		
Matter of concern/stimuli	Contradiction or once off problem	Key discussion outcomes
Definition of youth not simple neither is it shared		
The youth are lazy/uninterested in agriculture		
The youth doesn't understand you have to work for money		
The youth are captured by alcohol		The matter of concern between the subject of the sustainable development activity system (youth) and the object of the sustainable development activity system (alcohol consumption) was discussed and the following was shared by present youth: "We need to get to the root source or else we will never address this issue". "Parents need to ask why youth are drinking and doing drugs. For example we all know people are not employed/working", we have long wanted a field(s) for youth activities. The older generation grew up playing sports; if they really wanted to see change, they would have long gone to Keiskammahoek/Qoboqobo and requested/demanded recreational facilities for youths.
There are water costs/drought/shortages however water usage unreflective		
Costs of the activity are very high and limit the gains of the people		
Desire to use land as productive as possible		
Youth unemployment		

Low wages for those employed		
Youth not part of committees		
Youth not heard/listened to		
Youth don't attend community meetings		The matter of concern between the subject (youth) and tool (community meetings) of the sustainable development activity system was described in the following way: Youth are not part of the decision making of the village, not through structure and neither through their ideas being recognised in community meetings. "The discussions and decisions are held by four people only, when there are many people there is no way forward that is why most people don't go to the meetings."
Object of the change laboratory workshops		<p>The object of the research project/ change laboratory workshop was discussed and the following agreed upon as contributions to the object of the expansive learning process:</p> <ul style="list-style-type: none"> ● Change that is felt or affects the whole village ● Finish my masters in record time ● Addressing the drought challenge ● To awaken a group of youth that wants an active youth and development in Lenye, and for that group of youth to not only want active youth but to be that active youth that works on activating other youth and the development they want to see ● Youth helping each other with youth development, every youth to lead in their structure and to commit to attending these meetings and following through on other commitments ● Grow food for school children, crèche and old people (Easter and end of the year)

		<ul style="list-style-type: none">● Addressing the animals getting into people's plots. E.g. through camps● A way for youth to work with old people, so we aren't enemies and youth to be part of structures then we draw closer to what we hope● Return of sharing vegetables when there are funerals for the family of the deceased● Revival/building/ establishment/maintenance of sports grounds● Build unity through sport organising a tournament● Establishing a nursery● Reviving concerts and music
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Questioning Workshop 1 (QW1)

Matter of concern/stimuli	Contradiction or once off problem	Key discussion outcomes
<p><i>Sidalukukhanya millie fields</i></p> 	<p>Contradiction</p>	<p>Manifests as: Warthogs and monkeys eat and spoil the corn crop in the field. The Department of Agriculture, Forests and Fisheries speaks against animal cruelty prohibiting farmers from killing warthogs and monkeys without providing an alternative solution to the crop damage they cause causing a significant loss to the farmers. The shorter maize in the field may be due to the absence of crop rotation and the growth of previous season's maize or due to poor watering.</p>
<p><i>Lenye Primary School tanks</i></p> 		<p>The tanks should have strainers and a/more consistent cleaning strategy, as they are dirty. They should be locked and chained.</p>

Lenye Primary School



Contradiction

Manifests as: There are many challenges in the school social, educational and health and safety related. There is/has been theft in the school. The school is unappealing and many changes need to be made to improve the school's infrastructure and there should be a caretaker. The toilets are dangerous and a health risk, they need to be locked and drained. Teachers leave early and use children to clean up the school (the group expressed different views around children picking up papers/litter).

Irrigation pipes near Lenye Youth Group plots



Contradiction

Manifests as: The fields on the right side of the village are covered in grass when they should be covered in vegetables or crops. The watering system in the field is old; it thus leaks and is scarce material. Additionally it requires great strength thus demanding the watering be a male role or responsibility. New technology is suggested for farming activity success and ease.

Sidalukukhanya chillies near Sidalukukhanya chillies



fields

Contradiction

Manifests as: The fields on the left side of the village are covered in sweet thorn. Although *Vachellia karroo*, colloquially known as sweet thorn, provides shade for workers and seedlings, it is more a disturbance to farming in the area as it covers and makes much of the land inarable and needs to be removed. Additionally it provides a windbreak making farming cabbage where it is most abundant a high risk farming activity due to increased heat in that area. There are often excess seedlings in the Sidalukukhanya project, which go to waste on the wayside. Additionally the fields are covered in sweet thorn due to the unavailability of water because of unpaid Eskom tariffs for pumping water onto the left side of the fields due to the topology of the fields.

CWP school garden



Contradiction

Manifests as: The Community Work Programme uses “God's way” as a farming strategy and therefore no insecticides are used; however they do not make use of organic methods of ridding the garden of pests or reducing pest induced spoil such as planting marigold and onions or intercropping etc. which were raised as a solution within the workshop.

Questioning workshop 2 (QW2)		
Matter of concern/stimuli	Contradiction or once off problem	Key discussion outcomes
the rain and cows ruin the garden	contradiction	Manifests as: Theft and cows disrupt the CWP garden as livestock. This was an interesting conversation concerning some values/rules in the village that may or may not exist regarding conflict/crime that may contradict the object of sustainable development as incidents of theft are reportedly not reported to avoid conflict
using a slasher in a dense forest is dangerous		This was awkward to discuss in the absence of those who reported this challenge and use slasher as those present disputed the challenge and the representatives who had raised the issue were not present to speak on the matter
then dams and graves and dips are not fenced.	Contradiction	Manifests as: concerns and questions around the supervisor's role or responsibility in facilitating communication with Siyakholwa and manifests as further concerns with the supervisors "age" impeding her being able to work at full capacity.

<p>Then it was said that the reason for the spoil, the cabbage is being eaten by moths and other insects and that Tamron (an insecticide) and other things that could be used are expensive. Is that statement strange in anyway? That repellents are expensive.</p>	<p>Contradiction</p>	<p>Manifests as: Siyakholwa the implementing agent supplies CWP employees with tools and practices and trains employees through organic agricultural practices. The garden is meant to be an additional source of income for the CWP employees. Due to spoilage, unsold goods and theft of tools the proceeds of the garden have not produced any profits. In fact, instead of taking money home CWP employees end up taking unsold vegetables home on credit awaiting to pay for them from their CWP income as unsold goods impede on the purchase of seeds/seedlings for the following planting season. The money that comes from produce is used to buy tools and seedlings for the garden so the garden does not make any profit. Lack of transparent communication concerning the proceeds was also mentioned. An additional reason as to why the CWP do not have repellents is that they are expensive however in QW1 Odwa provided a solution for insect repellents for an organic garden such as the CWP's that was not heard by people who are working in the garden as they were not present in the meeting. Also the CWP supervisor said they get seeds from Siyakholwa which is not the report given here. Unfortunately the supervisor was not present for this meeting but may be present for future</p>
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		meetings. Lastly, it was discussed that good quality cabbage should be used for selling and in the crèche and for old people whilst the poor quality cabbage should be removed and placed on the compost heap.
Youth would like to be trained in handy work	Contradiction	Manifests as: The issue of CWP training was raised in the planning workshop as well. The supervisor's role in ensuring relevant and desired training was raised. The contradiction manifests as concerns and questions around the supervisor's role or responsibility in facilitating communication in general and for training and an incongruence in training received or in lack thereof due to effective supervision. Competency evaluation was suggested as it was noted that one of the reasons people desire training is the proof or qualification it provides for peoples competency, i.e. some youths do not desire the training as such but the qualification as they possess the skill.
some said there was a document and others said there wasn't	Contradiction	Manifests as: There are different working groups and the different working groups do not share equal knowledge and understanding of the work, communication could be strengthened perhaps through notices and uniform communication. Communication noted as a recurring issue in a number of scenarios.

Division of labour unclear.	Contradiction	Manifests as: The group is not committed and disciplined. We need to be committed and disciplined otherwise we have discussed division of labour and just need to commit.
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Questioning Workshop 3		
Matter of concern/stimuli	Contradiction or once off problem	Key discussion outcomes
Youth don't want to be entrepreneurs or self-employed they would rather be employed (CPI7, CPI12)	Contradiction	<p>Manifests as: Whilst one speaker retorted that youth are lazy others challenged the notion retorting it was a statement speaking of the many challenges faced by youths regarding employment/work in the village.</p> <ul style="list-style-type: none"> ● We don't seem to understand that it takes long to make money. ● Youths don't want to join the Lenye Youth Group because were working in the field/ farming but will definitely go and work if called for ploughing as they know they will get paid n.

		<ul style="list-style-type: none"> ● Youth are afraid of failure, not lazy because if they are called to work for money they go and work ● People don't want to spend time, responsibility, and money for their own things ● The system has taught us to aspire to other things but not to be entrepreneurs. ● Youth are lazy and don't want to think ● Youth lack the knowledge and early experience or exposure to realise what they are capable of [and may truly aspire to] / we know ourselves and our capabilities late in life ● Even within our homes and community we are not encouraged and taught agriculture, we're sent to do things like close the tap therefore we do not learn "There isn't anyone encouraging even at home. For example, we farm here in the village but there are few people who encourage like "here's some cabbage go ahead and plant and farm it". What they want is to say, "Hey go change the water I'll give you some drink, I'll pay you". They don't teach you to know how to farm the cabbage they just tell you to go change the water and for him he's done teaching you in that way. Or he'll say go and shovel once I'm done shovelling there isn't anything else that he'll show you but when he
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		<p>speaks he will say “They don’t want to do anything, they’re not serious about anything” (Mzwebongo#25)</p> <ul style="list-style-type: none"> ● We lack the resources and research means which we didn’t have even when we were at school and didn’t learn and weren’t taught at school “Another thing that’s a problem is, when we were at school, you’d get an assignment and have to do your whole assignment based on what is in the book because we don’t have internet, that’s another challenge that may cause us to be or appear lazy because some things are out of our reach. Mzwe has already mentioned others” (Lwando#26) ● We don’t have knowledge concerning places that may assist us [to turn work into self-employment]/we don’t have access to information/we don’t know how and where to do research and our aspirations involve leaving and living the dream elsewhere where dreams are lived “yeah, it’s what I was saying... we don’t know how and where to collect information, because we weren’t taught that at school, we can’t research because we don’t have access to research and even if someone says research you don’t know how to, you feel stuck as you’re thinking where do I start to research (information centres and departments). The only thing you know is the meaning of the word ‘research’, but when you have to research you’re now stuck. You can’t move at all. It truly is difficult to access information. And then as you grow up you don’t see yourself staying here, you see
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		<p>yourself staying close to the Waterfront. Also, we think there's only one way of achieving the initial dream of becoming a doctor, forget one can still achieve it later on in life. And after completing matric, people tend to think there are lots of ploughing jobs in the village. They never think "What else can I do to be independent and become my own boss?" (Mzwebongo#27)</p>
<p>Youth don't want agriculture</p>	<p>Contradiction</p>	<p>Manifests as:</p> <ul style="list-style-type: none"> ● We would want agriculture if we were taught about it and saw the benefits "...For example, I am his son. He just wants me to plant and change water. Then he will call me again when he wants me to spray. And all he does it so give me R20. He can't show me the practicality of sowing cabbage and tell me tricks of when to spray and all those things. People get paid for working in the fields but others do not even pay you when you plough for them (perhaps due to sharing the same household), and that tends to be discouraging, causing them to conclude that we do not want agriculture and we are not serious about anything. Little do they know I sometimes wished I had cabbage, but I can't afford to buy it with that R20 but I would have other needs, such as buying airtime. Sometimes they mock us by saying "That is your cabbage", and we would know they're just saying it to get your attention. They do not motivate us enough, if they motivate us at all." (Mzwebongo#31) ● Some youths are boldly and greatly involved in agriculture due to the way they were raised and

		<p>participate in the agricultural process at different times for different reasons. Some youths aren't interested because of the way they were introduced to it or because of the connotations associated with it, others don't want to be dirty and others are ashamed of agriculture and look down upon it</p>
<p>Is the Lenye Youth Group committee the youth committee for the whole youth community?</p>		<p>Manifests as: Confusion as the initial plan was for it to be for the whole youth, for the whole youth to be part of the co-operative hence initially everyone voted and hence the way it was structured but over time the committee was re-elected and not everyone has joined the co-operative so it is now a committee for the [aspiring] co-operative currently known as Lenye Youth Group and a new committee for the youth at large needs to be re-elected. In order to re-elect a youth committee a youth meeting needs to be called however via the village committee as youths do not attend meetings and at this point if the present youth call the meeting the masses will think it's a project meeting.</p> <ul style="list-style-type: none"> ● Female youths don't attend meetings as they won't get jobs from attending the meeting and the few that do

		<p>attend do not encourage others to attend. We discussed possible solutions such as the few young females who attend ought to encourage others and that we ask that the rule about meeting attendance and jobs in the village being congruent be reinstated as well as other village rules designed to incentivise meeting attendance. Additionally it was suggested that an older lady community member could encourage young ladies as she socialises with them. Unfortunately, due to continuous change in the village committee there is a lack of continuity as new committee members are not orientated. Additionally sharing meeting content with those who did not attend nullifies the need for them to attend as they will hear it from others.</p>
<p>“We say we have a challenge of having a drinking youth but we don’t set a date typically for drinking as the workshop date so that we can drink”</p>		<p>We refuted the month end dates for a number of reasons not only that people will be drinking. We really cannot opt for those days as we wouldn’t want people showing up intoxicated and we wouldn’t want to miss numerous meetings due to people having other commitments such as preparing for a funeral or event or going to town because they have gotten paid.</p>

LYG do not hold meetings	Contradiction	Manifests as: LYG meetings no longer happen because we lack CPR- Commitment, punctuality and responsibility. We have changed times and days for meetings often but it boils down to CPR “I think we have been changing times a lot, and days. The time we use now cannot be changed otherwise there will never be another time that is suitable to everyone. I think the reason is what I call “CPR” which stand for Commitment, Punctuality and Responsibility.” (Mzwebongo #172)
Youths are not part of the leadership structures in the community		This one has been addressed as the new committee has youth members.
Do people get re-elected in the committee?		The last village committee removed themselves such that the committee had one member only The village committee continuously changes with the exception of certain members that are constants such as the SGB chairperson who represents the SGB on the committee. The last committee election was unfair and chaotic, there was much debate on the gender and age representation of the chairperson and so it was decided all those elected would choose the positions that suit them best.

Appendix G: Spreadsheet used for analysing the expansive learning process as an activity system and for value creation

	A	B	C	D	E	F
1	Value Creation 1,2,3,4,5	Elements of the activity system	Matter of concern/Statement/Information/Evidence	Data Source	Contr on/off	Interpretation and discussion of evidence
2	immediate value and knowledge Capital for the researcher and Lenye Youth in the Focus group interview	Tools	<ol style="list-style-type: none"> Discussed different ideas like chicken farming and I suggested the idea of farming We can't get chickens now as we don't have the resources for chickens yet but we have the resources or can get the resources for planting We could get calfs as there is space for them, I can see everything coming together already, I have a vision Lots of land below where we live We can get planks when we have 	LVFGI		Up until 7:48 in the first audio Sisipto was only one talking. she conducted alot of research, Girl is a natural researcher and leader actually. The first meeting we had after my disappearance:(the first meeting we decided we are moving and had a committee Sisipto ran with the we must all research what we want to do and get back to each other with reports. Ta Mzwe and others raised the issue of not knowing how to research however she showed that research starts with beginning to ask questions from whoever you have access to who may have knowledge. She asked local community members and the ball kept rolling after
3						
4						
5						

Appendix H: Example of Consent Forms

Rhodes University
Environmental Learning Research Centre
Department of Education
P.O Box 94
Grahamstown
6140

Dear Siyakholwa

I Mandilive Matiwane a Masters student at Rhodes University in the Environmental Learning Research Centre wish to conduct research with your permission and assistance.

The research, *The role of expansive learning in the development of rural youth as value creators: A Case Study of youth farming activity in the Amahlathi Local Municipality in the Eastern Cape*, will entail the use of observations, interviews, discussions and documents around the youth employment facilitating programme you are part of in Lenye village (Phase 1), your participation in a series of youth based workshops for improving the employment facilitating programme you are part of for the youth and the village (Phase 2).

I kindly request permission to use information collected from your participation in my research report/thesis.

I will observe any privacy, anonymity and confidentiality requests or concerns with regards to the reporting of the information collected during this research.

I Thembeka Xesi have read and understood the consent form. I am satisfied with the form and the answering of my questions. I undertake to participate in the research project.

T. Xesi

02-11-2016

Signature

Date

Appendix I: CWP work record form

Project Name		Period: <u>DECEMBER</u>	Units as specified	Including Work and Training	Days	Is Activity completed?
19.1	Clean-ups of public spaces, rivers & canals	Square metres cleaned (area)				
19.2	Cleaning of bush & overgrown areas, soil rehab	Square metres cleaned (area)				
19.3	Maintenance of community gardens	Numbers of gardens maintained				
19.4	Maintenance of homestead gardens	Numbers of gardens maintained				
19.5	Making community gardens	Numbers of gardens made				
19.6	Making homestead gardens	Numbers of gardens made				
19.7	Planting and maintaining trees	Numbers of trees planted				
19.8	Compost heaps made	Cubic metres				
19.9	Nursery seedlings planted and maintained	Number of trees planted/maintained				
20m.1	Water & sanitation provision	Numbers of households benefiting				
20m.2	Repairing water points & pipes & sanitation facilities	Number of facilities repaired				
20m.3	Making access roads and pavements	Square metres				
20m.4	Repairing access roads and pavements	Square metres				
20m.5	Street and road cleaning	Square metres				
20m.6	Cleaning of illegal dump sites	Number of sites cleaned				
20m.7	Establishment of rubbish pits	Number of pits established				
20m.8	Cleaning of community halls/schools/churches	Numbers of schools/clinics/halls				
20m.9	Cleaning of cemeteries	Square metres				
20m.10	Making and maintenance of parks	Number of parks established				
20m.11	Assisting LM identify unemployed residents	Number of unemployed registered				
20n.1	Fencing community gardens	Running metres (perimeter)				
20n.2	Fencing homestead gardens	Running metres (perimeter)				
20n.3	Fencing schools/clinics/graveyards etc	Running metres (perimeter)				
20n.4	Renovations to schools/clinics/community halls etc	Numbers of schools/clinics/halls				
20n.5	Repairs to dongas	Running metres (perimeter)				
20n.6	Repairs to irrigation equipment & facilities	Number of facilities repaired				
20n.7	Repairing homestead garden fences	Running metres (perimeter)				
20n.8	Making netwire	Running metres (perimeter)				
20n.9	Building houses	Number of facilities repaired				

Appendix J: Extract from Amanzi for Food Youth Network Funding Proposal



Section 3: Assistance sought

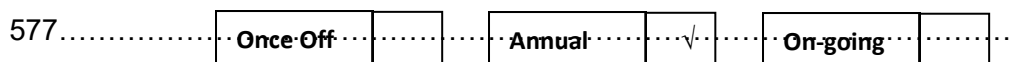
Project name: Amanzi for Food Youth Network Project

Project description & duration: Amanzi for Food is a project funded by the Water Research Commission, implemented by the Environmental Learning Research Centre. The Amanzi for Food project in partnership with the Department of Rural Development and Agriculture, Raymond Mhlaba Development Agency, Raymond Mhlaba Farmers Association, Zingisa Education Project, Ilizwi Lamafarma Farmers Union, Fort Cox Agriculture and Forestry Training Institute, Forte FM (local community radio station) aim to help everyone involved in the growing of our food to implement different ways of harvesting, storing, and using rainwater to improve food production. The use of Learning Networks as a platform through which the project supports participants and stakeholders has proven to be a platform of learning, inspiration, motivation and support. The Imvotho Bubomi (Water is life) Learning Network of the Eastern Cape has seen a rise in youth members. Through the establishment of an Amanzi for Food Youth Network, youth farmers in the Amathole District Municipality may receive; much needed support in establishing rainwater harvesting vegetable nurseries which will be productive demonstration sites and learning hub venues for the youths and other stakeholders in the Amathole District; fencing to enlarge the farming practice of three youth groups from backyard gardens to an approximately 10 hectare land mass for each youth group. Lenye Youth Group and Mnxumbu Youth Agricultural Co-operative along with other youths in the Imvotho Bubomi Learning Network may be the germ cell of a youth collective that organizes around the water and food security of the Amathole District Municipality. The Amanzi for Food Youth

Network Project which will run from 2018 – 2020 to run concurrently with the remainder of the Amanzi for Food project will present project reports to IBLN and will be implemented under Rhodes University financial and management policies.

Amount requested: R 500 000 for the three year

period..... Project budget: R 499



Duration of assistance:

Describe how the assistance will be applied (e.g. activities, objectives, needs to be addressed)

- Transport assistance for youths to meet and network with youths in the learning network and youths outside the learning network (6 Network meetings/Workshops per annum)
- Youth Network Workshops (6 per annum)
- Fencing for Mnxumbu Youth Agricultural Co-operative vegetable farming land of 10 hectare
- Fencing for Lenye Youth Group Nursery land 10 hectare
- Nursery infrastructure for 2 Youth Groups
- Water infrastructure assistance
- Marketing assistance

Agriculture value chain training (3 Workshops per annum). Accredited short course training from Rhodes University

Amanzi for Food Youth Network Budget	2018	2019	2020
	R 18	R 19	R 20
Network Workshops (Catering and venue 6 Workshops pa)	000,00	080,00	224,80
	R 173	R 92	
Fencing 10ha x 3 youth groups	840,00	135,20	R 0,00
	R 11	R 12	
Nursery Infrastructure 6mx5m x2 plots	660,00	359,60	R 0,00
	R 6	R 6	R 6
Water infrastructure assistance x3 plots	000,00	360,00	741,60
	R 2	R 2	
Marketing assistance	000,00	240,00	R 0,00
Agricultural Value chain training (3x3 day training workshop pa)			

Facilitators (3x3 days)	R 12 000,00	R 12 720,00	R 13 483,20
Venue	R 9 000,00	R 9 540,00	R 10 112,40
Catering	R 9 000,00	R 9 540,00	R 10 112,40
Transport assistance	R 6 000,00	R 6 360,00	R 6 741,60
Materials	R 4 500,00	R 4 770,00	R 5 056,20
Total	R 252 000,00	R 175 104,80	R 72 472,20
Sum Total	R 499 577,00		

Amanzi for Food Youth Network Budget	2018	2019	2020
Network Workshops (Catering and venue 6 Workshops pa)	R 18 000,00	R 19 080,00	R 20 224,80
Fencing 10ha x 3 youth groups	R 173 840,00	R 92 135,20	R 0,00
Nursery Infrastructure 6mx5m x2 plots	R 11 660,00	R 12 359,60	R 0,00
Water infrastructure assistance x3 plots	R 6 000,00	R 6 360,00	R 6 741,60
Marketing assistance	R 2 000,00	R 2 240,00	R 0,00
Agricultural Value chain training (3x3 day training workshop pa)			
Facilitators (3x3 days)	R 12 000,00	R 12 720,00	R 13 483,20
Venue	R 9 000,00	R 9 540,00	R 10 112,40

Catering	R 9 000,00	R 9 540,00	R 10 112,40
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Catering	R 9 000,00	R 9 540,00	R 10 112,40
Transport assistance	R 6 000,00	R 6 360,00	R 6 741,60

	R 4	R 4	R 5
Materials	500,00	770,00	056,20
	R 252	R 175	R 72
Total	000,00	104,80	472,20
	R 499		
Sum Total	577,00		

Intended impact

- The Amanzi for Food Youth Networks intended impact is the establishment of a working and growing network of youth farmers in the Amathole District Municipality that is centered on the water and food security of the Amathole District Municipality.
- To provide a support platform for youth farmers in the Amathole District where youths can learn from each other and continue to learn from the broader Eastern Cape Amanzi for Food Network.
- To establish the long term goal of securing sustainable participation of youth in the Agricultural sector

Motivate why your organisation/project's request for assistance should be granted:

This is a unique opportunity because of the learning network which provides a lot of socio-cultural support for young farmers lacking; training for the agricultural value chain, their own forums for agricultural practice development and infrastructural support for enterprise development. After meeting with the youths we realise there is a real need for this kind of support to assist the youths with these challenges. Additionally it is a well-known, common issue that youth have traditionally not been engaged in agriculture yet they are needed for the country's sustainable agriculture. The youths are already active in the learning network and its opportunities, this proposal is to fill in the gap.

What are the biggest risks/challenges that may limit your project to achieve its objectives:

Fluctuating participation, as youth are also offered other opportunities however initial observation and interaction with youth has shown that there are enough youths interested in the initiative which will make up for fluctuations in participation.

Appendix K: Skeletal draft of a potential PhD thesis extracted from Activate Workbook

WARD 10					
PROJECT NAME KEISKAMMAHOOEKA YOUTH LEAD AGRICULTURE					
NO.	ACTION	DETAILS	ASSIGNED TO	DELIVERY DATE	BUDGET
4	Questionnaires	Questionnaires to find out Qs on p. 34	Gr 10/11 agric learners		
5	Interviews		By out of school youths		
8	Agric is cool campaigns or workshops	Have speakers to present education or information and success stories	LYG, Zingcuka Youth	Could do one next year or end this year	
6	Questionnaire feedback	Give feedback of questionnaire results and host discussion	Gr 10/11 learners and their teacher/us		
7	Interview feedback	Give feedback of interview results and host discussion around them	Gr 10/11 learners and their teacher/me (this should've been us or should be us)		
9	Forum meetings	Co-ordinate and establish forum meetings of youth development network			
1	Mobilise and activate youth	Lead peoples to apply for activate and prime minds for community development and faith in self	Ntingani Lootsha	End of this year	
3	Set questions for questionnaire and interviews	Setting questionnaire questions	Ntinga and gr 10/11 and me (this should've been us or should be us)		
2	Contact all stakeholders	Contact stakeholders to initiate proposal engage them in proposal	Me		
10	Review work done to answer masters research questions at the end review questions		Me		

Budget and key resources [This section unpacks the deeper “how much” of your work]

Resource type	Existing resources	Resources needed	Strategy
Natural resources	Land		
Economic/Financial resources (Don't write endinayo)			Approach maspala and gov, Ntinga even the ELRC and councilors/steering comm
Human resources	School children – questionnaire, unemployed youth who will have applied to be in the team		
Organisational skills (soft skills)	Consult traditional governance and amanzi for food proposal and gov research projects eg stats SA		
Technical and professional skills	Consult traditional governance and amanzi for food proposal and gov research projects eg stats SA		
Infrastructure		Offices – research office either in Qoboqobo or satellite	Councillor/Steering Comm