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**A critical review of the response of the Environmental Literacy Skills  
Programme to learner capabilities, and to the demands of the Working  
for Water training setting in an emerging Green Economy**

The Case of the Working for Water Environmental Literacy Skills  
Programme Pilot, Uitenhage and Grahamstown, Eastern Cape Province,  
South Africa

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## **ABSTRACT**

This case study is guided by a social realist research approach. It is an investigation into if and how the Environmental Literacy Skills Programme (ELSP) responds to Working for Water learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy.

The context for the study is that of the Working for Water programme, an Expanded Public Works Programme (EPWP) run under the auspices of the Department of Environmental Affairs in South Africa. The study took place while piloting the newly created ELSP materials with a group of beneficiaries and contractors in Uitenhage, a town in South Africa's Eastern Cape Province.

The study provides insights into the application of accredited training in an EPWP training environment, and critically considers the academic and practical suitability of the ELSP in the WfW context. It achieves this by considering how the ELSP seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting. To understand what underpins learner capabilities and experiences, it was necessary to investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy. To develop these insights, data was gathered through participant observation, questionnaires, structured and semi-structured interviews, as well as document analysis.

The theoretical framework of Amartya Sen's (1999) Capability Approach supports the study, which provides an alternative way of understanding the freedoms that people enjoy, or the lack of freedom they experience, in being able to live the kind of life they have reason to value. The Capability Approach provides the key concept of resource conversion, which is used in the study to discern the social, personal and environmental constraints and enablers that people experience in their lives. These either assist or dis-enable a person in converting a resource such as education, into a functioning such as desired employment.

Through a social realist causal analysis model, key structures are identified that underpin the actions of beneficiaries and contractors in relation to their learning and career pathways. The

study shows that while the ELSP does support the development of green skills and in part responds to learner capabilities (and enabling and constraining conversion factors), there is a lack of information as to where those skills can be applied in elementary green occupations, in part due to South Africa's focus on high-skills development linked to Green Economy objectives. The study makes recommendations for aligning environmental education with career guidance, as well as a recommendation for further detailed research into identifying elementary green occupations and associated learning pathways.

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*i carry your heart (i carry it in my heart) – e.e. cummings*

## TABLE OF CONTENTS

Section	Contents	Page
	Abstract.....	i
	Acknowledgements.....	ii
	List of Figures, Tables and Appendices.....	vii
	List of Abbreviations and Acronyms.....	viii
<b>Chapter 1: Introduction and contextual profile of Working for Water</b>		<b>1</b>
1.1	Introduction.....	1
1.2	The Working for Water programme: A contextual profile.....	1
1.2.1	The effect of Apartheid policy on education and training.....	1
1.2.2	A global climate change crisis.....	2
1.2.3	WfW as a water security and biodiversity protection initiative.....	2
1.2.4	The institutional structure of WfW.....	3
1.2.5	1.2.5 The role of the contractor and the role of the beneficiary.....	4
1.3	Training and Development in WfW.....	7
1.3.1	Training as a sustainable employment tool.....	9
1.4	Duration of Employment and Uncertainty of Job Security.....	10
1.5	The WfW and WESSA Link.....	11
1.5.1	The LGSETA Environmental Practices Skills Programmes informs the WfW Environmental Chapter 2: Literacy Skills Programme.....	12
1.5.2	Design, Planning and Implementation of the ELSP Pilot .....	14
1.5.3	The Learner Selection Process.....	15
1.6	Problem Statement and Research Question.....	17
1.7	Overview of the Study.....	18
<b>Chapter 2: Context of the study and the pilot environmental literacy skills programme: environmental education training, the emerging green economy context and the organising framework for occupations</b>		<b>20</b>
2.1	Introduction.....	20

2.2	Environmental education training processes and experiences in other contexts.....	20
2.2.1	Community based projects.....	21
2.2.2	Other EPWPs.....	22
2.2.3	Local Municipalities.....	23
2.3	The Green Economy and Green Skills.....	25
2.3.1	Defining the Green Economy.....	25
2.3.2	The National Framework on Sustainable Development and the National Strategy for Sustainable Development 1.....	28
2.3.3	What Green Economy Occupations can WfW beneficiaries and contractors access? .....	30
2.3.4	Is there a close occupational title fit for a WfW job?.....	33
2.3.5	Green Occupations in demand, now and in the future.....	35
2.4	The link to the Environmental Practices Qualifications.....	36
2.5	Summary.....	36
	<b>Chapter 3: Theoretical framework – Social realism and the capability approach as a lens</b>	<b>38</b>
3.1	Introduction.....	38
3.2	The interplay of social realism and the capability approach.....	38
3.2.1	Learning pathways.....	38
3.3	A social realist version of reality.....	39
3.4	Structure and agency.....	43
3.5	The capability approach.....	45
3.6	Synergies between social realism and the capability approach	49
3.7	Conclusion.....	52
	<b>Chapter 4: Methodology – Research design decisions</b>	<b>53</b>
4.1	Introduction.....	53
4.2	Research methodology.....	53
4.2.1	Research orientation.....	53
4.2.2	Case study research design.....	55

4.3	Data generation process (Research methods).....	58
4.3.1	Participant observation.....	58
4.3.2	Questionnaires.....	59
4.3.3	Structured interviews.....	59
4.3.4	Semi-structured interviews.....	59
4.3.5	Document analysis.....	60
4.4	Data generation (Application of the methods).....	60
4.4.1	Goal 1 – Research methods and data generation.....	61
4.4.1.1	Participant observation: The ELSP pilot.....	61
4.4.1.2	Questionnaires.....	63
4.4.1.3	Structured interviews.....	64
4.4.1.4	Document analysis.....	65
4.4.2	Goal 2 – Research methods and data generation.....	67
4.4.2.1	Semi-structured interviews.....	67
4.4.4.2	Key informant semi-structured interview.....	69
4.5	Data management.....	69
4.5.1	Participant observation.....	69
4.5.2	Questionnaires, structured interviews and semi-structured interviews	70
4.5.3	Document analysis.....	71
4.6	Data analysis.....	72
4.6.1	Inductive analysis.....	72
4.6.2	Abductive analysis.....	72
4.6.3	Retroductive analysis.....	72
4.6.4	Tools of analysis.....	73
4.6.5	The analysis process in this research.....	73
4.7	Validity.....	75
4.8	Limitations.....	77
4.8.1	Inexperienced facilitators.....	77
4.8.2	Weather.....	78
4.8.3	NRMP and the WfW restructuring process.....	78
4.9	Ethics.....	78
4.10	Conclusion.....	80

<b>Chapter 5: Review of the ELSP pilot course programme and its implementation in the WfW work and learning context, including the emerging green economy context</b>	<b>81</b>
5.1 Introduction.....	81
5.2 Review of the ELSP pilot.....	82
5.2.1 Demographic data.....	82
5.2.2 Academic design of the ELSP.....	84
5.2.2.1 Language.....	90
5.2.2.2 Facilitator dependency.....	94
5.2.2.3 Workplace based evidence.....	95
5.2.2.4 Benefits of ELSP knowledge and teaching practice.....	99
5.2.3 Practical (usability) design of the ELSP.....	101
5.2.3.1 Time limitations.....	101
5.2.3.2 Dropouts.....	102
5.2.3.3 Accredited training requirements.....	102
5.2.3.4 Language (translation issues).....	103
5.2.3.5 Fuzzy link to occupational pathways.....	103
5.3 Conclusion.....	103
<b>Chapter 6: Analysis of the conversion, enabling and constraining factors influencing Working for Water contractors and beneficiaries' engagement with training offered in the environmental literacy skills programme</b>	<b>104</b>
6.1 Introduction.....	104
6.2 Summary of results.....	105
6.3 Conversion factors: Social, Personal and Environmental Constraints	108
6.3.1 Social constraints.....	108
6.3.2 Personal constraints.....	122
6.3.3 Environmental constraints.....	124
6.4 Conversion factors: Social, Personal and Environmental Enablers....	125
6.4.1 Social enablers.....	125
6.4.2 Personal enablers.....	139
6.4.3 Environmental enablers.....	140

6.5	Structure, agency and culture (factors).....	141
6.5.1	Structure.....	141
6.5.2	Agency.....	144
6.5.3	Culture.....	149
6.6	Green Economy jobs.....	153
6.6.1	Types identified.....	153
6.6.2	The unawareness problem.....	154
6.6.3	Recycling as an opportunity.....	154
6.7	Conclusion.....	155
	 <b>Chapter 7: Aligning the environmental literacy skills programme with learners' capabilities and the Working for Water training and emerging green economy context – Conclusion and recommendations</b>	 <b>156</b>
7.1	Introduction.....	156
7.2	Accredited training in the WfW context.....	158
7.2.1	Consideration of language.....	159
7.2.1.1	Recommendation.....	160
7.2.2	Time allowance and budget considerations.....	162
7.2.2.1	Recommendation.....	163
7.2.3	Accredited training requirements.....	163
7.2.3.1	Recommendation.....	163
7.2.4	Lack of information on green occupations and learning pathways	164
7.2.4.1	Recommendation.....	165
7.3	Investigating engagement of WfW beneficiaries and contractors with the ELSP, viewed using a stratified ontology model	166
7.3.1	The real, the actual and the empirical.....	166
7.3.1.1	Recommendation.....	170
7.3.2	The enabling and constraining elements of family structure and children.....	171
7.3.2.1	Recommendation.....	172
7.3.3	Cognisance of structures and their powers and liabilities.....	173

7.3.3.1	Recommendation.....	172
7.4	Implications of the study for the EPWP and the Green Economy....	175
7.4.1	Implications for the EPWP.....	175
7.4.2	Implications for the Green Economy.....	176
7.4.3	Implications for the EPWP and the Green Economy as a whole.....	177
7.5	Limitations of the study and the research process.....	177
7.5.1	Limited scope.....	177
7.5.2	Limited language and cultural context.....	178
7.5.3	‘High level’ of learner compared to the average WfW learner.....	178
7.5.4	Specific conditions of the pilot.....	179
7.6	Recommendations for further research.....	179
7.6.1	Elementary Green Occupations.....	179
7.6.2	Main liabilities associated with accredited training structures.....	180
7.7	Conclusion.....	180
7.7.1	Usefulness.....	181
7.7.2	Key recommendations for future ELSPs in the WfW context.....	182
7.7.3	Study contribution.....	182
	References.....	183
	Appendices.....	189

<b>LIST OF FIGURES, TABLES AND APPENDICES</b>	<b>Title</b>	<b>Page</b>
1.1	Organogram of the Working for Water Management Structure relevant to training	6
1.2	Diagram explaining the link between the Environmental Practices Skills Programme and the Environmental Literacy Skills Programme	13
1.3	An explanation of the WfW ELSP course make-up, including module number, titles, unit standard specifics and credit value	14
1.4	Map showing the sites from where beneficiaries and contractors who took part in the pilot study were based	16
2.1	Green Occupation Icon as per the OFO 2012	32
3.1	Diagram illustrating a stratified ontology view of an open system with a WfW context	42
3.2	Critical realist view of causation	43
3.3	A heuristic of Capability Approach concepts	48
4.1	Participant C12 providing group feedback on a Systems Approach exercise during training	62
4.2	Diagram to explain the analysis process	74
7.1	Social Realist Causal Analysis Model of the ELSP Efficacy	168
7.2	Chain of influence from broader educational structures and Government structures, through to the WfW beneficiaries and contractors that interact with these structures	174

<b>Table</b>	<b>Title</b>	<b>Page</b>
4.1	Examples of Participant Observation Index Codes	69
4.2	Examples of Contractor Index Codes	70
4.3	Examples of Beneficiary Index Codes	70
4.4	Index Code for Parks and Gardens Manager Semi-Structured Interview	70
4.5	Index Code for Contractors Portfolio of Evidence Books	71
4.6	Index Code for Beneficiaries Portfolio of Evidence Books	71
4.7	Index Code for Facilitator Reports	71
4.8	Outline of the broad categories of research, with the sub categories that were derived from broad categories	75
5.1	Tabled map to navigate the results of the study	81
5.2	Demographic information derives from beneficiary and contractor interviews	82
5.3	Main analytical categories linked to Goal 1	84
6.1	Main analytical categories linked to Goal 2	105
6.2	Main analytical categories (constraining and enabling factors) linked to Goal 2	104
6.3	Main analytical categories (social realism concepts) linked to Goal 2	105
6.4	Green Economy Jobs	153

<b>Appendix</b>	<b>Title</b>	<b>Page</b>
A	Working for Water Training Matrix 2012	189
B	Specific Outcomes and Assessment Criteria for all ELSP Modules	192
C	Evaluation Rubric (Completed)	200
D	Evaluation Questionnaire (Completed)	201
E	Structured Short Interview (Excerpt)	202
F	Semi-Structured Interview (Excerpt)	203
G	Document Log	206
H	Participant Consent Form	209
I	Profile of Beneficiaries and Contractors enrolled on the ELSP	210

### **LIST OF ABBREVIATIONS AND ACRONYMS**

ABET	Adult Basic Education and Training
BG	Beneficiary Group
CASE	Community Agency for Social Enquiry
CG	Contractor Group
DEA	Department of Environmental Affairs
DHET	Department of Higher Education and Training
DWAF	Department of Water Affairs and Forestry
ELSP	Environmental Literacy Skills Programme
ESSP	Environmental Sector Skills Plan for South Africa
EPWP	Expanded Public Works Programme
GIB	Gamtoos Irrigation Board
IPCC	Intergovernmental Panel on Climate Change
ISCO	International Standard Classification of Occupations
IAPs	Invasive Alien Plants
LGSETA	Local Government Sector Education and Training Authority
NFSD	National Framework on Sustainable Development
NRM	Natural Resource Management
NRMP	Natural Resource Management Programme
NSSD1	National Strategy for Sustainable Development
NQF	National Qualifications Framework
OFO	Organising Framework for Occupations

POE	Portfolio of Evidence
RDP	Reconstruction and Development Programme
RPL	Recognition of Prior Learning
SAQA	South African Qualifications Authority
SETA	Sector Education Training Authority
SANParks	South African National Parks
WESSA	Wildlife and Environment Society of South Africa
WfW	Working for Water

## **CHAPTER 1: INTRODUCTION AND CONTEXTUAL PROFILE OF WORKING FOR WATER**

### **1.1 INTRODUCTION**

This study is located in the Working for Water (WfW) programme, which is one of South Africa's Expanded Public Works Programmes. This chapter introduces the historical context of Working for Water as well as important structural insights into the programme in terms of hierarchies, job responsibilities and training. The relationship between the Wildlife and Environment Society of South Africa (WESSA) and WfW is discussed, which provides the link between the Environmental Practices Skills Programmes and the development of the WfW Environmental Literacy Skills Programmes (ELSP), which is the focus of this research as outlined in the problem statement and goals. Chapter 1 concludes with an overview of the rest of the study to provide a roadmap of this research.

### **1.2 THE WFW PROGRAMME: A CONTEXTUAL PROFILE**

#### **1.2.1 The effect of Apartheid policy on education and training**

When examining South Africa's past in terms of education and training inequity, it is easy to become bewildered by the exclusionary depth and breadth of Apartheid policy and legislation. Black South Africans, in particular, were blocked at every turn from childhood to adulthood with regard to their educational and occupational options. Most black South Africans were forced into a physical labour market that ranged from domestic work, trades of limited scope and mining to name a few (McGrath, Badroodien, Kraak, & Unwin, 2004).

In the early post-Apartheid years (1994), government attention was focussed on transformation, with educational reform and job creation for the unemployed a top priority. Unfortunately, the vast majority of unemployed people were uneducated or severely under-educated, while employment opportunities in South Africa were mainly available for those who had completed schooling. Despite many years of democratic governance since 1994, the symptoms of the discriminative policies of the past are evident in current unemployment levels, low educational achievements and dependency on the state (DeBeer, 2004, cited by Knipe, 2004; McCord, 2005).

As Trevor Manuel wrote in the National Development Plan 2030:

Despite these successes, too many people are trapped in poverty and we remain a highly unequal society. Too few South Africans work, the quality of school education for the

majority is of poor quality and our state lacks capacity in critical areas. Despite significant progress, our country remains divided, with opportunity still shaped by the legacy of apartheid. In particular, young people and women are denied the opportunities to lead the lives that they desire. (National Planning Commission [NPC], 2012, p. 1)

While South Africa was being subjected to Apartheid policy and National Party rule that was drastically impeding the social and economic development of people of colour in South Africa, globally political conversations were beginning to include serious discussions on the effects of climate change and rates of development around the world (NPC, 2012). The timing of the end of Apartheid in 1994 and the emergence of the global climate change crisis were roughly congruent and the government of the 'new' South Africa has participated in the global climate change conversation as presented in 1.2.2 below.

### **1.2.2 South Africa and the international climate change agenda**

In 1988, running in parallel to South Africa's political unrest and social change, the Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organisation and the United Nations Environment Programme. Essentially, the climate change research (assessment reports) that the IPCC produced, particularly the 1995 Second Assessment report, were influential in the development and adoption of the Kyoto Protocol in 1997, to which South Africa became an initial signatory. With South Africa paying attention and committing to the international climate change agenda, recognition was paid towards natural resource management and its role in achieving sustainable development objectives. This was further formalised with the United Nations Millennium Declaration in 2000, and the associated Millennium Development Goals, which pushed United Nations member states to commit to achieving the stipulated social, economic, political and environmental goals by 2015 (IPCC, 2014; United Nations, 2000).

### **1.2.3 WfW as a water security and biodiversity protection initiative**

Linked to the above, WfW was originally established in 1995 under the direction of the Minister of Water Affairs, connected to the growing international commitment towards sustainable development (van Wilgen, Marais, Magadla, Jezile, & Stevens, 2002). Forming part of the Reconstruction and Development Programme (RDP), WfW was designed with a focus on removal of alien invasive vegetation, with a much broader aim of poverty relief and skills development.

The socio-economic model of WfW is such that disadvantaged people are afforded an opportunity to be simultaneously trained in alien invasive removal (and associated health, safety and social skills) while also earning a basic wage (Hope, 2006).

The WfW operational model proved to be popular, with a host of “Working for...” programmes making their way into the overarching Expanded Public Works Programme (EPWP) portfolio. Established in 2004, the EPWP is in fact pre-dated by WfW by almost ten years, and continues to develop job opportunities in four key sectors, which are the infrastructure sector, the non-state sector, culture sector, the social sector and the environment sector. It is the environment sector under which Working for Water is classified.

Since its inception in 1995 the programme has cleared more than one million hectares of invasive alien plants providing jobs and training to approximately 20 000 people from among the marginalised sectors of society per annum. Of these 52% are women. (Department of Environmental Affairs [DEA], 2013)

The figure of 20 000 people trained per annum indicates that the training component of WfW is substantive, and educational processes are continuously taking place in Working for Water via its training (Hough & Prozesky, 2012).

#### **1.2.4 The institutional structure of WfW**

WfW is housed within the Department of Environmental Affairs (DEA), and operates through the Natural Resource Management Programme (NRMP). In the past WfW was operationalised through the Department of Water Affairs and Forestry (DWAF), but in 2012 it was shifted over to DEA. The shift between DWAF and DEA did not come without complications, and these complications are relevant to this study, as high-level changes had ripple effects that were noticeable at an operational level during the research period. These complications were noted and used as data, and are discussed in Chapters 5, 6 and 7.

While the higher-level management and operational structures can be quite complex, what is relevant to this study is the regional structuring. An organogram is provided in Figure 1.1 for a basic illustration of regional hierarchical structuring (both operational and training). An Area Manager is directly responsible for managing certain rainfall catchment areas in a region, and these are not necessarily provincially bound. In the Eastern Cape, the area where this research

took place, there are two Area Managers that manage the eastern and western sides of the region.

Implementing agents are commonly used in the WfW programme across South Africa, whereby an organisation will run annual operations on behalf of DEA, and they are referred to as partners. Implementing agents include organisations such as South African National Parks (SANParks), Cape Nature, Independent Development Trust (IDT) Vuselela, Rand Water and the Gamtoos Irrigation Board. The hierarchy remains the same within an implementing agent. Ultimately the implementing agent will report to the Area Manager, and there can be more than one implementing agent working within a region.

A number of staff members operate beneath the Area Manager, including the training and social development co-ordinators, and the project managers. All staff to this point are on the WfW payroll. The WfW teams operate under the management of Project Managers, and work on a short term, contract-by-contract basis. The WfW management structure organogram (Figure 1.1) below provides a detailed description of this order.

### **1.2.5 The role of the contractor and the role of the beneficiary**

For those who do not work regularly with WfW terminology and concepts, it is important to understand the difference between a contractor and a beneficiary, as well as the dual use of the term 'beneficiary' in the WfW context.

A WfW contractor is a person that hires a number of people (11) to form a team who will work under their instruction to clear alien invasive vegetation from tracts of land (Hough & Prozesky, 2013). The contractor is thus responsible for paying the team, for transporting them to and from work in her/his own vehicle (usually a truck with a canopy), for providing tools and herbicide to the team, and for overseeing their work. In many cases the contractor forms part of the team, and is involved with the physical labour aspect of the work as well as the administrative side of the work. Contractors are expected to create quotes, manage invoicing, write reports etc., and are in many cases expected to be computer literate or are offered computer literacy training. As a minimum requirement, a person must have a matric certificate as well as a driver's license to qualify as a contractor (Fourie, Rowlands, & Wigley, 2013; Turner, 2012). Contractors generally

receive extensive training, over a period of time, which includes contractor development training (business skills).

Socio-economically speaking, contractors are usually seen as successful among their peers and neighbours, and are typically the main breadwinner in their homes. Some only contract to WfW and focus on this as their sole income, while others have multiple businesses such as catering or transport to supplement their WfW income (Fourie et al., 2013). Educationally, contractors can vary, with individuals that have tertiary education qualifications to those who are literate but who don't have matric. This is despite non-matric employment being against policy. It is also standard to find contractors who have the lowest level of education (for example matric only) that have shown commitment to the programme and worked their way up from general worker status through to supervisory status and finally into contractor status (Fourie et al., 2013; J. Turner, personal communication, 2012).

A beneficiary is one of the 11 people that make up a team hired by the contractor. They are paid a task-based wage, which means they are only paid on completion of clearing a particular tract of land as described in a contract. The contractor pays them only after the contractor receives payment from WfW. Beneficiaries' main tasks involve clearing of invasive alien plants by non-motorised physical means (pulling, cutting, chopping, sawing etc.) as well as chemical means (herbicide application), and motorised means (brush cutters, chainsaws).

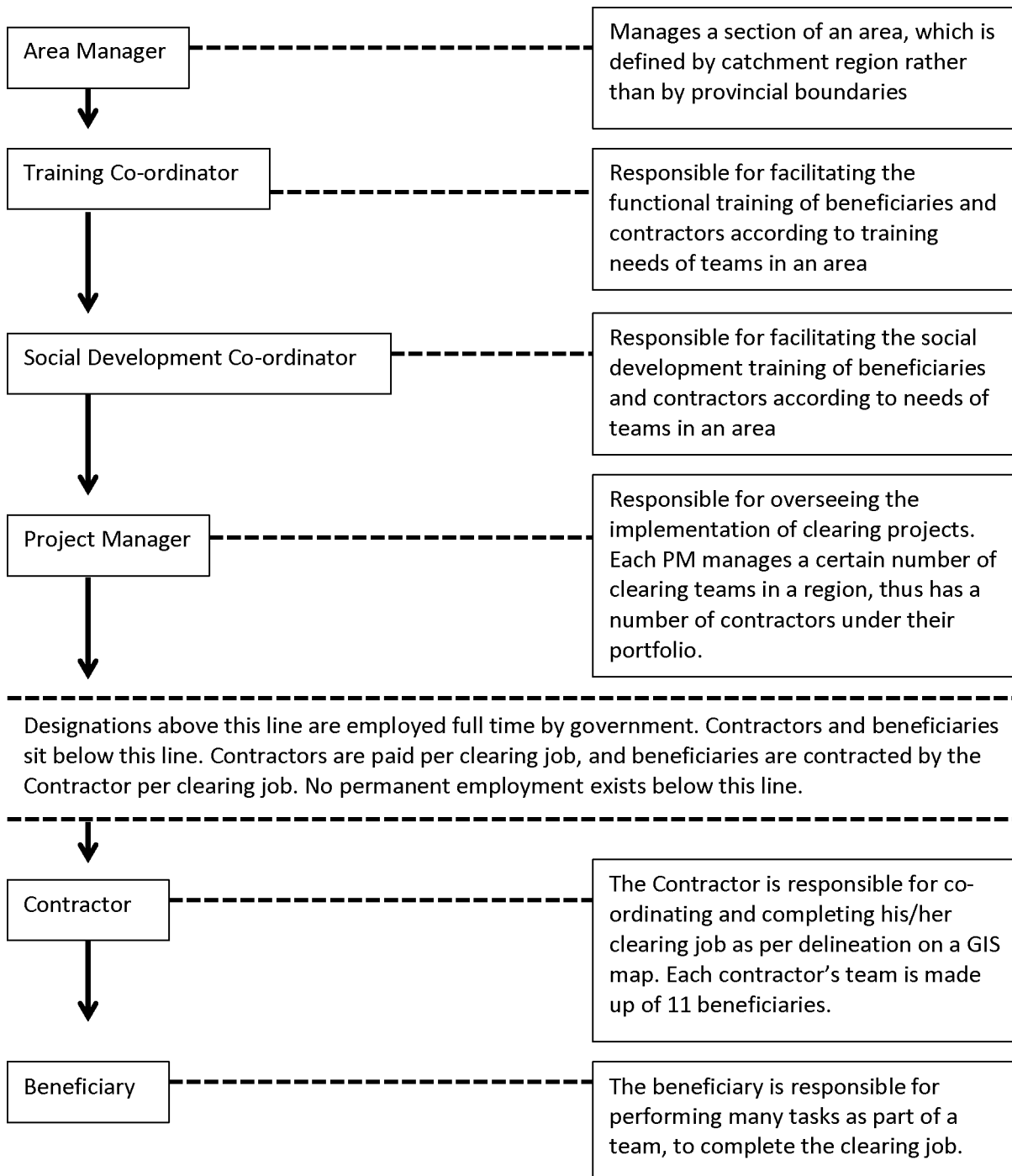


Figure 1.1: Organogram of the Working for Water Management Structure relevant to training

Almost all beneficiaries are termed 'general workers', which means they remove plants by non-motorised physical means using tools that do not require specialised training. This is the lowest paid position. Once a beneficiary receives training in specialised removals, they are known either as herbicide applicators, or chainsaw/brush cutter operators. Additionally, various health and safety and social development roles are assigned to members of the team, which encourages the

use of different occupational titles. For example on each team there has to be at least one First Aider, one Health and Safety Officer and a Peer Educator (Fourie et al., 2013; Turner, 2012). This is covered in more detail in Chapter 2, and the training matrix is available as Appendix A.

According to policy, beneficiaries should enter the WfW system through a selection process whereby community authorities (tribal, institutional or other) choose members of their community who are most in need of work. Typically, these would be single parent or grandparent headed households, people with disabilities and people who have had limited education opportunities. Overall, the WfW programme aims to recruit a minimum of 60% women, 20% youth and 5% disabled (DEA, 2013), however individual teams tend to vary in composition dependent on factors such as community needs, the physical nature of labour associated to a specific contract, and available labour. In comparison to the contractors, beneficiaries typically have not had as many education opportunities and come from families with significantly less resources (Fourie et al., 2013).

Thirdly, when speaking broadly about the WfW programme, both contractors and beneficiaries are referred to as 'beneficiaries of the programme'. A beneficiary of the programme is any person who is paid for invasive alien removals services, as opposed to those employed permanently by the DEA NRMP (as per the organogram in Figure 1.1).

### **1.3 TRAINING AND DEVELOPMENT IN WFW**

A certain amount of training has to take place in order for individuals to perform their jobs safely and accurately. WfW training operations are planned using a training matrix, which has evolved since the programme's inception. It comprises three major categories, that of functional training, health and safety training and social development training (DEA, 2012).

Functional training includes mandatory types of training such as induction to the programme, plant identification and herbicide applicator training, and training in the use of machinery such as chainsaws and brush cutters. Health and safety training includes occupational health and safety and first aid, while social development training includes HIV awareness, personal finance and diversity (DEA, 2012). A full example of the training matrix is available in Appendix A of this study. The training matrix comprises both contractor and beneficiary training options.

Different levels of achievement or progression are also offered in the training, such as First Aid Level 1, Level 2 and Level 3. There were 59 training courses listed on the 2012 matrix for both beneficiaries and contractors, with some courses aligned to unit standards as part of accredited training offerings, while others are not accredited (see Appendix A). Accredited training is usually reserved for critical work that is either dangerous and needs certification such as chainsaw operations, or to fulfil roles that require certification for compliance reasons such as having a certified First Aid officer on every team (Fourie et al., 2013; J. Turner, personal communication, 2012). Until 2014, environmental training did not form part of the matrix offerings.

Training has become a major part of the developmental culture of the WfW programme, and a number of factors influence how beneficiaries and contractors experience training on the programme as identified in needs analysis produced by WESSA in 2013 (discussed in more detail in section 1.5):

Illiteracy of beneficiaries and some contractors; high turnover of employees (beneficiaries); a perceived lack of interest in training; repetition of courses; language of facilitation; language of materials; lack of contextualisation of materials and training approach; quality of learning materials; limited service providers; unprofessional conduct by service providers; and certification from courses or lack thereof. (Fourie et al., pp. 61-62)

Influences are internal from WfW systems and structures, and external from service providers and the broader training environment of South Africa. These factors interplay at different levels and unsettle the WfW objective of upskilling beneficiaries and contractors to find work outside of the programme. Of particular importance is the element of high turnover of employees and the uncertain nature of the duration of WfW employment, which has direct bearing on the choices that beneficiaries and contractors have to make in terms of their careers paths (Hough & Prozesky, 2012).

In the past, employment opportunities in WfW were limited to a 24-month cycle based on the assumption that the skills gained during training would allow beneficiaries to find work outside of the programme (Hope, 2006; C. Makunike, personal communication, 2013). However, in 2010 policies on forced exit strategies were revisited and there is currently no limit to how long a

beneficiary or contractor can work on the programme (Hough, 2010; J. Turner, personal communication, 2012).

### **1.3.1 Training as a sustainable employment tool**

The problem of beneficiaries finding employment opportunities outside of WfW, and of not being more employable even after training, is documented well by the Community Agency for Social Enquiry (CASE) study of 2007:

Key finding 3: As a result of training received on the programme, workers' opportunities to find other employment were largely limited by the skills they received for their specific jobs on the programme. (Richards et al., 2007, p. 92)

The study findings suggest that the primary aim of training beneficiaries to do their WfW jobs safely and efficiently is directing their skills development inwards, towards being dependent on alien invasive removal jobs and government-supported employment. Training, in general, is not having the effect of opening up alternative employment options for programme beneficiaries.

Cinderella Makunike is the current Director of EPWP Training Support in the Department of Public Works (2013). Until 2004, Makunike was the National Training Manager at Working for Water after which she moved into monitoring and evaluation on the programme. Her long-term affiliation with WfW and the EPWP landscape gives Makunike credence to comment on the above employment trend:

I never really felt convinced that all these workers could use the training that they had received. It was okay to do it on the job, because then they could perform on the job. But beyond that not all training could be used, depending on where these learners were coming from, depending on their location and the market demands. I mean if you are right deep down in KZN, there are some very, very rural areas. Out of the training matrix I think you could use chainsaw operation maybe if you have machinery, driving [training] you will use ... but the removal of alien species you could only do if you got a job somewhere else. (Fourie et al., 2013, p. 7)

However, there are examples of exceptions to this trend, most noticeably with beneficiaries who receive First Aid training and Health and Safety training, which are versatile in their application across industries. Someone with First Aid and Health and Safety Level 1 is reported to be more likely to find employment in alternative industries such as on a construction site or in a clinic, than someone who has trained in Plant Identification and Herbicide Application (Fourie et al., 2013; Hough, 2010). Conclusive statistical evidence is lacking across the literature to support the

claim that health and safety training or any other training options are truly empowering (Hough & Prozesky, 2012). Stories of successful employment outside of the programme are typically unclear and second hand (Fourie et al., 2013).

#### **1.4 DURATION OF EMPLOYMENT AND UNCERTAINTY OF JOB SECURITY**

In general, beneficiaries do not see WfW employment as a long-term opportunity. This is due to periods of down-time with no income between clearing contracts, and bureaucratic problems that can influence how soon beneficiaries can receive their wages (Buch & Dixon, 2009; Richards et al., 2007). The down-time periods can range from a few weeks to three or six months (Fourie et al., 2013).

Working on a contract basis does not make for guaranteed or regular employment, which leads to operational problems such as when beneficiaries leave quite suddenly when for a better work opportunity. Apart from operational problems, when people leave in the middle of a contract it forces extra training for replacement beneficiaries, for which there may be little or no budget. In certain areas of South Africa where citrus farming is prevalent, it has been found that WfW beneficiaries tend to shift between fruit picking jobs in the picking season and WfW employment in the off season (Fourie et al., 2013; Hough & Prozesky, 2012).

However, in contrast to the belief that beneficiaries do not see WfW as a long-term employment option, there are areas in South Africa where this is not the case. Particularly in rural regions where many of the most historically marginalised members of society live, WfW offers rare elementary work opportunities. In these areas, such as in the Overberg of the Western Cape where a beneficiary dependency study by Hough took place in 2010, it is clear that people rely heavily on the intermittent work that WfW provides. They are prepared to rather stay at home and not look for other work between contracts, because they want to remain free and available to work as soon as the WFW contractor calls (Hough, 2010).

It should be noted that beneficiary dependency and other social phenomena (such as sexual relationships between beneficiaries, alcoholism, drug use, abuse between contractors and beneficiaries, family feuds within teams, family networks etc.) in WfW are not well-developed research areas and limited studies are available to draw on for comparisons (Hough & Prozesky, 2013). Additionally, social phenomena and WfW employment trends vary across the country; this

variance is often linked to climate and weather differences, local economic development policies and the multiple implementing agents of the WfW projects who all operate and perform differently (Richards et al., 2007). In general, EPWPs suffer similar issues including that of short-term, unreliable employment (Maia et al., 2011; Richards et al., 2007).

## **1.5 THE WFW AND WESSA LINK**

The Wildlife and Environment Society of South Africa (WESSA) is one of the oldest NGOs in the country, established in 1926 (Ward, Holliday, & Walker, 2011). Originally working in the realm of nature conservation, WESSA's contemporary core focus areas are that of biodiversity, energy, waste and water, which are accessed via the vehicles of legislation and compliance, environmental education and human capacity development (Ward, 2012).

In 2012, I was employed by WESSA as the project manager of the WfW Needs Analysis and Materials Development project. This project had been initiated in 2011 by two WESSA employees, Grant Trebble and Jonathon Wigley (both are no longer with WESSA). The aim of the project was to perform a national needs analysis to assess the general training needs of WfW contractors and beneficiaries, using a 'dipstick' survey and interview approach. The findings would ultimately inform an accredited environmental training option to position WfW's training offerings in alignment with green occupation opportunities, towards a Green Economy. The South African Green Economy context is discussed in Chapter 2.

Critical literature on WfW training is scarce, except for Hough and Prozesky's interesting research in the Western Cape (2010, 2012, 2013), but the results of the needs analysis confirmed general feelings (as expressed by the WfW Assistant Director of Training) that while the training offerings on WfW were effective in helping people perform on the job, they were not ultimately helpful outside of the WfW context. It is suggested that this is because the training offerings are loose arrangements of unit standards (the term used on the National Qualifications Framework<sup>1</sup> to describe a cluster of learning outcomes that have a credit value) that do not form part of any one

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<sup>1</sup> The National Qualification Framework sets the boundaries, principles and guidelines, which provide a vision, a philosophical base and an organisational structure, for the construction of a qualifications system. All education and training in South Africa fits within this framework (South African Qualifications Authority homepage, 2014).

qualification or skills programme, and the training offerings do not seem linked to work opportunities outside of WfW.

### **1.5.1 The LGSETA Environmental Practices Skills Programmes informs the WfW Environmental Literacy Skills Programme**

The original WESSA materials for the Environmental Practices Skills Programmes (Levels 2 and 5), were developed after the completion of an environmental education and training needs analysis by Wigley and Sisitka (Wigley & Sisitka, 2011). The needs analysis was commissioned by the Local Government Sector Education and Training Authority (LGSETA) and was used to inform municipal environmental training and education needs for both managers and elementary workers. The results of the needs analysis showed that managers and elementary workers lacked fundamental environmental knowledge as well as knowledge in specific areas of municipal operation (i.e. solid waste management, water quality management and sanitation, and parks and gardens).

The final recommendation of the WfW training needs analysis was that the pre-existing Environmental Practices qualifications<sup>2</sup> (Level 2 and Level 4/5) should be used as the informational base to create two small skills programmes<sup>3</sup> that both beneficiaries and contractors could study towards. This was because one of the critical findings of the WfW training needs analysis was that the work of WfW beneficiaries was similar (in terms of tasks and roles) to that of elementary municipal workers (in particular parks and gardens work). Additionally, contractors performed supervisory and managerial roles that overlapped with the descriptions of many levels of municipal responsibility. In other words, it was broadly found that one of the most likely areas of work for WfW contractors and beneficiaries would be based in municipalities.

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<sup>2</sup> A qualification is made up of a number of unit standards set at a particular level. Each unit standard comprises a set of educational outcomes that need to be achieved in order to gain the credits that the unit standard is valued at.

<sup>3</sup> A skills programme is a combination of unit standards from one or more qualifications, combined to serve a specific educational purpose. A person can accrue the credits for the individual unit standards, but he/she cannot earn the full qualification without studying further.

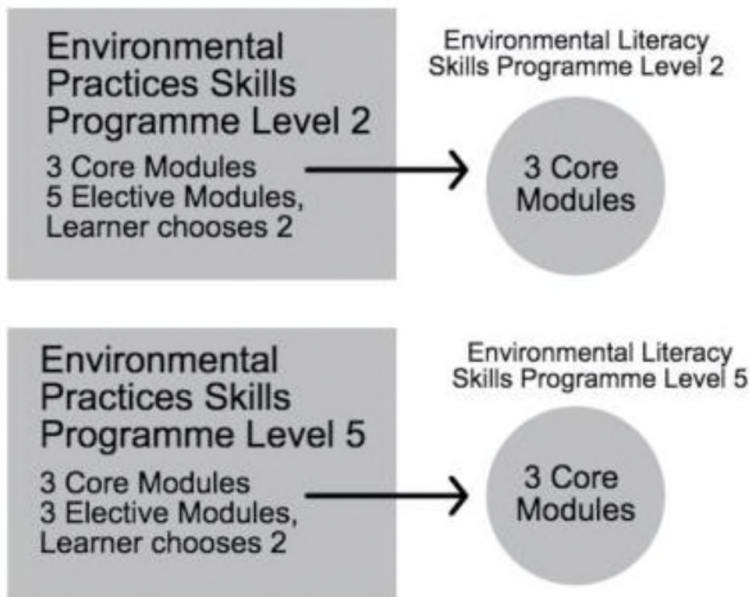


Figure 1.2: Diagram explaining the link between the Environmental Practices Skills Programme and the Environmental Literacy Skills Programme

The LGSETA Environmental Practices skills programmes (created by WESSA) consist of three core modules that are compulsory for all learners, and several elective modules from which learners had to select two, based on which municipal department they were situated within. On review and agreement with the WfW Assistant Director of Training, it was recommended that WfW utilise the first three core modules of the Environmental Practices Skills Programmes to formulate a smaller WfW Environmental Literacy skills Programme. For clarity, Figure 1.2 above explains the 'origins' of the core modules.

The bigger picture of the ELSP as suggested by WESSA, was that it should form the core of WfW training options. Initially contractors and beneficiaries should be trained with a focus on internal job performance, and thereafter the focus should shift from internal to external progression along desired career trajectories.

The WfW Environmental Literacy Skills Programme<sup>4</sup> (ELSP) course specifics are illustrated on the following page:

<sup>4</sup> During the process of this research, the South African Qualifications Authority has replaced the term 'skills programme' with 'part qualification' which is defined as any combination of unit standards from a qualification. There is no specification on a minimum amount of credits that is needed to qualify a collection of unit standards as a

Environmental Literacy Skills Programme: Level 2 (WfW BENEFICIARIES)			
Module	Title	Unit Standard	Credits
1	<b>Understanding Our Natural Environment</b>	Unit Standard 116064: Recognise and identify the basic functions of the ecological environment	4
2	<b>Understanding and Using Environmental Management Tools</b>	Unit Standard 119554: Apply environmental management tools to assess impacts	5
3	<b>Best Environmental Practice in my Workplace</b>	Unit Standard 119553: Take action to address impacts on the environment	10

Environmental Literacy Skills Programme: Level 4/5 (WfW CONTRACTORS)			
Module	Title	Unit Standard	Credits
1	<b>Understanding Sustainable Development</b> with a focus on global warming and climate change	Unit Standard 264459: Demonstrate an understanding of human sustainability	8
2 <sup>5</sup>	<b>Understanding Mentoring</b>	Unit Standard 114215: Mentor a colleague to enhance the individual's knowledge, skills, values and attitudes in a selected career path.	8
3	<b>Using a Systems Approach to Environmental Decision Making</b>	Unit Standard 252026: Apply a systems approach to decision making	6

Figure 1.3: An explanation of the WfW ELSP course make-up, including module number, titles, unit standard specifics and credit value

### 1.5.2 Design, Planning and Implementation of the ELSP Pilot

The ELSP modules were researched and developed against the learning goals, content and assessment requirements as outlined by the Unit Standard specifications. The learning goals per module are known in SAQA terminology as specific outcomes (SOs), and each module comprises several SOs that are constructed using Assessment Criteria (ACs).

Assessment activities need to be both summative and formative, and the WESSA educational stance incorporates the Active Learning Framework to support change orientated learning

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part qualification (South African Qualifications Authority Homepage, 2014). However for the sake of continuity the term 'skills programme' is used throughout this study.

<sup>5</sup> Module 2 was originally *Understanding Environmental Management Tools* (Unit Standard 264455: Demonstrate understanding of integrated environmental analysis tools) but was replaced with Unit Standard 114215, focussed on mentoring in selected career paths, which was deemed to be far more relevant within and outside of the WfW context for contractors. It forms part of the Environmental Practices Level 4 qualification.

(learning through encounters, dialogue and reflection) (Rosenberg, O'Donoghue, & Olvitt, 2008). Active Learning is complemented by using a variety of learning methods including information transfer, experiential methods, investigative methods, learning by doing, and deliberative methods. With Active Learning as the educational approach, the ELSP learning activities thus incorporated many of the above methods. For reference, all of the Unit Standards, Specific Objectives and Assessment Criteria for ELSP are presented in Appendix B.

Research, writing, formatting, graphic design and recontextualisation of existing Environmental Practices materials took place over a period of six months. During this time, WfW specified that they would like the piloting of the materials to take place in the Eastern Cape, through one of the best performing implementing agents, Gamtoos Irrigation Board (GIB).

### **1.5.3 The Learner Selection Process**

For the beneficiary ELSP pilot, 15 beneficiaries from teams that worked within the Uitenhage area (1) were selected based on literacy levels. The WfW Project Managers performed the selection after they discussed who they thought might cope with reading and writing in English. For the contractor ELSP pilot, 15 contractors who worked within the Uitenhage area and the Grahamstown (2) and Bathurst (3) areas were selected by the Project Managers based on literacy levels and on having matric certificates (see map in Figure 1.4 that follows). It was specified by Assistant Director of Training in WfW that a range of ages and an equal gender mix would be preferred for the pilot. However, the Project Managers dictated selection of beneficiaries by filtering out whom they thought would do well on the course. This was a largely subjective exercise based on their experience and interactions with the individuals. WESSA (and myself) had no say on who was selected.

The pilot training took place over three two-day sessions per group, and the learners underwent six days of class-room based training in total (hereafter referred to as the Beneficiary Group (BG) and the Contractor Group (CG)). The first session took place in the second week of December 2013, the second session took place at the end of January in 2014, and the third session took place at the end of March in 2014. Further detail is provided in Chapter 5 and 6 on the pilot and the types of data gained from the pilot, as well as data gained from the beneficiaries and contractors outside of the pilot.

### Beneficiary group

Fifteen beneficiaries made up the learner group to be trained in the ELSP. These individuals were from Despatch and KwaNobuhle, urban living areas that surround Uitenhage. Despatch has a population of roughly 33 000 people, and the majority speak Afrikaans with the second most widely spoken language being Xhosa. KwaNobuhle is a small town with over 120 000 inhabitants, about 4km outside of Uitenhage. It was primarily established to house black residents of Uitenhage that were forcibly removed via the Group Areas Act. Established in 1967, the town is now a primarily Xhosa speaking residential area.

### Contractor group

The contractor group comprised 15 individuals from many different towns and suburbs around this part of the Eastern Cape (with Port Elizabeth being the closest large city). The group included four contractors from Grahamstown, one from Bathurst, one from Rockland (near Uitenhage), three from Thornhill, one from Motherwell (PE), one from Despatch, one from KwaLanga (Uitenhage), two from KwaNobuhle and one from Uitenhage. Three of the contractors in this group had beneficiaries that formed part of the Level 2 ELSP. Photographs of the individuals who took part on the course (both beneficiaries and contractors), as well as insights from an evaluation report on the ELSP can be found in Appendix J.

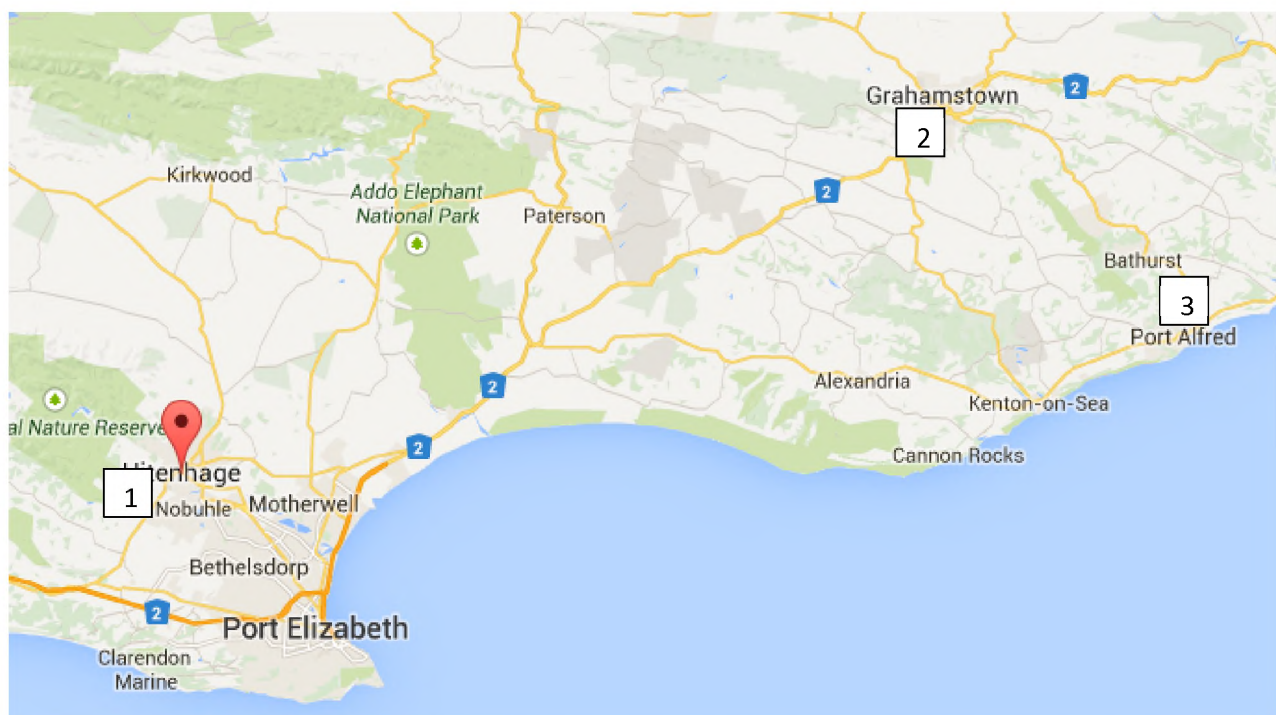


Figure 1.4: Map showing the sites from where beneficiaries and contractors who took part in the pilot study were based. 1 – Uitenhage, 2 – Grahamstown and 3 – Bathurst

## 1.6 PROBLEM STATEMENT AND RESEARCH QUESTION

In preparing the ELSP Pilot and researching literature on EPWP training, it has become evident that there are in few in-depth studies available focussed on environmental training in the EPWP context. It is more common to find generalised insights into training, or focus on business orientated training such as with Knipe's 2004 study on contractor development.

Of the studies that do exist, few take the lives and experiences of WfW beneficiaries into consideration except the work by Hough and Prozesky over 2010, 2012 and 2013. Research that draws links between the choices available to people in their lives, their decisions and how they engage with training opportunities has not yet surfaced. Personal, social and environmental conversion factors, and associated enabling and constraining factors of WfW beneficiaries are not normally given specific attention in research initiatives.

Thus the focus of this study is on the ELSP Pilot, and uses deeper social realist and capabilities analysis to address the question of how environmental studies in the EPWP context can be improved by paying attention to learner capabilities.

The aim of this research is to investigate if and how the ELSP Pilot responds to WfW learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy.

The goals of this research speak directly to the above aim:

1. To investigate how the ELSP Pilot training is structured, and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting.
2. To investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy.

**Goal 1:** This goal was achieved through research involving the ELSP pilot sessions, the materials and Portfolio of Evidence results. It was not in-depth research and was informed from the perspectives of the facilitators, the assessors, through observation rubrics and short structured interviews with the learners. It was based on what was seen and experienced, and used mainly an

inductive mode of inference for analysis (Danermark, Ekstrom, Jakobsen, & Karlsson, 2002). In this study when referring to how the ELSP training is structured, structure refers to how it is constructed academically (what is required of a learner to comply with the course objectives), and how it is structured practically in terms of logistics and timing (how the course is designed to run).

**Goal 2:** This goal was achieved by using theory (Capability Approach and social realism) to guide questioning into personal, social and environmental conversion factors that have influenced education and career choices in the lives of the WfW beneficiary and contractors. The agentive, structural and cultural factors that inform these conversion factors were uncovered through in-depth analysis using abductive and inductive modes of inference for analysis (Danermark et al., 2002). This specific theoretical terminology is explained in Chapter 3.

## **1.7 OVERVIEW OF THE STUDY**

Chapter 1 has provided a contextual overview of this research study, as well as in-depth discussion on WfW as a programme. Brief summaries of the remaining chapters follow below.

### **Chapter 2**

Chapter 2 offers a review of literature relevant to the study. Different types of environmental training in community settings and government settings are reviewed, and the emergence of the Green Economy and a discussion on the availability of green jobs in South Africa is presented.

### **Chapter 3**

The theoretical concepts of social realism and the Capability Approach are explained in relation to this study, as well as concepts key to both these frameworks including learning pathways, structure and agency, and conversion factors.

### **Chapter 4**

Chapter 4 outlines the research methodology of this study. A social realist research orientation and case study research design are explained, after which the data generation process is discussed. Research methods included participant observation, questionnaires, structured interviews, semi-structured interviews and document analysis. The approach to data analysis is

clarified, and factors such as validity, limitations and the ethical grounding of the study are discussed in the closing.

## **Chapter 5**

Chapter 5 presents the results of the study in relation to Goal 1. Results related to the structure of the ELSP are presented, using analytic categorisation to establish the academic and practical realities of the ELSP. The chapter focuses on if and how the ELSP responds to learners' education and experiences, and the demands of the WfW training setting.

## **Chapter 6**

Chapter 6 presents the results of this study in relation to Goal 2. Results related to the social, personal and environmental conversion factors in the lives of both beneficiaries and contractors are presented. This chapter focuses on how these factors possibly influence involvement and interaction of beneficiaries and contractors with the ELSP. By using direct quotes; I offer a thick description and insights from the field of practice.

## **Chapter 7**

Chapter 7 discusses the research findings in relation to the aim, using analytical statements and key recommendations to guide the discussion. Chapter 7 allows the space for retroductive causal analysis, which is characteristic of social realist research. This approach maps out influential structures, key enabling and constraining conversion factors, as well as the main observable events related to WfW and the ELSP pilot using a stratified ontology. My analysis, informed by the research, on the response of the ELSP to WfW learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy is offered.

The implications of the study for EPWPs and the Green Economy are then discussed, and the limitations of the study are reflected upon. Recommendations for further research are made, after which the chapter and study are concluded.

## **CHAPTER 2: CONTEXT OF THE STUDY AND THE PILOT ENVIRONMENTAL LITERACY SKILLS PROGRAMME – ENVIRONMENTAL EDUCATION TRAINING, THE EMERGING GREEN ECONOMY CONTEXT AND THE ORGANISING FRAMEWORK FOR OCCUPATIONS**

### **2.1 INTRODUCTION**

In Chapter 1, the history, institutional structuring and training options of WfW were explained and introduced. As shown in the research aims and goals in Chapter 1, in this study, training and factors that influence training experiences are a key focus. To provide relevant background and context to this focus, a review of similar environmental training contexts such as community based projects, municipality training and other EPWP training is presented in this chapter. The emphasis is on elementary occupation level training in this review, not on high skills environmental education and training, as this accords with the level of training being studied in this research. The recent strategic move to include environmental training among the suite of WfW training offerings is then explained, linked to the emergence of the Green Economy (a key concept offering impetus for this move). The Green Economy is discussed in relation to national policy, the emergence of green occupations on the Organising Framework for Occupations and elementary green job availability. This provides the wider context for the study and its significance in the field of environmental education, where there is increasing interest in the relationship between environmental education and training, green occupations, and the emerging green economy (Green Skills Project homepage, 2016).

### **2.2 ENVIRONMENTAL EDUCATION TRAINING PROCESSES AND EXPERIENCES IN OTHER CONTEXTS**

Considering the internal and external factors that influence training and education in the WfW context (as mentioned in section 1.4, the emphasis was on high turnover of employees and the uncertainty of duration of employment), it is useful to gain an understanding of factors that influence training in other environmental education contexts in South Africa. Contexts vary from deeply rural community initiatives to those which are institutionally structured such as local municipalities, and a number of contemporary researchers have investigated enabling and constraining factors in such training contexts. Understanding the variety of contexts is important, as WfW training experiences vary depending on who is being trained (rural or urban teams),

where beneficiaries are being trained (in extreme rural settings or in modern facilities) and who is facilitating the training and their specific educational approach.

### **2.2.1 Community based projects**

Davies (2009) and Masara (2010) have both researched training in rural community based projects, which provide similar socio-economic contexts to the rural WfW projects in areas such as the inland Eastern Cape and Northern Cape. Both reported on the importance of culture and language in their research on community based projects.

Davies (2009) investigated the rural community-based coastal education context and referred to the history of environmental education development in South Africa. Specifically, Davies explained the evolution of participatory education techniques in order to facilitate meaningful learning in diverse, multi-cultural and multi-language contexts. Without participatory education methods, operating cross culturally in this context would have been difficult for both the facilitator and the learners, and would have added to constraining factors that influenced learning. Davies introduced picture based learning activities and visual posters as learning aids in order to facilitate learning that could overcome language barriers, and open the space for learners to relate knowledge from their own lives and contexts.

Masara (2010) researched social learning in commercial beekeeping in Southern Africa which holds particular relevance to this study as the people involved with bee-keeping training in the rural Eastern Cape (Hluleka) which were part of his study (also in an EPWP context) are from the same community as five of the contractors who took part in the ELSP (Grahamstown based contractors). Masara firstly reported on the difficulty of multiple languages and cultures for training in the beekeeping context, specifically citing English as the language of learning as limiting:

The second tension was between Hluleka beekeepers' activity system and that of Makana Meadery was the language used in the beekeeping teaching and learning materials. The language of teaching and learning material was English which most, if not all the beekeepers were not conversant with. (p. 79)

Secondly, Masara (2010) observed that cultural beliefs could also conflict with practice in beekeeping. He related an example of a widow wearing black clothing who attended the training:

“widows should wear black clothes as sign of bereavement although bees hate dark colours” (p. 127). Masara’s study provided insight into very specific enabling and constraining factors to learning, derived from socio-cultural, political and economic complexities. Masara found that in both his study sites of Hluleka in South Africa and Buhera in Zimbabwe, there was a need to research and understand these factors to negotiate tensions that formed barriers to learning.

### **2.2.2 Other EPWPs**

Giqwa (2011) undertook research into the learning of EPWP workers in an Environmental Skills Programme. Her study, like the research of Davies and Masara, highlighted the diversity of factors that influence training, such as policy factors, historical contextual factors, economic contexts and diverse literacy levels including use of English as a medium of instruction in training.

Giqwa (2011) found that within the EPWP context at the time of her study, the emphasis of the training programmes that she observed were on concepts and content, social and learning skills, and values and attitudes. In particular, the emphasis on social skills overshadowed development of practical workplace related skills, despite this being a requirement of the unit standards that comprised the skills programmes. A certain percentage of learning is required to be workplace learning, but in reality this did not play out as intended, and pointed to the deeper issue of disjuncture between policy and practice. Ultimately, Giqwa recommended longer-term training frameworks where learners could train through to full qualifications, which would have more of an impact on their employability skills.

Giqwa (2011) consistently reported a disjuncture between policy and practice in EPWP training programmes, and discussed the use of dual language teaching and language mediation. She found that there was a conflict between the Sector Education and Training Authority’s (SETA) policy on English as the official language of learning, and the disadvantage that policy presented to learners with low levels of prior learning or who did not regularly use English. Many learners had last used English during school many years previously, and thus it was an impractical language medium for training. When considering the nature of environmental studies with new terminology and concepts, it was necessary for the facilitators to switch between languages and consider the local context of the learners to help them relate to the subject matter. For example, the facilitators would ask for the names of trees and plants in isiXhosa, or how the community

described the tree or plant and its uses, before introducing its botanical name (Giqwa, 2011). This echoes what Davies (2009) explored with participatory education techniques, allowing the learners to contextualise new concepts to their experiences, and illustrates that a participatory technique can be quite basic as in the Giqwa example, or more complex and planned such as poster and picture based activities.

Giqwa (2011) also spoke of the ability of environmental education trainers to be flexible and adaptive towards learners' needs when considering diverse literacy levels and teaching approaches, but noted that often the focus of facilitators in environmental training is on mediation of concepts and ideas over practical application.

...for learners to be successful in the unit standards, educators need to provide content and concepts, and structure learning activities so that learners can understand these concepts ... However, educators also need to structure learning activities that allow for practical application and skills development, which was not well achieved due to the lack of work opportunities for learners who were doing the EPWP training programme.  
(p. 132)

When referring to the issue of WfW offering short-term and unstable employment, this resonates with what Giqwa (2011) found. In situations with limited workplace opportunities, it is difficult to structure activities for practical application and skills development, which is a tenet of accredited education policy. It thus seems simpler and easier to mediate an idea or a concept through participatory techniques and learner centred education, than it is to design a practical activity that facilitates skills development in the EPWP workplace context.

### **2.2.3 Local municipalities**

A third area of research in environmental education and training is that of local municipal training needs and strategies. Makana Municipality in the Eastern Cape has been the focus of a number of environmental education research projects, including the research of Hamaamba (2004) and Mohanoe (2013), both of whom focussed on worker training.

Hamaamba (2004) explained that environmental skills are developed in municipalities from entry level employees or elementary occupations (often referred to as workers, due to physical labour tasks they perform) through to foremen, supervisors, middle management and upper management. Hamaamba clarified that in order to be compliant with South African legislation,

environmental education and awareness is important for municipal staff (across all levels) to become competent in interpreting and implementing environmental laws.

Hamaamba (2004) found that upper management felt education for workers needed to be completely hands-on, practical and workplace based. Additionally, and linking to what Giqwa (2011) found in the EPWP context, language was a major concern for effective training of workers and “indicates that an environmental education and training strategy should take issues of language and literacy into account and that English as a medium of instruction may not be appropriate for all training programmes offered to municipal employees” (p. 79). The interview data from focus groups indicated that with middle and upper management, using English as the language of instruction would not be a problem.

Hamaamba (2004) also considered the physical structures for training and his data indicated “there appeared to be strong feelings that lower level workers should be trained in the workplace through a practical approach, while management training would be more appropriately undertaken in training institutions or venues away from the workplace” (p. 80). This is interesting to note, as the primary source of Hamaamba’s data was interviews with management level staff with training experience in the workplace. Whereas Giqwa’s findings in the EPWP context pointed to difficulties in structuring workplace training as per the South African Qualifications Authority (SAQA) requirements, Hamaamba’s pointed to an encouragement from within the municipal structures towards this model. The municipal context (which is more permanent) seems more suited to the SAQA requirements.

Mohanoe (2013) looked more specifically at learning pathways that were relevant to sustainable development in the municipal context. Focussing on three different occupational categories, Mohanoe investigated key managerial occupations, key supervisory occupations and key worker occupations in the Makana Municipality, in order to understand the system and structural factors that influenced how learning pathways were articulated, experienced and accessed.

Mohanoe (2013) found that social structural factors existed (deep-seated inequality, social relations, power relations, marginalisation, organisational inefficiency, political neglect, legislative requirement, gender issues, language and communication) which influenced learning

pathways for workers, and that patterns emerged showing that no schooling and difficulty with learning using English would greatly influence the workers' chance of transition along a learning pathway: "These showed that learning pathways are not accessible and equally available to everyone as can often erroneously be assumed" (Mohano, 2013, p. ii).

Supervisor learning pathways were also found to be complex, and issues such as the overlap of study and work emerged as influential, relating to the lack of proper resources to allow them to learn and do their job better (Mohano, 2013). Underlying structures and mechanisms that shaped the supervisors' pathways included access to education and training, choice of subjects and related studies, higher education and gender, marginalisation and inadequate provisioning of training, retirement age and lack of a Recognition of Prior Learning (RPL) system, and legislation requirements.

Section 2.2 above offers insight into contemporary environmental education and training in three common South African contexts, and introduces key ideas to be discussed further in this chapter. These key ideas include the emergence of the Green Economy and the requisite need to develop environmental competency skills to service it, the concept of learning pathways as well as a focus on enabling and constraining factors (structures and mechanisms) that shape the learning pathway experience.

## **2.3 THE GREEN ECONOMY AND GREEN SKILLS IN WFW**

### **2.3.1 Defining the Green Economy**

In order to clearly see the link between WfW training, skills development and the Green Economy, a necessary starting point is an understanding of how South Africa defines the concept of the Green Economy in line with global norms.

The Green Economy was defined in the 2013 Green Economy Modelling Report of South Africa (United Nations Environment Programme [UNEP], 2013) as:

... a sustainable development path that is based on addressing the interdependence between economic growth, social protection and natural ecosystems. This view is in line with the country's vision on sustainable development, which states that 'South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations,

and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration'. (p. 9)

Eisner (1985) described an explicit, implicit and null curriculum within educational pursuits, meaning that depending on who creates the educational pursuit, the curriculum can vary and there are layers of meaning between what is stated. This concept can be applied to the above quote, which is the basis for understanding the Green Economy. Explicitly, the quote describes a holistic and democratic development vision, whereby recognition is given to the interdependence of the economy, society and the environment. It attempts to explain that without considering human needs and the environment, economic development can only continue for so long before the system falters.

Implicitly, it is inferred that national government understands what the fundamental human needs of its people are, and that in order to 'safeguard its democracy' certain levels of economic growth and associated prosperity are necessary. Additionally, the implication is that all management choices with regard to limited ecological resources are responsible choices (based on human need). It further implies that the government of today understands the human needs of future generations, who do not have their own voice yet. This is a contentious idea as government is predetermining the choices future people can make, which seems less democratic than the explicit vision described above. What remains null (or left unsaid) in this definition is that there are other ways to define the Green Economy pathway from perspectives that are less focussed on economic growth.

When considering green occupations, the Green Jobs Report developed by the Industrial Development Corporation, the Development Bank of Southern Africa and the Trade and Industrial Development Policy Strategies describes green jobs as "jobs in the formal economy across a wide range of technologies/activities that may be classified as green or that are contributing to the greening of the economy" (Maia et al., 2011). This does not offer a good definition of what classifies a job as green (this definition is addressed in section 2.3.3); it does show, however, that in order to classify a job or occupation as green, deliberation and consensus has to take place across a body of classification authorities.

In this same report, natural resource management (NRM) is highlighted as a key area for green jobs development (Maia et al., 2011). Mention is made of the "Working for..." programmes as a

successful international case study that shows how natural resource management is creating green jobs through the restoration of ecosystem services (Maia et al., 2011). As mentioned earlier though, the “Working for ...” programmes only create short-term contract based jobs, and do not offer secure longer-term employment for workers in the programmes (see Chapter 1, section 1.2).

Carl Death (2014) has offered a critical view of the South African interpretation of the Green Economy. Four Green Economy discourses are outlined by Death, namely the Green Revolution, Green Transformation, Green Growth and Green Resilience. Death explains that the discourse of the Green Revolution is separate in definition from how the term used in the agricultural context, which describes the green revolution as the move to bioengineered seeds used in conjunction with chemical fertilisers and irrigation to increase crop yields.

In the Green Economy context, the Green Revolution is the oldest discourse, stemming from the roots of the environmental movement in the 1960s and 1970s headed by many deep ecologists, eco-socialists, eco-feminists, indigenous peoples and others. The central idea of this discourse is that the economic system that the world subscribes to needs to be drastically ‘greened’, moving away from exploitation of the earth to that of respect of earth’s intrinsic value. Endless economic growth is not an option when considering a Green Economy from this discourse, and the Green Revolution would require radical worldwide shifts in social and political thinking to achieve its ends (Death, 2014).

Green Transformation discourse is more aligned to the original objectives of the Brundtland Report (World Commission on Environment and Development [WCED], 1987, p. 7) where “economic growth remains the driver of progress, the environment is a resource for human development, and states and the state system are the regulators and guarantors of development”. Moving to the third discourse, Green Growth is similar to that of Green Transformation, but it lacks the specific focus on social justice, equity and redistribution. Green Growth focuses on the economic opportunities offered by green markets. Particularly in the light of economic recession and global pressure for new markets, ‘going green’ presents a new way to make money (Death, 2014). Green Resilience is the fourth discourse, which focuses on maintaining the status quo, in other words the need to come up with strategies to deal with climate change and environmental challenges primarily by adjusting the way the human race sources water, food, energy and raw materials.

Death argues that from the range of discourses, Green Growth is most embedded within the South African interpretation of the Green Economy. Evidence of this is that the South African government regards the Green Economy as a state-project, spearheaded and financed by government; however, the government displays confusing resource use behaviour such as the exceptional dependence on coal for South Africa's energy. As Death (p. 9) stated, "Sasol's Secunda plant is one of the largest point sources of CO<sub>2</sub> emissions anywhere on the planet". South Africa is focussed on taking advantage of the economic opportunities that the Green Economy offers (i.e. investment in new green technologies) yet is not ready to compromise the current rate and direction of development by moving away from coal power. Base load power drives development, and coal is a readily available, relatively cheap resource that the South African government is dependent on to meet current development objectives. Meeting current demands and objectives tends to outweigh the long-term consequences of using coal power.

Death's overarching argument is that society needs to be wary of a naive assumption that all Green Economy driven actions are automatically 'good', and reminds the reader that rapid growth as per the industrial revolution did indeed develop countries, but it did so disparately and increased the divide between the high, middle and low income earners, which had major socio-economic and political impacts the world over. Death (2014, p. 16) quoted ex-President Thabo Mbeki when describing South Africa's own economic divide, referred to by Mbeki as a 'dual economy': "one is modern and relatively well developed. The other is characterised by underdevelopment and an entrenched crisis of poverty" (Mbeki, 2003). Death (2014) warned that it is important for national structures to consider the range of discourses carefully, in particular those that promote social equity, as with a largely Green Growth focus the Green Economy may perpetuate the socio-economic divide.

The multiple discourses of the Green Economy have directly influenced and shaped many of South Africa's national policies and legislation. In turn, the key policies and legislation have had a direct influence on WfW and other EPWPs, and are discussed in sections 2.3.2, 2.3.3 and 2.3.4.

### **2.3.2 The National Framework on Sustainable Development and the National Strategy for Sustainable Development 1**

After the World Summit on Sustainable Development held in 2002 in Johannesburg, Cabinet adopted the National Framework on Sustainable Development (NFSD) in 2008 (DEA, 2011). The

NFSD signalled a shift in thinking towards stewardship of natural, social and economic resources, with the recognition of the three-nested strong sustainability model of the environment and a systems approach to sustainability as central to the concept of sustainability:

Sustainability implies the continuous and mutually compatible integration of these systems over time; sustainable development means making sure that these systems [ecosystem services, socio-political systems and the economy] remain mutually compatible as the key development challenges are met via specific actions and interventions to eradicate poverty and severe inequalities. (DEA, 2011, p. 2)

With the NFSD including international development goals as part of its voice and direction (primarily the Millennium Development Goals and the Johannesburg Plan of Implementation), WfW and Working for Wetlands were cited as key achievements towards sustainable resource use: “Wise water management is greatly enabled by DWAF’s progressive orientation that assumes that a sustainable resource use approach needs to be integrated with economic growth and poverty eradication strategies, via cross-sector planning and implementation” (DEA, 2008).

The National Strategy for Sustainable Development was developed from the NFSD, and acted as a strategy and action plan document to support the NFSD. It is a working guide for contributing to the establishment of a Green Economy, and it does this by creating five ‘priorities’. These are:

1. Enhancing governance systems for integrated planning and implementation;
2. Sustaining our ecosystems and using natural resources efficiently;
3. Moving towards a Green Economy;
4. Building sustainable communities;
5. Responding effectively to climate change. (DEA, 2011, p. 15)

A number of goals with interventions and indicators under each of the five priorities were developed, and ultimately these tied in to the objectives and operations of the expanded public works programmes including WfW (DEA, 2011). Since 2011, WfW has worked towards aligning its training with the National Strategy for Sustainable Development Action Plan (NSSD1).

One of the actions that WfW put in place to create an alignment with the NSSD1 was a stronger emphasis on the link between the training opportunities offered on the programme and job opportunities available to unskilled labour. The emphasis was directed via increased research into training needs, with the aim of informing new training options and a refinement of the WfW

training matrix to become more occupationally directed (Fourie et al., 2013; J. Turner, personal communication, 2013).

Broadly speaking, it was at this time that the global focus on Green Economies began to intensify along with the increased impacts of climate change being felt around the planet (IPCC, 2014). In South Africa, research emphasis was directed at understanding and defining jobs that contribute to greening of the existing capitalist economy, and the future maintenance of Green Economies. A synergy exists between successful natural resource management and healthy Green Economies (DEA, 2008), thus custodians of South Africa's natural resources such as a WfW contractor or beneficiary should, in theory, be a sound fit for a green job, otherwise referred to as a Green Economy Occupation. WfW contractors and beneficiaries are the means through which government achieves certain natural resource management objectives by taking better care of South Africa's water catchment areas, increasing water flow in rivers and helping to maintain the water quality necessary for sustaining South Africa's current and future development plans.

### **2.3.3 What Green Economy Occupations can WfW beneficiaries and contractors access?**

Green Economy occupations, specifically of the elementary type, are a foundational concept that require attention in this study due to the importance that clarification thereof holds for career pathing (Department of Higher Education and Training [DHET], 2012). An analysis of occupations at elementary level will help to frame the existent boundaries for the analysis of possible WfW learning pathways that can potentially be associated with the WfW ELSP.

In South Africa, formal occupations have to be recognised and listed on the Organising Framework for Occupations (OFO) list, which is a skill-based classification system adopted from internationally accepted and researched frameworks. Historically, the International Standard Classification of Occupations (ISCO) was first released in 1988, and updated in 2008; this was the framework used to build the South African Standard Classification of Occupations (South Africa. DHET, 2013). Updates to the OFO are shown by the year stated in the title, not by a version number. Currently, South Africa is operating off the OFO 2013.

In the field of occupational research, a job is defined as a set of tasks and roles. In other words, there are a number of steps that have to be taken in order to successfully complete a job (DHET, 2013a). For example, in the WfW context, a general worker job could include the tasks of

maintaining equipment, cleaning equipment, operating specific equipment, removing alien invasives by mechanical and chemical means; and could also include the role of being a First Aider, or a Peer Educator. In contrast, an occupation is defined as a set of jobs whose main tasks and duties are characterised by a high degree of similarity, which results in skills specialisation (Squire, 2012). Hypothetically, if a job in an EPWP was similar in its tasks and roles to a job that was performed at a municipality, they could both be grouped under the same occupation.

On the OFO there are eight Major Groups, within which all occupations are listed depending on their common tasks. There are: 1 - Managers, 2 - Professionals, 3 - Technicians and Associate Professionals, 4 - Clerical Support Workers, 5 - Service and Sales Workers, 6 - Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers, 7 - Plant and Machine Operators and Assemblers, 8 - Elementary Occupations.

In the Guidelines to OFO 2012 (DHET, 2012), special mention is made of the addition of green occupations after the revision of the 2011 OFO (DHET, 2011). This correlates with the implementation time frame of the NSSD1 discussed above. The formal definition of a green occupation as per the Department of Higher Education and Training is:

Green occupations are those that have as their direct purpose the nationally identified priorities and initiatives of reducing negative environmental impact and contribute sustainably to environmental, economical and social sensitive enterprise and economies. They include occupations that directly contribute to the maintenance of processes related to these national initiatives to:

- Develop and adopt renewable sources of energy
- Reduce consumption of energy, fossil fuels and raw materials
- Enhance energy and resource efficiency
- Reduce greenhouse gas emissions
- Decrease waste and pollution
- Recycle materials
- Prevent the loss of biodiversity and restore ecosystems. (DHET, 2011, p. 13)

When looking back at the five priorities of NSSD1 (DEA, 2011) listed above, it is evident that the OFO incorporates the national strategy to help steer the country in the direction of sustainable development.

The *Guidelines to OFO 2012* (DHET, 2012) introduced the symbol in Figure 2.1 to place next to the new identified green occupations, of which 93 were identified. In 2013, a further three were added bringing the total to 96.



Figure 2.1: Green Occupation Icon as per the OFO 2012

In the *Guidelines to OFO 2013*, an additional section on critical green skills has been added, and it is worth outlining the difference between critical and scarce skills before moving forward. The Department of Labour (Department of Labour [DoL], 2010) defined scarce skills in the Basic Condition of Employment Act, as occupations in which there are not enough qualified and experienced people now and in the foreseeable future. This scarcity can be absolute, in that there are not enough qualified people available, or relative in that there are enough people but they don't meet employment criteria. For example, perhaps there are many male engineers but the employment criteria specify a need for female engineers. Critical skills include certain skills within an occupation, and can be both generic and particular skills. For example, a generic skill may be computer literacy whereas a particular skill could be the ability to use modelling software.

Understanding this, it is then interesting to see that a distinction is made in the *Guidelines to OFO 2013*:

People in most occupations would require a certain amount of 'green mindedness' to enhance a green economy. This however does not necessarily affect the attributes or construction of the occupation itself and can therefore not be reflected on the OFO as occupations with Critical Green Skills. (DHET, 2013a, p. 14)

With this distinction made, the OFO 2013 states that there are 51 occupations, and 17 specialisations that require critical green skills in order to "maintain its relevance in a Green Economy" (p. 14). To clarify, there are 51 identified occupations that require particular environmental skills, which is not to say that these skills are scarce (absolute or relative). While it is important to interrogate the nature of scarce and critical green skills, this study is focussing distinctly on elementary occupations, and not on the supply and demand of all green occupations in all Major Groups.

This ambiguous area of definition highlights the fuzziness that still surrounds green occupations, and the need to clearly identify an occupation as green in order to facilitate career progression of

those individuals who perform the jobs that contribute to the greening of the economy. As the *Guidelines to OFO 2013* stress, because a green development may require a truck driver to support its implementation, it does not mean the truck driver thus has new green skills or works in a green occupation. As stated in the Environmental Sector Skills Plan for South Africa (ESSP), “Environmental skills planning in South Africa is currently ad hoc, fragmented, and re-active, and is characterised by inefficiency” (DEA, 2010, p. 5).

It is thus necessary to emphasise that while it may seem like WfW employees work in a green occupation, there are two fundamental flaws to this conclusion. Firstly, there is no occupation listed on the OFO 2013 under which a WfW employee would neatly fit. Secondly, in order to be classified as a green occupation, it would be necessary for individuals to undergo at least some environmental training, and currently the WfW job description does not require this. While the outcome of WfW work supports sustainable natural resource management, the training of contractors and beneficiaries does not support a developmental push towards specific green job opportunities. The training matrix does not allow scope to foster specialised knowledge and skills towards addressing the scarce and critical skills needs of the Green Economy, because this was not its original purpose.

#### **2.3.4 Is there a close occupational title fit for a WfW job?**

The discussion thus far has outlined that WfW provides short contract work and some skills transfer to socially and economically disadvantaged South Africans. These skills are not easily transferable across work opportunities and the link between the specific skill set generated by WfW and available jobs and/or occupations has not yet been researched.

On the OFO 2013, only four occupations are listed as green occupations under the Major Group of Elementary Occupations, which is where the job of a WfW beneficiary would fit. Elementary Occupations are described as involving “the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort” (DHET, 2013a, p. 596). These are OFO code 831310 surveyor’s assistant, 861101 recycling or rubbish collector, 861201 refuse sorter, 861202 waste material sorter and classifier. One occupation is listed as requiring critical green skills, which is 821501 forestry worker.

Turning to WfW contractor jobs, it becomes more difficult to align to a Major Group because of

the spread of their work. Contractors quite often do physical labour themselves, but also manage the team, perform administration, organise pay roll, do quotations, write basic reports and other generic tasks. Contractors are also undergoing continual development, and typically perform the above tasks with close guidance from WfW Project Managers, to whom they report (Knipe, 2004). Essentially, the contractors are self-employed individuals who are managers of their own small businesses. One could argue the logic that they should be placed under Major Group 1, Managers, despite Major Group 1 requiring high educational standards and certification that contractors often do not have.

In particular, an occupational title from the OFO that stands out is 134901 Environmental Manager. The tasks involved with such an occupation (see Appendix B) are similar to the tasks that a WfW contractor performs, however the scale is completely different. An environmental manager would typically work in macro scale, while a contractor works in small geographical and temporal blocks. They manage and operate alien invasive plants clearing in an identified area over a certain period of time. On this basis, and because they are closely managed by WfW project managers, WfW contractors cannot be confidently placed in Major Group 1.

Major Group 6 is that of Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers. It is within this category that the occupational title 621102 Forest and Conservation Workers is found. This is not considered a Green Occupation, but it is classified as an occupation that requires green skills. The occupation descriptor presents the occupation of Forest and Conservation Worker as “Develops, maintains, or protects areas such as forests, forested areas, woodlands, wetlands, and rangelands through such activities as raising and transporting seedlings; combating insects, pests, and diseases harmful to plant life; and building structures to control water, erosion, and leaching of soil” (DHET, 2013a, p. 486). The actual work context seems to fit much better with the description of a WfW contractor’s job, hence one could argue that Major Group 6 is a better option.

Discussing the possibilities of where WfW contractors and beneficiaries may or may not fit is not something that a single researcher can pinpoint. However, there is merit to exploring descriptions like the above as this shows that even when attempts to become less fuzzy are made by skills and occupation authorities (for example, by using specific tasks performed on jobs

as the key way to relate to an occupation, as opposed to a job title), it may result in further isolation and guess work (DHET, 2013).

Ramsarup's 2016 PhD research showed that the formal availability and clarification of green occupations was a critical dimension of learning pathways construction in the skills development system, as the definition of occupations is used for the release of training funding in the Sector Education and Training System. It is difficult, if not impossible, to access training funds if the WfW beneficiary and contractor jobs cannot be linked to a registered occupation.

### **2.3.5 Green Occupations in demand, now and in the future**

A brief comparison between the Department of Higher Education and Training's National Scarce Skills List: Top 100 occupations in demand (2014) and the OFO 2013 shows that green occupations make up 35% of the top 100 scarce skills list, while occupations that require critical green skills make up 5%. Further inspection shows that the majority of green occupations and critical green skill occupations (30 in total) are Major Group 2 occupations, Professionals. There are none under Major Group 8, Elementary Occupations. However, Major Group 3, Technicians and Associate Professionals does feature two occupations, Physical and Engineering Science Technicians and Forestry Technicians (DHET, 2014).

The Environmental Sector Skills Plan (ESSP) (DEA, 2010) is a key document for discussing South Africa's green occupations and skills development, as it is the first major study that brings together various cross-cutting studies, reports and statistics to formulate a clearer picture on supply and demand of green skills, as well as clear advice on strategic skills planning for the future. The ESSP confirms what is shown in the National Scarce Skills List (2014), that high and medium level skills are the most in demand (Occupations from Major Groups 1, 2 and 3), but it also points out the need for utilising EPWP training carefully and cleverly to generate new skills to feed projected gaps:

If this [EPWP] training is carefully developed with attention to quality and output value, this presents a significant opportunity for developing entry level skills for the environmental sector, particularly for new potential growth areas and/or for youth development as is currently being identified in green economy and green job strategies (e.g. the projected potential for 140 000 jobs in the recycling industry). For this training to be of maximum benefit, there is a need to further improve the sustainability value of the skills programmes offered, perhaps through linking them to Environmental Practices Learnership Programmes that are linked to sustainable forms of employment.

Environmental Practices Qualifications exist at level 1, 2 and 3 on the NQF, and have been registered in LGSETA, but have been very poorly utilised to date. Capacity needs to be developed amongst training providers to provide improved quality programmes and maximise these investments in skills development. (DEA, 2010, pp. 23-24)

## **2.4 THE LINK TO THE ENVIRONMENTAL PRACTICES QUALIFICATIONS**

In Chapter 1, the context of the research was discussed, including the development of the Environmental Practices qualifications. With the above quote, a link is now visible between the usefulness of the Environmental Practices qualifications and fostering new and important entry-level skills to feed into the Green Economy. WfW's decision to create an accredited Environmental Literacy skills programme was a calculated decision based on the research, policies and global trends that have been discussed in the previous sections.

However, accredited training has specific rules and regulations as developed by the South African Qualifications Authority (SAQA) and as implemented by the Quality Councils who oversee general and further education, higher education and education in the occupations sector. The quality control mechanisms, implemented and monitored via the Sector Education and Training Authorities for the Quality Council for Trades and Occupations (which is the quality council that quality manages EPWP type training) are stringent and provide structure around which training can take place. The EPWP organisational structures in general, and the WfW organisational structures specifically, are not necessarily straightforward or transparent; they are also heavily influenced by human resources issues and conditions that are always changing (J. Turner, personal communication, 2012). Uncertain conditions can compromise the ultimate success of accredited training programmes (Fourie et al., 2013).

## **2.5 SUMMARY**

In this chapter, literature focussed on environmental training in various South African contexts was reviewed. The emerging discourse around Green Economy in South Africa was discussed, and numerous definitions and perspectives on the Green Economy were considered. An exploration into the green occupations and green skills that are currently defined in the Organising Framework for Occupations was presented, as well as evidence of what green skills are considered critically scarce and/or in demand and how these relate to elementary occupations in the WfW programme. A review of the available national occupations literature

suggests that the elementary green occupations area is small, and moreover underdeveloped which in turn has implications for training and training programme design and relevance. In the next chapter I discuss the theoretical framework of the study, which gives attention to how I approached understanding the learners who participate in the WfW programme and their experiences of being part of training that is oriented towards an emerging green economy, which as noted above, is still not that well defined for their purposes or benefit.

## **CHAPTER 3: THEORETICAL FRAMEWORK: SOCIAL REALISM AND THE CAPABILITY APPROACH AS A LENS**

### **3.1 INTRODUCTION**

In Chapter 2, a review of literature on environmental training in South African community contexts was presented, as well an explanation of the emerging Green Economy and green occupations as defined on the OFO. In Chapter 3, the theoretical framework for this study is presented, looking at Social Realism and the Capability Approach as a research lens. This research lens provides a way of beginning to understand the experiences of learners on the training programmes offered towards green skilling and green occupations emergence in the South African context, which as noted in Chapter 1, has tended to historically marginalise workers and their learning pathways.

### **3.2 THE INTERPLAY OF SOCIAL REALISM AND THE CAPABILITY APPROACH**

For the framing of this study, two key ideas interplay to consider the flexibility and dynamism of career pathing and learning pathways. These are firstly Critical Realism and the development of Social Realist theory, which provides the meta-theoretical orientation for this study; secondly, a tool of analysis that is proffered by Amartya Sen's capability approach. However, a brief look into learning pathway literature is necessary to initiate this discussion.

#### **3.2.1 Learning pathways**

The metaphor of a 'learning pathway' is often misinterpreted to assume a straightforward arrangement, guiding a learner from A to B. A pathway is perceived as paved, or smooth, and offers no opportunity to trip up. In reality though, there are specific structures that need to exist within educational policy and be actualised in practice, for the idea of a smooth pathway to be plausible (McKenzie, 2000). In later critical research on learning pathways, Harris, Rainey and Sumner (2006) have argued that while studies are continuous, they are more akin to a series of stepping stones, making the trajectory of a learning pathway fragmented and discontinuous.

Understanding learning pathways in the South African context is important when considering national aims to redress past education and training inequalities. In particular, cognisance of opportunities (enablements) and constraints influencing individual choice, and recognising that

not all pathways are equally accessible to everyone, are vital in being able to understand why people end up in different places when they access potential learning pathways (Raffe, 2003). Additionally, there can be no limit to the different places at which individuals can arrive, because the influences on their decisions are complex, and potentially also inexhaustible. In other words, the social systems that humans operate in are wide open, not closed, and the same applies for the concept of career pathing (Sayer, 2000). By default, it is impossible to ever pin down a fixed number of pathways by finding regularities in people's choices, but it does not mean that explaining people's choices is impossible, or that construction of viable learning pathway opportunities into an emerging green economy is impossible.

Turning to EPWP programmes, there is an assumption that training provision will empower people to walk along a learning path, towards an occupation. This assumption may be a misconceived ideal (Hough & Prozesky, 2012). However, the ESSP does point out that the investment in EPWP training programmes could be more strategically oriented to allow for more substantive learning pathways for learners on the programmes, as high levels of investment are made into the training components of the EPWP programmes, often with little substantive outcomes for learners in the longer term. This study allows a closer look at how the 'stepping stones' presented by the ELSP can be used when considering the opportunities and constraints of individuals on the programme, as this could help to inform how EPWP training may be better oriented towards more substantive learning pathways in an emerging green economy context, where natural resources jobs at elementary occupation are being seen as important to the emergence of the green economy (Maia et al., 2011). This relates to access to specific green occupations, as well as any opportunity a WfW employee may have been offered or had sought out in the past. In order to look forward and backward into people's decisions and options, a social realist approach is appropriate, which will be discussed below.

### **3.3 A SOCIAL REALIST VERSION OF REALITY**

The realist school of thought recognises that there is a world that exists regardless of the individual (intransitive realm) and that people know and have made sense of through experiences (transitive realm) (Carter & New, 2004). The intransitive dimension is the realm of objects, be they physical objects or social objects; they all contain causal powers and properties.

The transitive dimension is where society has made sense of what is seen and experienced in the intransitive realm, the realm of theory and discourse (Sayer, 2000).

Social realism, drawing on the critical realism of Roy Bhaskar (1979), recognises that there is no perfect understanding or correct knowledge of the transitive realm, and that the way in which society or an individual understands something can change over time (Carter & New, 2004; Sayer, 2000). Thus, it is a social realist's job not to conflate the world with personal experience of it, but rather to use the concepts of structure and agency as tools to look into how and why things/events occur/emerge.

Central to Bhaskar's philosophy of critical realism, is the merging of a general philosophy of science (transcendental realism) and a philosophy of social science (critical naturalism).

Transcendental realism holds that in order to undertake a scientific enquiry, whatever is being investigated must have internal mechanisms that are real and can be activated to produce a certain result (quite different to cause and effect observations). For this study, this would mean that there could be significant mechanisms that can be activated to strengthen green learning pathways at elementary occupation level in an emerging green economy context. Critical naturalism suggests that this interpretation of causation holds true for the social world as well as the natural world. However, due to the ever-changing nature of the social world, researchers need to apply appropriate reflexive techniques in studying it (Bhaskar, 1998).

In both the natural and social world, there is a belief that causal relations take place at the level of the generative mechanism and not at the level of events. A mechanism is defined as "nothing other than the ways of acting of things" (Bhaskar, as quoted by Easton, 2010, p. 124). According to Easton (2010), "A causal explanation is one that identifies entities and the mechanisms that connect them and combine to cause events to occur" (p. 124). The mechanism is the link, the "deep generative process or structure" (p. 124) between what could happen, and what actually happens (e.g. effectiveness of training could be shaped by existant cultures of training and/or of people involved in the training). Importantly, Bhaskar (1979) emphasised that with human agents, reasons alone can be viewed as causal mechanisms: "Reasons, then, are beliefs rooted in the practical interests of life. And a person's essence consists just in what she is most fundamentally disposed to do (or become)" (p. 96). As Wikgren (2005, p. 13) explained, "Critical realists are thus concerned with ontological depths and identifying causally efficacious

mechanisms” and look to recurring patterns that are explanatory but not predictive, which is quite different to the positivist pursuit of causal generalisations (Elster, 1998).

Referring back to the importance of ontological depth, the stratified ontology of critical realism is pivotal in allowing researchers to look into causation (through looking backwards, via retroductive analysis) and it encompasses and crosses three distinctly nested levels, originated by Bhaskar in 1975. The real domain is the deepest and broadest level, and it is where all objects lie with their own structures and powers. It is where everything exists, whether it is natural or social, physically seen or unseen, and it does not have to be understood or recognised by everyone (Sayer, 2000). An object could thus be a political system which one can't physically see, or a president of a country, which one can see. Thus, both a school building, and the school system and curriculum that underpin it, would also be considered objects. Realists pose that simply because one can't see something, it doesn't mean it isn't there; and researchers have to divorce themselves from holding onto their knowledge of the world as what is empirically verifiable, true or correct.

The next level is the actual domain, which is essentially the area of activation. If the real is where objects lie on their own, the actual is where they interact. The real could be compared to a house full of appliances plugged in but with no electricity, and the actual would be where a person walks into the house and turns on the electricity supply. When the powers of objects are activated, this is the space where it is possible to observe what happens as they activate and the results of the activation (Sayer, 2000). It is the action, the activity and the effect of the activity. The last level of the stratified ontology is that of the empirical domain. This is the domain of experience; it is what can be observed. Essentially it is the picture that is painted by what is happening between the real and the actual, the interplay between structure, culture and agency, as well as things that are not observable or new emergences that have never been seen before (Sayer, 2000).

To create a simplified hypothetical example of an open system viewed through a stratified ontology, objects in the real could include the training matrix of WfW and the Human Immunodeficiency Virus (HIV) among many others. In the actual, the WfW matrix would be activated and training would take place, but an HIV affected employee may be ill and unable to attend. In the empirical, it is observable that there is a missing person and money has been spent on their training place that will not be utilised. But crucial to note was that the unobservable has

also happened in that the public health care system and its powers were not activated or perhaps were activated but were not effective, resulting in a person’s choices being limited i.e. they were too sick to come to the training. Thus, the mechanisms at play become clearer, when using a stratified ontology to look more deeply at the situation. This example is illustrated in the Figure 3.1 below:

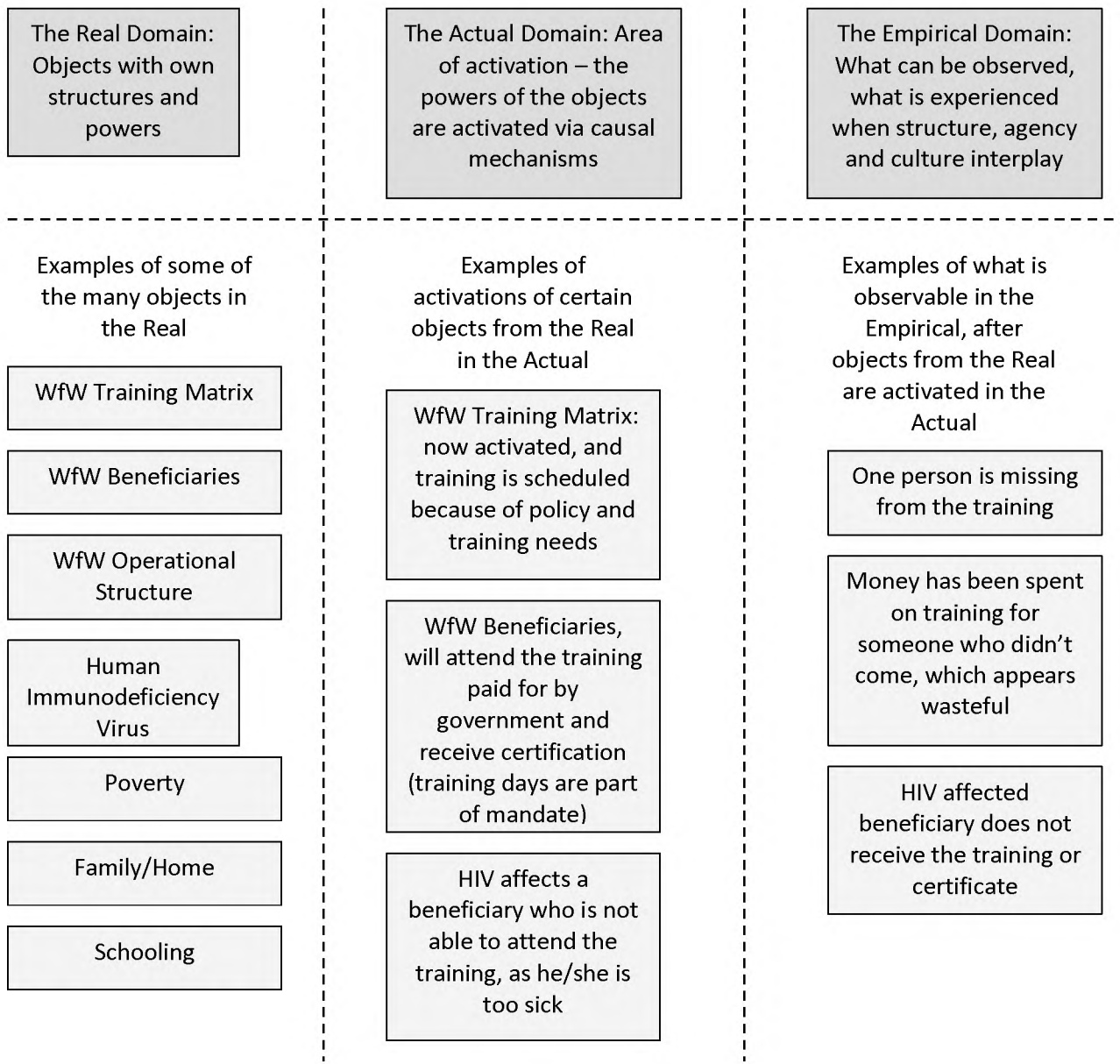


Figure 3.1: Diagram illustrating a stratified ontology view of an open system with a WfW context

Sayer's 2000 work, *Realism and Social Science*, introduces the idea of conditions. Conditions include context and other mechanisms, which will affect the results of the activation. For example, a structure such as a voting system may be activated for national elections, and it may work smoothly when it takes place in a well-run municipality; but the same structure may be activated in a municipality that doesn't run well and social protests take place which result in the voting station closing. The conditions in which the mechanism was operating were completely different and thus had different results. See Figure 3.2.

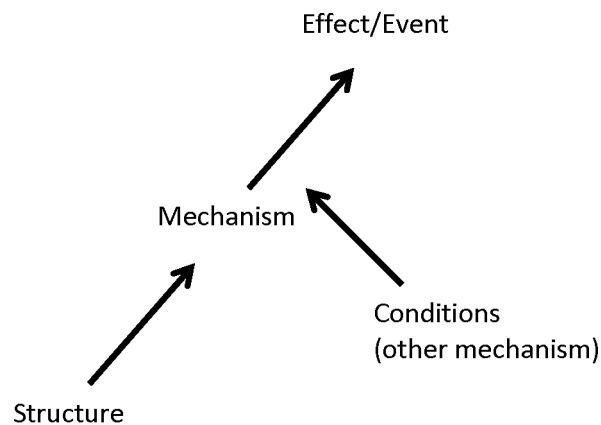


Figure 3.2: Critical realist view of causation (Sayer, 2000, p. 15)

This particular distinction of conditions adds to Archer's argument presented below about structure and agency operating on different time scales.

### 3.4 STRUCTURE AND AGENCY

There are a variety of ways to interpret the relationship between structure and agency, and it is important to state which interpretation runs throughout a research work as this ultimately affects the methodology of research and how a researcher interprets data and findings. Archer (1995), with her realist social theory work, made an important distinction with analytical dualism, when she identified that typically theorists or researchers would attribute causal autonomy to either structure (downwards conflation) or to agency (upwards conflation); or may even state that they are co-constitutive (central conflation). Archer's analytical dualism supposed that structure and agency, while co-constitutive, operate on different time scales. Archer (1995, p. 90) stated, "Structure necessarily pre-dates the actions that transforms it, and that structural elaboration necessarily post-dates those actions" which are central to morphogenesis, or the complex interchanges that result in structural relations either being elaborated or modified.

This ability to elaborate or modify is part of the power that agents have, and it is worth explaining the nuanced view of agency in this respect. Archer (1995) rationalised that the definition of human agency includes the person, the collective agent and the social actor. Persons are completely individual, created from interactions that formed their biological make-up. Agents are collective categories of people (an example of a collective category would be university students), while social actors emerge from the collective and are enabled and constrained by sociocultural circumstances (Wikgren, 2005).

People are born into cultures and structures that influence the choices they have, from which they can choose and make decisions. The important thing to note is that while they are influenced by structure, they are not ultimately determined by it. The concept of reflexivity is important in social realist theory, as the social actors are able to reflect knowingly on the constraints and enablements they are presented with, in order to change the actions that produce them. As Carter and New (1994, p. 5) stated, “once we recognise the *sui generis* powers and properties of agency, it becomes difficult to see people as passive puppets, cultural dopes or discursive effects.”

Leading on from the idea of constraints and opportunities associated with individuals’ use of learning pathways in 3.2.1, it is important to distinguish between ethical individualism and ontological individualism as defined by Sen (1999). Essentially, ontological individualism holds that “society is built up from only individuals and nothing more than individuals, and hence is nothing more than the sum of individuals and their properties” (Alkire, 2008, p. 8). Ethical individualism is quite different, in that while individuals (e.g. the individual training beneficiary in the ELSP) are the ultimate units of moral concern (Alkire, 2008), it is recognised that individuals are part of society, and that social structures can expand and/or constrain individual freedoms (Lotz-Sisitka & Ramsarup, 2012).

Ethical individualism also recognises that while individuals are part of society, at the same time they hold agency (or have agentic powers), which is the internal power to act on a range of possible choices consciously or unconsciously (Hays, 1994). These choices are based on, and are related to structures in individuals’ past, present and projected futures (Emirbayer & Mische, 1998). So, for example, if a person once found that they were treated badly when they worked as a physical labourer (past), they may now (present) be in desperate need of a job but will not

apply for a labourer job again even if it is the only one available. They may feel that they will experience bad treatment again in the future.

When working with an understanding of human agency that embraces ethical individualism, it becomes possible to research some of the structures that determine learning pathways to green occupations, and the choices that agents make or can make in relation to these. These structures are deterministic when looking at capability sets (the ability of individuals to achieve functionings, or valued beings and doings). Sen's (1999) understanding of capabilities provides a lens, or a different angle, from which to look at structures and how they constrain or enable the learner when engaging with learning pathways and green occupations.

### **3.5 THE CAPABILITY APPROACH**

Sen's capability approach (1992, 1999) provides a useful theoretical framework, which complements and supports the ideas of social realism. The capability approach was developed in the context of indexing human well-being (or in critical response to this) and in the research area of understanding poverty (Robeyns, 2005). The development context of the capability approach makes it relevant to this research where the case study is that of a natural resource management project that has the dual aim of providing poverty relief and skills development. In the capability approach, the traditional explanation of poverty as a lack of income is challenged. Sen (1999) viewed poverty as an outcome of a deprivation of basic capabilities, not simply a deprivation of income. While low income is instrumentally important, basic capabilities are intrinsically important.

There are a number of core concepts in Sen's capability approach that should be explained.

Firstly, functionings are the beings and doings of a person, or more simply put, their achievements/outcomes. These achievements are made through converting a range of resources available to the person into a functioning (Sen, 1992). Secondly, capability is the ability to achieve. Capabilities are a combination of functionings that a person can achieve and relate to the valued beings and doings of the person, otherwise referred to as freedoms (Sen, 1992). Conversely, the inability to achieve a valued being or doing is an "unfreedom". Capability is thus potential to achieve, and a functioning occurs when that potential is reached.

To create an illustrative example, let us imagine two people. Person A has a well-paying job, transport, a cell phone and a caring family; Person B is a recent migrant to a city who lives in a rented shack, is unemployed and hasn't made friends in the region yet. Both are struck down with severe gastric flu. Which individual would have the resources to achieve functionings related to the wider capability (valued being and doing) of sound health again soonest? Person A may well be able to convert the resources that he or she has into functionings related to the capability of good health far easier than Person B, as he or she has more social and environmental resources that could be converted into functionings necessary for good health. However, Person B may well have other personal, social and environmental resources that he/she can convert into functionings necessary for good health. To establish this is an empirical question that will require investigation.

To elaborate on the concept of resources introduced in the above example, Sen (1999) described conversion factors, which are key to the achievement of functionings and ultimately being able to lead the kind of life that a person has reason to value. There are three broad categories of conversion factors: social, environmental and personal conversion factors (Crocker & Robeyns, 2010). Social conversion factors are part of the society that people are born into (see also the structure and agency debate in section 3.4 which sets the view for this study on how social structures come to be, and how they change). Crocker and Robeyns explained (2010, p. 68) that social conversion factors are things such as public policies, social norms, practices that unfairly discriminate, societal hierarchies or power relations related to class, gender, race or caste. Personal conversion factors are internal to the person, like metabolism, physical condition, gender, reading skills or intelligence. Environmental conversion factors are from the physical or built environment, and are influenced largely but not exclusively by geographical location. Things like living near to or far from fresh water, likelihood of extreme weather events, stability of buildings, infrastructure to communicate and travel, access to mobility and contemporary Internet communications are all included under environmental conversion factors.

Using the social realist lens, conversion factors are the myriad of objects that exist in the real and actual of the stratified ontology. They all possess causal powers and structures that can be activated, by chance (for example, an earthquake) or by social purpose (for example, a government effort to provide public transport). But key to an understanding of conversion

factors is that they are both internal to the individual (personal) and external (social and environmental) (Crocker, 2008); this provides a means of approaching the evaluation of the ELSP. There is a need to probe more deeply (i.e. retroductively) to reveal the depth of the conversion factors that might not be considered when considering a learning programme from a purely empirical stance.

Using Sen's capability approach and his idea of functionings and capabilities, the aim is to investigate the ELSP (seen as a good or means) in terms of the knowledge and skills (resources) that learners may acquire and associated possibilities for translating these resources into functionings that can contribute to the capability of being gainfully employed.

Do the assumptions educational designers make take heed of the learners' potentially achievable functionings and associated personal, social and environmental conversion factors? For example, is the ELSP structured in a way that facilitators can respond to varying education levels that effect the potential of individuals to complete tasks or indeed the whole course? Does training provide the learners with possibilities for converting resources into new functionings needed for work in the Green Economy? A heuristic of key concepts in the capability approach described above is provided below in Figure 3.3 on the following page.

The capability approach offers a view to construct an understanding of why beneficiaries and contractors may or may not translate the skills and knowledge they develop through training and the WfW work experience into independency, and essentially jobs outside of the programme. This is because it acknowledges the enabling and constraining characteristics of structures that affect the conversion of their resources into functionings. Essentially, it offers a way to understand the freedoms that a collective of agents from the WfW context enjoy, or conversely may not have. Understanding WfW beneficiary and contractor options and choices provides answers to questions about training, supporting green learning pathways and access to jobs in the Green Economy.

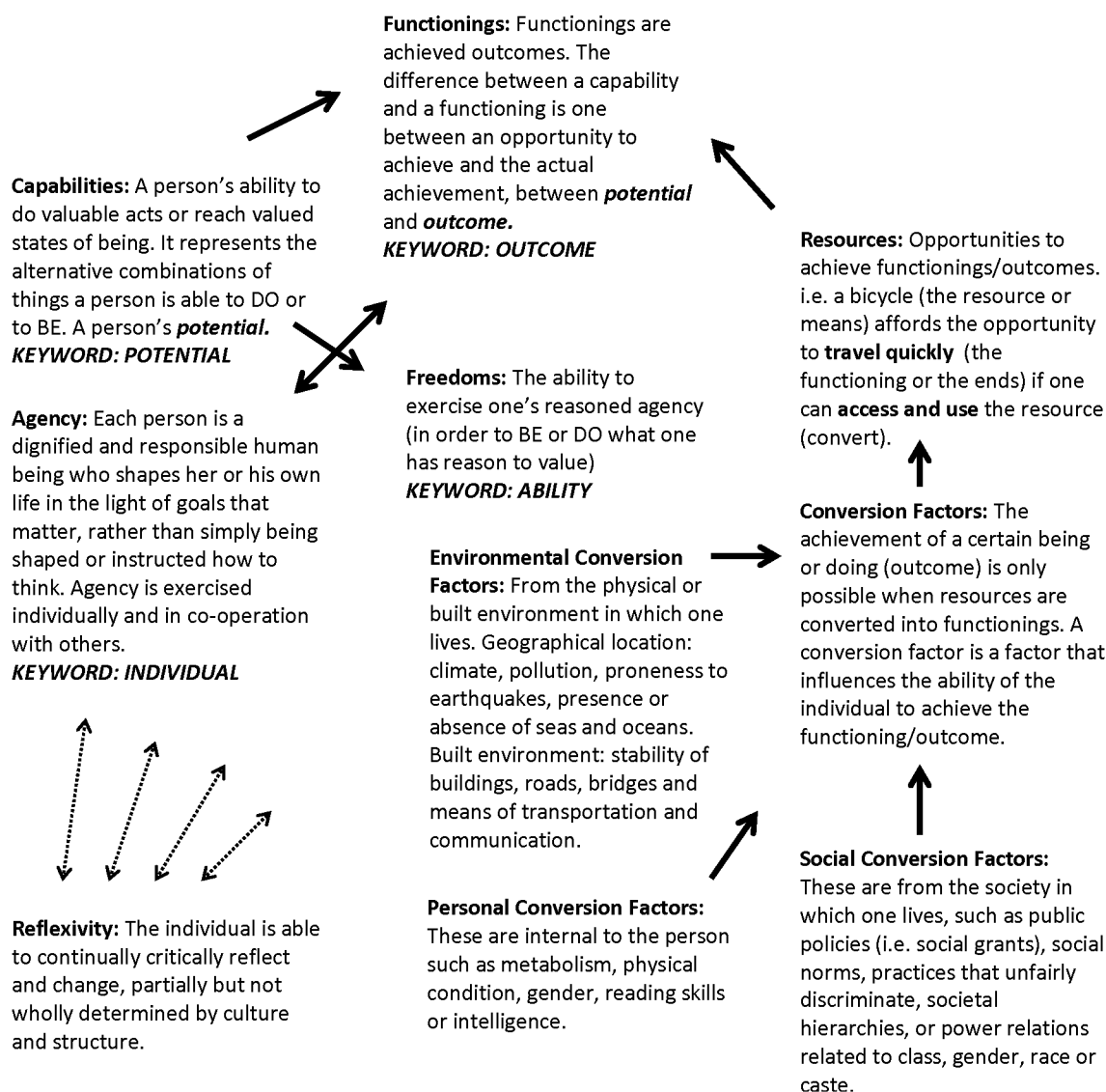


Figure 3.3: A heuristic of capability approach concepts developed from Crocker and Robeyns (2010) and Sen (1999)

Staying with the concept of freedom, and relating back to the discussion in section 2.3 on the Green Economy, Sen (2013) has provided an interesting critical slant on the Brundtland Report (WCED, 1987) definition of sustainable development. For reference, it is repeated here: “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Sen argued that while the Brundtland definition is promotional of inter-generational justice and that the poor are of central concern, it lacks a fundamental focus on human freedoms by only focussing on perceived needs. Sen (2013) argued quite convincingly that sustainable development, as well as the more contemporary notion of sustainable consumption (Heap & Kent, 2000), can be better realised by focussing on allowing

people the freedom to exercise their agency fully. Sen (2013) drew a strong case by looking at fertility rates in countries such as India, where “the fertility declines in the states of Kerala, Tamil Nadu or Himachal Pradesh in India can be closely linked to women’s empowerment, related to the rapid enhancement of female education and other influences on the standing and voice of young women” (p. 15). Sen made the point that the structures of population growth can be altered towards sustainable development goals if the agents are given the freedom to exercise their choices. The evidence in the case study showed that by allowing women rightful freedoms of equal education and good health care services inclusive of family planning advice, women felt empowered to act on what they felt they wanted to be or do. In many cases, their choice was to use birth control to allow flexibility in when they had children, if at all. “The reach of reasoned and interactive agency can indeed be remarkably extensive. It can be particularly crucial for our transition to sustainability” (p. 18).

While the capability approach in a broad form can be considered a paradigm on its own (Robeyns, 2005), not everyone uses it in this way and many use it as a tool of analysis (p. 95). Indeed Sen used Capability Approach concepts to analyse the definition of sustainable development as discussed above, and to argue the need for a focus on freedoms to be included into the definition. In this study though, the capability approach is used more as a framework within which to situate and critically review the ELSP. Commonalities exist between social realist theory and the capability approach, particularly when considering the issues of structure and agency, which strengthen its usefulness in this study.

### **3.6 SYNERGIES BETWEEN SOCIAL REALISM AND THE CAPABILITY APPROACH**

Sen (1999) developed the concept of agency freedom and well-being, aligned to the concept of ‘the good life’ – or a life that one has reason to value (Sugden, as cited in Robeyns, 2006, p. 352). Sen emphasised the individuality of people, and that there is no one universal version of what a good life is (p. 74). However, he did not divorce the individual and their actions from society or structures (as explained in the discussion on ethical individualism under section 3.4). Similarly, the realist school of thought recognises that there is a world that exists regardless of us (intransitive realm), and a world that we know and have made sense of through our experiences (transitive realm) (Carter & New, 2004). This links to what Sen (1999) suggested,

in that the world is sensed and experienced differently by everyone, and it is impossible to ever pin down one overarching version of what well-being is.

Turning to agency, Sen's concept of agency is similar to that of social realists, in that he explained agency as an individual's capacity to act (1999, pp. 189-192). Like Archer, Sen recognised that while people's actions are directed by their social contexts, they are not completely determined by them (Archer, cited in Carter & New, 2004). Rather, they make their decisions based on a set of options generated by structure and culture, much like Sen's idea of a defined set of capabilities (vectors) which determine people's possible functionings. Both agreed that the agents do not choose their sets, but they can choose how they act (Sen, 1999; Carter & New, 2004), and that they are able to use their agency to convert personal, social and environmental resources into functionings or actions.

Lastly looking at structure, social realists also consider structures to partially be determined culturally and intrinsically linked to action in a never-ending feedback loop. Structures are not set forever; they evolve together with society as the human race continually interacts. Not all actions or individual agents can cause structural change of course, as structures are seen to be sturdy patterns (Hays, 1994); with combined impetus enough agents acting together (often over a period of time) can, however, cause structural change (Carter & New, 2004). Sen (1999) highlighted this in a chapter on women's agency and social change describing the women's welfare movement transforming from a focus on well-being, to a focus on women's agency in order to improve well-being:

No longer the passive recipients of welfare-enhancing help, women are increasingly seen, by men as well as women, as active agents of change: the dynamic promoters of social transformations that can alter the lives of both women and men. (p. 189)

In the context of this study, one could suggest that it might be possible, should EPWP training programmes be successful over a substantive period, that some structural changes might become possible in learning pathways development and support for these workers. For this, one would need to more fully understand the existent capabilities and enabling and constraining factors shaping workers' engagements within these programmes, and the affordances and efficacy of the training programmes, hence this study.

Sen's capability approach and social realist ideas thus support each other. The natural world and the social world exist with or without our individual presence in them, and people are born into social constructions that will determine the way they live their lives to a certain extent. Social realism provides a structured research view which can help to understand the back-and-forth processes between structure and agency, capability and functioning, well-being and freedoms, and the potential role of training programmes, knowledge and skills in this process.

Additionally, it infers that an investigative, creative and qualitative methodology is appropriate, although this is not prescriptive. According to Sayer, "meaning has to be understood, it cannot be measured or counted, and hence there is always an interpretive or hermeneutic element in social science" (as quoted in Carter & New, 2004, p. 3). In a social realist research design however, interpretation is not limited to that which is said by people only, but involves deeper ontological analysis explaining the generative mechanisms that shape why things are the way they are being experienced.

Referring back to Robeyns's commentary on how the capability approach is often used as a framework for analysis, Tao (2013) produced an interesting study using the capability approach as an analytical tool. Tao's study investigated Tanzanian teacher absenteeism, by locating capability approach concepts within the critical realist theory of causation. Through focus groups, semi-structured interviews, questionnaires and informal conversation, Tao (2013) was able to extract a number of valued personal and occupational functionings, and to investigate what constraints (conversion factors) teachers found that affected their ability to achieve those functionings.

Tao's research (2013) unpacked a social stereotype (that teachers in Tanzania were perceived as indolent and uncaring) to reveal much broader socio-economic problems, which have no quick fixes. While Tao used critical realism to draw "concrete causal links to various behaviours", the research in this ELSP study will similarly aim to draw concrete causal links to explain various choices made by beneficiaries and contractors of the WfW programme with regard to their education and career paths.

According to the White Paper for Post-School Education and Training (DHET, 2013b), adult education in South Africa is particularly difficult territory to negotiate: “Despite the advances made since the advent of democracy, the education system continues to replicate the divisions of the past” (p. 1). This is due to the numerous structural constraints that all disadvantaged South African’s experience as children and as adults, which affects their options and choices and their ability to convert resources into functionings. The objects, structures and powers of the past are deep-seated, and continue to exert an influence on the contemporary education landscape. In acknowledgement of this difficulty, an encouraging development in the White Paper is that proposed new community colleges will link directly with the work of public programmes such as the EPWPs (DHET, 2013b). The relevance of this will be discussed in Chapter 7.

### **3.7 CONCLUSION**

In this chapter, the interplay between Social Realism and capability approach was presented as an appropriate lens through which to frame this study. The EPWP context is seen as disrupted and ambiguous, and a review of the available national occupations literature in Chapter 2 suggests that the elementary green occupations area is small, and moreover underdeveloped. The uncertain context of environmental training in WfW points to the need for a research approach that allows reflexivity, and tools with which to analyse the demands of the WfW training setting and the factors that inform capabilities of beneficiaries and contractors towards achieving new functionings presented by training opportunities.

## **CHAPTER 4: METHODOLOGY: RESEARCH DESIGN DECISIONS**

### **4.1 INTRODUCTION**

In this chapter, the research methodology of this study is explained starting with an introduction to a social realist research orientation and case study research design. The data generation process is outlined, with a discussion on the methods of participant observation, questionnaires, structured interviews, semi-structured interviews and document analysis. The application of these methods as they occurred in the study is discussed in the section dealing with data generation, and management of data is presented thereafter. The chapter closes with a discussion on how validity was ensured in the study, a look into the limitations experienced during the research process and provides insight into the ethical grounding of the study.

### **4.2 RESEARCH METHODOLOGY**

#### **4.2.1 Research orientation**

In Chapter 3, the key ideas of social realism were discussed, including the ontological position that assumes the world exists, without observation of it. Essentially, there is a real world that exists regardless of individual or collective human interpretations of it, which may differ across time, space and culture. If a person becomes blind it doesn't mean the world has changed or disappeared; it means the person's perception of the world has changed by virtue of their social experience (Easton, 2010; Sayer, 2000). Epistemologically, social realism accepts that reality is socially constructed through human experience; however, as Easton (2010) qualified, "The 'real' world breaks through and sometimes destroys the complex stories that we create in order to understand and explain the situations we research" (p. 120).

Research from a social realist orientation is thus not concerned with trying to establish truth, but with trying to understand how things have come to be the way they are (Sayer, 2000). The search for truth would be difficult, if truth (only one reality) is a subjective concept as suggested in the above paragraph. When dealing with social studies and open systems, it is not sensible to apply a purely positivist nomothetic approach, which is more prevalent in the natural sciences where researchers usually study closed systems and look for generalisations and repeatability to produce results. A social realist stance is less exclusive, and is applicable to most situations irrespective of the numbers of units of analysis in the research (Easton, 2010). However, for it to

be useful (produce results that can be critically reviewed), the research has to be in depth, always focussed on asking the questions “Why things came to be as they are?” and “How things came to be as they are?” Asking these questions begins to develop the links, or causes, that create what is observable.

The context of this research is an open system, the depth and breadth of which is determined by many influences. Not only does the context include national government structures such as the Department of Environmental Affairs, the Natural Resource Management Programme and the Expanded Public Works Programmes, the Green Economy Accord and more (as outlined in previous chapters), it comprises structures within those structures such as the National Working for Water Programme, the regional branches of that programme, and the individuals who make up the teams that are the ultimate units of analysis. Every nested structure has its own powers and liabilities (Easton, 2010; Sayer, 1992), and this requires a back and forth, iterative research approach between the various sources of data in order to capture the myriad influences on the systems under study.

To ask ‘how and why’ questions necessitates discussion with research subjects, and ultimately the generation of rich qualitative data. From a social realist interpretation perspective, language is the primary tool for creating understanding, and ‘understanding’ is a method of considering humanity by fully grappling with the life experiences of people (Connole, 1998). Language and questioning is useful in this study for understanding empirical experiences of contractors and beneficiaries.

From this perspective, it is possible to define empirical experience of situations (such as the empirical experience of the beneficiary or contractor had of training on the ELSP), but not without active involvement on the part of the researcher, as the researcher has to engage with people to ask questions. From an interpretive perspective at the level of the empirical, there has to be “negotiated meaning”, which means the researcher cannot be completely detached. However, they can, and should, be cognisant of their own bias regarding the meaning that is made, despite an “empathetic identification” with the other (Connole, 1998, p. 34).

Cohen, Manion and Morrison (2007) in understanding meanings and experiences stated

... to retain the integrity of the phenomena being investigated, efforts are made to get inside the person and to understand from within. The imposition of external form and structure is resisted, since this reflects the viewpoint of the observer as opposed to that of the actor directly involved. (p. 21).

A common method of resisting the imposition of external form and structure at the level of empirical interpretation is by member checking (also called respondent validation). By paraphrasing answers and checking back with the respondent, the respondent can correct the researcher, or confirm if the interpretation of his/her empirical experience is suitably correct (Cohen et al., 2007).

The research aim of this study, as presented in section 1.4 of Chapter 1, is to investigate if and how the ELSP Pilot responds to WfW learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy. I therefore used an interpretative approach to examine empirical experiences of contractors and beneficiaries, but I also used abductive and retroductive analysis to provide further in-depth analysis of these interpretations, as is required in social realist research. Having established that a social realist research approach is congruent with a study of a dynamic system such as the WfW context, the research methodology of case study is presented in section 4.2.2 below.

#### **4.2.2 Case study research design**

From the contextual description of the ELSP pilot in section 1.5.2 of Chapter 1, it is possible to look at this research design as a social realist case study. Cohen et al. (2007) have provided a comprehensive review of case study literature and suggested that "a case study is a specific instance that is frequently designed to illustrate a more general principle" (p. 253). The "instance" mentioned, is a system with distinct boundaries, and can include a single person, a group of people, or many groups of people that make up a specific community (Cohen et al., 2007). The key is that they are bound by a commonality which identifies them as part of the system i.e. the WfW team is made up of people who all work for WfW and have a shared experience of operating within its structures.

According to Sturman (1999, as cited in Cohen et al., 2007, p. 253) "contexts are unique and

dynamic, hence case studies investigate and report the complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance”.

Embracement of the “unique and dynamic” makes case study appropriate for the ELSP pilot (see Chapter 1, section 1.5.2) that I have focussed on in this study, which is influenced by internal and external factors that alter how training unfolds (despite structured training appearing to have quite distinct boundaries).

Relating back to the social realist idea that research is not about the search for truth, but about asking “how and why” questions to make meaning of situations (Connole, 1998; Easton, 2010; Sayer, 2000), Yin (2014) regarded case study as a research tool or research strategy that is preferable when researchers need to ask ‘how and why’ questions. Additionally, it is suitable when “a researcher has little or no control over behavioural events; and the focus of study is a contemporary (as opposed to an entirely historical) phenomenon.” (p. 2). Easton (2010) emphasised the explanatory function of case study research saying that it allows researchers to “to tease out and disentangle a complex set of factors and relationships” (p. 119).

This study has many of the characteristics that make it suitable for case study research. The overarching aim is to ask if and how the ELSP Pilot responds to WfW learners’ capabilities (see Chapter 1, section 1.6), with the understanding that capabilities is defined as “potential to achieve a functioning” when using capability approach as research lens (see Chapter 3, section 3.5). This requires looking at the ELSP in the pilot context, as and when it was happening empirically, and then digging deeper into the lives of the pilot participants to understand the decisions they have made in their lives with regard to education and career progression. There is a need to ask ‘how and why’ questions at every turn, to uncover the personal, social and environmental conversion factors that enable and constrain the WfW beneficiaries and contractors in their choices and abilities to turn resources (such as training) into valued functionings (such as employment and a stable income).

Stake (1995, as cited in Bassey, 1999, p. 27) inferred that messiness is in fact normal for a case study: “The case is an integrated system. The parts do not have to be working well, the purpose

may be irrational, but it is a system. Thus people and programmes clearly<sup>6</sup> are prospective cases.” This research was undertaken within a ‘messy system’ in that WfW is not always well regulated in terms of its operations and procedures, and the people who engage with WfW tend to come and go based on personal circumstance. However, the myriad factors that acted to make the pilot harder to implement were rich in their value for answering ‘how and why’ questions about structures that affected the ELSP pilot participants and their experience and learning on the course.

Various theorists have identified a number of types of case study. Yin (1994) categorised case studies as either explanatory (to test theories), exploratory (to answer a research question or to build on other studies) or descriptive (providing narrative accounts) (Cohen et al., 2007). Stake (1994, as cited in Cohen et al., 2007) recognised three categories: intrinsic (to understand the specific case in question), instrumental (to improve understanding of an issue or theory) and collective (collections of single studies to provide a more complete picture). Bassey (1999) wrote that “Whereas Yin’s writing tends towards the positivist (or scientific paradigm), Stake’s is firmly within the interpretive paradigm” (p. 27), which can be seen when looking at the typologies listed above. Simply put, Yin leaned towards theory testing and Stake towards overall understanding, however neither are prescriptive in their own right. While it has been argued that this case study research is being undertaken from a social realist stance, it could be said to be an exploratory case study as per Yin’s definition (to build on the original WfW training needs analysis research and the ELSP for the future), or instrumental as per Stake’s definition (to improve understanding of efficacy of the ELSP in supporting the development of foundational environmental knowledge and skills). Essentially, the research presented here is a hybrid case study, including elements of both Yin and Stake’s definitions, which leans distinctly towards understanding more than theory testing, it seeks intrinsic insight as per Sayer’s (2000) definition which defines case studies as a form of intrinsic, in-depth research.

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<sup>6</sup> This quote, and specifically the term ‘clearly’ reflects Stake’s (1995) perspective on case studies, not my own perspective.

### **4.3 DATA GENERATION PROCESS (RESEARCH METHODS)**

In this section the research methods appropriate to the data generation process of this study<sup>7</sup> are discussed. Section 4.4 provides detail on how these methods were applied, as well as references to the various related appendices.

Five research methods were used to create meaning from the various sources of data that were available during and after the pilot of the ELSP. According to Bassey (1999, p. 81), the three major methods of collecting data are “asking questions (and listening intently to the answers), observing events (and noting carefully what happens) and reading documents.”

Using all three major methods is important, as triangulation (discussed under validity in section 4.6) is central in being able to capture more than one view on a topic, which provides illumination on areas that may be overlooked. In this study, which upholds a stratified ontology in order to form a causal analysis, it was vital to use various methods in order to investigate the real, the actual and the empirical, as not all objects (with structures, powers and liabilities) in a stratified ontology are purely observable. Specific methods used in this study that fall within the major categories were participant observation, questionnaires, structured interviews, semi-structured interviews, and document analysis.

#### **4.3.1 Participant observation**

There are two main types of observation, one where the researcher is involved in some way in what they are observing, and the other is when they are not involved. Each of these types will have different results and as noted by Cohen et al. (2007, p. 259), “often the type of observation undertaken by the researcher is associated with the type of setting in which research takes place”. In the ELSP pilot context, participant observation was the only option, as I, as researcher, was involved with many aspects of the ELSP pilot from design, to writing, administration, logistics and educational facilitation (the limitations and advantages of this involvement are described in section 4.7 in this chapter).

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<sup>7</sup> The story of the research context has been well described in Chapters 1. It is important to note that the participants were chosen by the WfW Project Managers area based on perceived literacy and language abilities (if the Project Manager subjectively felt they would cope, they were selected) as well as their geographical positioning due to WfW requirements. WfW thus preselected the key informants for the study, and there was no influence over these choices by myself.

### **4.3.2 Questionnaires**

Questionnaires are a common form of data collection method that can be useful in both qualitative and quantitative studies. They are typically constructed as structured, semi-structured or unstructured, and can include many types of questions ranging from closed and open questions, multiple choice questions, ranking questions and more (Cohen et al., 2007). In the context of this research, a set questionnaire (available as Appendix D) was provided by WESSA as part of their standard procedures during accredited training. While, I, as the researcher could not control the content of the questionnaire, its actual use in practice and scrutiny of its usefulness were another opportunity for data collection.

### **4.3.3 Structured interviews**

Cohen et al. (2007, p. 354) cited Lincoln and Guba (1985) saying that “the structured interview is useful when researchers are aware of what they do not know and therefore are in a position to frame questions that will supply the knowledge required”. With basic preliminary investigation during the pilot of the ELSP, this style of interview was useful and the application thereof in a time constrained training environment is discussed in section 4.4.1.3.

### **4.3.4 Semi-structured interviews**

Linking to the above, the semi-structured interview is useful when the researcher has a defined topic they wish to explore, but are uncertain of the depth that exists or the possible value of information they may not have anticipated investigating. Cohen et al. (2007, p. 361) explained

Prompts enable the interviewer to clarify topics or questions, while probes enable the interviewer to ask respondents to extend, elaborate, add to, provide detail for, clarify or qualify their response, thereby addressing richness, depth of response, comprehensiveness and honesty that are some of the hallmarks of successful interviewing.

This type of interviewing is useful when wanting to record “unique, non-standardized, personalised information about how individuals view the world” (Cohen et al., 2007, p. 354), and this is precisely what was required when needing to move past the realm of how ELSP pilot participants perceived the training, into the conversion factors that enable and constrain them in converting resources into functionings. The application of this method is described in section 4.4.2.1.

#### 4.3.5 Document analysis

Bowen (2009) explained that document analysis is often used in combination with other qualitative research methods as a means of triangulation, which aids the researcher in protecting their research from a singular point of view and bias. Bowen also highlighted that documents have specific uses in research: to provide historical background and context, to point to additional questions to be asked, to source supplementary data, to offer a means of tracking change and development, and to verify findings from other data sources (Bowen, 2009, pp. 31-32). Documents can include anything from advertisements, brochures and manuals to application forms, reports or even photographs. In this research, five main research methods were used, which means that document review was not chosen with triangulation as a core concern, but more to serve the purpose of elaborating on early findings, particularly in view of retroductive analysis (to be discussed in section 4.6.4).

#### 4.4 DATA GENERATION (APPLICATION OF THE METHODS)

With the definitions of the core research methods provided in section 4.3, the application of these methods to generate data needed to meet the aim and research goals of this research is explained. To reiterate the aim:

**Aim:** to investigate if and how the ELSP Pilot responds to WfW learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy.

What is understood from the literature (as presented in Chapter 1 and Chapter 2) is that WfW sees a vast mixture of people working both as beneficiaries and contractors. This means that there will be mixtures of capabilities, in particular capabilities that are defined by prior education experiences, and environmental, social and economic opportunities and constraints in their lives. Suitable training programmes should, in theory, allow learners to engage with the programme with different levels of success (where success is seen as achieving competency in a Unit Standard and gaining the credits associated with that Unit Standard). Critically, training programmes should also be flexible enough to adapt to the institutional parameters (i.e. the parameters of the EPWPs and specifically WfW) within which they fall.

The key word in the above aim is 'respond'. Does the ELSP, in its pilot form, respond to WfW learners in terms of their capabilities, and does it respond to the institutional parameters of WfW, which as explained in section 4.2.2, can be a messy context, particularly against the background of an emerging Green Economy. The goals below thus address the aim, and the particular research methods applied to generate data to achieve the goals are presented.

#### **4.4.1 Goal 1 – Research methods and data generation**

**Goal 1:** To investigate how the ELSP Pilot training is structured, and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting (as outlined in Chapter 1, section 1.6).

The focus of Goal 1 is directed at the actual ELSP Pilot training experience. There is a need to understand how the training is structured academically and practically (refer to section 1.6 in Chapter 1 which explains this further) and how it seeks to respond to the education levels and experiences of the learners. The demands of the WfW training setting in particular require response, and Goal 1 is important in being able to apply focus in this regard. To address Goal 1, a number of methods were employed to generate data, including participant observation, questionnaires, structured interviews and document analysis.

##### **4.4.1.1 Participant observation of the ELSP pilot**

Key to understanding how the ELSP is structured, and in particular how it seeks to respond to the education levels and experiences of contractors and beneficiaries within the WfW training session was the method of participant observation combined with the facilitator reports (discussed in section 4.1.1.4 below).

As explained in Chapter 1, the ELSP pilot comprised three training sessions for both the beneficiary group (BG) and the contractor group (CG). Each training session lasted two days (total six days), and I was responsible for running the pilot sessions. The aim of the pilot was to test the ELSP materials, which had been developed for WfW, in order to evaluate, review and refine them before a decision would be made on rolling the ELSP out nationally. Parallel to this aim was the intention to successfully train and up skill the individuals enrolled on the ELSP pilot. WfW

expected at least some participants to exit the ELSP pilot with a skills programme certificate.

Because of the sheer volume of time spent on the training (from 8a.m. to 5p.m. for every day of training, which added up to 108 hours excluding the follow-up sessions for corrections), it was not practical to record sessions via video or voice recorder. Additionally, the purpose of the pilot research was not to record and review later, but rather to closely watch what was happening at the time and write detailed notes. However, video was used to record new group exercises to share the exercises with other educators. Notes were taken for two purposes: the first being to review how the learners were reacting to the materials, the exercises and the content, and the second to note what external factors influenced the training.



**Figure 4.1: Participant C12 providing group feedback on a Systems Approach exercise during training**

An evaluation rubric was designed to record observations during training. The rubric included space to write the schedule item (i.e. what activity or session was being run), and spaces to write commentary on learner response, facilitator response, power points aligned to the activity/session, workbooks aligned to the activity/session, learner manuals aligned to the

activity/session and a space to make notes on any other important points. These notes were used to create the ELSP evaluation report later in the year, as well as to offer a guide for making the necessary changes to materials to make them suitable for national roll out. An example of a completed evaluation rubric is presented in Appendix C.

As the researcher, the level to which I experienced the participatory element of the observation method was not a factor that I could control. In the planning stages of the pilot, I had not intended to actually facilitate sessions on the course at all. The intention was for a senior WESSA facilitator to run the contractor group (CG) with help from a junior facilitator, while two WESSA facilitators who were experienced in the Environmental Practices Level 2 skills programmes would run the beneficiary group (BG). However, due to a number of external factors<sup>8</sup>, it became apparent that I would need to act as a facilitator too, and in some cases, act as the lead facilitator. In these instances, the co-facilitators sitting out of the sessions were asked to evaluate the sessions using the rubrics. I was aware that this meant different levels of detail would be entered into the rubric, and thus the rubrics were supplemented with my own notes after the sessions.

#### **4.4.1.2 Questionnaires**

A standard short questionnaire that allows WESSA to gather constructive information on their materials and facilitation (for all accredited training) was distributed to all the BG and CG ELSP participants. The questionnaire is part of the Quality Management System (QMS) requirements that all Sector Education and Training Authorities require when providing accredited training. These were filled in and returned to the facilitators at the end of each two-day session, and then later logged into an Excel spreadsheet. The answers were used to guide changes to the ELSP materials, but also formed an important part of the ELSP evaluation report.

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<sup>8</sup> 1. WESSA structural changes and operational issues caused time constraints on the materials production, which meant that the senior WESSA facilitator didn't receive the first set of Contractor course materials with sufficient time to prepare herself to run it alone. 2. After observation of the junior facilitators on the first day of teaching the BG, it became apparent that while their facilitation skills were passable, the knowledge required to reach the specific outcomes of the level two courses was not fully developed. This resulted in extra training and focus on knowledge gaps in 2014 for WESSA junior facilitators, but negatively impacted on the pilot and my ability to simply observe.

It should be noted here that a typical issue found with this method (not only in the ELSP pilot), was that most questionnaires, although having open-ended questions, would be returned with “yes” or “no” or “fine” as answers. In some cases, they were not returned at all, or found half completed on the floor. Often certain questions were left blank, or had answers that didn’t really relate to the educational side of the training. For example, when asked about what elements of the training a participant enjoyed, they may respond with “The food was very good”. This sort of information, while telling about the nature of other training they have received and the value people place on food, it is not what the questionnaire was designed for.

The extreme weaknesses of the questionnaire in being able to ascertain the kind of information they were designed for pointed to important insights for training, and these were documented and logged as feedback for WESSA. Additionally, the findings of this provided support data (triangulation) for educational findings that came from the structured and semi-structured interviews, as well as document analysis. An example of a questionnaire can be found in Appendix D; all originals are held by WESSA.

#### **4.4.1.3 Structured interviews**

During the third and final pilot session in March 2014, a short structured interview was designed and used to capture three categories of information. The first category was demographic information and socio-economic information; the second category was information on the individual participant’s educational experience of the ELSP pilot, and the third category was that of knowledge and interpretation of green or environmental jobs.

The aim was to interview as many of the BG and CG participants as possible on the last days of their last course (with a minimum of six per group). Eight structured interviews were executed with the BG (of the twelve people remaining by the third session), and thirteen structured interviews were executed with the CG (of the full complement of fifteen people). A WESSA senior facilitator, who spoke Afrikaans, was enlisted to help with doing the interviews, as tea break and lunchtime (90 minutes total) were the only available periods to talk to the beneficiaries and contractors. Thus, it was important that a structured set of questions was used in order to maintain a consistent style. Each interview was recorded on an MP3 player and later transcribed.

In general, the interviewing process went well despite limited time. The research prerogative was not about in-depth answers, but focussed on gaining information that would build a picture of the socio-economic and educational background of the BG and CG participants. Additionally, by removing the obstacle of having to express their opinions using written words (as per the questionnaire), the interviews provided more candid and truthful insights into how people coped with the ELSP course. Lastly, the structured interviews provided an opportunity to probe the beneficiaries' and contractors' interpretation of what green or environmental jobs were, where they felt these jobs (if any) lay, and whether they were adequately skilled to do such work based on their WfW training and the ELSP training.

Importantly, the structured interviews provided a shallow look into valued functionings that would allow people to be and do as they desired, and the enabling and constraining conversion factors that were prevalent in certain areas of their lives. While the structured interviews could not hold weight on their own in this regard, they provided the angle from which to construct deeper semi-structured interviews that would allow for longer, in-depth personal stories. A transcribed structured interview can be found in Appendix E.

#### **4.4.1.4 Document analysis**

A number of documents were used as sources of information that were supportive towards achieving the research goals. These are described in general below and a detailed document log is attached as Appendix G.

#### **SAQA unit standards**

SAQA unit standard description documents (descriptors of the educational outcomes of a unit standard) were analysed to isolate and summarise what skills and knowledge were offered by the ELSP to both the contractors and beneficiaries. This provided a concise way of understanding the structural skeleton of skills development beneath the ELSP materials. Six unit standards were analysed and summarised, and the full list of these Unit Standards with their specific outcomes and assessment criteria is available in Appendix B.

#### **Portfolio of Evidence (POE) workbooks**

A Portfolio of Evidence (POE) is the collection of evidence needed for a learner to be assessed as competent. This will typically include a completed workbook, but can also require logbooks for

workplace hours, signatures from supervisors and evidence of having completed certain tasks such as proof of communicating with printed out emails or printed pictures to show a project under implementation.

The contractor and beneficiary POEs were used as documents that were key to informing Goal 1, looking at the structure of the ELSP and response to learners' capabilities; and to Goal 2, looking more deeply at conversion factors. Common issues found in the POEs pointed to questions that were necessary to ask in the semi-structured interviews (described in section 4.2.2). In total, there were 81 workbooks (45 contractor workbooks and 36 beneficiary workbooks; each person would hand in a total of three workbooks – 1 per module – that would collectively form the POE). The POEs came in and out of my possession during the pilot period, and the workbooks were analysed looking more specifically at which activities needed to be corrected most often, and the assessor's comments would be logged in order to understand why the course participants were finding certain sections problematic. Essentially, the POEs formed a large body of documentation to analyse and had to remain with WESSA after the study as per policy, and because the POEs were still undergoing moderation, verification and endorsement.

### **Facilitator reports**

Lastly, the facilitator reports (compiled by the junior and senior WESSA facilitators, not by myself) were analysed for input towards the first goal. Facilitators were required to fill in a report based on questions in a template that challenged them to outline their experience of the ELSP according to certain criteria. They were encouraged to be critical of the materials, the organisational elements of the pilot and of their own practice. Ultimately, the facilitator reports fed into a much larger document called the ELSP Evaluation Report, which was submitted to the Assistant Director of Training of WfW.

The ELSP evaluation report itself served as a useful summary of the pilot, including the internal and external factors that influenced the pilot. I collated this document, and while still considered valid as a document to be analysed for the purposes of this research, it needed to be contemplated against other documents for validity (Bowen, 2009). An extract from the ELSP evaluation report is provided as Appendix I.

#### **4.4.2 Goal 2 – Research methods and data generation**

**Goal 2:** To investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy (see Chapter 1, section 1.6).

Goal 2 addresses the deeper conditions that resulted in the empirical experience on the ELSP pilot. While Goal 1 addresses how the ELSP is structured, and how it may or may not respond to learners' educational backgrounds and their experiences, Goal 2 works at unearthing the personal, social and economic enabling and constraining conversion factors that influence learners' ability to convert a resource into a functioning. To perform this kind of research, the semi-structured interview was selected as the most appropriate tool for engaging with beneficiaries and contractors.

##### **4.4.2.1 Semi-structured interviews**

In the three months that followed the end of the formal training sessions on the ELSP, various trips to Uitenhage and Grahamstown were scheduled for learners to complete their corrections on their Portfolio of Evidence (POE) for Modules 1, 2 and 3. These trips allowed a more relaxed atmosphere to schedule semi-structured interviews with a number of beneficiaries and contractors. In total, six in-depth semi-structured interviews were conducted with BG participants, and ten with CG participants.

Every effort was made to secure semi-structured interviews with every participant, but due to the WfW operational and structural challenges that had resulted in a "tools down" situation since January (addressed in Chapter 5, 6 and 7 as influential factors in the stratified ontology of this case study), many people had left the WfW programme to find work in other towns or were working on short-term jobs around Uitenhage and were not available to talk. However, the numbers exceeded the original aim of five interviews per the BG and five per the CG, which made for richer results and findings.

By recording people's education and career histories with respect to their socio-economic contexts when they were growing up, and in their current phase of life, deep insights from 'how and why' questions (Yin, 2014) could be drawn, as described below.

An open set of questions formed a 'conversation process' that was followed with every person interviewed. The process involved asking the beneficiary or contractor to tell their life story, with a specific focus on what their lives were like growing up, what schools they had attended, what they did after school, what jobs they had had and moved between, and what they were currently doing and planning to do.

People who were comfortable with English would mostly speak for a long time without needing prompting, and I would make notes of important factors which required more questioning, and would highlight large gaps missing in the stories which needed to be filled in. After listening carefully, I would typically say "Okay, I am going to go back to the beginning of your story to ask you for some more detail", and the conversation process would turn to asking questions such as "You said that when you were four years old you were sent to stay with your grandmother. What were the reasons for this?" These pivotal questioning points would allow the beneficiaries and contractors to speak quite candidly about enabling and constraining factors that their families experienced as a whole, and that they experienced as an individual. This conversational process would continue throughout the story of their lives (covering topics like family, income, jobs, desires, employability, and moreover the how and why around all kinds of decisions they had made in their lives).

With people who were not so comfortable with English, it was easier for me, as the researcher, to guide the beneficiary or contractor through their stories by asking them point-by-point questions. Notes were made as they spoke on factors that required further questioning. Being guided seemed important for some people to feel relaxed. However, most of the beneficiaries and contractors were quite used to my presence by this stage, having spent time with me during the three pilot modules and the correction days.

Because this study is designed through the theoretical lens of the capability approach, and because social realism accepts that people have agentive powers (individually and collectively), it is important to understand the social realities (structures) that can influence peoples' development paths. While participant observation, questionnaires and structured interviews can

uncover the surface level of the ELSP and how people interact with it (what is observable in the empirical domain), the semi-structured interviews allow investigation into the real and the actual. A portion of a transcribed semi-structured interview can be found in Appendix F.

#### **4.4.4.2 Key informant semi-structured interview**

An in-depth semi-structured interview was done with a key informant from the uMngeni Municipality in KwaZulu-Natal who is the Manager of Parks and Gardens. The reasons for choosing the Parks and Gardens department over any other municipal department was linked to findings presented in Chapter 6 on the perception of where green jobs accessible to beneficiaries may lie (section 6.5). The semi-structured interview was useful in that it provided interesting feedback in relation to the emerging Green Economy in South Africa from a municipal perspective, and this feedback pulled through into the analytical categorisations. The key informant data is mainly evident in Chapter 6, supporting the achievement of Goal 2.

### **4.5 DATA MANAGEMENT**

#### **4.5.1 Participant observation**

In terms of data management, all observation rubrics were completed in Microsoft Word, and saved and labelled per module as in the examples below. The full list is available as part of the document log in Appendix G. In text, results that refer to this data use the file names listed below in Table 3.1.

File Name	File Name Extended
PO_CG_M1_D1	Participant Observation Contractor Group Module One Day One
PO_CG_M1_D2	Participant Observation Contractor Group Module One Day Two
PO_BG_M1_D1	Participant Observation Beneficiary Group Module One Day One
PO_BG_M1_D2	Participant Observation Beneficiary Group Module One Day Two

**Table 4.1: Examples of participant observation index codes**

#### **4.5.2 Questionnaires, structured interviews and semi-structured interviews**

It is important to note here that an index code identification system was introduced at the beginning of this study so that every piece of evidence relating to a specific person on the pilot could be linked easily. The same number and letter combination index code is thus used for the

questionnaires, the structured interviews and the semi-structured interviews. An example of the first five contractor codes and the first five beneficiary index codes are provided below, while a full breakdown of all the beneficiaries and contractors who took part in the ELSP pilot is available in Appendix J.

Letter & Number ID	Name <sup>9</sup>	Questionnaire	Structured Interview	Semi-Structured Interview
C1	Buyiswa Mdanyana	C1/Q	C1/SI	C1/SSI
C2	Clyde Jantjies	C2/Q	C2/SI	C2/SSI
C3	Masithembe Adam	C3/Q	C3/SI	C3/SSI
C4	Daluxolo Nobebe	C4/Q	C3/SI	C3/SSI
C5	Dinilesizwe Jijana	C5/Q	C3/SI	C3/SSI

**Table 4.2: Examples of contractor index codes**

Letter & Number ID	Name	Questionnaire	Structured Interview	Semi-Structured Interview
B1	Mancapha Nompumelelo	B1/Q	B1/SI	B1/SSI
B2	Yandiswa Tyam	B2/Q	B2/SI	B2/SSI
B3	Mbulelo Tyam	B3/Q	B3/SI	B3/SSI
B4	Mncedi Ngqeza	B4/Q	B4/SI	B4/SSI
B5	Karin Goliath	B5/Q	B5/SI	B5/SSI

**Table 4.3: Examples of beneficiary index codes**

The semi-structured interview done with the Parks and Gardens Manager from the uMngeni Municipality was index coded as:

File Name	File Name Extended
PGM_SSI	Parks and Gardens Manager Semi Structured Interview

**Table 4.4: Index code for Parks and Gardens manager semi-structured interview**

<sup>9</sup> Please note some names have been changed to pseudonyms in order to protect the identity of contractors and beneficiaries who were not contactable about use of their actual names.

### 4.5.3 Document Analysis

The POEs were managed by extending the index coding system established for the individual participants, as per the example below in Table 3.5.

Letter & Number ID	Name	Module 1	Module 2	Module 3
C1	Buyiswa Mdanyana	C1/POE/M1	C1/POE/M2	C1/POE/M3
C2	Clyde Jantjies	C2/POE/M1	C1/POE/M2	C1/POE/M3
C3	Masithembe Adam	C3/POE/M1	C1/POE/M2	C1/POE/M3
C4	Daluxolo Nobebe	C4/POE/M1	C1/POE/M2	C1/POE/M3
C5	Dinilesizwe Jijana	C5/POE/M1	C1/POE/M2	C1/POE/M3

**Table 4.5: Index code for contractors' Portfolio of Evidence books**

Letter & Number ID	Name	Module 1	Module 2	Module 3
B1	Mancapha Nompumelelo	B1/POE/M1	B1/POE/M2	B1/POE/M3
B2	Yandiswa Tyam	B2/POE/M1	B1/POE/M2	B1/POE/M3
B3	Mbulelo Tyam	B3/POE/M1	B1/POE/M2	B1/POE/M3
B4	Mncedi Ngqeza	B4/POE/M1	B1/POE/M2	B1/POE/M3
B5	Karin Goliath	B5/POE/M1	B1/POE/M2	B1/POE/M3

**Table 4.6: Index code for beneficiaries' Portfolio of Evidence books**

The Facilitator Reports were similarly logged and index coded. There were a total of four facilitators excluding myself, and they are all listed below:

Letter & Number ID	Name	Module 1	Module 2	Module 3
F1	Delana Eksteen	F1/FR/BG/M1 F1/FR/CG/M1	F1/FR/BG/M2 F1/FR/CG/M2	F1/FR/BG/M3 F1/FR/CG/M3
F2	Pamela Magida	F2/FR/BG/M1 F2/FR/CG/M1	F2/FR/BG/M2 N/A	N/A N/A
F3	Marilyn Govender	F3/FR/BG/M1 <sup>10</sup> N/A	F3/FR/BG/M2 F3/FR/CG/M2	F3/FR/BG/M3 N/A
F4	Abulele Xulu	F4/FR/BG/M1	F4/FR/CG/M2	F4/FR/BG/M3

**Table 4.7: Index code for facilitator reports**

<sup>10</sup> Not all facilitators were present at every session; N/A stands for 'not applicable', if the facilitator was not present for the session.

## **4.6 DATA ANALYSIS**

According to Bassey (1999), “Every enquiry is unique and so any attempts to generalise on analytical methods is a problematic venture” (p. 84). The research enquiry, structured by the goals, is based on different depths of research, and in order to attain the goals a number of data analysis techniques were applied in several steps, in particular analytic categorisation (Flick, von Kardoff, & Steinke, 2004). Definitions of the various analytic categorisation techniques are offered below:

### **4.6.1 Inductive analysis**

With induction, researchers tend to let categories emerge from the data without presupposing what one wants to find. Reichertz (2004) explained this by saying that qualitative Induction “supplements the observed features of a sample with others that are not perceived. It is only in this sense that this form of induction transcends the borders of experience – that is, only the experience of the sample in question” (p. 161). In other words, while as the researcher I may have supposed that categories such as ‘income’ or ‘education’ would become apparent, if new categories that I didn’t expect appeared, such as ‘family’, I could include them.

### **4.6.2 Abductive analysis**

Researchers limit what they want to extract from the data by adhering to the categories that they want to understand, often dictated by theory (Meyer & Lunnay, 2013). An important part of the analysis of a social realist case study is the notion of identifying causal mechanisms. Abduction allows researchers to detect new links and see new pictures, as it doesn’t disregard information that falls outside of a theoretical premise, which can happen when analysing from a purely deductive approach (Meyer & Lunnay, 2013). Thus using an abductive tool allows one to start identifying circumstances (the actual) and structures and mechanisms (the real) that are hidden in empirical data (Collins, 1985, as cited in Meyer & Lunnay, 2013).

### **4.6.3 Retroductive analysis**

Working hand-in-hand with abduction is retroduction, which allows one to identify the conditions that produce phenomena (as seen in the empirical domain) (Danermark et al., 2002).

Retroduction allows for original thought, linkages and inferences, which are not formalised or argued to be strictly logical conclusions (Davies, 2009). This type of data analysis technique

involves transfactual analysis in that it allows one to work with a stratified ontology in order to better understand the causation of events such as EPWP training in the empirical domain. It is a reflexive space, where the researcher's own experience and influence can be explained and used to make sense of the stratified ontology of the specific case under study.

#### **4.6.4 Tools of analysis**

Nvivo qualitative research software was used for the analytical categorisation and coding. The software allows for the creation of core 'nodes' (categories) that then act as drop down menus for sub-nodes that can be created as a researcher goes through the data sets. This is problematic in that one can create too many categories initially, but on review when a sub-node only has one or two quotes, it becomes obvious that the category is not viable or trustworthy and it can be deleted or the comments can be moved into a more suitable and robust category.

#### **4.6.5 The analysis process in this research**

The approach I took with data analysis started with management as described in section 4.5. From there, I applied analytic categorisation (Flick et al., 2004) to the relevant qualitative data.

The research analysis process included induction, primarily when looking at Goal 1, how the ELSP was structured, and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting.

With Goal 2, which investigates the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities, induction and abduction were used to identify the factors, while abduction and retroduction were important in allowing for interpreting and recontextualising the data in relation to the capabilities and social realist theoretical framework, and the social realist causal analysis (as presented in Chapter 7). This is the space within which all the information, observations, and noted factors that influenced the pilot and other conditions are able to come in to play.

I created a number of categories and sub-categories, which resulted in a large quantity of analytical memos. The categories were formulated from multiple data sources (interviews, questionnaires, observation rubrics etc. were all pulled through into the categories via Nvivo).

However, information that fell outside of those analytic categories (broader insights) was not omitted; and thus the primary analytic categorisation of the data was both inductive and abductive. As pointed out by Schmidt (2004), this is an important consideration when “the aim is to note, for every single interview transcript, the topics that occur and individual aspects of these which can be related – in a very broad sense – to the context of the research question(s)” (p. 254). Further abstraction was applied in order to isolate the strongest and most relevant results, which come through in Chapter 5 and 6 as the study results. Figure 4.2 below explains this process.

**Goal 1:** To investigate how the ELSP Pilot training is structured, and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting.

**Goal 2:** To investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy.

*Data sources 1, 2, 3, 5, 6 & 7 speak to Goal 1*

*Data source 4 speaks to Goal 2*

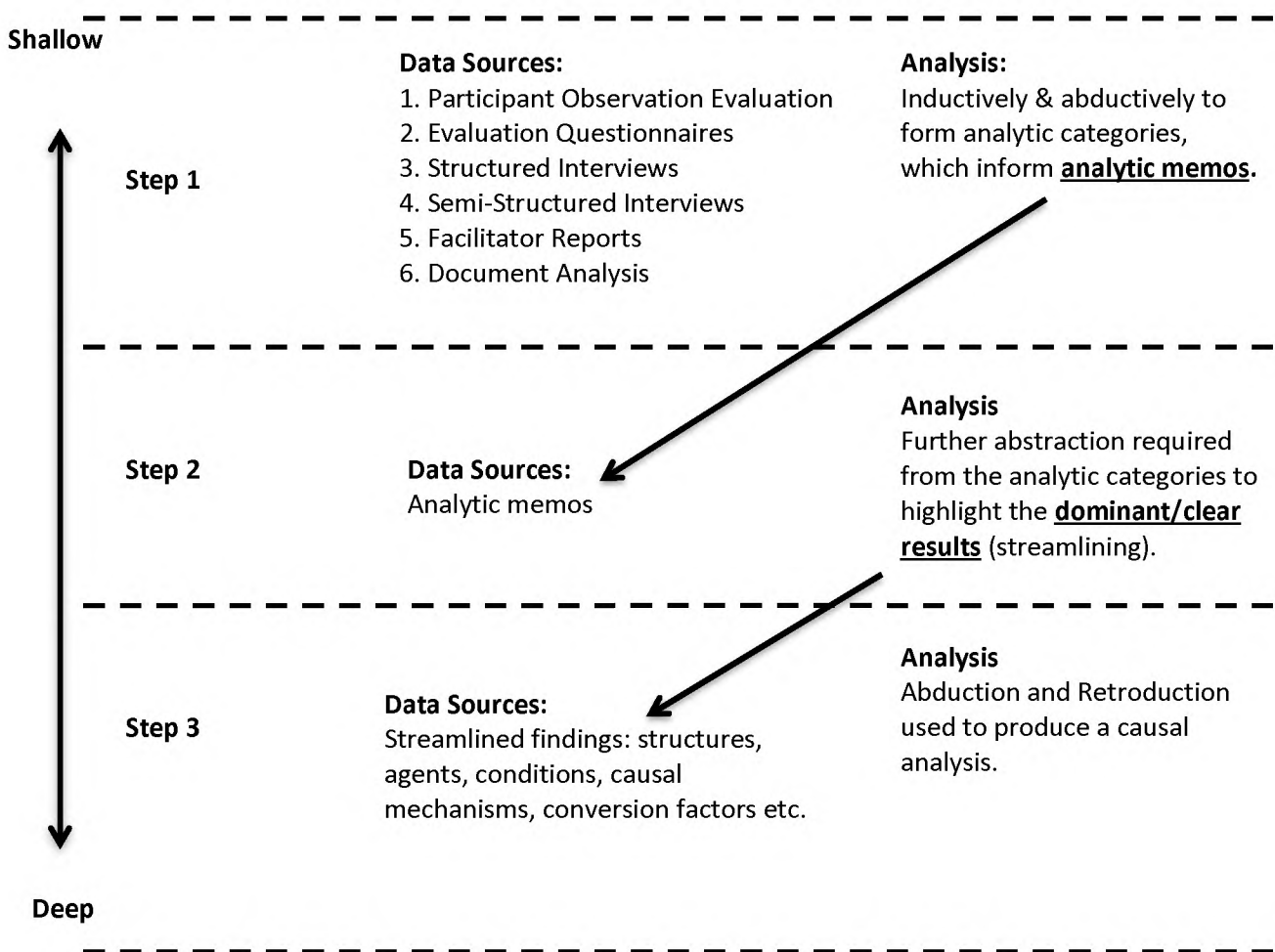


Figure 4.2: Diagram to explain the analysis process

The data sources to create the categories are listed in Figure 4.2 on the previous page, and beneficiary data and contractor data were kept separate. The main categories and sub-categories as per Step 1 of analytic categorisation were as below in Table 4.8:

**Semi-structured interviews: ELSP pilot participants and uMngeni Municipality Parks and Gardens manager**

<b>Broad Category/Node</b>	<b>Sub-Categories/Sub-Nodes</b>	
<b>Working for Water ELSP Experience</b>	Demographic Data	
	ELSP Course Negative →	Academic Suitability
	ELSP Course Positive →	Practical Suitability
	ELSP Course Neutral →	
<b>Broad Category/Node</b>	<b>Sub-Categories/Sub-Nodes</b>	
<b>The Capability Approach and Social Realism</b>	Conversion Factors	
	Agency	
	Structure	
	Culture	
	Be & Do	
	Conditions	
	Mechanisms	
<b>Broad Category/Node</b>	<b>Sub-Categories/Sub-Nodes</b>	
<b>Green Economy &amp; Learning Pathways</b>	Evidence of Pathways	
	Green/Environmental Job Awareness	

**Table 4.8: Outline of the broad categories of research, with the sub categories that were derived from the broad categories**

The semi-structured interview with the uMngeni Municipality Manager of Parks and Gardens provided further insight into structures and conditions that would inform not only job access into municipalities, but cultural factors and structure-agency interplay examples that the uMngeni Municipality Manager of Parks and Gardens had noticed with elementary workers in her work context. It was a useful interview, and was analysed inductively, as well as abductively and retroductively.

**4.7 VALIDITY**

Triangulation, creating completeness by recognising multiple realities (Tobin & Begley, 2004), has been ensured in this study by using a variety of data sources and methods to produce differing

perspectives on the ELSP experience. By virtue of a social realist research stance, the belief that there is no one 'correct' version of reality (Easton, 2010; Sayer, 2000) has been built into the research design, from the methods of data generation through to retroductive causal analysis, which actively seeks out the myriad different conditions, objects (with structures and powers) and agents that interact to create the many versions of reality which exist in the empirical domain. Without valid triangulation, causal analysis is difficult to negotiate.

Additionally, in a case study approach that is focussed and in-depth, researchers have to be careful about acknowledging personal bias and their inseparability from the study (Wittgenstein, 1953, as cited by Mantzoukas, 2005), and put research mechanisms in place that limit bias in interpretation as much as possible (Bassey, 1999). Social realists use reflexivity in their research, explaining their position and influences explicitly and how this could affect the results of the study (Mantzoukas, 2005). As Mantzoukas (2005, p. 251) noted,

Keeping an open mind as researchers should not be equated with having an empty head. Quite the opposite: reflective and reflexive studies are meaningful only if the researcher can use the virtues of previous experience, expertise, knowledge, language and expectations to design, interpret and present the research findings critically and reflexively.

I have been explicit about my involvement in the ELSP through employment at WESSA during that period (see Chapter 1), and the changing involvement of my position during participant observation (section 4.4.1, this chapter). Additionally, the retroductive causal analysis of such an intimate case study takes a reflective and reflexive stance of someone who has insight into the different structures and agents to piece the story together as transparently as possible (led by the methodology).

Bassey (1999) advocated an audit trail, which makes the interpretation and reporting of data more trustworthy. I have done this by creating consistent index coding across data sources, and the readers are able to access examples of the raw data in the appendices. Two types of index coding were used in analysis, that of index coding of data sources (i.e. documents, interview scripts etc.) and index data coding for themes and categories (i.e. from within an interview transcript). Further audit care was taken in the recommendations, in that links between the sections in Chapter 5 and Chapter 6 (where the data is presented) and Chapter 7 (where the data is interpreted and recommendations are made) are explicit.

## **4.8 LIMITATIONS**

Certain limitations that were experienced during the research period are described below and are important to note as a reflective and reflexive researcher. These factors are not readily accessible in any of the interview data sources, but they did impact on the research process and may have influenced the results. All other limitations were captured in the facilitator reports and participant observation notes, which formed part of the set of documents used to gain insights into the retroductive causal analysis.

### **4.8.1 Inexperienced facilitators**

Accredited training is run through the auspices of SAQA, and the relevant SETA that houses the qualifications that a training provider wants to run. In order to meet the standards of SAQA and the SETAs (which are strictly controlled), facilitation should be of a high level and should only be done by people who have experience in teaching and who are subject knowledge experts. In the case of the ELSP pilot, WESSA had undergone major structural changes leading to a shift in staff availability. At the same time, WESSA signed onto the Groen Sebenza Internship Programme, which meant that a certain number of graduates were taken into WESSA to work within different departments. SustainEd, the adult accredited training unit within WESSA, took up six of the Groen Sebenza interns.

Three of the Groen Sebenza interns were used for the ELSP (after working for six months within SustainEd, and having trained multiple municipality groups in the same Level 2 unit standards), and it was the first time that I was able to observe their facilitation styles and methods.

Unfortunately, their content knowledge was not what it should have been, and certain activities floundered because of inexperience in facilitation. While WESSA did take this observation seriously, and training development was initiated after seeing the weaknesses, the participants of the ELSP would have felt the inexperience of the facilitators when it came to trying to make sense of the workbook activities. The difficulty levels and confusion over certain activities was thus structurally related to WESSA and Groen Sebenza, and this limitation is fairly well hidden within the case study. That said, with group work and one-on-one explanation, the learners were able to tackle the workbook activities successfully, but their experience may have been different with subject knowledge experts skilled in participatory learning techniques.

### **4.8.2 Weather**

The weather in January 2014 was extremely hot, and the training venue was almost unbearable during the day. Not only were the participants extremely uncomfortable, the facilitators were struggling to teach their sessions in an enthusiastic manner. The facilitators were actually forced to stop some sessions and let people sit outside in the shade for ten minutes at a time and drink water, which made the knowledge creation process disjointed and the beneficiaries in particular (as opposed to the contractors) found it hard to deal with the new information that was being presented to them. This may have influenced the results of this particular module, which was the most difficult as it instructed learners on how they were supposed to run environmental action projects back in their own communities. This module was the most unsuccessful in terms of the numbers of beneficiaries who completed it, and the poor training conditions may be directly related to this.

### **4.8.3 NRMP and WfW restructuring process**

During the timeframe in which the ELSP was running, the NRMP made a decision to freeze all work and payments during a national WfW restructuring process. This caused considerable complications, in that even though WfW high level management (Assistant Director of Training) had commissioned the ELSP design and pilot, the actual operational structures dictated whether it could happen. When WfW and Gamtoos Irrigation Board (the WfW implementing agent in Uitenhage) were informed that no money could be released to teams, and that all work must halt, the officials in Uitenhage requested to cancel the pilot. After some negotiation, the training was approved even though the learners would not be actively working for WfW. Because of this, many problems became apparent during the training, in particular when exercises called for workplace based evidence and project work in the workplace. Additionally, the beneficiaries and contractors were distressed about the lack of income they were experiencing, and the lack of communication from WfW officials about when their work might start again.

## **4.9 ETHICS**

Bassey (1999) has provided guidelines for performing ethical research. The guidelines broadly comprise respect for democracy, respect for truth and respect for persons, which all influence the validity and trustworthiness of educational research. With the research linked to a WfW training project, participants on the course did not have a say in whether they wanted to attend

or not as attendance was part of their jobs. However, three beneficiary participants dropped out of the course for reasons that are cited in Chapter 5, thus the process of taking part in the pilot was to some extent voluntary.

Certain data capture methods were part of the pilot evaluation requirements (WESSA and WfW required this input), as such ethical permission was not required to implement them. For example, the course evaluation questionnaire and the short structured interviews were mechanisms built into the course for evaluation purposes. The learners were allotted 30 minutes for tea, and an hour for lunch on the course days (90 minutes break total), and every effort was made to keep the structured interviews short (about ten to fifteen minutes per person) so as not to inconvenience the learners. Learners did initially think they were about to be tested on their knowledge gained from the course, but soon relaxed when they realised they were only required to give opinions of the content and exercises they had been exposed to on the course.

However, all research participation that was exclusively for the use of this Masters study was guided by the ethical standards as suggested above (Bassey, 1999). For example, all the individuals who took part in the in-depth semi-structured interviews were given the choice as to whether they would like to take part in contributing towards my MEd research project.

Key to any research with human agents is the issue of consent (Cohen et al., 2007). Permission to conduct extra research with the ELSP participants was obtained from the Assistant Director of Training at WfW, and permission to use the 'general documentation' produced for the course review for the purposes of Masters research was also obtained. When moving from the realm of 'WESSA work' into 'Masters study', I developed a consent form, which was presented to the participants once it had been established if they would like to contribute to the Masters study by being interviewed. On the consent form, each participant could select whether they wanted to remain anonymous, and whether their photographs from the ELSP pilot could be used in the thesis. An example of a completed consent form is available as Appendix H.

Conducting the research ethically included awareness that the researcher and participant relationship is a social one, which requires good communication and mutual trust. Participants were made fully aware of what they were contributing to by participating, that they were able to withdraw at any time, and that they could see any of the research data that pertained to them (such as transcripts) (Bassey, 1999; Cohen et al., 2007).

Renganathan (2009) raised the issue of researcher-participant relationships in multi-ethnic, multicultural and multilingual contexts, proposing that this relationship was much more complex and multi-faceted than is generally acknowledged. Renganathan emphasised that due to the differences between the researcher and the participants, and furthermore the difference between people within the participant group, it is of crucial importance to practice meaningful reflexivity. As a white 32-year-old female who does not speak isiXhosa or Afrikaans fluently, there was already complexity in the research relationship, which was further compounded by my role as a facilitator on the ELSP courses.

Ethically, to show respect for the quality of the educational research (Bassey, 1995), I was bound to use reflexivity and report on how and in what ways I was respectful of cultural differences, and how I was reflexive in my research. To this end, every effort was made to allow participants to write and speak in their mother tongue, and Afrikaans and isiXhosa facilitators were specifically chosen to facilitate better knowledge creation practices on the ELSP. isiXhosa speaking facilitators and an Afrikaans speaking facilitator sat with me to translate questions and answers for those who were not comfortable speaking in English, which was a compromise on what could have been lost in translation and how to democratically approach a multicultural, multi-ethnic and multilingual research context.

#### **4.10 CONCLUSION**

In this chapter, the research methodology of a social realist case study using inductive, abductive and retroductive modes of inference has been discussed, as well as the data generation process, chosen methods and application of those methods. Methods used to analyse the data from a critical realist multi-levelled approach were presented, after which validity, limitations experienced during the ELSP pilot and ethics were considered. In Chapter 5 and Chapter 6, the research findings are presented, structured in part by the research goals and in part by the analytical categories.

**CHAPTER 5: REVIEW OF THE ELSP PILOT COURSE PROGRAMME AND ITS IMPLEMENTATION IN THE WFW WORK AND LEARNING CONTEXT INCLUDING THE EMERGING GREEN ECONOMY CONTEXT**

**5.1 INTRODUCTION**

In Chapter 4, the key data generation and analysis techniques were described and the analytic categories that were inductively and abductively derived from the data were presented. The purpose of Chapter 4 was to present the data relating to Goal 1 of this study, investigating how the ELSP Pilot training is structured (both academically and practically), and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting.

The beneficiary and contractor information sets are presented separately under each heading, as opposed to presenting them as separate studies entirely. This is because they are interlinked, and in some cases, data from the contractors is applicable to beneficiaries and vice versa.

**Table 5.1: A tabled map to navigate the results of the study**

<p><b>Goal 1:</b> To investigate how the ELSP Pilot training is structured (both academically and practically), and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting</p> <p><b>Data Sources:</b></p> <ul style="list-style-type: none"> <li>• Evaluation questionnaires</li> <li>• Structured interviews</li> <li>• Semi-structured interviews</li> <li>• Facilitator reports</li> <li>• Portfolio of Evidence</li> <li>• Participant observation</li> </ul>	<p><b>5.2 Review of the ELSP</b></p> <p>5.2.1 Academic design</p>	<p><b>Analytic categories as per below</b></p>	
		5.2.1.1 Demographic data	Beneficiaries
			Contractors
		5.2.1.2 Language	Beneficiaries
			Contractors
	5.2.1.3 Facilitator dependency	Beneficiaries	
		Contractors	
	5.2.1.4 Workplace based evidence	Beneficiaries	
		Contractors	
	5.2.1.5 Benefits of the ELSP knowledge and teaching practice	Beneficiaries	
		Contractors	
	<p>5.2.2 Practical (usability) Design</p>	5.2.2.1 Time limitations	General
		5.2.2.2 Drop outs	General
5.2.2.3 Accredited training requirements		General	
5.2.2.4 Language (translation issue)		General	
5.2.2.5 Link to occupational pathways		General	

## 5.2 REVIEW OF THE ELSP PILOT

A review of the ELSP pilot is important as it provides insight into factors that address how suitable the ELSP is for the general WfW EPWP context. The purpose of this chapter is not to make claims as to whether the ELSP fitting or not, but to present the results of analysing a number of different data sources that could provide a triangulated viewpoint of the academic and practical suitability of the ELSP. Before looking specifically at the academic and practical facets of the ELSP, demographic data gained from the structured interviews is presented.

### 5.2.1 Demographic data

Useful demographic data was gained from the structured interviews (SI/B1-B15, SI/C1-C15) that painted an overall picture of the pilot participants. The information extracted was summarised from the analytical memos and is presented in table format below:

**Table 5.2: Demographic information derived from beneficiary and contractor structured interviews**

Categories	Beneficiary Group	Contractor Group
Gender	<ul style="list-style-type: none"> <li>• 5 female</li> <li>• 10 male</li> </ul>	<ul style="list-style-type: none"> <li>• 5 female</li> <li>• 10 male</li> </ul>
Age	<ul style="list-style-type: none"> <li>• Youngest 21</li> <li>• Oldest 39</li> <li>• Majority in late 20s</li> </ul>	<ul style="list-style-type: none"> <li>• Youngest 28</li> <li>• Oldest 47</li> <li>• Majority in mid-30s</li> </ul>
Education	<ul style="list-style-type: none"> <li>• 2 participants have matric</li> <li>• 1 with matric also completed an office administration course</li> <li>• 1 failed matric</li> <li>• Most dropped out between Grade 8 and Grade 10</li> <li>• 3 studying actively at ABET night school</li> </ul>	<ul style="list-style-type: none"> <li>• All have matric (although not all can show proof)</li> <li>• Examples of courses completed: <ul style="list-style-type: none"> <li>• Basic health care</li> <li>• Human resources</li> <li>• FET Mech Eng Course</li> <li>• Teaching</li> <li>• Business Management</li> <li>• Accounting to Level N4</li> </ul> </li> <li>• Examples of courses not completed: <ul style="list-style-type: none"> <li>• Management Assistant Course</li> <li>• Financial Information Systems</li> <li>• Social Worker Diploma</li> </ul> </li> </ul>
Family and home environment	<ul style="list-style-type: none"> <li>• 50% live with +- 5 people (family)</li> <li>• 50% live with +- 7 people (family and extended family)</li> <li>• Live between Despatch and KwaNobuhle</li> </ul>	<ul style="list-style-type: none"> <li>• 50% live with +- 4 people (family)</li> <li>• 50% live with +- 7 or more people (family and extended family)</li> <li>• 1 contractor does not have children</li> <li>• 14 contractors have 2-3 children each</li> </ul>

	<ul style="list-style-type: none"> <li>• Older beneficiaries tend to be parents, who house their children</li> <li>• Younger beneficiaries tend to still live with their parents, or in many cases with their grandparents</li> <li>• Most of the young beneficiaries do not have children; all above the age of 28 have children</li> </ul>	<ul style="list-style-type: none"> <li>• Most men are married; none of the women are married.</li> <li>• About half of the men have nuclear families, and their wives mothered all their children. About half of the men had fathered children with different women, and the children generally lived with their mothers</li> </ul>
Financial information	<ul style="list-style-type: none"> <li>• Most families have a grandparent that receives a grant/pension</li> <li>• Younger beneficiaries commonly come from homes where at least one parent works regularly or permanently. This forms the core of the family's income, and beneficiary income is seen as supplementary</li> <li>• Older beneficiaries (especially those with children) bring in a large portion of the household income. This is typically combined with a grandparent's grant</li> </ul>	<ul style="list-style-type: none"> <li>• Contractors are seen as the key breadwinners in their families, and are often responsible for extended family costs such as their niece or nephew's education</li> <li>• In extended family situations, typically the grandparents receive a pension, which takes strain off the contractor who pays for most of the other family needs</li> <li>• Some contractors have partners who work full-time, and their combined salaries are used to run the household and pay for education of children</li> <li>• Younger contractors live with one or both parents, who may be employed or have their own businesses</li> </ul>
Duration of employment	<ul style="list-style-type: none"> <li>• The majority of beneficiaries had worked for WfW for between one year and two years, with two beneficiaries working for between three and four years</li> </ul>	<ul style="list-style-type: none"> <li>• The majority of contractors have worked for WfW for between three and five years</li> <li>• One contractor had worked for WfW for ten years</li> <li>• Two contractors had started off as beneficiaries for six to eight years, and progressed into contractor roles. They have worked as contractors for three to four years</li> </ul>
Roles on the team (only applicable to beneficiaries)	<ul style="list-style-type: none"> <li>• The group of beneficiaries included First Aiders, Health and Safety reps, and Peer Educators</li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>

## 5.2.2 Academic design of the ELSP

The following sections outline the main analytic categories that emerged through inductive and analysis, which relate to understanding:

- How the ELSP Pilot training is structured (both academically and practically)
- If and how the ELSP Pilot training seeks to respond to the education levels and experiences of contractors and beneficiaries
- If and how the ELSP Pilot training responds to the demands of the WfW training setting

Before moving into the thick description of findings, a summarised version of text is provided below, linking the main analytical categories to the specific facets of Goal 1 as broken down above. The scope and contents of the ELSP are outlined in Chapter 1, section 1.5.1.

**Table 5.3: Main analytical categories linked to Goal 1**

Academic	How the ELSP Pilot training is structured (both academically and practically)	If and how the ELSP Pilot training seeks to respond to the education levels and experiences of contractors and beneficiaries	If and how the ELSP Pilot training responds to the demands of the WfW training setting
Language	<ul style="list-style-type: none"> <li>• ESLP is built of SAQA building blocks (requirements) – English is central to assessment.</li> <li>• English as the teaching and learning medium caused anxiety for many learners.</li> <li>• Some learners struggled to express themselves in English, in particular with tasks or questions that needed personal insights.</li> <li>• Facilitators currently do evaluation interviews at the end of the full course.</li> </ul>	<ul style="list-style-type: none"> <li>• The facilitators taught in different languages, translated into Afrikaans and isiXhosa.</li> <li>• Assessor allowed students to write in Afrikaans, and allowed other to write isiXhosa, while the facilitators translated the answers into English.</li> <li>• The course work was a mixture of formative and summative exercises, outdoor practicals and indoor theory based exercises.</li> <li>• It was noted by facilitators “when we</li> </ul>	<ul style="list-style-type: none"> <li>• The style of presenting (when one person from the group presents the work in front of the class) made some people uncomfortable, due to the impression that their peers would judge them. Exposed underlying tensions between some of the contractors.</li> <li>• WfW training setting has extremely tight budgets, thus building in extra time or extending the length of the course is unlikely.</li> <li>• If operations are on the go or a new</li> </ul>

		<p>are facilitating and assessing to show that we recognise learners have different abilities”.</p> <ul style="list-style-type: none"> <li>• Not enough time is built in to the ELSP to accommodate one-on-one facilitation to create meaning for the learners.</li> <li>• Not enough time for learners to complete their work in class.</li> <li>• Numerous requests for the questions to be written in isiXhosa, thus the ELSP in its current state does not respond to this, which would help with learners being able to answer coherently.</li> <li>• Facilitators suggest that in order to respond to learner needs, evaluation interviews should be done at the end of each module.</li> </ul>	<p>contract is gained for clearing work, training is the second priority and will be cancelled our pushed out. This affects the flow of the ELSP training, and if too much time passes remembering content is difficult for the learners.</p> <ul style="list-style-type: none"> <li>• With language causing time sensitivity, many learners (in particular contractors) were found to be copying each other’s answers so they could complete the exercise and leave the training venue. Or if they left early, they copied answers in the morning. Thus, the structure of the ELSP, when interacting with the WfW training environment created a situation where copying became attractive.</li> </ul>
<b>Facilitator Dependency</b>	<ul style="list-style-type: none"> <li>• The ELSP is built around the premise that while facilitators must be knowledgeable; their role is to guide learners between content and activities through Active Learning (which involves various methods).</li> </ul>	<ul style="list-style-type: none"> <li>• The level of beneficiary dependency on the facilitators to complete the workbooks was high: which is a response, but not necessarily a good response.</li> <li>• Group work became easier as the course went along, and this was seen in the POE results.</li> </ul>	<ul style="list-style-type: none"> <li>• This is a new way of learning for both beneficiaries and contractors and they needed time to adjust to the formal learning environment.</li> <li>• Group work was a new concept, and helped reduce facilitator dependency.</li> </ul>

<p><b>Workplace based evidence</b></p>	<ul style="list-style-type: none"> <li>• Workplace based evidence is one of three forms of knowledge that must be present in accredited training (the other two are general knowledge and theory, and practical skills for the occupational context).</li> <li>• Difficult for monitor how the learning is taking place.</li> <li>• The ELSP requires that two projects be completed.</li> </ul>	<ul style="list-style-type: none"> <li>• Beneficiaries: Module 3 included the action projects to be undertaken in their own communities or household.</li> <li>• Contractors: Module 2 included action projects to be undertaken in their own communities or households.</li> <li>• It was apparent that without facilitator guidance, it was difficult to complete the projects as much of the task was misunderstood.</li> <li>• The ELSP requires a high level of independent thought and action, and doesn't respond to learners' home environment and educational contexts well, although attempts were made to align the activities as closely as possible to their contexts.</li> </ul>	<ul style="list-style-type: none"> <li>• With the 'tools down' situation that the WfW Contractors and Beneficiaries found themselves in at the time of the training, workplace-based exercises couldn't be performed. The facilitators adapted the exercises to be performed at home and within the learners' communities and context.</li> <li>• Other courses do not require this kind of project work, and it was seen as an unusual concept to beneficiaries to have to take work home from a WfW course (normally all done in classroom)</li> <li>• After the course was completed, and with recognition of the WfW training environment challenges, it was agreed with LGSETA that one workplace-based project could be completed instead of two.</li> </ul>
<p><b>Benefits of the ELSP knowledge and teaching practice</b></p>	<ul style="list-style-type: none"> <li>• Group work provided time to communicate with peers, which allowed more views to consider and to include in learner answers.</li> </ul>	<ul style="list-style-type: none"> <li>• Responds to learners providing meaning making experiences that can be utilised outside of the job.</li> <li>• Beneficiaries showed more interest in their jobs (according to contractor), after</li> </ul>	<ul style="list-style-type: none"> <li>• By the end of the three modules a number of contractors felt that the exposure to new ideas was one of the strengths of the ELSP against the standard approach to training</li> </ul>

	<ul style="list-style-type: none"> <li>Exposure to new ideas and interactive group work was seen as a positive element of the training.</li> </ul>	<p>becoming aware of the purpose of the WfW work and how it related to their contexts.</p> <ul style="list-style-type: none"> <li>Practical work and being outdoors was enjoyed by the beneficiaries, and increased levels of pride in their work. The ELSP activities thus respond to education levels in creating various platforms to engage with learning.</li> </ul>	<p>that they regularly experience.</p> <ul style="list-style-type: none"> <li>Not all the practical activities were directly useful for the WfW jobs (such as pH tests, quadrats etc). However they were necessary to align with accreditation requirements.</li> <li>Contractors found that the ELSP responded to their work specific needs. In specific learning around leadership, change to personal views and the benefit of environmental knowledge.</li> </ul>
<b>Practical</b>	<b>How the ELSP Pilot training is structured (both academically and practically)</b>	<b>If and how the ELSP Pilot training seeks to respond to the education levels and experiences of contractors and beneficiaries</b>	<b>If and how the ELSP Pilot training responds to the demands of the WfW training setting</b>
<b>Time limitations</b>	<ul style="list-style-type: none"> <li>Requires ten notional hours per credit, courses structured around this requirement.</li> <li>Not enough time at the end of the day to fill in the evaluation forms.</li> <li>Learners need to leave earlier than the set 'end of day' in order to catch taxis and buses. It is then difficult to complete tasks, and sessions are rushed, which</li> </ul>	<ul style="list-style-type: none"> <li>Not enough 'spare' time built into the course to help learners in a one-on-one scenario when they struggle with unfamiliar language, terminology and concepts.</li> <li>Pressure placed on learners to complete exercises in an unrealistic timeframe, resulted in tired learners.</li> </ul>	<ul style="list-style-type: none"> <li>WfW training setting has extremely tight budgets, thus building in extra time or extending the length of the course is unlikely.</li> <li>Hard to manage time in the WfW training setting, and to manage notional hours that are idealistically planned.</li> <li>ELSP was planned to run from 8a.m. to 5p.m., but learners are</li> </ul>

	<p>puts strain on the learners and the facilitators (and loss of notional hours).</p> <ul style="list-style-type: none"> <li>Learners and facilitators felt that three days, versus two, per module would have been more effective.</li> </ul>		<p>used to 9a.m. to 3p.m. training courses.</p>
<b>Dropouts</b>	<ul style="list-style-type: none"> <li>Because the ELSP requires a learner to complete all the modules, it isn't possible to fill in one learners place with another if they drop out.</li> </ul>	<ul style="list-style-type: none"> <li>The ELSP can't respond to experiences of contractors and beneficiaries who need to drop out.</li> <li>The ELSP can't respond to filling up training numbers as per WfW requirements (so many training days per beneficiary and contractor per year) when people drop out.</li> </ul>	<ul style="list-style-type: none"> <li>Quite often reasons for dropping out are socio-economically related.</li> <li>It is difficult for the ELSP to respond to issue of drop outs, but expecting drop outs would result in better planning.</li> </ul>
<b>Accredited training requirements</b>	<ul style="list-style-type: none"> <li>The ELSP uses accredited training requirements as the bones of its structure, for both academic (designing and creating materials) and for practical (planning notional hours, deadlines, signing off of work, copies of ID documents, matric certificates etc.).</li> </ul>	<ul style="list-style-type: none"> <li>It is difficult for the ELSP to respond to learner experiences and personal situations when the requirements are highly structured.</li> <li>Missing ID docs, matric certificates etc. Without these, a learner cannot be given an accredited learning certificate.</li> </ul>	<ul style="list-style-type: none"> <li>It is difficult for the ELSP to respond to learner experiences and personal situations when the requirements are highly structured.</li> </ul>
<b>Language (translation issues)</b>	<ul style="list-style-type: none"> <li>Accredited training allows for multi-lingual approach to facilitate understanding</li> </ul>	<ul style="list-style-type: none"> <li>The ELSP responds to learner education levels and experiences through translation (both verbal and written)</li> </ul>	<ul style="list-style-type: none"> <li>The WfW training context brings many different capabilities into one 'classroom', and to address all education levels and</li> </ul>

	<ul style="list-style-type: none"> <li>• This is time consuming</li> </ul>	<ul style="list-style-type: none"> <li>• However, translation is laborious and expensive</li> <li>• Opens up room for misinterpretation and bias</li> </ul>	<p>experiences is not always possible.</p> <ul style="list-style-type: none"> <li>• The ELSP tries to accommodate this with multiple facilitators and active learning, however when responding to work book exercises translation always becomes necessary and is a weakness of the ELSP.</li> </ul>
<b>Fuzzy link to occupational pathways</b>	<ul style="list-style-type: none"> <li>• The ELSP is structured around the Environmental Practices qualifications which are linked directly to municipal work (natural resource management)</li> <li>• Even in the ELSP, there are few examples of occupations that are available to beneficiaries</li> <li>• The link between why the learners were being introduced to environmental concepts and management tools, and how it would help them to do their current WfW jobs, or help them source other work was not well defined.</li> </ul>	<ul style="list-style-type: none"> <li>• The ELSP does not respond to learners' education and experiences in terms of occupational pathways very clearly or very strongly.</li> <li>• This poor response is backed by a lack of elementary worker green jobs in the emerging Green Economy (outside of recycling).</li> </ul>	<ul style="list-style-type: none"> <li>• With most WfW training, learners can see a distinct link between what they are being taught and applicability to their work (functional trainings) or how it can be applied in other jobs (i.e. First Aid and Clinic Work etc.)</li> <li>• The ELSP could include more focus on these elements to create more value in terms of its applicability to the individuals on the course.</li> </ul>

### **5.2.2.1 Language**

The first category linked to the academic structuring and suitability of the ELSP in the WFW context is that of language. The materials (learner manuals, workbooks, activities and learning support materials such as posters, videos and Power Point Presentations) were designed and written in English as per LGSETA requirements (refer to Chapter 1, section 1.5.1). English is seen as the language of business in South Africa, thus rules apply that accredited training, which serves to empower people to engage in the business world (of paid occupations and services), must be achieved in English (G.R. Molapo, personal communication, 2014). WESSA undertook to provide isiXhosa speaking and Afrikaans speaking facilitators to present the courses, or to at least be available to translate if they were not involved in particular sessions.

#### **Beneficiaries**

Through participant observation of Module 1 (PO\_BG\_M1\_D1), it was noted that five isiXhosa speaking participants (B4, B5, B7, B13, B15) had a difficult time filling in the workbooks in English. Three participants who spoke Afrikaans (B9, B10, B12) found it easier to write in English, but ultimately a decision was made by the facilitators to allow participants to write in their home language if they wished. Some participants continued in English, while others switched to isiXhosa or Afrikaans. The isiXhosa was then translated back into English by the facilitators, written out by hand and then stapled next to the original isiXhosa answers.

A covering note from the assessor in the Beneficiary Module 1 POEs comments section stated, "Some of the learners are struggling a bit. Maybe if some of them want to provide oral answers, which are then written down by the interpreter in English that would be okay, instead of translating what they have already written in isiXhosa. Or it can stay the way it has been happening so far. Whichever suits you better. I am very happy to assess Afrikaans, but they must write clearly" (POE/M1). The time and one-on-one attention required to carry out oral answering sessions, in the style the assessor suggested, was not available during the pilot. The facilitators had to be conscious of time to get through the curriculum, thus adding intensive special-needs time was not an option.

Turning to the evaluation questionnaires, participants expressed mixed views on the issue of language (the question they were providing an answer for was question 3.2 Did you have any

language issues?). “No everything was easy accepted [*sic*] that they must write other questions in Xhosa so that I can understand it well. I don’t hear English properly, some words I do understand them” (B8/Q), “Not on the right level but I tried to cope” (B7/Q), “Nee, moet skryf net in Afrikaans” translated “No, but I just write in Afrikaans” (B9/Q), “No, I do write, read and sometimes speak English” (B6/Q).

The questionnaires were not well answered in general as some participants provided ‘yes’ or ‘no’ answers, or simply left the questions blank (refer to Chapter 4, section 4.1.1.2). However, this could be indicative of not being able to express themselves fully in written format. A facilitator commented that “Maybe holding small informal group evaluations and in some instances, an informal one-on-one evaluation conversation with one of the participants [would be a better method of evaluation]. The selection of the one-on-one evaluation can be conducted with one of the people who has been most silent, withdrawn in comparison to the rest of the group” (F4/FR/BG/M3). The experience of conducting the structured interviews left an impression on the Afrikaans facilitator who added “The short one-on-one interviews that I helped with after Module 3 are quite effective and could be done on a module basis instead of only being after the whole course” (F1/FR/BG/M3).

When considering the facilitator reports, in general it was acknowledged that language was a facet of the training which was complex and necessary to navigate tactfully in order for participants to understand the content and questions.

Yes, all the participants were able to understand the content of the module after being translated into their own language. Having to concentrate on the information being taught in English and then translate it properly in Afrikaans was quite challenging at times, however it started to become easier during those two days. In some cases the questions had to be repeated for the participants to understand and many examples have to be given for them to understand eventually. (F1/FR/BG/M1)

The lead facilitator for Module 1 commented that “language was a barrier to other participants and we needed an Afrikaans facilitator who will be always there to translate and for Xhosa speakers as well” (F3/FR/BG/M1).

In the above paragraph, the idea of understanding concepts and terminology was raised. The three modules brought with them a rapid introduction to new terminology that is consistent with knowledge and skills linked to understanding the environment, environmental management tools, and basic project management. This had an inhibiting effect on the beneficiaries, and came across in the structured interviews as one of the main negative aspects of the course. For example,

Okay, my problem, sometimes I struggle to...to...not to remember, but, uh, to memorise the things that you taught us ne? Ja but I don't know, this is the first time for me on this course, I never thought I would go, uh, or be able to do, to learn about all this different stuff! (B11/SI)

Another example is shown through this conversation (B10/SI) between the Afrikaans facilitator and an Afrikaans participant which has been translated into English:

**F1:** But what did you find the hardest? What was the hardest part?

**B10:** What we were doing yesterday.

**F1:** What did we do yesterday?

**B10:** The practical, the weeds...

**F1:** The quadrat?

**B10:** Yesterday, before we went out.

**F1:** Oh the high, the high tools. You mean the high level, mid-level and low level tools? You found that hard to understand?

**B10:** Yes, that is really hard!

The combination of the language issue and an overload of new concepts made it difficult for learners to keep up with the pace of the course, and complaints were recorded that there wasn't enough time to complete the activities. "I think there was too much work in a short space of time" (B2/Q). A facilitator similarly commented:

The sessions went well but I feel that the introduction of this module needs more time as the participants are not familiar with the concepts used in this module. The remarks from the assessor show that some of them understand the concepts but it is important when facilitating and assessing to show that we recognise learners have different abilities. (F4/FR/BG/M2)

Examining the POE results and the corrections with a broad brush, the problems associated with languages were evident in the data. Even when the assessor had been specific about what the learner had misunderstood (shows as written commentary in each POE), and explained where to find the correct answers in the learner manual, the participants having difficulty would require

one-on-one attention from facilitators to coach them to successful completion of their corrections. This is not ethical practice in a standard accredited training environment.

### **Contractors**

Contractors did not have the same language issues as the beneficiaries, and all contractors wrote their course work in English (C1-C15/POE/M1-M3). However, this in itself caused problems because although the contractors could read and write in English, many incidences of copying straight from the text and from each other were picked up on by the assessor, and answers had to be resubmitted in the participants' own words (e.g. C1/POE/M1, C8/POE/M1-M3, C12/POE/M1).

There was [*sic*] at least five participants who should've rather started with Level 2 and then when successful do Level 5 – these participants struggled quite a bit to understand the questions and it had to be repeated to them several times and they just seem to want to copy what you say and copy from each other. (F1/FR/CG/M1-M3)

One of the reasons for copying, as noted through participant observation (PO\_CG\_M1/M2), was that even when assuring people that they could answer in their own language, individuals who were unable to write in English refused to show their inability in front of their peers.

The participant had asked me for help on a certain question, but when I discussed the question with him and waited for him to start filling in his book, he couldn't write until I spoke each word out loud and corrected his spelling as we went along. It was uncomfortable for both of us. (PO\_CG\_M1)

Another example of the fear of being judged by peers is the response from a contractor to a question regarding the most challenging part of the course:

**C12/SI:** You know if you are not familiar to stand in front of people and present (laughs), and then you give a talk in front of a crowd and then you have to explain when they ask questions, and now you don't know if you do the right thing because all the eyes are on you!

**Researcher:** That was challenging for you, because you're probably used to speaking in front of beneficiaries but not in front of your peers?

**C12/SI:** Yes, not in front of peers. It's hard.

While language was less of an issue in terms of being able to read, write and understand English, the problem of new concepts and terminology repeated itself with the contractors. An example is shown with a contractor who commented: "Sometimes I am getting confused, because sometimes I am not understanding the questions clearly. The questions are hard to understand.

Some words are too unfamiliar. It would be better if it were written in a more easy English.” (C13/SI). The Afrikaans facilitator had a similar outlook, stating: “The attendees were quite interested, however some of the information were just too much and they could not grasp the idea (e.g. planetary boundaries and mass balance)” (F1/FR/CG/M1).

While it was challenging, in particular Module 1, the contractors grappled with the terminology and style of teaching adequately over time,

Oh um, it’s different in a way that, um, this ELSP course ne, it came as a surprise for me. Because I didn’t even understand the objective of doing it. But now, as time goes on, ja we on the third module ne, at least it’s getting better and better to understand it. (C13/SI)

Another contractor commented that “I have got more time to communicate in group work, and there are more views coming, and I am now getting used to sharing knowledge” (C6/SI).

By the end of the three modules, a number of contractors felt that the exposure to new ideas was one of the strengths of the ELSP against the standard approach to training that they regularly experience. “Ja, it’s much different because we learn a lot of different things here, other courses we just learn herbicide or First Aid. This one is much broader, and I like this one because it has to do with the environment and we are, we are part of the environment” (C14/SI). “This course is completely different, it is much more intellectual and interactive than what we are usually exposed to” (C5/SSI).

### **5.2.2.2 Facilitator dependency**

#### **Beneficiaries**

In general, the level of dependency on the facilitators to complete the workbooks was high. This is in comparison to Environmental Practices Level 2 courses that WESSA has run with municipal learners (the ELSP and the Environmental Practices use the same unit standards, refer to Chapter 1, section 1.5.1). In theory and practice learners should be able to guide themselves via the assessor’s feedback to completion of a course, however this was rarely the case. When analysing the POE evidence, six from the original 15 beneficiaries managed to complete the full ELSP (B6/B8/B9/B10/B11/B15/POE), and these were participants who actively sought out the help of facilitators and were able to attend the two extra correction sessions<sup>11</sup> after the pilot had ended.

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<sup>11</sup> Correction sessions were set up using leftover budget from the ELSP pilot, when it became obvious that beneficiaries and contractors would not be able to complete their corrections

## **Contractors**

The level of dependency on the facilitators was not as high in the contractor group. Particularly among contractors who had studied further after matric (C2/C5/C7/C9) a distinct independence was noted when asking for further explanation of a question, in that they did not want answers spoon-fed to them (PO\_CG\_M2/M3). The contractor group had a wider age and experience scope within it, which made the group work and sharing of knowledge a productive process.

In most cases they needed time to engage with their colleagues in order to understand the contents or instructions better. This is a new way of learning for them and they needed time to adjust to the formal learning environment. I think they enjoyed learning about climate change and getting a better understanding of the terms that they hear about all the time. (F1/FR/CG/M1)

The same facilitator commented after the last module was completed that “The group was very actively involved during this module, especially as there were so many formative group activities” (F1/FR/CG/M1). By the end of the course, group work was no longer a foreign concept, and had become a learning tool that helped support the participants who found language more of a challenge than others.

### **5.2.2.3 Workplace based evidence**

Before presenting the results of this category; an explanation of the three-pronged approach to learning design is necessary:

In accredited occupationally directed training, learning design has to (as a quality requirement) be constructed around three forms of knowledge. They are general knowledge and theory (required to produce the products and services relevant to the learners occupational context); practical skills required to execute this responsibility; and work experience conditions of the occupational context. (Wigley & Sisitka, 2011)

Evidence of the three forms of knowledge has to be visible in the assessment activities, and when the learner produces evidence it has to be seen as credible and sufficient to be assessed as competent by the assessor. General knowledge and theory are simpler to produce evidence for as they are mainly completed in class and in a (mostly) controlled environment, and to an extent practical skills are also simpler to produce evidence for as practical activities are done during

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without facilitator guidance. The gaps between sessions were too long (information was forgotten by the participants), there was little pressure or support from WfW managers to complete the course and having the facilitators in KwaZulu-Natal made it difficult for participants to ask for help with their work.

training sessions. However, workplace-based evidence is a difficult educational space as the educators are not able to monitor how the learning takes place. This element of learning design will be discussed below.

### **Beneficiaries**

In Module 3 of the ELSP for beneficiaries, participants are expected to produce an “environmental action project” as workplace-based evidence. To do this they have to identify an environmental problem in their workplace or in their community, and design a small action project whereby they brainstorm how to solve the problem and try and implement their plan to do this. The assessment is not based on successfully solving a problem, but rather on the use of all the tools and processes that are required to implement projects (i.e. planning templates, progress charts, collecting evidence, creating reports etc.).

Analysing the POE overall results, six beneficiaries managed to complete Module 3 to the point of competency (B6/POE/M3, B8/POE/M3, B9/POE/M3, B10/POE/M3, B11/POE/M3, B15/POE/M3). They were the beneficiaries who took advantage of extra time with the facilitators on correction days, and who took the advice of the facilitators to work in small teams. In some cases, (B7/POE/M3, B13/POE/M3, B14/POE/M3) beneficiaries handed in their Module 3 workbooks, but left them mostly incomplete. These were returned for corrections, but either the beneficiaries did not make it back to the corrections sessions, or they handed them in again still incomplete. The beneficiaries coded as B2, B7 and B12 had also left Uitenhage to search for work in Cape Town, Peddie and Jeffreys Bay by the time their books were returned to the WfW Biocontrol Centre in Uitenhage.

Beneficiaries explained that Module 3 had proved the most challenging (of the three modules) for several reasons. Some beneficiaries misunderstood that they actually needed to implement a project, not simply make up a hypothetical example.

Oh that one! Ha! Okay, we struggled a lot, ne, but we didn't understand the module that well. Sean<sup>12</sup> told me that we had to do it ourselves; I thought we just had to write things and okay, afterwards we understood. Ja, so here we did it in the yard, and we took

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<sup>12</sup> Name changed to protect anonymity

pictures and they still need to be printed, we already took the pictures and we already written all the stuff. (B11/SI)

The Afrikaans facilitator commented that

Not all of the participants understood that they actually have to implement the projects they chose, however it was mentioned quite a few times [during the course work] – maybe it should be made clear in the beginning of the module that they are going to develop a project plan and then will have to implement this project. (F1/FR/BG/M3)

There were also problems with the physical implementation of the plans, which was discouraging for the participants. When asked which module was the most challenging, a beneficiary responded

The one, when you said we must go to the places, ja that thing. In our life right now, when you ask something about these things [to community members], they will say what you want? What you need? You gonna [*sic*] pay all of those things! They do not want to give you a proper answer (...) like, what are you going to give me for my answer. (B15/SSI)

This social obstruction was not expected, but was a reality of the beneficiary's context.

The facilitators expressed concern over the fact that beneficiaries had to achieve the bulk of the module's learning outcomes on their own "The learners did show active engagement in the module however a large portion of the module has to be done outside the class without the assistance of the facilitator, which is difficult for them" (F4/FR/BG/M3). Compounding this factor was the need for beneficiaries to complete two<sup>13</sup> 'environmental action projects', not only one. "Having to do two projects is quite challenging, where they could maybe rather focus on one project and do it properly" (F1/FR/BG/M3). This came across as a major factor when considering the POEs overall, as the assessor highlighted that the first projects were always done to a better standard than the second project. A facilitator recommended that, "In the assessment [part of the module] reduce the number of action plans required for learners to do. Requiring learners to do more than two action plans tends to confuse them and they provide repetitive evidence"

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<sup>13</sup> The need for two projects had been written into the original Environmental Practices Level 2 Module 3 curriculum (refer to Chapter 1, section 1.5.1). The curriculum designer had interpreted the Unit Standard requirements as such. However, WESSA consulted with an LGSETA Education Training Development Quality Assurance specialist on this specific issue as it had caused problems in both the Environmental Practices and the ELSP pilots, and after examining the Unit Standard he advised that it was not necessary to have more than one. Subsequently, the second project has been removed from the ELSP and any learners in the future would only need to do one.

(F4/FR/M3). Her comment was on point, as the assessment notes in certain POEs showed that beneficiaries had copied the same answers from the first project over into the template for the second project (B14/POE/M3, B13/POE/M3, B7/POE/M3).

Producing the workplace-based evidence was thus problematic, but this element is discussed further in Chapter 6, as the problem was not based purely on a learner's capacity to complete a project on his or her own but was also structurally influenced via the WfW political conditions in which the pilot was operating.

### **Contractors**

The contractors were also expected to produce workplace-based evidence for certain modules and activities. Module 1 has already been described as problematic in section 5.2.2.1 above; however on returning to do Module 2 six weeks after Module 1, it also transpired that many people had not completed their workplace-based activities (PO\_CG\_M2\_D1). The activities were supposed to have been completed over the Christmas break, and the activities had been altered for the ELSP to make them applicable to the home environment. This was because the Unit Standard required evidence of understanding the need for, and benefit of, alternative energy and water technologies. Typically a contractor works in the field, away from infrastructure, thus it was felt that the home environment would be a more sensible choice in which to situate the activity. The contractors had been supplied with Sustainable Technology Handbooks in order to complete their work, but most had simply not opened their books over the Christmas break (16 December to 16 January). A number of contractors stated that Module 1 had not been timed well, "Sheesh, well I think that it's because by that time that we were doing, ah, Module 1, our minds was on that, it was festive time I think. I think that was the problem because we couldn't focus" (C3/SSI). The contractors were told they needed to complete their activities by the end of the week, which resulted in rushed attempts by most people which required corrections after being assessed for the first time (across all POEs, C1 to C15, PO\_CG\_M2).

It should be noted that the time limitations of the pilot had a direct influence on whether the workplace based activities of Module 2 and 3 could practically take place. Module 2 for example, dealt with mentoring, and would have ordinarily required the contractor to mentor a beneficiary over a period of three months and produce a report. However, the pilot period itself was not long

enough for this, and due to the WfW political conditions that the pilot was operating in (discussed in section 4.8.3), the teams were not operational (working) over the entire period of the pilot and many months after that. Thus, it was not realistic to expect contractors to successfully mentor beneficiaries in such a situation.

#### **5.2.2.4 Benefits of the ELSP knowledge and teaching practice**

##### **Beneficiaries**

Two core positive facets of the ELSP experience were identified from interviews with beneficiaries, as described below:

##### **Life knowledge and work purpose**

Beneficiaries commented that what they learned provided them with knowledge for their lives outside of WfW, “You learn about how you can help your community where you stay, and workplaces, and tell them animals can die, about water, and air pollution and things like that ... things outside of the job” (B10/SI). Another example stated, “It shows us the differences of things we can do ... it’s not just for work, it’s for my life” (B12/SI).

One of the contractors explained in a semi-structured interview that while the ELSP had influenced her, it also influenced her team as whole:

It gives us [*sic*] more open-minded and it changed the people that I work with, especially the group, my team that I work with. It changed them, the way they do things, the way they talk, their language started to change, I saw it. They are more interested in their work. We have these booklets there with all the types of alien plants; they never picked up the books with interest or something like that, or read through it. Suddenly, now, when they walk in the field and they see this type of insect that is eating maybe a particular bush, they will come to Mariette [the Biocontrol Centre Manager] and explain what they saw, and she will say ‘Let’s go see in the book’. You see, they started being more interested in what they were doing ... they are looking with interest now, and we know what we are doing here has a purpose. (C7/SSI)

##### **Practical work and working outdoors**

Linked to the above, was the expressed enjoyment of practical activities that are linked to working outdoors. “Actually, the one (Module 2: Tools to help us manage our environment) was the best for me, I like it when we’re doing hands on stuff you see” (B11/SI). Another beneficiary explained, “I think I liked this one the most (Module 2), because we did the most experiments!”

(B2/SI). The facilitators picked up on their enthusiasm for practical work too. “The participants found the practical activities very exciting and were amazed at the different tools that could be used. They were very actively involved during the practical activities” (F1/FR/BG/M2), and “This module seemed to be more interesting to them, reason for that is that this is more of a practical module it requires everyone to be outdoors and apply everything they learnt in class, which everyone seemed to enjoy” (F3/FR/BG/M2). This enthusiasm for practical work was not limited to the outdoor practicals; it was also carried over into classroom time: “Witnessing the learners eagerly participate in all the experiments trying to perfect their calculations and taking ownership and pride in their work was very rewarding as it showed their appreciation for learning” (F4/FR/BG/M2).

### **Contractors**

In the case of the contractors, three core positive facets of the ELSP experience were identified from interviews, as described below:

#### **Module 2: The importance of leadership**

Module 2 was mentioned many times as the module most enjoyed and seen as the most valuable. “Because there, uh, it shows us that ... the mentor and the mentee must work together. And that is the same in our work situation. We are the mentors of our teams, and we must work together with our teams” (C14/SI). Another contractor stated the usefulness of Module 2 in preparing her to mentor beneficiaries in career progression, “It sort of taught me how to treat my workers, and then how to, if some of them want to become a contractor, it helps me know how to get them through that. I have used it already with one of them [beneficiary on her team]” (C13/SI). Further, a contractor mentioned how it was useful when being mentored himself, “Module 2 was the best for me [because] I do have people who are mentoring me, and I understand more now what I should expect from them and what they should expect from me” (C3/SI).

#### **Change to personal views**

Contractors commented more generally on how subject knowledge and group activities influenced their work-related views, and in some cases widened their personal worldviews. “It opens our minds into thinking it’s not coming just to work, we are kind of like conservationists now, with that mind-set. When we are at home, we are also thinking about the environment ... it

opens our minds, it opens our eyes is there is something going on in our home” (C7/SI). Another contractor related a similar opinion

When I started working with WfW I didn't know anything about the environment and what-what, I didn't know anything. I just went there to work for my family. But now I know, after we did this. I know about things like global warming now, I'd heard about it but I didn't take notice of it. But when we did that training now it came to mind, it is happening. So it [the training] really helps. (C13/SSI)

### **Benefit of environmental knowledge**

Contractors related that having environmental knowledge is beneficial towards work opportunities and their own credibility. “It will help me [in the future] because we are talking environmentally. Most of the time we are learning about the environment so it will help me a lot” (C1/SI). “I have gained very good knowledge and experience regarding the environment and so forth, I would like it if I could get work in that field” (C9/SI). Further to this, a contractor explained “I wish I had the certificate [ELSP] already, because I have applied for a tender to clear grass at Thomas Baines Nature Reserve. Having that certificate would show I had environmental knowledge, it would count when they review the tender applications” (C10/SSI).

### **5.2.3 Practical (usability) design of the ELSP**

Section 5.2.3 will not be divided into beneficiary and contractor insights, as the practical suitability of the ELSP design is derived primarily from participant observation data, and facilitator report data, which deals with the overall ELSP.

#### **5.2.3.1 Time limitations**

Time management was an element of the ELSP pilot that was difficult to manage. Accredited training requires ten notional hours per credit, and courses are structured around this requirement. Typically, the training sessions would start half an hour to an hour late, and learners would try and leave up to an hour earlier than planned in order to fit in with their transport arrangements (PO\_BG\_M1\_D1/PO\_CG\_M1\_D1 through to PO\_BG\_M3\_D2/PO\_CG\_M3\_D2). From informal discussions with learners, I learned that they were used to starting training at 9 a.m. and being finished by 3 p.m., depending on the course, and transport plays a major factor in their ability to make full-day courses out at the Biocontrol Centre.

An additional element of time management problems was the lack of time available to spend on doing corrections with learners. This was linked to budgetary constraints, and service providers are pressured to push learning into as few days as possible to make it affordable. In an ideal situation, each module would have been spread over three days. Contractors in particular, felt the packed nature of the course, “There was not enough time to finish the modules” (C10/Q), “Sometimes I felt tired, as there was a lot of work to be done in a day” (C13/Q).

### **5.2.3.2 Dropouts**

Amongst the beneficiaries, there were two people who dropped out completely after Module 1 (PO\_BG\_M3\_D1), and one person who dropped out after Module 3 (PO\_BG\_M2\_D1). From the first two mentioned, one left because she was eight months pregnant during Module 1 and had her baby after Christmas. The reason for the second person leaving was not disclosed to me, but the third person left because of an altercation she had with her niece who was also on the pilot. Both were beneficiaries, and a family disagreement had followed them into the classroom. On discussion with the social development officer based at Biocontrol, it transpired that two of the people who left were related. The issue of related beneficiaries and contractors will be discussed under social conversion factors in Chapter 6, section 6.4). None of the contractors dropped out.

### **5.2.3.3 Accredited training requirements**

Accredited training requires various documents to be supplied by learners (copies of Identity documents, copies of matric certificates), and requires strict documentation of attendance of the courses. In two cases, contractors were unable to supply matric certificates. One of these contractors had excelled in the course (C5/POE/M1/M2/M3), yet had misplaced his certificate and hadn't had time to request a re-issue from DHET. He was assessed as competent in the full skills programme, yet his results could not be endorsed because of the missing certificate. The other contractor (C8) who did not supply a matric certificate instead supplied a photocopied letter from the high school that he attended. The letter serves to confirm that he schooled there until the end of Grade 12, however the number '12' in the letter looked as though it had been typed over a blanked out section and did not match the rest of the letter thus did not appear authentic. The issue of authenticity was not raised, because without a valid matric certificate, his results would not have been endorsed regardless.

The requirement of learners signing POEs between each set of corrections (that travel back and forth between the assessor, the service provider, WfW managers and the beneficiaries and contractors) led to much confusion. If one signature is left off a POE, the document is not seen to be legally binding or valid. In the context of the ELSP pilot where the service provider and assessor were based in KwaZulu-Natal and the learners in Uitenhage and Grahamstown, the signing and corrections of POEs was difficult to arrange, as well as expensive.

#### **5.2.3.4 Language (translation issues)**

As discussed in section 5.2.2.1, language was one of the primary challenges experienced with the ELSP pilot. The solution of allowing learners to write in their first language was also problematic in that it required many hours spent translating answers into English in order for the workbooks to be assessed. This was an expensive and laborious exercise, and it could be argued that it opens up room for bias and misinterpretation when translating.

#### **5.2.3.5 Fuzzy link to occupational pathways**

With most WfW training, beneficiaries and contractors can see links between what they are being trained on, and outside opportunities. This was discussed in Chapter 1, with examples such as First Aid training leading to clinic work, Health and Safety training leading to construction site work, chainsaw training leading to work in Eskom and tree felling and so on. However, with the ELSP beneficiaries and contractors found it difficult to make links between specific jobs and the environmental training they were receiving. "I think with First Aid it will be useful because of the nursing that I want to do. But I don't know about the environmental, I don't know where to apply when I have the certificate, and I was wondering if you could tell me where I can apply with it?" (B6/SSI)

### **5.3 CONCLUSION**

Chapter 5 offers a synthesis of the data collected and analysed against Goal 1 of this study, towards understanding if and how the ELSP responds to learner education, experiences and capabilities in the WfW operation and training context. It is a surface level analysis that focussed on the empirical domain (what was observable). In Chapter 6 deeper analysis takes place, looking at the enabling and constraining factors in learners lives that affect conversion of resources into functionings. It provides better understanding of the reasons why people make particular choices, from sets of options that are available to them, and insight into obstructions and opportunities that are created by the interaction of structures, conditions and mechanisms in the real and actual domain.

**CHAPTER 6: ANALYSIS OF THE CONVERSION, ENABLING AND CONSTRAINING FACTORS INFLUENCING WORKING FOR WATER CONTRACTORS' AND BENEFICIARIES' ENGAGEMENT WITH TRAINING OFFERED IN THE ENVIRONMENTAL LITERACY SKILLS PROGRAMME**

**6.1 INTRODUCTION**

In Chapter 5, the results of analysis looking into achieving Goal 1 of this study were presented. In this Chapter, the results of analysis looking into achieving Goal 2 of this study are presented. The conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy are presented, as well as other important social realism concepts such as agentic, structural and cultural factors.

Table 6.1 below offers a guide to Chapter 6 per section:

**Table 6.1: Main analytical categories linked to Goal 2**

<p><b>Goal 2:</b> To investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy.</p> <p><b>Data Sources:</b></p> <ul style="list-style-type: none"> <li>• Evaluation questionnaires</li> <li>• Structured interviews</li> <li>• Semi-structured interviews</li> </ul>	<b>Conversion Factors</b>	<b>Analytic Categories as per below</b>	
	6.3 Constraints	6.3.1 Social	Beneficiaries
			Contractors
		6.3.2 Personal	Beneficiaries
			Contractors
		6.3.3 Environmental	Beneficiaries
			Contractors
	6.4 Enablers	6.4.1 Social	Beneficiaries
			Contractors
		6.4.2 Personal	Beneficiaries
			Contractors
		6.4.3 Environmental	Beneficiaries
			Contractors
	6.5 Structural, agentic and cultural factors	<b>Analytic Categories as per below</b>	
		6.5.1 Structure	
		6.5.2 Agency	
6.5.3 Culture			
6.6 Green Economy jobs	<b>Analytic Categories as per below</b>		
	6.6.1 Types		
	6.6.2 Unawareness		
	6.6.3 Opportunity: Recycling		

## 6.2 SUMMARY OF RESULTS

Before moving into the detail of the chapter, the table below offers a summary of the social, personal and environmental constraints and enablers relevant to the beneficiaries and contractors, that were identified through analytic categorisation of various data sources (evaluation questionnaires, structured interviews and semi-structured interviews). Some facets act as both an enabling and constraining factors, and these are explained in the detail of the chapter. Please note that the detail feeding into the below table is extensive, and draws on direct quotes and insights for validity purposes.

Table 6.2: Main analytical categories (constraining and enabling factors) linked to Goal 2

Beneficiaries		
Social	Personal	Environmental
<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Family structure and situations</li> <li>2. School structure and conditions</li> <li>3. School drop out</li> <li>4. Retrenchment/firing</li> <li>5. Community</li> <li>6. Financial difficulty</li> <li>7. Effects of failure</li> <li>8. EPWP work</li> <li>9. Further education/ABET</li> <li>10. Children</li> <li>11. Fuzzy progression channels</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Family structure and situations</li> <li>2. Family networks</li> <li>3. Age</li> <li>4. Certificates</li> <li>5. Community networks</li> <li>6. Grandparents</li> <li>7. Transport</li> <li>8. Matric certificates and curriculum vitae</li> <li>9. Home environments and neighbourhoods</li> <li>10. Friendships</li> <li>11. Children</li> <li>12. Computer skills</li> </ol>	<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Health</li> <li>2. Learning problems</li> <li>3. Attitude problems</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Genetics</li> </ol>	<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Geographical distance</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Transport (geographical distance)</li> </ol>

Contractors		
Social	Personal	Environmental
<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Work outside of WfW</li> <li>2. Clearing work external to WfW (that has been accessed)</li> <li>3. Rural pastoral lifestyle</li> <li>4. Township/location living</li> <li>5. WfW financial issues (based on WfW structures)</li> <li>6. People dynamics</li> <li>7. Schooling/education structures</li> <li>8. Family structure and situations</li> <li>9. Tertiary Education</li> <li>10. Past conditions</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Internal WfW social connections</li> <li>2. Community networks</li> <li>3. Family networks</li> <li>4. Central information portals (jobs)</li> <li>5. Family support structures</li> <li>6. Children</li> <li>7. Active job searching</li> <li>8. Job experience and education</li> <li>9. Mentoring</li> <li>10. Matric certificates</li> <li>11. Full-time work</li> <li>12. WfW work environment and experience</li> </ol>	<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Physical Intensity</li> <li>2. Emotional debilitation</li> <li>3. Internal characteristics</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Internal</li> <li>2. Characteristics</li> </ol> <p>Genetics</p>	<p><b>Constraints:</b></p> <ol style="list-style-type: none"> <li>1. Natural disaster</li> </ol> <p><b>Enablers:</b></p> <ol style="list-style-type: none"> <li>1. Weather</li> </ol>

Looking at categories specific to social realism, the Table 6.3 below provides the analytic categories that fall under the specific theoretical concepts of structure, agency and culture. Structures relevant to the beneficiaries' and contractors' lives in terms of their lives, education and work (as mentioned during the semi-structured interviews) were highlighted, and those relevant to the ELSP.

**Table 6.3: Main analytical categories (social realism concepts) linked to Goal 2**

<p><b>Structure</b></p>	<p><b>Structures were combined across beneficiaries and contractors:</b></p> <ul style="list-style-type: none"> <li>• Department of Environmental Affairs</li> <li>• The Natural Resource Management Programme</li> <li>• Working for Water</li> <li>• Gamtoos Irrigation Board</li> <li>• Primary school system</li> <li>• High school system</li> <li>• Tertiary education systems</li> <li>• Department of Higher Education and Training</li> <li>• Adult learning centres</li> <li>• Teaching orientations</li> <li>• Corporate business</li> <li>• Sector Education and Training Authorities</li> <li>• Training service providers (certification)</li> <li>• Accredited training structure</li> </ul>	
	<p><b>Beneficiaries</b></p>	<p><b>Contractors</b></p>
<p><b>Agency</b></p>	<ul style="list-style-type: none"> <li>• Studying at ABET/Night school</li> <li>• Choosing to leave jobs</li> <li>• Taking WfW work (because there is no other option)</li> <li>• Choosing to focus on work over studying</li> <li>• Active job search</li> <li>• Choosing not to party/drink (social choices)</li> <li>• Perseverance (when failing – linked to family support)</li> <li>• Decisions to take responsibility (because I am growing up)</li> <li>• Children motivate agentive decision to find and commit to work</li> <li>• Choice to leave school (fought for it)</li> <li>• Used sporting talent to create better opportunities</li> <li>• Active social networking to find opportunities vs. ‘sitting at home’</li> </ul>	<ul style="list-style-type: none"> <li>• Independence (self employment)</li> <li>• Change in careers</li> <li>• Studying further (progression)</li> <li>• Active job searches</li> <li>• Taking risks vs. not taking risks</li> <li>• Meeting goals</li> <li>• Adjustment to situations</li> <li>• Fixing dissatisfaction</li> <li>• Settling</li> <li>• Following personal desires (growth)</li> <li>• Children motivate agentive decision to find and commit to work</li> <li>• Supporting others in job search</li> <li>• Working outside of WfW</li> <li>• Making a plan to be successful</li> <li>• Researching</li> </ul>
<p><b>Culture</b></p>	<ul style="list-style-type: none"> <li>• isiXhosa traditions and expectations</li> <li>• Acceptance of many children had by different partners</li> <li>• Complex family structures</li> </ul>	<ul style="list-style-type: none"> <li>• Rural pastoralism</li> <li>• Domestic work</li> <li>• Religion</li> <li>• Differing school cultures</li> <li>• Apartheid transition</li> </ul>

	<ul style="list-style-type: none"> <li>• Grandparents are parent figures</li> <li>• Transition from coloured to white schools</li> <li>• Common to fail a number of times</li> <li>• Location culture</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural accommodation</li> <li>• Normalisation of giving family members jobs</li> <li>• Grandparents are parent figures</li> </ul>
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**6.3 CONVERSION FACTORS – SOCIAL, PERSONAL AND ENVIRONMENTAL CONSTRAINTS**

Key to this study is the identification of conversion factors in the lives of beneficiaries and contractors, specifically looking at education and occupational pathway choices. Presented below are the social, personal and environmental constraints and enablers that were identified, laid out separately for beneficiaries and contractors.

The semi-structured interview with the uMngeni Municipality Parks and Gardens Manager (hereafter referred to as the PGM) also provided insight into experiences of elementary municipal workers that supplement the information supplied by the beneficiaries and contractors. Where relevant, these anecdotes have been included.

**6.3.1 Social constraints**

**Beneficiaries**

**Social constraint 1: Family structure and situations**

In the family situations of beneficiaries, certain factors were raised that had proven to be constraining in their pasts. Firstly, a home situation where every member is unemployed is not conducive to progress or positivity about the future. “And at home I stay with my grandmother and my cousin and also my son. And there is no one that is working there. It’s tough, just sitting” (B8/SSI).

Structural changes within families can also be confusing for people when they are growing up, which affects their stability at home. “Ja, I knew that this guy coming to her house, I didn’t know him. My mother didn’t tell me that this is your father. Afterwards ja, I found out this is my dad! It

was a bit confusing at first but ja, after some time it was okay” (B11/SSI). “Um, he is my step-dad I am living with. My real dad left my mom before I was born” (B9/SSI).

If a beneficiary was first born, a trend existed where the beneficiary was not able to finish school. Younger siblings have been able to finish school, because parents were more established and could provide more financial support and a more stable home environment. A beneficiary who was 30 years old explained, “There wasn’t enough money to keep me in school. My sisters are in school now, the one who is coming after me she is 19 and the last-born is 14 years” (B8/SSI).

Supportive families could also be socially constraining in a way, as they allowed the person to stay at home and be supported by those who worked. This caused complacency in younger beneficiaries, “I wasn’t actually really looking [for work]. Okay let’s say I was at home, just sitting at home. Ja, I got a bit lazy at home, ja” (B11/SSI).

The PGM commented that part of complacency, she felt, comes from the extension of practices that promote the ‘sitting at home’ situation mentioned by B11 above.

You can go to Shiyabazali, you can go to Thandanobisi, you can go to any of the informal places, and you will see a satellite. And you will see a TV. And it’s almost like brain drain. It’s, it’s, it’s a hopeless situation, because people get totally hooked into that, and they forget about sustaining themselves. And being self-sufficient. (PGM/SSI)

## **Social constraint 2: School structure and conditions**

Beneficiaries experienced social constraints when they were still at school. Low teacher accountability was cited as a reason for people struggling with certain subjects:

He didn’t give us work to do, like activities. Every day when we go to his class and then we only have to keep ourselves busy, and then he’s on his computer watching videos and stuff and after when it’s almost exam time, now he wants to give us a lot of work! (B11/SSI)

The transition between attending traditionally coloured primary schools to traditionally white high schools came up as a constraining factor in a number of cases. Beneficiaries claimed that the style of teaching was different to what they’d experienced so far, and that the cultural differences were unsettling. “Ja, the way they were teaching us was a bit different and stuff, so I was mostly panicking and I was going behind with my work” (B11/SS1). Another beneficiary, who chose to leave school at the end of Grade 10 said, “I had friends at Uitenhage, I think I would

have done better at Uitenhage High than Despatch High. Uitenhage High is a coloured community. (laughs) Ja, it's not racist!" (B6/SSI).

### **Social constraint 3: School dropout**

Beneficiaries who had dropped out of school spoke of reasons why they'd dropped out.

Addiction and abuse problems, lack of finances to pay school fees, lack of finances to sustain transport costs and complacency were cited as factors, which pushed beneficiaries to leave school before matric. "I left school because ... ah ... it was crazy stuff" (B12/SSI). "I was just playing at school" (B10/SSI), "I didn't finish matric actually, and I stopped at Grade 10 because I couldn't afford the fees. My father paid me maintenance of R150 so I was struggling with some books, to buy some textbooks and all that stuff. Because I have to eat that R150. I have to dress" (B8/SSI). "My Dad said I couldn't move from Uitenhage High to Despatch High, because of the taxi fare. So I ran away to my sister. He saw I was serious, that I wasn't going back to school" (B6/SSI).

### **Social constraint 4: Retrenchment/firing**

Constraining factors in career progression included unexpected retrenchment linked to the recent economic recession, as well as being dismissed from work. The experience of being retrenched or fired is quite different to that of resigning from a job, as it is a sudden end to what had been regarded as a career path. "I was an operator at VW, and then I got a VSP Honda separation package in 2009. I had to leave. And then I come and work here [WfW]" (B15/SSI). "I worked at Good Year for five years. I became a labour trainer, then the guys I was training, they made some scrap and the blame was put on me. I had to go back to plastering and plumbing" (B12/SSI).

### **Social constraint 5: Community**

Beneficiaries spoke of being judged by neighbours if one was unemployed, which leads to feelings of frustration and despair. This exchange below is evidence of this (B8/SSI):

**B8:** I struggle a lot. I don't have money to buy toiletries. I don't have money to buy clothes, and a lot of things. There is peer pressure to stay with a job.

**Researcher:** So are people quite, can your neighbours be judgemental?

**B8:** Yes! A lot! Especially that time I was out of my teenage stage. They like to judge. I think it's loxion style. Like that, ja. They watch what time you come home and watch what you do and what you are hanging up [on the washing line].

### **Social constraint 6: Financial difficulty**

The low salaries of short-term jobs and inconsistent WfW pay are a social constraint to job satisfaction and career progression. "I worked for six months [at the dog kennels], and then after I leave because of finance ... there wasn't enough money, and I must go and work, transport, I must also pay for the transport" (B10/SSI). "Ja, because sometimes you have to wait for pay, because now we can't, we still waiting for our pay and it's been two months now. I'm not working at the moment and my children, my one child's fees is two months behind now" (B6/SSI).

### **Social constraint 7: Effects of failure**

While failure in itself can be constraining (as it means a resource has not been converted into a functioning), the effects of failure on a person can cause further social constraint. Examples of both these facets are provided. "I regret not carrying on with my studies, because now I can't get a proper job. When I apply to places ... like Volkswagen, they asked what grade, they wanted matric. And also a lot of places ask for matric certificates" (B8/SSI). "I didn't even want to go and fetch my report. I sent my brother to fetch it, it wasn't nice, it's still not a nice feeling ... I rewrote it [the exam]. Actually three, uh, two times, but I failed it. And then I decided I couldn't do it anymore" (B10/SSI).

### **Social constraint 8: EPWP work**

Working for an EPWP, while being better than remaining unemployed, comes with its own set of constraints. Beneficiaries speak of the low pay, late payments and overly strenuous work that come with the territory of employment with WfW. When a beneficiary was asked if he would return to work with WfW in the future, his response was "I'm not sure. But I hope not because I don't see a future, because oh that people make us work like slaves there, so I don't see a chance to go back, yoh!" (B11/SSI). Participant B6 in social constraint 6 echoes this sentiment, when she referred to her child's school fees being late due to financial difficulty. The fees were late because of consistently late or delayed WfW payments.

The PGM, when discussing contract work versus permanent employment, explained:

I think for a general or entry level worker it's very difficult and it's far more appealing to have permanent employment ... because, to have the up and down of 'got and then you

haven't got', um, is too much of a strain when you're trying to school children, feed them and provide a stable home. (PGM/SSI)

### **Social constraint 9: Further education/ABET**

A number of beneficiaries explained that although they hadn't finished matric in their teenage years, they were studying towards it via Adult Basic Education and Training (ABET). An ABET centre that offers night courses is quite easily accessible to many of the beneficiaries, and the classes were free. The reasons for wanting a matric certificate were based on access into tertiary education or into better employment opportunities. This was evident in B8's comment under social constraint 7, where she spoke of Volkswagen requiring a matric certificate for further consideration for any work.

One of the contractors had previously been an ABET facilitator, and she explained that the rate of dropouts on the ABET courses was high.

Basically, [it is because of] the language factor. Most of the people there are adults, they come from school, there is no English school here in Despatch and the Uitenhage area. So when they drop out, they were taught in Afrikaans or Xhosa or whatever. Ja so basically ABET ... we tried to accommodate both language speakers, Xhosa speaking people and Afrikaans people. So we give in English, the learning subjects. So learning in English, Geography or Maths, it's mind ... it's confusing for them. I think that's one of the reasons why people drop out, it's difficult because I can see in the essays, the English is not good. And if your English is not good, then how will they learn in English, Geography or Biology or whatever kind of subject. (C7/SSI)

Structural issues also cause problems in the ABET system for beneficiaries trying to achieve a matric exemption. A beneficiary with good English skills had written her final exams at the end of Level 4 of ABET, only to have the exam papers lost.

Because they, we were writing exams and then our exam papers got lost there by the department, so I had to write it over again. Now it's my second year. No, my third year! So the second year I passed all my subjects except for the maths and HSS, so I'm doing maths and HSS at the moment. (B6/SSI)

### **Social constraint 10: Children**

Becoming a parent can act as a constraining factor in pursuing specific occupational or educational directions. A beneficiary explained her decision to leave a permanent secure job as a cashier in a small town, to move to a similar job that was less secure. "No, I just wanted to be near the house,

because my child he wasn't staying with me then. So if I worked in Port Elizabeth, I would have come home every night [on the train] to Despatch as he was staying with my grandmother" (B6/SSI). Another beneficiary commented that she will take any kind of work because "The most thing that is pushed me now is because I have a child and so I have to take care of him" (B8/SSI), she further commented that "No, I just stay doing nothing. I did want to go back to school but, but sometimes I used to go to school and sometimes I don't want to because I don't think I have time for that because I have to raise up my child and that stuff!" (B8/SSI).

As will be seen in section 6.4 on Social Enablers, there is a counter argument to the perception that children are a social constraint when born into a socio-economically difficult home situation.

### **Social constraint 11: Fuzzy progression channels**

Beneficiaries expressed that they did not know how to progress from one job to another, or specifically into environmental (green) work. While this is a major social constraint, the issue of environmental work progression is discussed in section 6.6 later in this chapter. However, the uncertainty of how to move forward, in particular when combined with the social constraint of not having a matric exemption was mentioned by beneficiaries.

I just don't know where I can apply for it (plant nursery work), so it is difficult ... ja. I do want to go to school too, and I also like to do lesson training. Because it's starting at Grade 10, Home Based Care. I'd love to do it. But, I have no money and now I'm not working again. (B8/SSI)

## **Contractors**

### **Social constraint 1: Work outside of WfW**

Within WfW, a drive to create independence of contractors has been initiated. This started several years ago, and the idea was that WfW contractors should be looking for clearing work outside of the programme by approaching clients such as farmers or large landowners, canvassing for work and applying for tenders advertised by entities such as municipalities. However, when speaking to contractors about work outside of WfW, there is a perception that not enough work exists outside of WfW to keep them busy, "I don't want to be a contractor my whole life ... but, if there's no job, I'll stay with Working for Water, but if there is an opportunity for me, I'm grabbing it!" (C1/SSI). Another contractor commented,

I think there are not enough jobs out there; there are so many people who are not working and who are also looking for jobs! Mina, when I think about myself, I think I am a bit lucky because I have a job, I have something to do, something to help me put food on the table when others, they don't. So I won't try it. (C13/SSI)

Another contractor, who had mentioned he runs one or two extra businesses concurrently with WfW contracting, expressed that the fractured payment system of WfW had made him more dependent on WfW, rather than less dependent.

I have, hey [thought about trying something else]. I have. I told myself three years, and then I'm going to leave and give someone else an opportunity, but with what's been going on with this situation at the moment 'you work, and then you don't work', we haven't been able to build up enough capital to start something else. (C5/SSI)

A contractor from Grahamstown related that when they had tried to follow up with landowners who had used WfW previously (when it should have been time for them to do a second round of clearing), the response had not been positive. "I called this guy where we had worked some years before, because I knew it should have been time to go through the land again because the wattles start to grow. But he said no, he didn't have money so I just left it" (C3/SSI). When queried how many times he had tried to approach landowners, he laughed and said, "It's only that one! So we don't really know" (C3/SSI).

While many contractors had mentioned municipalities as areas of environmental work or 'green jobs' (see section 4.5), it was also said that in order to access municipal work one needed to have inside contacts or friends who worked within the municipality. "Yes, I am trying that [to access municipal tenders], but it is difficult to get work from the municipality. Because there are those places whereby you have to go to that certain person, and if that certain person doesn't know you, he won't employ you to work for him" (C10/SSI).

When discussing the possibility of contractors being awarded tenders, the PGM explained that she had noticed a tendency from contractors to over charge on their quotes, which contributed to the notion that tenders are hard to win.

There is a need for training ... on how to quote. Because very often the attitude is 'I'm quoting for a municipality, I can enhance my quote'. So that whole issue of quoting reasonably but to ensure that you cover your costs. But you're not put out of the market because you're overpriced. It's quite prevalent at the moment. We do, as a municipality,

try to help out with a bit of mentoring. But you also have to be cautious not to be seen to... (PGM/SSI)

I, as the researcher, asked, “Be cautious not to be seen to be helping them get the work?” to which the PGM responded “Mmm hmm”. The end of the PGM’s comment (that she chose to leave hanging because of the topic’s sensitive nature) links back to the perception that C10 mentions in the above paragraph, around what is perceived as unfair social favouring.

### **Social constraint 2: Clearing work external to WfW (that has been accessed)**

While the social constraint above is valid, certain contractors have successfully secured clearing contracts outside of WfW with companies such as Cape Pine and the Coega Development Corporation. During the layoff (‘layoff’ is how the contractors were referring to the period that they had not been working), a group of contractors formed a collective to tackle Cape Pine work that they were awarded. However, even though it was welcome during the layoff, the contractors said it was not regular, and the payment procedures were slow. “Cape Pine is the new owner of this plantation, they employed us. So we’ve got work now, but we wait a long time for the pay. I’m a whole month at home now, sitting and waiting for my money. And I have a new bakkie I must pay for, and I don’t have money to pay for it” (C14/SSI).

Another contractor commented that he hoped that WfW would sort out their budgetary problems soon (said to be why they were experiencing the layoff), because

Working for Water is more a stable sort of income, as much as it’s not stable, but compared to the other work that we’re getting, it was more stable. It’s ongoing, you know? Whereas CDC maybe gives you a contract for about a month or two months ... and if you’re not performing, then obviously they’ll find someone who’s going to do the work. (C5/SSI)

### **Social constraint 3: Rural pastoral lifestyle**

Many contractors were in their late 40s and some had come from rural areas of South Africa initially. Part of growing up in rural areas meant being born into pastoral families that survived on subsistence farming. Children were expected to play important roles in the subsistence farming activities, which affected timely progress of educational development. When I, as the researcher,

asked “You said you were 30 when you left school, why did you take a long time to get through school to matric?” the contractor answered,

Um, yes, because I grow up in a family that, my family was not an upper class family. It was a, we were from a peasant family; yes it was sort of a peasant family. That was how we grew up, we grew up suffering, then sometimes I had to go to school and sometimes I had to look after the cattle. So I do these things, part time to school and part time looking after cattle. It took me a long time. (C10/SSI)

#### **Social constraint 4: Township/location living**

Numerous contractors spoke of how they had grown up in shack environments, or townships that were degraded, and that their living situations had not been conducive to easy childhoods. One contractor compared her first home to the made-up shack dwelling (Delanaville) that had been used as an example in an activity during the ELSP course:

I was born in Port Elizabeth, but the type of place we stayed, it was like Delanaville! Ja that’s where I basically spent the first few years of my childhood, ja, up to the age of nine until we moved here to Despatch. For nine years we lived in such a settlement where there is no running water, electricity, and ja, no flushing toilets. We used the bucket system. It’s not a nice environment to grow up in. (C7/SSI)

#### **Social constraint 5: WfW financial issues (based on WfW structures)**

WfW financial structures were criticised by contractors as being disabling in terms of the financial stability in their lives. Late pay, low pay and gaps between contracts were cited as the most frustrating elements, “There are sometimes breaks, whereby we were told this year you are not going to work, so you have to find your own work and your own jobs” (C10/SSI). “I love the work now [after a period of finding it hard], but there are some things that don’t satisfy me. Like money” (C11/SSI). I asked a contractor, “Are you working at the moment?” to which he responded, “No, we are not working at the moment”. I then asked, “Do you know when your next job will be?” to which he responded, “Nope!” (C4/SSI).

#### **Social constraint 6: People dynamics**

A different type of issue that is also related to WfW structural policies is the fact that teams are made of individuals who all have different backgrounds, which can make teams difficult to manage. Some contractors have experienced this social diversity as a constraining element towards their job satisfaction.

When I started there it was difficult, because you must have your own transport and your own workers. And it was difficult to deal with workers, coming from different backgrounds. They are not all the same. You must know how to deal with them, and when I went there it was not nice, but I worked there because I was not working. (C11/SSI)

Another contractor, who had progressed from being a beneficiary to a contractor over time, relayed his experience of team dynamics as a new beneficiary.

It was that learning period, you know when you arrive at, um, even like when you're starting in high school. When you go into a standard, the people in the higher grades are abusing you ne? Ja, it was like that. Sometimes someone can say to you, that when you are doing i-spraying ne, you must wear everything ne! Sometimes it's very, very hot, and you can see that person is not wearing all of that stuff; they are just wearing maybe a jacket! You know? (C3/SSI)

### **Social constraint 7: Schooling/education structures**

Several examples of social constraints linked to schooling and education were mentioned by contractors, including under-resourced schools, Apartheid influence, boarding schools and transition during the 90s from segregated schools to combined schools. These will be discussed individually, although they are all examples of constraints that social contractors experienced during school.

Schools available to rural black students in the 80s were (mostly) under-resourced, which impacted on the experiences and choices of students. A contractor explained,

My dream was to be an accountant. But I failed my, I failed my subject. Because I was doing maths and physics, and then I came to Bathurst. And I had to change my subject to history and biology. Because in Bathurst there were no maths or science teachers, only history and biology. Yes, so that is where my dream failed. So once my dream failed [of being an accountant], I decided to stop. And once I got a job at Working for Water, it's whereby my dream stops. And then I decided to rather work for money for a living, doing that. (C10/SSI)

Apartheid, aside from being a catalyst for discriminatory education policies, was also highly disruptive in terms of school attendance for students who were schooling in the 80s. A contractor justified why it had taken her until into her late twenties to matriculate, "When I was 19, I, in the 80s ne, the schools were up and down because there were marches and all that stuff, so I only

finished my matric in 96, and in 97 I found a job with those guys [selling clothes on the side of the road]" (C13/SSI).

Quite a number of contractors had attended boarding school or were sent to homes that offered accommodation close to schools for children from farming areas. In some instances, these boarding homes did not offer the support necessary for completing homework or the environment needed for studying for exams.

The conditions in which I live [for Standard 8, 9 and 10] was very difficult because the people, they had, they was also poor people, and the husband of that house, he was a man that, well, he was just fishing every day and when we came from school we must go to, with him to the sea for fishing. There was no time for me for studies like that! If I talk about I must study for the exam, no, he will fight, and he want to fight me. So, I had to go with him after school, and after school the following day we must sell the fish that he caught. And other work he gave us to do. So I couldn't study, but I survived. I passed my matric without study. (C14/SSI)

Some of the younger contractors had been in school when the government transitioned from National Party rule to African National Congress rule in the 90s. When all schools were changed from segregated to integrated, many parents chose to send their children to what had been traditionally white schools, on the assumption that they offered a high standard of education.

Okay I did go to primary school, government school, but high school in Grade 10, they saw okay my grades can improve so they can send me to a model C school, where I started mixing with other races. I'm not going to waste their money [by staying at the local school]. Although the fees are higher and all that, we still going to send her. But when I got there, it was totally different. (C7/SSI)

The introduction to formerly white high schools was both enabling and constraining, but the enabling factors will only be discussed in section 4.3.2. A contractor explained that "It was uncomfortable, ja because, um, you grow up in, well, let's say 'knowing it' as white people, as black people, Apartheid. Racism, you deal with it and there were racism issues there. Especially from the educators, they did not hide it in those first years". I asked, "So they treated you quite differently in the class?" to which she responded, "Ja some of them, they didn't know how to have a crocodile smile, like most white people have" (C7/SSI). This comment links to what the beneficiary (B6) expressed under social constraint 2 earlier in this chapter, where she too found the transition to a traditionally white school difficult. However, while the contractor persevered

and matriculated through the school, the beneficiary made the decision to leave, against her father's wishes.

### **Social constraint 8: Family structure and situations**

Family structure and particular situations (conditions) can play a socially constraining role. The particular examples mentioned include being brought up in homes supported by one salary, the need to support extended families, the loss of parents and the need to support children.

Being brought up in a home with many siblings is a common theme among contractors (and beneficiaries), and in most cases the father worked and supported the family with a single salary while the mother would manage the house and children. "We are eight kids at home ... and then my father was the only person who was working at the time, at the municipality. And there was a small income for the whole family, we depended on him on everything [*sic*]" (C13/SSI). "In our family we are seven brothers and one sister, and I'm the third eldest one. Uh, we are a big family and my father was a local worker, uh, a general worker in the shop, so money was very little for us in the house" (C14/SSI). "There were six of us, and I am the only girl" (C7/SSI). "Yes, I grew up in a family of 12 children" (C9/SSI).

Support of extended families is also commonly accepted behaviour, which can be constraining in that resources have to be stretched over a big set of needs. "No, in my house now, there are parents, seven kids, and our children. And we are all living together. I have four of my own kids there too" (C13/SSI). "Actually, I recently moved out of the house, but before I moved out I lived with the whole family, we were about 18 in the house!" (C7/SSI). "My Mom looked after all the kids [12 children], she was a housewife. She also raised two children of my eldest brothers, which Clyde [another contractor] was one of them!" (C9/SSI).

The PGM (when talking about the need to diversify income streams when working as an elementary worker<sup>14</sup> on a low salary), explained:

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<sup>14</sup> While this comment is linked to people who work in elementary positions, the factor of extended family support was not naturally raised by beneficiaries during the semi-structured interview process, hence it was a more valid comment to be used in the contractor discussion.

You very often want to supplement what they earn, because they are looking after extended families due to death or whatever, so it does, although they're trying to climb out of the poverty cycle, they're actually really battling. They're taking two steps forward, one step back. Because now their sister has passed away and they have her four children or something similar. (PGM/SSI)

Parents can play an important role in children's lives, and the loss of a parent can act as a social constraint. Some people will cope better with a loss of a parent than others, depending on the nature of the relationship and on a person's personal ability to cope with loss. For this reason, the loss of a parent can also be seen as a personal constraint and will be mentioned under 4.3.1.2. However, as a social constraint, losing a parent during school can impact on the education experience of individuals, as in this example. "My matric results were very bad, very very bad. Um, I don't know if it's an excuse or reality, during matric year, my mother passed away. So I think that impacted me. Ja, so... [clears throat] but I passed" (C7/SSI).

#### **Social constraint 9: Tertiary education**

Tertiary education (or lack thereof) was mentioned by a number of contractors. They expressed how they had wanted to study further, or had started studying further, but their access to further education or completion of studies was hampered by financial reasons. For example, "Yes, there were no money at that stage for studying further" (C9/SSI). "Well after I finished my matric, I went about looking for jobs because my family couldn't afford to take me to the University" (C13/SSI). "So I went through that [bad boarding experience during school], and after that I, my Dad were, he haven't got the money that time for me to go further because I want, I really want to be a policeman" (C14/SSI). A contractor who had started studying social work at a local college explained why he had to leave a year into his diploma, "My cousin was paying for my school fees, but he went and got married so he had to stop ... I was doing quite well, that's the reason why I was upset, because I was going to finish up that course" (C3/SSI).

#### **Social constraint 10: Past conditions**

Past conditions that surrounded people's lives were mentioned that socially constrained contractors' choices in their jobs, and their career and educational paths. These could be innumerable when considering society, but specific to this case study were the examples below provided by one contractor. This person naturally seemed to explain the context of all his

decisions, which was not how the other contractors explained their lives. As a consequence, his stories provide a useful insight into conditions (that affect the individuals who form collectives), which need to be taken into account when considering a stratified ontology and explanation of what is observed in the empirical domain.

**Apartheid conditions:** During the end of Apartheid (the late 80s) social disruption was common, as were strikes against unfair wages and employment practices. The contractor recalled his second job in Johannesburg at the Kohler factory,

I got a work there, but it was very dangerous because the people who worked in that factory before, they wait for us at a gate on a Friday when we pay, and they take our money. They were striking, and we had taken their jobs. It was 1987. So I didn't work there for long, because of that. (C14/SSI)

**Conscription:** The contractor then spoke of conscription to the army, where he was forced to enrol in the South African Defence Force. "A year after that [the Kohler job], I joined the army. It was compulsory. So I was there for two years. I could go on longer, but I could see that it was not for me ... the thing it was far from home, I wanted to be near my friends and family" (C14/SSI).

**Corruption:** After leaving the army, the contractor wanted to enrol in the police force. He explained that he believes corruption led to him not being able to enter the police force, despite having passed all the tests and interviews.

I applied for a police post there in Thornhill, but what happened, I did go through all the interviews and the IQ tests ... and I passed the doctor, all of those things. I did all of them with my friends; there were five of us who applied for the job. But it was only three that went through because at the last interview we did, they didn't find my file! They said I had never applied ... it was a corruption thing; they did it purposefully so they could employ the other guy. So they said I must apply again, and I couldn't go through all of that again. (C14/SSI)

**Resignation:** From an agency point of view, the contractor made a decision based on his personal feelings and belief in himself to resign from a stable job. An inappropriate work environment forced a decision from the contractor to leave.

The reason why I resigned there, it was December 2006, the forester, he gave me a big job to do in the week of closing ... but I told him 'No, I can't do it. There is not enough time for me to do that because I have my store duties too'. So I asked if we could complete it when we came back in January. But he didn't understand, and he said I was

‘talking back’ to him. I didn’t feel good at that time, he didn’t take me seriously or listen to me, I resigned immediately. (C14/SSI)

### **6.3.2 Personal constraints**

By their nature, personal constraints are ‘internal to a person’ (Crocker & Robeyns, 2010) and as such are only observable by a researcher, or explained to the researcher if they come up in discussion. Not many personal constraints were noted, and there may be many more that were not discussed.

Furthermore, certain personal characteristics were categorised under personal constraints, even though they were attitudes, values and behaviours that were probably influenced by social circumstances. While being difficult to place, they seemed to fit most naturally under personal constraints as people spoke of them with a sense of ownership.

#### **Beneficiaries**

##### **Personal constraint 1: Health**

While not mentioned by the beneficiary specifically, through participant observation of the ELSP (PO\_BG\_M1\_D1), it was discovered that one of the beneficiaries suffered from epilepsy. He was absent on the first day of the ELSP, and the facilitators were given a sick note from the doctor to include in his POE to explain the absence of his signature on the register. His illness may have acted as a constraint while he was growing up, possibly in other educational settings too.

##### **Personal constraint 2: Learning problems**

Some beneficiaries were quite forthright about their situations, and would explain why they struggled in certain educational or work environments based on their own learning problems. For example, “Ja, but it was always me. The problem was me. I don’t know why, but I was lazy. I still have that problem of forgetting ... ja, but it runs in the family. I forget my work I should have done ... I might come to school and my friends will say ‘Did you do it?’ [homework] and I will be shocked, because I forgot!” (B11/SSI).

Another beneficiary spoke of when he dropped out of school, but was uncomfortable explaining it to me. “Ah, I dropped out ... because ... it was crazy stuff. It was more personal reasons”

(B12/SSI). He later commented that “I am doing ABET, because in the past I made bad decisions and I need to do the right thing now” (B12/SSI). While it is not confirmed what the reasons were for dropping out, he felt that his own choices had led to bad decisions that had constrained his later education and work options.

### **Personal constraint 3: Attitude problems**

A number of beneficiaries commented that they had developed attitude problems in high school, which led them to being, as they described, ‘lazy’. “I wasn’t serious with my books, I just liked to play. I stopped at Grade 10 because I failed” (B8/SSI). “In school I was always in the house and stuff [was not out socialising], but I don’t know why I became lazy. Maybe it’s friends? I don’t know” (B11/SSI).

## **Contractors**

### **Personal constraint 1: Physical intensity**

In one instance, a contractor explained that he left a job because his body couldn’t cope with the physical intensity of the job, “And I had to go work there, at the sawmills, to get money. But the work was just too hard for me.”

### **Personal constraint 2: Emotional debilitation**

As mentioned under social constraint 7: Family structure and situations, losing a parent can have serious effects on children and impact on their educational experience. People deal with the loss of a parent differently, depending on the nature of their relationship with that parent. The contractor who lost her mother during matric felt that it was emotionally unsettling for her, as she also lost the stability in her life that she had become used to.

My mother was the strong one, my father he was the happy guy when my mother wants to beat us we run to him [chuckles]. He was not the strict one, she was the strict role so with her being a housewife she made sure you are going to study, straight from school come home and you study and that helped me lot. I think I was going through my rebellion stage after that structure there is gone so I thought I’m not going to study.  
(C7/SSI)

### **Personal constraint 3: Internal characteristics**

Some contractors made reference to their personal characteristics, such as being friendly, approachable, hard working, driven etc. In some cases, they attributed their decisions in the past to their internal characteristics, or their 'nature'. One contractor, in particular, spoke about his interest in money that had in some ways driven him to be hasty. "I wanted to work for me. I've never worked for anyone in my entire life [chuckles], which is a bit of a sad thing because now my CV is empty and very weak" (C5/SSI). He also commented that the reason he left halfway through a tertiary degree in financial management was because "I loved money too much! [chuckles] Studying about that money and not making it sort of frustrated me so I left to start a business" (C5/SSI).

### **6.3.3 Environmental constraints**

#### **Beneficiaries**

#### **Environmental constraint 1: Geographical distance**

The primary environmental constraint that was mentioned by beneficiaries was geographical distance. Beneficiaries stated that a reason for leaving school was that parents were not able to afford to pay for the taxi fare to transport children to and from school over distances that were too far to walk. In this scenario, the environmental constraint of geographical distance combined with the social constraint of low income, affected the child's ability to finish school. "The transport and school money together was too much" (B10/SSI). "The taxi fare was a problem [with being able to switch schools]" (B6/SSI).

This same reason linked into decisions to leave jobs. For example, one beneficiary had a job at a dog kennel business but he left, as the pay was not enough once his taxi fare had been deducted, "I worked there for six months and then I leave. There wasn't enough money, and I must also pay for the transport" (B10/SSI).

From a slightly different angle, when parents could afford taxi or bus fares for their children, sometimes the public transport they used was not reliable and they would have to engage with quite stressful travel plans to get to and from school. In one case, this resulted in a beneficiary asking his parents if he could leave the bigger school further away, to attend the local school closer to his home. "I was staying in this place, and the transfer to the school was difficult. So I

told my mother, no man, I can go down, it's walk distance. To take a taxi every time I come late at school. And then my [rugby] practice after school. And then when I came home, I came late" (B9/SSI). This same factor played over into work scenarios, where a beneficiary who had a job as a security guard lost the job because of having to rely on public transport, "I was working in PE, but staying in Uitenhage ... so sometimes I come late to work. My manager was complaining about that" (B8/SSI).

While it could be argued that these are structural issues to do with transport systems, in this context, it is the distance between the beneficiaries and the places that they are required to be that caused the constraint. As was illustrated by the example of the beneficiary who changed schools, the distance was no longer a constraint when he was schooling close to home.

## **Contractors**

### **Environmental constraint 1: Natural disaster**

The only environmental constraint that contractors brought up was that of a flood which caused major damage to a road and bridge in the Cacadu District of the Eastern Cape. The disruption it caused to transport systems meant that the contractor missed a year of school, and had to repeat Standard 7.

I did Standard 7 twice, and the reason for this was that we had a flood in the early 80s, I think, and I was the only one [in my family] in high school and no vehicles could run through that road because the road was broken. I had to sit at home that year, because we couldn't go through to Hankey. (C14/SSI)

## **6.4 CONVERSION FACTORS – SOCIAL, PERSONAL AND ENVIRONMENTAL ENABLERS**

### **6.4.1 Social enablers**

#### **Beneficiaries**

##### **Social enabler 1: Family structure and situations**

As mentioned in the demographic data section (section 4.2.1.1), most beneficiaries (in this particular case study) lived with their parents or extended families. This offers a support base in financial and emotional ways, where resources can be shared as well as frustrations. "I live with my parents and brothers. And my contractor, Thombi, she is my Auntie. Her child also lives there, and her brother ... ja, it's nice, it's a big house" (B11/SSI). When discussing home life with the

beneficiary, he explained that his family were supportive of him while he figured out what he wanted to do but “Ja, but now they are pushing me!” (B11/SSI).

Looking at financial support, a beneficiary, who had completed a course in office administration that her parents paid for explained, “Yes my Dad and Mom both bring in money. My Dad, he works here as a contractor” (B2/SI). Another beneficiary, who left school at 16, said she didn’t need to start looking for work because “My grandmother was working at that time and my father at that time, they were supporting me” (B6/SSI).

While families were supportive of the beneficiaries, they also acted as a motivator by pushing for the beneficiaries to do better. “But my mother was pushing me very hard to get study, because she’s not having a good education. And I went to do a security course, because my mother asked me to do it because I didn’t finish my matric” (B8/SSI). Similarly, a beneficiary explained how he finally passed his driver’s licence after failing twice.

Yoh, my father and my brother pushed me and pushed me. I said no I give up, I give up. They said no your learners it’s still valid. I said I don’t care I don’t want to drive. Ya, ok and after that I went again, after they pushed me. I went for two weeks of training first at the other driving school ... when I passed out [*sic*] that day, I felt great! Yoh! (B11/SSI)

## **Social enabler 2: Family networks**

In the Working for Water context, it is common to find that people on Working for Water teams are related, and that contractors often hire relatives to be part of their teams. This is against the selection policies of WfW, but transgression of this particular rule is common and ultimately an accepted occurrence that is not discussed often. Family networks can thus be considered a social enabler in terms of securing WfW work. There are many quotes that explain the nepotistic relationships, a few of which are presented here:

And my contractor Thombi, she’s my Auntie.(B11/SSI)

She’s (the contractor) my father’s sister ... ja, but we didn’t want people to know at work because they don’t want families to work there ... ja, because my surname it’s different than hers ... they wouldn’t even know we were family because of the surname. (B11/SSI)

Ja, my Dad works here, he is a contractor. (B2/SSI)

My contractor, she is my sister. She told me to come and work for her. (B12/SSI)

My half sister, she was working there and then they were looking for people and she call me to come. And that is how I get the job. (B8/SSI)

Further evidence of family links in teams were discovered during participant observation, when looking at the course register forms. Three beneficiaries all had the same surname, two turned

out to be brother and sister, and the third beneficiary with the same surname was their niece. When reviewing the contractor register forms, the same surname appeared, and it was discovered that the contractor was the brother of the aunt and uncle, and the father of the younger beneficiary (niece) (PO\_BG\_M1\_D1, PO\_CG\_M1\_D1).

### **Social enabler 3: Age**

The overall age of the beneficiary group was young (many under the age of 30), and there was sentiment among some that having age 'on their side' was enabling in that they still had time to try different career paths and take advantage of new opportunities. "Because let's say, I am still young, there are still more opportunities that can come. Yes, I know that I have got no experience, but it [the ELSP] will open me doors" (B14/SI).

### **Social enabler 4: Certificates: furthering education and supporting job applications**

Certificates received from training were viewed as being important for moving along a career trajectory, whether they were used to access further education or to secure better jobs (than WfW jobs). Some people felt that certificates could make up for a lack of job experience, as it was proof of knowledge that an employer might be convinced by. "Dis belangrik om ander jobs to kry, en my self te help" [It's important in being able to get other jobs, and for me to help myself.] (B10/SI). "Yoh, it's very important because, ah I don't have a lot of qualifications. Ja, so it will be helpful for me to get a better job!" (B11/SSI). "It's going to help me with my CV, when there are jobs that I want to go and apply for" (B2/SSI). "Ja, it is good. Because there is no job outside, if you said I must get a ... I must look for something else, they will want to see, those certificates will help put you there. They will be able to see 'Okay, he is good in these things but he didn't do that one'" (B15/SI).

Others mentioned that certificates could help them with being able to enrol in further education and training. "I think the First Aid will be useful because of the nursing that I want to do" (B6/SSI). "I'd like to learn to work at the clinic, so First Aid might help me get in there" (B15/SI).

### **Social enabler 5: Community networks**

Similar to the way that family networks allow family members to benefit from WfW jobs, close community networks act to bring jobs to individuals within their specific communities. For

example, “My contractor lives in the road behind me, and she ask me if I don’t want to work because I am doing nothing at home” (B10/SSI). The same beneficiary who made that statement, was mentioned by his friend “And then Byron called me and told me no, Thombi wanted me to come and work for this [WfW]” (B9/SSI). After hearing a number of stories that sounded similar in this regard, I wanted to member check, in order to test that I understood the social dynamics correctly and asked “So do you know Sarah from around here as well?” to which the beneficiary responded “Yes”. I then asked, “Ok so it’s kind of like the community knows each other and tells each other when there’s a job opportunity?” The beneficiary responded, “Yes, like that” (B8/SSI).

### **Social enabler 6: Grandparents**

Grandparents were mentioned continuously as positive influences in the lives of beneficiaries, and quite often played a primary parental role (hands on, raising the child). Grandparents provided the emotional support to children whose parents were unable to care for them full time, and also provided financial support. “She [grandmother] was working the most, and after that when my father and mother were working I could stay with them” (B10/SSI). “I think I was about one years old when I went to stay with my grandmother ... ja, she is like my mother” (B6/SSI). The same beneficiary later had a child, which her grandmother took care of while she worked. The relevant quote is mentioned under social constraint 10: Children, in section 6.3.1. The beneficiary now lives on her grandmother’s property with her boyfriend and child, and views her as her closest relative. A male beneficiary expressed a similar sentiment about his grandfather:

I grow up my grandfather, like my real father is not quite there, but we had that connection, but at that time we cut and let him go. When I met him again, it’s like meeting a stranger! I asked him if he was really my Dad, and we talked a lot of stuff ... my grandmother was like my mother to me, because she gave me everything. (B9/SSI)

The beneficiary’s grandmother passed away during the ELSP, and he was absent for a day because of this, and visibly upset on the day he came back to the course (PO\_BG\_M3\_D1).

### **Social enabler 7: Transport**

In the above sections, the expenses surrounding transport were identified as a problem for beneficiaries in terms of schooling and certain jobs (see section 6.3.3, Environmental constraint 1: Geographical distance). Conversely, when transport was made available as part of an

employment option, beneficiaries were able to take advantage of job opportunities even if the pay was not substantial. “Last year I started there at Working for Water. We didn’t have to pay transport money so it was fine monthly. I didn’t have to pay, she picked me up and take me to work” (B10/SSI).

In another case, a beneficiary’s father (who worked in the car industry) gave him a working VW Kombi. The vehicle became a resource he was able to leverage into a positive mutually beneficial exchange. “I don’t know why he gave it to me, it was out of the blue all of a sudden. But I made a deal with the contractor [his aunt]. She needs a car. Okay ja, and I need someone to just fix the car. So she buys the tyres and the fuel and all of that, and I’m just helping her with the driving” (B11/SSI).

### **Social enabler 8: Matric certificates and curriculum vitae**

Matric certificates are seen as very valuable, as are good curriculum vitae. Matric certificates, in particular, are crucial in being able to access tertiary education. Of the fifteen beneficiaries who made up the ELSP pilot group, three had matric. One of the three had accessed and completed a course in office administration (although it is uncertain if a matric certificate was needed for access into this course) and the other was applying to study travel and tourism at either Nelson Mandela Metropolitan University or the South Cape College in George.

I think to myself in the future I can just go on and maybe do some subjects that I want to be really like passionate study, tourism, because I always wanted to travelling. So my father told me no, I can go maybe next year to go study tourism, to go further with that. (B9/SSI)

Two beneficiaries who were studying towards matric at night school both saw their matric certificates as a key to accessing the trades that they want to grow careers in. “I want to study welding. Here by Midlands College. It costs about R6000. I am starting to save for that now, so that by the time I get my matric I can go there” (B10/SSI). “I need my matric certificate because I want to be an electrician, to study that” (B12/SSI).

### **Social enabler 9: Home environments and neighbourhoods**

Home environments were mentioned as being important, and upgrades from difficult living situations (i.e. living in areas with no amenities or basic services) had positively altered the lives

of some beneficiaries. “Okay I first lived in Port Elizabeth in Extension 36 with my mother. Me and my mother, my mother struggled to find work and pay for school at first. Then I met my father and he would come and visit sometimes. Ja, it’s not a great environment to grow up so my father came and fetched me there, and I moved to Despatch” (B11/SSI). Another beneficiary experienced a similar shift in living environment. “Oh, we, we, we ... lived in a shack. It was a big difference moving here. We didn’t have lights there in PE, and here we have lights” (B12/SSI).

### **Social enabler 10: Friendships**

It was discovered that among the beneficiaries, many were very close friends. This ties into ‘Social enabler 5: Social networks’ but is different in that the beneficiaries spoke of the emotional importance of friendships as a coping mechanism. “I met Bobby when we were small, in Grade 1. We weren’t close friends at first, but afterwards we became best friends. We tell each other a lot of things” (B11/SSI). “When I don’t have work and am just staying at home, I come up here, and we play sport. Me, Bobby and Sean. We play both rugby and soccer” (B12/SSI). When talking about his decision to move schools back to where his friends were, a beneficiary commented, “There was more communication there. Because, okay, there [the other school] nobody knows me, I make some new friends, but it was not quite like here. Here I am with Sean and other stuff, because sometimes people didn’t connect with others when it comes to friendship” (B9/SS). The same beneficiary then spoke of his friendships now, some years after school. “Every time when I am maybe angry or some stuff, I am just kicking the ball or do something else. Or maybe come to Sean and just chilling there, making a lot of fun” (B9/SSI).

### **Social enabler 11: Children**

Children were cited as Social constraint 10 earlier in this chapter, however there is evidence that suggests that children are socially enabling. This is because they provide a strong motivation for the parent to work, to succeed and to provide. When asked what kind of work, a male beneficiary looked for, he answered “Any kind of work, just for the sake of my children. I have five children. Two girls live with their mother in this area, two boys live in Salem. And one is in Pietermaritzburg” (B12/SSI). Similarly, another beneficiary said, “The most thing that has pushed me now is because I have a child and so I have to take care of him” (B8/SSI).

## **Social enabler 12: Computer skills**

Being able to operate computers in a work environment is seen as socially enabling, and is considered an important skill for being able to access certain jobs. “She [a contractor friend] was in an interview for it because she can drive and she has computer skills” (B8/SSI). A contractor commented on the training that beneficiaries received and added “They have got certificates piling up around them from doing the same training over and over, maybe they could put something useful in for them, like computers you know? Something that’s not ... that can open up opportunities” (C5/SSI). The PGM confirmed this belief that computer skills training is desired and perceived as important by elementary workers, “Many of them would like to study, but they want to study computers [not related to their jobs]” (PGM/SSI).

## **Contractors**

### **Social enabler 1: Internal WfW social connections**

For contractors, having a social connection internally within WfW can be beneficial in either gaining an interview for a contractor position or to progress from a beneficiary position into a contractor position. In terms of accessing interviews for contractor positions, one contractor explained her access route in this way “My cousin’s sister told me that she was working at Albany Working for Water, she told me that the post for the contractor was there in 2004” (C11/SSI).

Those who progressed from beneficiary elementary workers into contractors provided different stories. “My manager nominated me to be a supervisor, and then later it was the area manager who nominated me to be a contractor ... I am not quite sure what he saw from me, but he respected me” (C10/SSI). “The manager at that time, he said he will try and take from the workers. The people who know the work, rather than taking from the people from outside who know nothing about Working for Water. So I was the first person to become a contractor at Albany Working for Water, it started with me” (C13/SSI). One contractor explained that his role on the team took him into the office quite often, which meant he was able to meet the senior staff and develop a rapport with them. “Maybe in the office they know me because I was the Health and Safety [officer], so I was always going to the meeting at the office” (C3/SSI).

### **Social enabler 2: Community networks**

While the above social enabler referred to connections within WfW which resulted in career mobility, community networks are a broader social enabler. Contractors spoke of how they were

drawn into WfW through neighbours or acquaintances from school, sometimes by actively seeking out opportunities with those people or alternatively being sought out by the contractors.

When asked how he entered WfW a contractor explained, “Uh Joe told me about the vacancy, he is a friend from my area. He told me when it came up, and I applied for it” (C9/SSI). A contractor told the story of how an old school acquaintance was her entry point to WfW:

I have seen many people ne, at the location, coming from wearing these T-shirts from Working for Water. And then I know this guy ne, but not that much. I’m seeing him from school. Then I went to him and said ‘If you have space for me please, because I am not working and I have got a child’. He said to me ‘Okay, I’m going to check if I got space for you’. It was March at that time, but I got that job in September. (C13/SSI)

The same contractor (C13) was then responsible for introducing a young man into a beneficiary position, who later became a contractor. “No, Nancy organised me the job! At that time she was not staying far from my place. She introduced me to the other contractor there, who employed me” (C3/SSI).

Referring to domestic work that a contractor had done in her past, she explained that a friend had linked her to the job “Domestic work I found by my friend, and then I was also wanting to have some experience on how to do domestic work” (C11/SSI).

### **Social enabler 3: Family networks**

As with the beneficiaries, family networks came up as a social enabler among contractors. “My cousin’s sister told me about Working for Water, she was a manager there, or something like a manager ... ten people applied, and two were selected. I was one of the two” (C11/SSI). A contractor mentioned in passing that one of the other contractors in the pilot was his nephew, “My mother also brought up two of my elder brother’s sons. One is Carl, he is my nephew” (C9/SSI).

As noted in the beneficiary results it was common to find that contractors hired their relatives to form part of their work teams. However, the beneficiaries who were less aware of the sensitive nature of the topic were the ones to provide the information, while the contractors kept quieter about the family connections.

The following examples would not be considered nepotistic, but are evidence of how family members can be socially enabling in terms of job access.

There was this uncle who worked at General Motors, and they asked current workers they had at that time [1994] to bring the names of their children that had Grade 12. And he said he didn't have people, or children in Grade 12. So he came to me and asked me if I was interested and I said yes. So that is how I managed [to get work at GM]. (C9/SSI)

Um my sister-in-law was also working there [ABET night school] and there was an advert. In those days you only needed matric to teach people, ja and she told the principal about me being at home with the baby, and she asked for a CV, and ja... (C7/SSI)

#### **Social enabler 4: Central information portals (jobs)**

Contractors spoke of places where they could source information about jobs, such as tender contracts for clearing work. This is different in comparison to beneficiaries, who were typically unsure of where they would look for jobs and relied on word-of-mouth. Contractors knew where to look, and how often to keep checking in for updated work opportunities. "There were advertisements [for clearing work in the Coega area]. There is a place [the CDC office] in Port Elizabeth called Wells Estate. So I used to go there in Wells Estate with my brother, so that I can be able to look for work" (C10/SSI). Another beneficiary explained that in her very small town, job adverts were placed at the local garage, "There was a placard here at the garage. I saw the advert, and then I went to apply, get an interview. I went there to do the interview, then they phone me, said I've got the job" (C1/SSI).

They were also aware of what jobs were worth pursuing. "Yes but in our areas that municipalities have to go in certain categories, because what happens in our areas they do not, they do not offer us tenders. That's what they do. The municipality has got its own team, which they're gonna give that specific work" (C10/SSI). In this instance the contractor, based in Grahamstown, did not see opportunities with municipal work because Makana Municipality had their own clearing teams, hence his focus was further afield. He mentioned that newspapers were a good source of finding tender applications, "I just grab any ... because I like to read papers, when I see something in the papers which talks about funding or about clearing, maybe it's a tender. I just like to take my chances there" (C10/SSI).

#### **Social enabler 5: Family support structures**

Contractors mentioned supportive family structures as being key in their employment and education successes so far. Living in a family that shares resources with a communal approach is

helpful, in particular when there are times when WfW work is slow. “If you are at home, the people they know, that our project ne, we don’t get paid every month. So, we adjust to it. I told my family, they understand, that if I don’t have money for something, they understand” (C13 in C4/SSI).

A contractor explained that since she was the youngest in the family, her older brothers were able to support her in studying further. “It was my brothers who paid for me to go to teachers college” (C11/SSI). Another contractor supported this view by explaining that his cousin had paid for him to start studying social work, although in his case he couldn’t complete his studies as when his cousin got married he stopped supporting him financially. This was mentioned under Social constraint 8: Tertiary education.

A contractor, who lived with her parents and her young child, described their family relationship as something which had helped her succeed.

I think it’s my parents, all my family, because I will say we are a warm family. If you have a problem, if my sister can solve it she will do it for me. She won’t say, ‘Yoh, I won’t do that, blah-blah-blah-blah’. We have a good communication. My mother is like my sister. My father is like my brother. It’s not like, ‘Ooh, I can’t say this it’s my parents, and all blah-blah-blah’. No. Even if we’re having a meeting, my father calls us all. Not like I’m going to call only you. Kate. I want this and this, no. Yes, we are a warm family. (C1/SSI)

A male contractor spoke of how his family supported each other in business. “After that, I came out and I helped my mother with her business. We won the SAB Kickstart Competition, when was it mama? 2007, the regional and the national. Unfortunately, competition was a bit tougher than I thought, but basically I always wanted to, you know, have my own business” (C5/SSI). The same contractor spoke of how he became so focussed on entrepreneurial success,

My mother’s always been doing this. Never sitting, she’s always growing things around her and forcing out business wherever. I want to say this, we were at a Pick ‘n Pay, I think it was 1992 or 1993 and we were standing in a queue waiting to pay at the till. When my mother left there she had secured a business. She was going to make tracksuits for an entire school. She didn’t even know the man who was standing behind here. She spoke to him and then got business. So, I grew up around a person who’s like that. She was never afraid of anything. Most people would be like, ‘Ooh, it’s a White man. You don’t even know him. Why do you greet him? Why are you talking to him?’, but my mother did and she got business. So, I grew up around a person like that and her family, her brother and

her sisters were all entrepreneurs, basically. I guess that that gives me a bit of an advantage, if you can call it that. (C5/SSI)

A female contractor spoke about her family being tolerant of her changing her mind about what she wanted to study after school.

I tried ja, basically it's all about family, the support you get at home. ... Ja, I went and studied travel and tourism straight away. The thing is my father and my brothers, they had more better dreams for me, I'm going to have a degree or something. I saw I didn't study my choice, I was forced to study. If I had a choice I would have gone and get a job. (C7/SSI)

A male contractor explained how he has motivated himself to work hard and succeed in his work endeavours. "I think it's, I like to set myself goals and really work hard to achieve the goals. I think it's in the family, in our household itself, because my father was good in everything he did. Then look from my eldest brothers, they are like experts in what they are doing" (C9/SSI).

### **Social enabler 6: Children**

As with the beneficiary social enablers, children are a major motivating factor towards pushing through hard times and successfully completing educational pursuits as well pursuing suitable work. A contractor explained:

I have a family and I must look after my family, so I can't sit at home like other people. I must look for opportunities, and there are a lot of opportunities outside. My baby boy, he motivates me and I can't see him struggle, as I was struggling in the past. I want to give him a better life. He's five years old now. (C14/SSI)

One female contractor described how having children had changed her:

I think it's all about to do with my son because before I had him, life was a playground for me. I didn't take anything seriously until he came along. I started to be an adult, before he came along, I got him when I was 25 or 24 years old, before then I was like a 16 year old, no care in the world, everything is a playground, not taking anything seriously. When he came, that's when, okay, you have to be an adult now, you are responsible for someone now. So ever since then, he is the reason why maybe I went back to finish my diploma in HR because I just like the previous other courses I did, I would have just dropped it and moved on to something else, but okay now you've got responsibility now. You have to look after someone and I want to give him the best. If there is anything, if an opportunity comes my way that can improve my life, and my status, my economic status, I would take it because I want the best for him and for myself also. (C7/SSI)

### **Social enabler 7: Active job searching**

Many contractors related how finding jobs required consistent searching and networking. This was a practice they started right out of school for gaining odd jobs and piecework, all the way through to making headway into WfW opportunities. Many of the quotes that expressed those ideas have been used in other sections and won't be repeated here, but essentially the actions of networking with friends, 'cold call' questioning about possible work with street vendors and shop owners, and consistently following up on opportunities (which required the willingness to accept that they would not always be successful) were key to their success and the shape of their learning and occupational pathways.

### **Social enabler 8: Job experience and education**

A contractor expressed that her previous education and experience in teaching, although unrelated to WfW work, helped her cope with the social difficulties she experienced in managing the WfW team "Since I did a course in teaching that's what helped me do the job better, I had to be patient"(C11/SSI). A male contractor spoke of how when he entered into security work and was employed by Fidelity Guards, he was the best student on the National Key Point course that the guards had to do before being allowed to start work. When explaining why he was the best, he answered, "I think it was the army, the experience that I went through in the army. It helped me a lot there, yes, for the fitness and the academic part. I knew a lot more about that kind of work you see, and that made me better than the other guys" (C14/SSI)

Another contractor explained how WfW work experience has built his confidence in being able to work independently.

It helped me in a sense that I've not only worked for Working for Water, but I've worked for the Coega Development Corporation doing the same business, as well as Cape Pine; I'm busy with it now. So, it's just opened up a lot of opportunities, you know and based on the fact that I never wanted to work for someone, it's just given me the confidence to actually get up and go source business. (C5/SSI)

A contractor who moved from a 'coloured school' to a previously 'whites only' school in the mid-1990s explained that while the experience was difficult socially, it also created more opportunities for her by broadening her world view.

So they decided to send me to a model C school, which was when I started mixing with

other races. Um, ja and which developed me into seeing the world in a different view because when you are with certain type of people your mindset is also adapted to the way they think. So when you meet different people who have different interests because at white schools there is those clubs, environmental clubs, cultural clubs, the acting classes ... so I started getting exposed to that type of lifestyle. So going to school and coming back to this lifestyle here where people's mindsets are different there, it changed me to ja, to be able to adapt in any kind of situation. (C7/SSI)

Similarly, a male contractor expressed that schooling with people from different parts of the country was something that interested and excited him.

Schooling for me was a very interesting time, because I ... me ... myself, I never like to stay at home. I always wanted to be at school because it was fun. I still miss it sometimes. I think it was just my friends. There were a lot of friends because the people from different areas around Humansdorp all came there, and from as far as Langkloof, Tsitsikamma, even from Cape Town, they came to the school in Humansdorp. (C9/SSI)

### **Social enabler 9: Mentoring**

Mentoring played a large role in many contractors' lives, whereby the guidance of an older person had helped them develop themselves professionally in order to progress along a career path.

At the time, immediately when the manager said there is a post, the guy whom I was working for, he mentored me. He said to me, you can become a contractor, don't even fret, I will show you how to do. So he showed me everything. And the time comes that I become a contractor, I knew what to do at Working for Water. (C13/SSI)

Similarly, another contractor explained that when he was a beneficiary many years ago, his contractor had taken a liking to him and chose to mentor him. This gave him an advantage over other beneficiaries when a contractor position became available, which he was awarded. "The problem was that every place that Kwakwa go, he goes with me. So I learn more, and in everything he did he always ask me 'You must be here so that you can learn how to do these things'" (C4/SSI).

### **Social enabler 10: Matric certificates**

While this is not a factor that many of the contractors spoke about, it was mentioned that they were able to access contractor jobs because they had their matric exemptions. This is a major distinguishing factor between beneficiaries who could progress into contractor positions, and

those who couldn't. It was observed during the ELSP pilot how important matric certificates are, as a contractor (C5) did well in the ELSP contractor course, being assessed as competent in all three modules, but he had lost his matric certificate (C5/POE/M1/M2/M3). Without providing a copy of his matric certificate, the LGSETA could not endorse his results and thus he couldn't be awarded the credits relevant to the unit standards that he had completed. He was encouraged to request a reprint of his matric certificate, but it is not known whether he furthered this idea or not.

### **Social enabler 11: Full-time work**

Some contractors saw permanent work as highly desirable in that it would provide the stability they needed to support their families. Because of the layoff situation in 2014, a number of contractors had started to actively seek work to move out of WfW employment and dependency. "There is an advertisement now for a caretaker, the money is not good. It's about R6000 a month. But I think I must apply for that one because it's a permanent job, and I know I will get my money every month. It's a caretaker job at the clinic, I have a certificate for caretaking" (C14/SSI).

A second contractor described how the WfW option would be a last resort:

At the moment I'm looking for a job. If I don't have a job by the time they do call us, I will go back, but I will definitely still look for a job whether they take me back or not, I'm still going to look for a job ... I am looking for a job in training. I went to an interview last week at Bidvest Management Solution, it's kind of a cleaning company, they were looking for a training facilitator who is going to work with staff, training the staff, management, and also the cleaners and all that stuff. And ja, I've, ja, I'm still waiting for an answer. I think it's a decent salary, it's between R10 000 and R15 000 depending on your work experience. (C7/SSI)

### **Social enabler 12: WfW work environment and experience**

Being part of WfW and experiencing the work environment was seen as socially enabling in certain ways. Contractors explained that the type of work was beneficial to one's mind-set, and that the work had provided them with a sense of worth and empowerment. After becoming affiliated with WfW, they were able to look after themselves and their families.

A contractor explained the emotional or mind-set benefit of the WfW experience. “Because, uh, when you go to the field especially in the morning, there is that air, and everyone is laughing, you don’t have the stress from home. Ja. And the view of fields and where you are working, it is nice to work there sometimes!” (C3/SSI).

Others described the empowering feeling that gained from being affiliated to WfW. “Joh, I find it great! Because now I can afford to provide for my family, and I don’t depend to anyone now. Yes” (C3/SSI). “For now I feel ja, hey, ‘I am Mr Nobebe now!’ Because I am a contractor, then I have my own car you know. And since I came from a poor family, at least this is something that I did at home to show that I am working” (C4/SSI).

The opportunity to help other people through employing a team of people was also described as empowering.

Ja and basically this project which it helped me, okay, it helped me in such a way I was helping other people because I was a contractor, I could help other people who basically don’t have income or was struggling while the only one person who worked in the house. So it gave me an opportunity to help other people. (C7/SSI)

## **6.4.2 Personal enablers**

### **Beneficiaries**

#### **Personal enabler 1: Genetics**

Only one case of a personal enabler was made explicit through the semi-structured interview process, and that was the enabler of being genetically advantaged towards having an athletic build. More specifically, one of the sports that has great financial value in South Africa is rugby, and having a genetic predisposition to a certain build and being able to run quickly acted as an enabler to one beneficiary.

Ja, actually, everybody is telling me, ‘ja, I am good’ but I can’t like, say to myself, I am perfect. But yes, I get the most of every time I play, I get compliments that I am playing well, and that I must go to play for that club and that club. You can go two up, and go higher, and I say okay, it’s alright. (B9/SSI)

The beneficiary plays for a club where he is paid to play, and that has influenced his choice of tertiary education institutions too, as he will study in a town where he is able to play for clubs who will pay him.

## **Contractors**

### **Personal enabler 1: Internal characteristics**

Some contractors made reference to their personal characteristics as being enabling, such as being confident, their eagerness to learn, their independence and their gregarious natures. “Maybe they can see the way I work, or the way that I manage to use a brush cutter, so they know I might be able to use a chainsaw. They gave me more responsibility” (C10/SSI). When asking a contractor why she and another woman were chosen over other candidates for two contractor positions, her response was “Maybe they think we have, or maybe they can see that we can learn about the work?” (C11/SSI). The same contractor referred to her willingness to take chances and try new things, “The others said ‘No, we can’t’, but I said to him ‘let me take a chance!’ and after that my contractor, he taught me everything he knew about being a contractor” (C11/SSI). Another contractor spoke of her religion and her personality as enabling, “First, it’s God. We prayed. I like to pray and also you see, I am a talkative person, so I talk a lot and yes, because I talk a lot I ask ‘I want a job, I want this!’ If I saw someone, I’m not afraid to say ‘No, I’m looking for a job, what work are you doing?’” (C1/SSI).

### **Personal enabler 2: Genetics**

One contractor spoke of his sporting abilities as advantageous, as they led him to acquire sports bursaries that kept him prestigious schools such as Rondebosch Boys’ High School in Cape Town. “I was on a sports bursary. I played rugby, so as long as I performed on the rugby field ... my fees were always sorted because I performed all the time on the rugby field. I got paid as well” (C5/SSI).

## **6.4.3 Environmental enablers**

### **Beneficiaries**

#### **Environmental enabler 1: Transport (geographical distance)**

Only one environmental enabler was identified, and it was an abstraction from the environmental constraint of geographical distance. Essentially, when combined with other social conversion factors such as free transport or living in close proximity to work or school, beneficiaries found it easier to access the resources provided by school or work. A repeat of an earlier quote explains this, “Last year I started there at Working for Water. We didn’t have to pay

transport money so it was fine monthly. I didn't have to pay, she picked me up and take me to work" (B10/SSI).

## **Contractors**

### **Environmental enabler 1: Weather**

Contractors explained that weather could influence beneficiaries' perceptions of the work when they first start with WfW, which may influence whether they stay in the job or choose to leave. The contractors themselves had experienced this, "For me it wasn't that hard at all when I started, because we were hand pulling the alien plants. There were lots of rains at that particular time, so we were just pulling the smaller aliens by hand. It didn't feel like hard work" (C10/SSI).

## **6.5 STRUCTURE, AGENCY AND CULTURE (FACTORS)**

The following factors have been derived from all sources of beneficiary and contractor data. A short contextual description of each of these factors is then provided.

### **6.5.1 Structure**

#### **Beneficiaries and contractors**

There are several key structures (and their powers and liabilities) that impact of the lives of beneficiaries and contractors in the context of the ELSP pilot. These range from structures that the beneficiaries and contractors have mentioned themselves (such as primary school and high school) to structures that they may not have been aware of but were identifiable by virtue of my experiences during the period of the ELSP pilot.

**Department of Environmental Affairs:** The Department of Environmental Affairs is the overarching national system within which the Natural Resource Management Programme operates.

**The Natural Resource Management Programme:** The Natural Resource Management Directorate is responsible for ensuring sustainable water resource management, biological diversity, the functioning of natural systems and creating livelihood opportunities through management of the EPWPs.

**Working for Water:** WfW is the EPWP that is responsible for sustainable water resource management through alien invasive plant control, and poverty alleviation by creating work opportunities in alien invasive plant control.

**Gamtoos Irrigation Board:** The Gamtoos Irrigation Board is the implementing agent for WfW in the area of the Eastern Cape where the ELSP pilot took place.

**Primary school system:** All beneficiaries and contractors attended primary school, and would have been influenced by the teaching systems and approach they experienced at these schools.

**High school system:** All beneficiaries and contractors attended high school, and would have been influenced by the teaching systems and approach they experienced at these schools. In the case of beneficiaries, many did not finish high school.

**Tertiary education systems:** Some contractors and beneficiaries attended tertiary institutions, but not many. They would have been influenced by the teaching systems and approach they experienced at the tertiary institutions. Additionally, those who could not enter tertiary institutions because of a lack of matric would have experienced the power/liability of the tertiary education structure in blocking their access.

**Department of Higher Education and Training:** DHET oversees all higher education in South Africa, and oversees the three quality councils for adult education. These three councils are Umalusi (dealing with senior certificates, Adult Basic Education and Training, and Further Education and Training), CHE (the Council on Higher Education) and the QCTO (Quality Council for Trade and Occupations). All these structures affect the lives of beneficiaries and contractors, as they oversee all the training and education opportunities available to beneficiaries and contractors.

**Adult learning centres:** These are centres at which many beneficiaries attended night school. They are run through the rules and regulations of Umalusi. One contractor had worked as an ABET facilitator at the Adult Learning Centre where the beneficiaries went to study towards their matric.

**Teaching orientations:** The various teaching orientations (which would determine teaching approach) that educators practised would have been established structurally and historically by their own education, training and experiences. The educators that influenced the lives of the beneficiaries and contractors would thus have had an impact on their experiences of education.

**Corporate business:** The motoring industry is a large-scale employer of the population around Uitenhage and Despatch. The structures of corporate business influence the life experience of beneficiaries and contractors as many had worked in these industries before. Top-down management styles and economic flux limit the voice of employees, and the requirement of a matric certificate would have limited access into the industry for many beneficiaries.

**Sector Education and Training Authorities:** The SETAs house the various qualifications applicable to different occupations and are responsible for quality control. The LGSETA is the SETA responsible for the qualifications from which the unit standards were borrowed for the development of the ELSP. Through interactions between structures (structures include the unit standard and all its elements, educational requirements, the credit system, relationships between SETAs etc.), emergent properties are formed and evolved over time, in various socio-economic and socio-political spaces. The LGSETA's structural emergent powers influenced the training experience of the beneficiaries and contractors.

**Training service providers (certification):** Training service providers influence the lives of WfW beneficiaries and contractors by requiring their time and energy during training courses. Often, certificates of attendance or competency do not make their way back to the contractors or beneficiaries. This makes it hard to prove that they are qualified in the subjects they were trained in, which is frustrating for them and socially disabling.

**Accredited training structure:** Accredited training is highly regulated via the quality control function of the SETAs. Every part of accredited training from materials creation to teaching approaches is structurally moderated by the SETAs, and this moderation is what (in part) creates the individual training experience, and structures the work of the training providers.

## 6.5.2 Agency

A number of examples of beneficiaries and contractors displaying agency as individuals and collectively were visible across the data sources. These are by no means exhaustive, but were selected based on their relativity to educational and occupational choices. A brief explanation of each example is provided.

### Examples of Agency

#### **Personal emergent properties (interfacing with cultural emergent properties)**

##### **Beneficiaries**

**Studying at ABET/Night school:** Many beneficiaries made the decision to better their chances of accessing occupations that they desired by attending ABET classes at night school. “Ja I learnt until Standard 6 but am learning further now at ABET school” (B12/SSI).

**Choosing to leave jobs:** Some beneficiaries and contractors chose to leave jobs for various reasons, including job dissatisfaction.

I didn't stay with that job long. Because then that manager didn't ... she wants me to, to do this washing of the baskets and floors, and I was a cashier! I didn't know why she did that, because she knew I was a cashier. I only work there for three days only! I was a cashier, I did training and after training she put me to ... she told me to wash the floors and the baskets, so I left, (B6/SSI)

**Taking WfW work (because there is no other option):** A few beneficiaries lost their jobs, which then led them to the WfW work option, which was more appealing than sitting at home. “I was an operator there, and then a got a VSP Honda separation package in 2009. Then I had to come and work here” (B14/SI)

**Choosing to focus on work over studying:** Some beneficiaries were not interested in studying towards their matric, as they were happy focussing on work. “Right now I am not, I am just fine. Because here I learn some skills, working outside and things in the environment, which I must do” (B15/SSI).

**Active job search:** Beneficiaries displayed evidence of actively searching for jobs. “I go to town, to a place where I am going to fax my CV off, I go and work maybe by Shoprite, or give my CV in there by Spar” (B10/SSI).

**Choosing not to party/drink (social choices):** Some beneficiaries made choices to steer away from practices and behaviour that could lead them away from career progression. “Ja, I was one of those quiet ones, I didn’t like to socialise, I just like to be on my own. I had friends, but I didn’t do all that party stuff” (B11/SSI).

**Perseverance (when failing – linked to family support):** Beneficiaries displayed actions that spoke of perseverance to reach goals, such as the earlier example of the young man (B11) who failed his driver’s license test twice, but through the support of his father and brothers went back and passed on his third attempt (Section 6.4.1 Social enabler: Family support).

**Decisions to take responsibility (because I am growing up):** Many beneficiaries had made active decisions to take responsibility in their lives for their finances and to ‘carry their weight’. “Ja it’s that time when we should start looking after ourselves. That’s why I’m looking for work and I wasn’t actually so serious before” (B11/SSI)

**Children motivate agentive decision to find and commit to work:** In section 6.3.1. on Social constraints and section 6.4.1 on Social enablers, children were cited as both enabling and constraining factors. The relevant quotes and examples are available under social constraint 10 (beneficiary section), social enabler 11 (beneficiary section) and social enabler 6 (contractor section). Children are the drivers behind many different decisions around work and study. These decisions include finding work instead of remaining unemployed; choosing better paying work when possible; choosing regular work over less regular but better paying work; and choosing to work rather than study. The last point regarding work and study is clarified here. The immediate effect of work is financial gain that is required to service the immediate needs of children and family, while investing in education will only show financial gain much later, if the educational pursuit is successfully completed and if the gained qualification is in line with local job opportunities.

**Choice to leave school (fought for it):** One beneficiary explained that it was her decision entirely to leave school, and that she fought (displayed her agency as an individual) for her right to leave school. “[My father was angry] but I ran away to my sister in PE. It was that sister from my

mother's side. So I stayed there until my Dad cool off, and then he accepted that I am not going back to school" (B6/SSI).

**Used sporting talent to create better opportunities:** One beneficiary explained that it was his choice to take his natural athletic ability and focus on practising rugby until he was playing for a club that paid him to play. "I joined it [the Despatch rugby club, affiliated to Eastern Cape Province rugby] to get a better future for me" (B9/SSI).

**Active social networking to find opportunities vs. 'sitting at home':** There were a number of examples of beneficiaries practising active social networking to avoid the complacency that occurs when 'sitting at home'. "I can say that I am not really good at everything, but I learn fast and if somebody tells me there to take it, then I can take it to other people. I like to be communicative with other guys. I tell them come on guys, I want to do that!" (B9/SSI).

### **Contractors**

**Independence (self-employment):** Some contractors displayed agency in their desire to stay independent and run their own businesses. "No, I wouldn't work as a permanent employee, it must be my own business" (C13/SSI).

**Change in careers:** A number of contractors explained how WfW was a means to the end of doing the work they would really like to do. For example, one contractor explained how WfW work was allowing him to save to buy land and move into farming. "I have a certain amount now at the bank ... I have seen some farms which they are being sold, they are round about R500 000, so if you can get a farm or maybe a portion of that farm for R500 000; I can buy it and doing what I think I can do" (C10/SSI).

**Studying further (progression):** Some contractors spoke of their plans to study further, which outlined their future agentic decisions. "I intend to start at half year to study farming and environment, so now I have a foundation to understand more or less what is going on. I will study further with Level 5" (C2/SI).

**Active job searches:** As explained in Social enabler 7 for the contractors, active job search was cited as a social enabler. However, the 'active' element is a display of agency showed by many contractors.

**Taking risks vs. not taking risks:** The decision to take risks is an active and calculated consideration. In order to progress (financially, educationally and occupationally) contractors used their agency to take calculated risks. "I am a fast learner, so I decided to take the chance to be a contractor and eventually I became one" (C10/SSI).

**Meeting goals:** Contractors explained the action of setting goals, and the decision to work hard to meet those goals. Setting goals can only be useful if there is agency behind the decision to set the goals. "I like to set myself goals, and I really work hard to achieve those goals" (C9/SSI).

**Adjustment to situations:** Contractors also displayed agency (or related stories of agency) when confronted with structural blockages to their occupational pursuits. For example, the contractor mentioned previously who is aiming to buy a farm (2014) had met several structural and cultural blockages in his past. First he had to compromise between his high school education and attending to his family duties herding cows, as the family were pastoral peasant farmers. He then had to let go of maths and science as matric subjects as the school he moved to did not have teachers who could teach those subjects. This meant he could not pursue his dream of being an accountant, which forced him to adjust to finding work locally. By pursuing the WfW lottery system, he was chosen as a beneficiary, and managed to work his way into a contractor position over many years. Utilising the WfW systems, he has saved money and is able to transition into farming, which is his desired occupation and lifestyle (C10/SSI).

**Fixing dissatisfaction:** Contractors recounted stories of how when they'd been dissatisfied with work situations, they had chosen to leave. Often this was because they felt their employers did not value them, and their full potential would not be realised in such situations. These were situations where the only solution was to leave, when the employer could not or would not work with the employee to change the situation. "In PE I worked [as a domestic worker] for one year. Then I wasn't, I was not satisfied and after that I looked for another job. And I got a job at an early childhood education centre" (C11/SS1). The example of the contractor who resigned after

he was badly treated by his employer (Section 6.3.1, Contractor Social constraint 10: Past conditions) is also a display of agency whereby the contractor (C14) removed himself from a dissatisfactory situation.

**Settling:** Contractors discussed stages in their lives whereby they chose to settle for jobs they didn't enjoy, as they needed the income. "Because there was no work, you settle for anything" (C11/SSI). "Ja, I was paid a small amount of money [selling clothes on the street] but it was better than nothing" (C13/SSI).

**Following personal desires (growth):** There are times when contractors acted on the simple desire to try new things that they found interesting. Mostly, these contractors did not have children that needed their support. "I just wanted to try something different, for a change" (C11/SSI).

**Children motivate agentive decision to find and commit to work:** Similar to the beneficiary group, contractors took active decisions to find work, which would allow them to support their children. Examples of this agency are cited in section 6.4.1, Contractor Social enabler 6: Children. "I want to give him a better life" (C14/SSI).

**Supporting others in job search:** One contractor spoke of her decision to use her role as a contractor to support others in finding work. "It gave me the opportunity to help people" (C7/SSI). Not all contractors take this approach with the power that they have to employ people.

**Working outside of WfW:** Sourcing work outside of WfW requires considerable agency, as was explained by the contractors. While most contractors desire growth of their businesses, some found it too intimidating and chose not to look outside of WfW, while others actioned their desire for business growth.

**Making a plan to be successful:** Contractors experienced difficulties in finishing their task-based work, particularly when they were short on capital (as they are paid on completion of the job). They spoke of having to 'make a plan' in many instances to successfully complete jobs, which included negotiating with clients and borrowing resources. "As I said, the capital or the savings

that I had, they are all depleted because of the layoff, so it's a bit of a struggle and a mission to complete the actual task they've given me" (C5/SSI).

**Researching:** The act of researching in preparing for job interviews was mentioned by several contractors, which had led to their successful employment by WfW. "Doing the research about the alien plants, I think that impressed the project manager. To be able to talk to her about the issue and all that because I was babbling everything because I studied it. Ja, I think that is one of the reasons I got the job, I knew I was getting myself into an audit" (C7/SSI).

### 6.5.3 Culture

Cultural emergent properties and factors were less obvious in the discussions than agentive and structural factors, emergent properties powers. However, several culturally distinguishing factors were noted and are presented below.

#### Beneficiaries

**isiXhosa traditions and expectations:** One beneficiary explained that he is half Xhosa (along with another beneficiary, B10), and underwent the traditional rituals associated with a boy moving into manhood. This happened to him after he left school, and once had become a man he started to participate in social activities more. He eventually drank and socialised excessively, but at his own admission said "But now, ja, now I'm back to being normal" (B11/SSI).

**Acceptance of many children had by different partners:** As was evidenced from descriptions of people's families, it was common that most people had half-brothers and half-sisters from different parents. This is not culturally significant to the beneficiary groups, but more to contemporary South African families. It is commonly accepted that family structures in South Africa are not nuclear.

**Complex family structures:** While it is commonly accepted that family structures are not nuclear, they are also not straightforward. Examples of delicate balances to keep family situations stable emerged, where if a father had a child from a woman other than his wife, the child would live with an aunt or grandmother.

**Grandparents are parent figures:** The factor of the culture of extended family was discussed in section 6.4.1 under Social enablers. However, it bears repeating that culturally it is normal to find that grandparents have acted as parents to their grandchildren, especially when the birth parents were not financially or emotionally equipped or ready to raise children on their own.

**Transition from coloured to white schools:** Culturally, it was very difficult for coloured (and black) children to transition from their traditionally homogenous schools into traditionally white schools. The practices they were used to at their previous schools were different to the traditionally white schools, and racial tension affected their ability to communicate effectively with white teachers. That said, there is still a perception that predominantly white schools are preferable to coloured schools on the basis of the quality of education. A beneficiary stated that, “I want to send my boy to a white school the year after next, he will go to Susannah Fourie Primary School” (B6/SSI).

**Common to fail a number of times:** Some beneficiaries explained that they had failed a number of grades in high school multiple times, and they had exited school in their early twenties. The beneficiaries found it amusing when I had expressed surprise at this fact, and an example of this type of conversation is presented below:

**Researcher:** So did you try and get work when you left school, or what did you do? Because you must have been quite young if you left in Standard 8, like 16ish?

**B8:** Ha ha, no! I repeated Grade 9, and I repeated Grade 10 also. When I left school it was 2004. I was 21 or 20.

**Researcher:** Oh I see!

**Location culture:** Beneficiaries spoke about the social difficulties of living in locations (townships). In particular, the tendency of neighbours to be judgemental was brought up.

The PGM explained a similar sentiment around the judgements experienced by EPWP workers in their home communities, and the communities where their work is placed. “It’s hard work. And then you get criticised by the communities, who say they’re lazy, or they’re lying on the side of the road. But the temperatures in the sun are 36 or 38 degrees. Or the rain is pouring down, or a severe electrical storm has started” (PGM/SSI).

## **Contractors**

**Rural pastoralism:** One contractor explained that his family who lived rurally practised traditional pastoralism, which was (at that time) aligned to the subsistence culture of the traditional tribes of South Africa. This affected his education experience, as was described under section 6.3.1 under contractor social constraint 3: rural pastoral lifestyle.

**Domestic work:** In South Africa, it became commonly accepted over time that upper and middle class families would employ black females as domestic workers. Black female domestic workers typically looked after upper and middle class children during the week and performed most housekeeping duties, while one parent or both parents of the children worked. Domestic workers were expected to work long hours, and were paid low salaries. Even after South Africa made the transition to a democratic society, domestic worker culture is still active in South Africa. This was experienced by one of the contractors who tried domestic work for one year, but left when she found it unsatisfactory. “Since I was staying there [on the premises], I worked until I sleep” (C11/SSI).

**Religion:** Christianity is one of the dominant religions in South Africa, and some contractors referred to their faith as a factor that influenced their success at work or helped direct them in their decisions. “Maybe also God, you know?” (C1/SSI).

**Differing school cultures:** School systems in South Africa were historically quite different, linked heavily to Apartheid separate development policies (structural racism). When transferring between schools after Apartheid ended, these differences became explicit.

That’s the thing, it’s about school culture. When I studied here [in the predominantly coloured location] my, basically my primary, I’m not sure should I blame the educators of government schools or what, but it’s totally different. Here it was more relaxed, it’s fun and play, there was nothing serious ... When I started at Despatch High [a previously whites only school], it was like ‘Wow, I was the best here, now I feel so dumb here!’ I don’t know was it the syllabus that changed or the way the higher standard of the subjects that they gave us changed or something. (C7/SSI)

**Apartheid transition:** Additional to the idea of school cultures being different, explicit racism was a cultural issue that made the transition from an Apartheid state to a democratic state difficult. In

school situations, contractors observed racism first hand. “Especially from the educators, they did not hide it” (C7/SSI).

**Cultural accommodation:** With South Africa being a multi-cultural society, problems arise in trying to accommodate all cultures within specific structures. The example cited was of the Adult Education Centre where a contractor had previously worked. Trying to accommodate all the languages represented in a class was problematic and ultimately confusing “I think that is one of the reasons people dropped out” (C7/SSI). This element was presented more fully under section 6.3.1, Social constraint 9: Further education/ABET (beneficiaries).

**Normalisation of giving family members jobs:** It is debateable if this can be termed a cultural factor, but the prevalence of nepotistic behaviour (in the WfW context) was evident throughout the data gathered from both the beneficiaries and contractors. It is so common that it is seen as acceptable and normal, which perhaps makes it part of the WfW working culture or the social culture of extended family and social network security in low income contexts.

**Grandparents are parent figures:** This element was discussed under beneficiaries, but was found to be equally prevalent in the contractor group.

### **Parks and Gardens Manager**

The PGM offered insights into contemporary structure; culture and agency interplay, regarding the behaviour of elementary municipal workers. The PGM’s main insight is offered below.

#### **Structure, culture and agency interplay: Class, progress and improvement**

The PGM explained that she had noticed a shift in people’s perceptions of what they needed to become (in terms of their occupations) in order to be seen as successful.

However, there is also the level of expectancy that to be a lawyer or a secretary is better than being a brush cutter operator or a gardener. So this perception of improvement doesn’t lie with the hard work that is needed [in municipal elementary jobs]. And in terms of productivity, it’s not only influenced by that perception and expectancy, which they will not necessarily meet or have the opportunity of accessing. It’s the disease [HIV], the financial difficulties, the emotional family issues and overriding it all, financial ambitions. (PGM/SSI)

The PGM’s explanation thus outlines that a person’s decisions and actions are in part based on structural constraints, but also on shifting cultural beliefs and emergent properties (structural, cultural and personal).

Many of them would like to study, but most of them want to study computers. So, once again, it’s that whole, I don’t know whether to call it a class problem that ‘I would be perceived better by my community if I was dressed well going to work, instead of coming home in an overall’. Particularly amongst the women. And, and even the men to a degree. (PGM/SSI)

Again, the PGM explained that there has been a shift in what was seen as progressive, that culturally elementary work is no longer seen as an acceptable occupation. The reason for including this statement in the results is not to offer a judgement of whether this shift in perception is right or wrong, constructive or destructive, but to acknowledge that this shift has happened and that people’s ideas of what they want to be and do are not always in line with the requirements of an available occupation.

## 6.6 GREEN ECONOMY JOBS

The section below is a brief synopsis of the types of jobs and opportunities that were perceived as green or environmental, by beneficiaries and contractors. In general, though, conversations were quite vague and answers were short, particularly the beneficiary answers.

### 6.6.1 Types identified

Types of Green Economy jobs identified by research participants are listed in Table 6.4 below.

Table 6.4: Green Economy Jobs

Beneficiaries	Contractors
<b>Municipalities:</b> <ul style="list-style-type: none"> <li>• Parks and Gardens Department</li> <li>• Waste Department</li> <li>• Building RDP Houses</li> </ul>	<b>Municipalities:</b> <ul style="list-style-type: none"> <li>• Parks and Gardens Department</li> <li>• Brick laying contracts</li> <li>• Municipal tenders</li> <li>• Environmental education campaigns</li> </ul>
<b>Outdoor Work:</b> <ul style="list-style-type: none"> <li>• Any work in the environment</li> <li>• Any work not inside an office</li> </ul>	<b>Outdoor Work:</b> <ul style="list-style-type: none"> <li>• Any work in the environment</li> <li>• Any work not inside an office</li> <li>• Cape Pine Forestry</li> </ul>
<b>Nature Conservation Areas:</b> <ul style="list-style-type: none"> <li>• ADDO Elephant Park</li> </ul>	<b>Nature Conservation Areas:</b> <ul style="list-style-type: none"> <li>• Nature reserves (general)</li> <li>• ADDO Elephant Park</li> </ul>

	<b>Recycling</b> <ul style="list-style-type: none"> <li>• General description</li> </ul>
	<b>EPWPs</b> <ul style="list-style-type: none"> <li>• Working for Wetlands</li> <li>• Public Works: Waste Clearing</li> </ul>
	<b>Small Business:</b> <ul style="list-style-type: none"> <li>• Tree felling</li> <li>• Garden waste removals</li> <li>• Lawn mowing</li> </ul>

**6.6.2 The unawareness problem**

While beneficiaries and contractors were able to come up with some ideas of what a green or environmental job was, there was also an element of unawareness. Many people responded that they didn't know of any, or that they hadn't ever researched it. A comment from a beneficiary explained his perception that there weren't environmental jobs around Uitenhage, "I see environmental problems everywhere, and the municipality doesn't do anything about it so they obviously don't employ people for that. There isn't a job there" (B11/SSI).

**6.6.3 Recycling as an opportunity**

Recycling emerged as an opportunity from the contractors' perspectives, although without any reference to any existing recycling programmes or recycling stations known to them. The PGM mentioned in her interview that the uMngeni Municipality had been one of the first to establish a functioning recycling centre, working closely with an NGO, Wildlands Conservation Trust. The PGM felt that recycling offered a major employment opportunity for elementary workers, but that currently there were no structures in place to work towards this. In particular, she was concerned about the 'scavengers' (people who worked the dumps for recyclable material) and the health and safety aspect of that practice. The fact that the recycling industry is not regulated makes it tricky territory to navigate (PGM/SSI). As noted in Chapter 2 section 2.3.3, the OFO 2013 listed only four occupations as green occupations under the Major Group of Elementary Occupations, three of which are recycling related. These are OFO code 861101 recycling or rubbish collector, OFO code 861201 refuse sorter and OFO Code 861202 waste material sorter and classifier. What the PGM suggested about recycling being an area of opportunity is echoed by what the OFO presents; the results derived from the beneficiaries and contractors however showed that there is no informational link made between the workforce and the recycling

industry. Whether this is because the recycling industry is underdeveloped or underexposed is not known from this research.

## **6.7 CONCLUSION**

In this chapter the results that address Goal 2 were presented. A deeper analysis of the enabling and constraining factors in the learners' lives as well as the structures and mechanisms that underpin many of these factors and experiences were identified. The categories were based partly on themes that emerged during data analysis, and partly on themes that were guided by the research approach and theoretical framework of the study. A large quantity of the spoken data (quotes) is presented in this chapter to provide for thick description which also allows for a closer engagement and understanding of the ELSP participants and an associated in-depth understanding of their contexts and differences. The thick description allows for greater rigour and trustworthiness, contributing to validity of the study. In Chapter 7, a brief synthesis discussion on each of the research goals will be presented, guided by a set of analytical statements. Retroductive causal analysis is used as a social realist tool for presenting a stratified ontological view of the ELSP pilot context and possibilities.

## **CHAPTER 7: ALIGNING THE ENVIRONMENTAL LITERACY SKILLS PROGRAMME WITH LEARNERS' CAPABILITIES AND THE WORKING FOR WATER TRAINING AND EMERGING GREEN ECONOMY CONTEXT: CONCLUSION AND RECOMMENDATIONS**

### **7.1 INTRODUCTION**

In Chapters 5 and 6, a thick description of the data was presented relating to Goal 1 and Goal 2. The results were produced using inductive and abductive analysis techniques, guided by a social realist research approach and the theoretical framework of the capability approach. Direct quotes were used for validity purposes, and to enhance the trustworthiness of the case.

As noted in Chapter 1, section 1.6, the aim of this research is to investigate if and how the ELSP Pilot responds to WfW learners' capabilities and the enabling and constraining factors that shape these, and to the demands of the WfW training setting in an emerging Green Economy.

The goals of the research were:

1. To investigate how the ELSP Pilot training is structured, and how it seeks to respond to the education levels and experiences of contractors and beneficiaries, and the demands of the WfW training setting.
2. To investigate the conversion factors and enabling and constraining factors that influence WfW contractor and beneficiary capabilities and involvement in the ELSP training in the context of an emerging Green Economy.

Chapter 7 is a high-level discussion aimed at synthesising the results into analytical statements, each of which is followed directly by a recommendation. To create perspective on the findings of this study, insights from the literature are drawn into the discussion, in particular from studies that deal with the environmental education context and that have displayed evidence similar to this study.

Through retroduction, a social realist causal analysis model is used to display how various agentic and structural factors interplay across the real and actual domains of a stratified ontology, causing a variety of observable (by myself as the researcher) or relatable (by the constituents of this study) events in the empirical domain. The implications of this study with regard to the EPWP

training environment and the emerging Green Economy are explained, after which the limitations of the study are described. The chapter concludes with recommendations for further research, and a comment on the meaning of this study in an environmental education context, situated more broadly in an emerging green economy context as discussed in Chapters 1 and 2.

## **7.2 ACCREDITED TRAINING IN THE WfW CONTEXT**

In terms of Goal 1, the findings in Chapter 5 offered several important insights into the context of WfW training. The ELSP POEs, participant observation, questionnaires and structured interviews provided a view into what was observable in the empirical domain, while the semi-structured interviews allowed a more in-depth look into the structures that underpin what was seen on the surface. These insights could be noted as key considerations when planning any accredited training course in the WfW context, and can also be considered further into the broader EPWP training context.

### **7.2.1 Consideration of language**

Language was highlighted as a factor which influences accredited training practices. This insight is expressed in the following analytical statement:

**Analytical statement 1: When considering accredited training in the WfW context, language is a key factor when considering response to education levels and experiences of contractors and beneficiaries.**

#### **Beneficiaries**

The results in Chapter 5 (section 5.2.2.1) highlighted that beneficiaries would probably not have reached a 'competent'<sup>15</sup> assessment on the ELSP without the multi-lingual facilitator approach that WESSA used when delivering the course, or without the multiple follow-up correction sessions that were planned after training. The beneficiaries who were able to attend the

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<sup>15</sup> Competency is a key term used in accredited training in assessment practices. Typically, an assessor will have to use the terms 'competent' (C) or 'not yet competent' (NYC) when filling in an assessment rubric, when referring to either an individual specific outcome or the overall unit standard. A learner can only be assessed as competent when they have provided enough evidence to prove competency against all individual learning outcomes.

correction sessions pushed themselves through to the end and were assessed as competent, whereas those who could not attend the sessions did not complete the ELSP. Reasons for not attending the sessions were linked to enablers and constraints such as family obligations; lack of transport or in some cases other work opportunities.

Similarly, Giqwa (2011) explained that in her observations of EPWP training, a system of dual language facilitation and mediation was a necessity in order to address the disjuncture between SETA policy regarding the language of learning and the learner's home language. Giqwa noted that the system worked well, and allowed the learners to bring their experiences and contexts to the classroom. While the WESSA facilitators had anticipated a need for this type of facilitation, the mediation element was much greater than expected.

Davies (2009) worked with coastal communities in a community-based education context, and provided examples of participatory education techniques that facilitated meaningful learning in diverse, multi-cultural and multi-language contexts. Davies explained that it was important to open the space for learners to relate knowledge from their own lives and contexts (p. 53), which offers a way of bridging over constraining social conversion factors such as limited prior education. In the ELSP, group work and interactive exercises were often used as a way for learners to discuss among themselves, examples from their own families, histories and experiences that related to the subject matter. However, having the information relayed back to the facilitators and the rest of the group was not always as successful due to presenting (standing up and talking in front of the group) being an intimidating task for some.

As discussed in Chapter 1, section 1.2.1, the legacy of Apartheid contributes to many of the structural constraints that people experience, including extreme poverty and limited access to quality education (National Planning Commission, 2012). The language issue, as observed on the ELSP, is a result of activated structural powers that operate across different time frames, currently observable in the empirical domain (Archer, 1995; Bhaskar, 1979; Sayer, 2000).

Relating the above to the WESSA experience of presenting training to WfW, the costs involved with such a multi-lingual facilitator approach are not viable when considering limited training budgets. As such, language difficulties affect overall viability of using accredited training as a

method of education and training. Although methods exist that can enable access to learning pathways, this is an example of how in the EPWP context, structural powers and the policies that are implemented by those powers (such as a financial limit on training budgets interacting with the policy of 'English as a language of learning') act as barriers to viable and accessible learning pathways. This is similar to what Mohanoe (2013) found in her municipal research, which showed "the persistence of deep-seated inequalities of opportunity, especially for workers, to access and participate in sustainable development learning pathways" (p. ii).

However, more specifically from a capability approach perspective, it is useful to compare the six individuals who completed the ELSP with the nine that did not. The individuals who completed the course had access to resources such as transport and the support of their contractors to finish their work. Those who didn't complete the ELSP did not have a suitable combination of resources, and faced other pressures in their lives that outweighed the importance of completing the ELSP. An example would be a young woman who dropped out after the first session who was due to give birth a few weeks later. Her immediate priorities were not compatible with the requirements of the course work, and due consideration to her personal circumstances at the time had not been given by the co-ordinator who selected the beneficiaries for the ELSP pilot.

### **Contractors**

The contractors understood English well, and could generally converse fluently in English. However, language difficulty posed a problem when workbook materials needed to be completed. The evidence of copying and facilitator dependency pointed to a discomfort in producing written English, however at NQF Level 4 and 5 the ability to think analytically and write originally in English is a necessity.

The difficulty with English is in contrast to what Hamaamba (2004) found in his research featuring a municipal training context. Hamaamba interviewed managerial staff in focus groups and the data relayed that English, as a language of instruction (learning), should not be a problem at higher levels such as middle and upper management. In contrast, although the ELSP Contractor course is designed at NQF Level 4 and Level 5 (municipal managers would typically be trained at NQF Level 5), the WfW context allows for a variety of people to become contractors and not all people will manage equally with English. For this reason, contractors in WfW also benefit from an

educational approach that includes multi-lingual facilitators and participatory education methods.

#### **7.2.1.1 Recommendation**

The WfW programme attracts a wide range of people from various backgrounds who are generally from families most affected by poverty in their communities. When investigating the educational backgrounds of beneficiaries and contractors, structural and socio-economic features in their pasts had impacted on opportunities where English literacy might have been developed. These structural features are difficult to alter, and most people who enter WfW would have experienced similar impacts on opportunities in their lives.

Mohano (2013) listed several of these features from her research working with municipal workers, and they included deep-seated inequality, social relations, power relations, marginalisation, organisational inefficiency, political neglect, legislative requirement, gender issues, language and communication. Using the semi-structured interviews in my research, social enablers and constraints were drawn out through analytic categorisation, and many of these resonate with what Mohano found in the municipal context.

When EPWPs consider accredited training, the structural and socio-economic determination of language abilities needs to be adequately reflected upon. Mitigation measures (such as language translation, providing literature in vernacular, participatory education methods, teaming up of learners who are stronger in English with those who are weaker etc.) to reduce the impact of low English literacy should be considered when utilising accredited training as a method of developing skills, knowledge and values.

In the light of the knowledge that WfW beneficiaries and contractors experience serious structural constraints to accessing learning pathways, the ELSP must be run in both English and the mother tongue of the learners. In some cases, the mother tongues of the learners may be more than one language i.e. Xhosa and Afrikaans. Great efforts must be made in using an educational approach that is both inclusive and participatory to allow learners to bring their contexts into the classroom, and to relate new concepts and ideas to their own lives and understanding.

### **7.2.2 Time allowance and budget consideration**

Facilitators and learners cited lack of time as problematic on the ELSP pilot. This problem is presented as the following analytical statement:

**Analytical Statement 2: When considering accredited training in the WfW context, allowing adequate time for making meaning of course content is a key factor when considering response to education levels and experiences of contractors and beneficiaries.**

There are several reasons why time became a problem on the ELSP, and the reasons are linked to both the academic and practical structuring of the ELSP. To be able to respond to learners' capabilities, particularly when the group of learners are from different contexts and backgrounds, making meaning of educational materials cannot be rushed.

Facilitators found that they needed more time to run their specific sessions in a manner where they felt they had adequately helped the group make meaning of the content through various summative and formative exercises. They had to 'think on their feet' during sessions when it was clear the examples in the ELSP materials were not relevant to the WfW work context or the learners' own experiences, and this required time. Time to translate (linked to language as explained in section 7.2.1) was also limited.

Learners found the lack of time frustrating as they could not finish their exercises in class, and not all came from home environments where completing the tasks at home was an option. The constrictive element of time limited the questions they wanted to ask, and limited how the facilitators could respond. Many learners said each module should be three days as opposed to two. However, to achieve an extension of the course would have major budget implications that are not in alignment with the financial structuring of EPWP training budgets.

Additionally, many underlying structures and mechanisms influence how time can be used during the course. Standard WfW training takes place from 9a.m. to 3p.m., which helps with access to limited transport options that learners can take in and out to the WfW training centre (specific to this context). The ELSP requires a certain amount of notional hours, and the academic and practical structuring of the ELSP conflicts with the reality of the lives of the learners. Training days

are actually salaried days for WfW beneficiaries and contractors, and many beneficiaries don't want to work (i.e. attend training) over and above their regular hours.

### **7.2.2.1 Recommendation**

Due consideration has to be given to time limitations, and how the capabilities and experience of the learners requires more flexibility in terms of time allocated to making meaning in the training environment. While it is possible to push learners along, this can unintentionally form pedagogical obstacles, which affects the outcome of a learner's assessment.

An idealistic yet key recommendation (that discounts budget) would be to increase the days per module to allow for learners to make better meaning of materials without feeling rushed, and to utilise training venues with boarding facilities. The combination of more time and less pressure to leave the training centre to catch transport home could result in a better learning experience.

### **7.2.3 Accredited training requirements**

Accredited training follows a systematic method of education, which is highly regulated by policy and procedures for quality purposes. Analytical statement 3 emphasises the disjuncture between the WfW context and what accredited training requires.

**Analytical Statement 3: Accredited training requirements are not easily met when accredited training is performed in the WfW context.**

The nature of WfW as a programme is one that is erratic and hard to predict. As mentioned above, accredited training requires particular processes that need to be followed in order for courses to be run successfully and for participants to be awarded credits towards qualifications. During the the pilot, the myriad variables that affect the day-to-day workings of the WfW programme were observable, as they affected the achievement of training requirements during the course. Some of these variables are deeply structural, such as the decision that the NRMP made to freeze all work and payments during a national WfW restructuring process, while others are environmental like wet weather which disrupts clearing plans and has financial implications.

As explained by Sayer (2000), objects exist in the real domain that have their own structures, causal powers and liabilities. They can lie dormant, but if and when they are activated, their powers are exerted and experienced in the actual domain and have effects that are observable on a surface level in the empirical domain. In this case, a combination of powers were exerted via broad structures such as DEA and the NRMP, that in some ways paralysed the powers of the implementing agent<sup>16</sup> (Gamtoos Irrigation Board) in being able to implement their usual financial processes. This in turn constrained the power of the contractors to pay their workers or to service their own socio-economic needs. Results of the structure agency interplay were observable in the empirical domain (what I, as the researcher, viewed during the pilot) as stress, unhappiness, disquiet and reflexive activity on the part of the contractors to look for other work, to borrow money and to depend on supportive families.

The types of high-level managerial decisions mentioned in the previous paragraph, as well as the contractual nature of the WfW work and unplanned disturbances, are hard to predict and make it difficult to plan when developing long term accredited training programmes. Giquwa (2011) experienced this unpredictability in her research on EPWP training, when she discovered that the people she was observing were not actually employed at the time (p. 85). Aside from the situation technically being a breach of the EPWP rules, the learners' unemployment made it impossible to perform the work-based tasks and learning needed to meet the requirements of the unit standards they were working towards. This pattern also emerged in the ELSP pilot context, in that the internal instability and changes within WfW affected the opportunities for the beneficiaries and contractors to meet SETA requirements such as the required workplace based hours and exercises.

### **7.2.3.1 Recommendation**

Understanding how complex and variable the EPWP context can be, it is recommended that the planning of ELSP training is a more inclusive process. When EPWPs deliberate the option of accredited training, full disclosure about the requirements of the training is necessary between all involved parties. Discussions around the requirements should ideally take place between

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<sup>16</sup> See Chapter 1, section 1.2.4 for an explanation of the WfW structure and the role of implementing agents such as Gamtoos Irrigation Board.

authorities who plan training, the service providers and the project managers. Project managers are aware of on the ground operational plans and timing problems that can conflict with training, while high-level planners are aware of broader structural changes taking place that could potentially affect training.

For the ELSP specifically, it is recommended that the requirements (such as workplace based evidence, supervisor support, notional hours etc.) are made explicit long before the date of training, in order to allow for contractors and beneficiaries to be well prepared. If it looks unlikely that the requirements can be met for structural reasons, it would be judicious to consider alternative training formats that are less reliant on consistently stable operational environments (i.e. non-accredited courses, workshops, one-day courses, team building exercises).

A further recommendation for the ELSP is for WfW management to specifically select learners who are interested or have a passion for the environment, nature and learning. If the ELSP is to be considered a learning pathway, the commitment levels of the learners must be able to transcend the unstable nature of the WfW environment. However, research into how one can identify and select such learners would need to be performed prior to this action, lest the selection process add to the multiplicity of constraining conversion factors that already exist.

#### **7.2.4 Lack of information on green occupations and learning pathways**

Beneficiaries and contractors could not see the link from the ELSP into possible career paths linked to Green Economy jobs. Municipal work and recycling were the two types of jobs most often cited, but were not linked to an occupation in the traditional sense. The literature review (Chapter 2, section 2.2.3) revealed that there were few identified elementary occupations listed on the OFO; hence it is unsurprising that beneficiaries and contractors were not aware of many options.

**Analytical statement 4: In the context of the emerging Green Economy, the ELSP is weakened by the lack of information regarding green occupations.**

The ELSP can only be marginally effective (in terms of career progression) without more information regarding specific elementary occupations that may become accessible after

completing the ELSP. McCord (2005, p. 565) offered the view that the national Public Works Programme is unlikely to have a significant impact on skills development or unemployment due to the structural nature of unemployment, excess supply of low and unskilled labour, and the high skills growth strategy adopted by government. The uMngeni Municipality Parks and Gardens Manager explained (refer to Chapter 4, section 4.4.4.2) that with regard to elementary labour supply and demand, the number of employment applications always far outnumbered the positions available, and this reality finds traction with McCord's point. McCord directly related this to the socio-economic pressures and challenges that face elementary workers, which are based on the structural and socio-historical nature of poverty and unemployment in South Africa. Individuals in the low and unskilled labour force generally share a common thread of limited educational opportunities or social constraints that shape how people engage with educational opportunities (Mohano, 2013; Gqwa, 2011).

As mentioned above, one of the challenges linked to elementary occupational pathways is that there is a distinct lack of information and discussion in the public domain on the concept of the Green Economy or green occupations. Beneficiaries were mostly unaware of what Green Economy jobs are or what occupations exist that they could access with environmental knowledge and certification. The dearth of information around low (elementary) skills green jobs, links back to McCord's point on government focus on 'high skills development', aimed at filling critical and scarce skills gaps (McCord, 2005; DEA, 2010). It could be surmised that the lack of information is directly linked to the lack of actual opportunities, since most opportunities have been identified in the 'high skills' areas as described in Chapter 2. Additionally, Mohano (2013) found that there were few learning pathways accessible at the elementary level, particularly when contrasted with constraining social structural factors including lack of previous schooling. The Government focus on 'high skills development' is qualified when scrutinising the OFO 2013 (DHET, 2013) as already mentioned in section 2.5.3 in Chapter 2. The comparison showed that structurally, high skills development takes precedence over low skills development linked to the job market.

#### **7.2.4.1 Recommendation**

The ELSP could be strengthened in its applicability (since in its current format, it does not necessarily offer skills that are directly useful in WfW work, particularly in the beneficiaries'

context) by having more information on how it useful in career progression. In order for this to be achieved, there is a need for further research into actual job opportunities that exist in both the formal and informal green job market in South Africa. This is not a comprehensively researched area, and information that exists is primarily broad based and generalised (DEA, 2010). Research into the occupational pathways of people who have made 'green work' their occupation could prove useful. For example, tracking the occupational pathways of people who have made recycling their livelihoods could aid in understanding the opportunities and constraints experienced in this occupation, which may add value to government initiatives to develop the recycling industry further. However, to strengthen the ELSP, an additional section or module on actual green careers/occupations linked to the ELSP should be considered (in addition to the options of working for the municipality).

### **7.3 INVESTIGATING ENGAGEMENT OF WFW BENEFICIARIES AND CONTRACTORS WITH THE ELSP, VIEWED USING A STRATIFIED ONTOLOGY MODEL**

#### **7.3.1 The real, the actual and the empirical**

The response of the ELSP to the capabilities and enabling and constraining factors in the lives of both beneficiaries and contractors is in part determined by factors that are not truly visible in the classroom context. It is useful to pull all the structural and agentic factors together into a stratified ontology model to better understand the possible varieties of interplay that can result in different observable outcomes in reality.

This study has been guided by social realism as a research approach, thus a central aim is to understand how and why things come to be the way are (described in Chapter 3, section 3.3). Easton (2010), when discussing Bhaskar's critical realism, stated "A causal explanation is one that identifies entities and the mechanisms that connect them and combine to cause events to occur" (p. 124). The mechanism is the link, the "deep generative process or structure" (p. 124) between what could happen, and what actually happens. Importantly, Bhaskar (1979) emphasised that with human agents, reasons alone can be viewed as causal mechanisms. "Reasons, then, are beliefs rooted in the practical interests of life. And a person's essence consists just in what she is most fundamentally disposed to do (or become)". To relate this back to the study, the reasons that contractors and beneficiaries act in certain ways to achieve certain

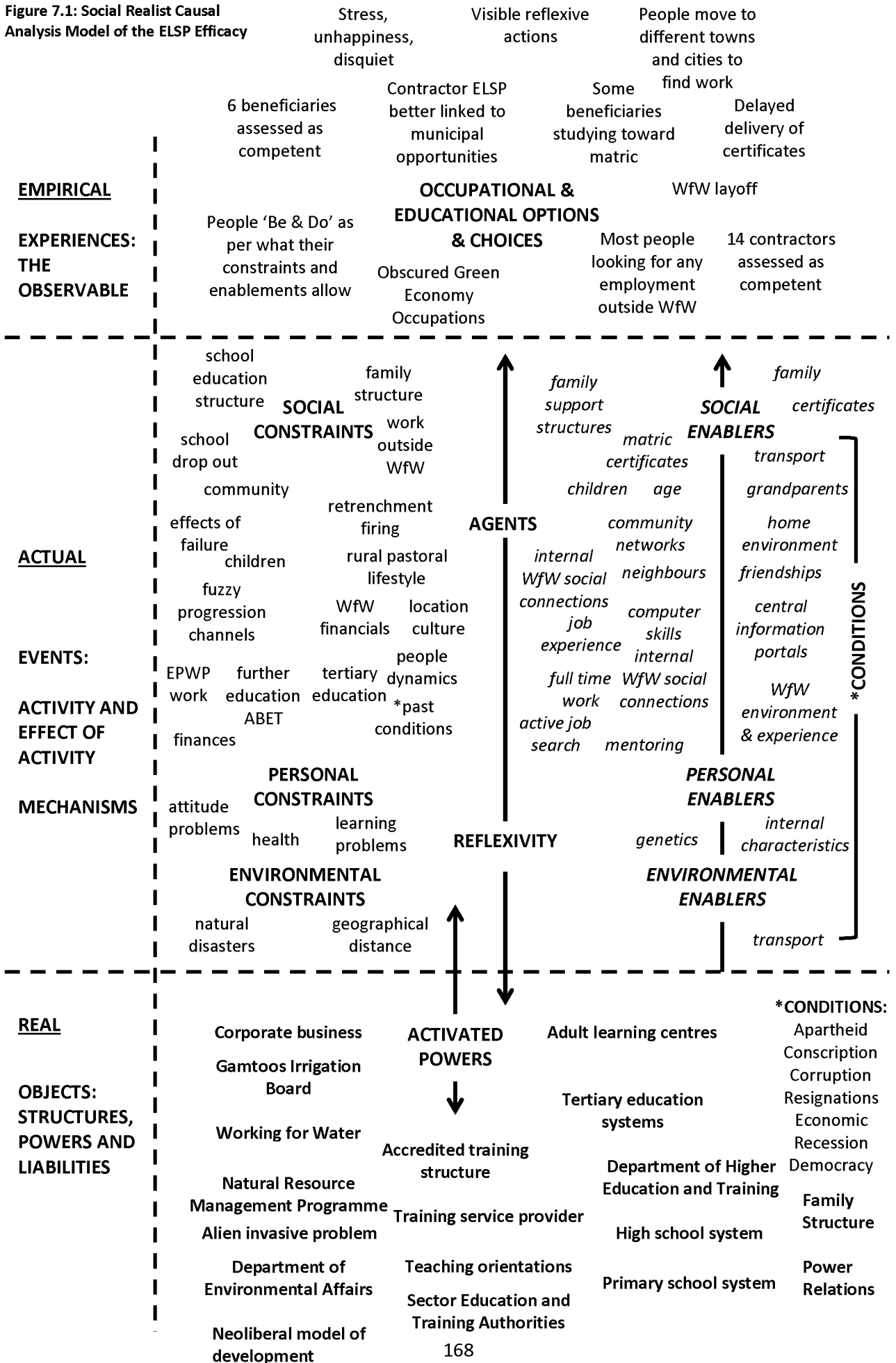
ends are causal mechanisms. Their needs and desires lead them to make decisions based on the options available to them, and those options are in part dictated by structure. Thus, when presented with an educational opportunity like the ELSP, not all people make the same decisions regarding their interaction with the opportunity.

The idea of people making different decisions around the same resources, based on what they want to do and be, appears in learning pathways literature. As discussed in Chapter 3 (section 3.2.1), Harris et al. (2006) argued that while studies are continuous, they are more like a series of stepping stones making the trajectory of a learning pathway fragmented and discontinuous. Linking this to the theoretical framework of the capability approach, the stepping stones are the individual end points reached after a person makes each decision regarding their learning. Where they end up, or which stepping stone they choose to stand on, is based on the activation of causal mechanisms and the enabling and constraining conversion factors that exist in each person's life. Recognising that not all pathways are equally accessible to everyone is vital in being able to understand why people end up in different places when they access potential learning pathways (Raffe, 2003). Additionally, there can be no limit to the different places that individuals can arrive at, because the influences on their decisions are inexhaustible. In other words, the social systems that humans operate in are wide open, not closed (Sayer, 2000), and the same applies for the concept of career pathing.

To this end, a comprehensive breakdown of the following has been combined into an overarching social realist causal analysis model, presented on the next page in Figure 7.1:

- **The Real Domain:** All objects with key structures identified in the lives of the contractors and beneficiaries, based on educational and occupational information.
- **The Actual Domain:** All social, personal and environmental enabling and constraining conversion factors (all enablers are in italics).
- **The Real and the Actual Domains:** Key conditions mentioned by the beneficiaries and contractors. These conditions occur by virtue of the powers of activated structures, which operate within and across different time frames.
- **The Empirical Domain:** All observable happenings related to the ELSP, the operational conditions of WfW at that point in time and happenings mentioned by beneficiaries and contractors that were not observable during the pilot period.

Figure 7.1: Social Realist Causal Analysis Model of the ELSP Efficacy



With regard to powers of activated structures that operate within and across different time frames, this is related to Archer's theory of analytical dualism as described in Chapter 3, section 3.4. An example would be that of the system of Apartheid developed in the late 1950s by the National Party that led to Apartheid conditions. These conditions influenced the lives of contractors and beneficiaries as they grew up. Twenty years after Apartheid was abolished, the impacts of the Apartheid system and conditions are still highly visible and tangible in the lives of beneficiaries and contractors via their available education and career options and the decisions they make based on the enabling and constraining factors in their lives. Thus, one begins to see how the powers of structure can operate across time frames, separate to the activities of agents. However, further to analytical dualism, elaboration and modification of structures are not investigated in this study in particular.

**Analytical statement 5: Social constraints and enablers are the predominant conversion factors that can affect the conversion of resources such as education opportunities into actualised functionings.**

When viewing the conversion factors in the Actual Domain of the causal analysis model (Figure 7.1) and based on the thick descriptions in Chapter 6, social constraints and enablers dominate personal and environmental constraints and enablers. Thus, it can be said that the conversion of educational resources into occupational and socio-economic functionings (see Chapter 3, section 3.5 on Sen's capability approach terminology) is strongly linked to the variety of social factors that the beneficiaries and contractors experience in their lives (see Appendix J, an introduction to all beneficiaries and contractors enrolled on the ELSP). Social enablers or combinations of social enablers, can overcome powerful personal constraints. An example would be of a beneficiary who has active epilepsy (a personal constraint) that he experienced during the ELSP pilot, which could have disrupted his chances of completing the course. But with a supportive family and a financially stable parental unit, he attended well-run medical facilities and was encouraged to return to the ELSP pilot. With his own determination and self-belief, he completed the course (as seen in the Empirical Domain), despite his medical condition.

### 7.3.1.1 Recommendation

WfW training authorities (and broader EPWP training authorities) are aware of the difficult lives that most beneficiaries and contractors lead. The difficulty of their lives (structural limitations, constraining conversion factors, socio-economic situations, conditions of poverty etc.) suggests that in this context, one model does not fit all in terms of choice of educational approach (Mohano, 2013; Giqua, 2011; Masara, 2010; Hamaamba, 2004). There are limits and boundaries in terms of what a service provider can realistically achieve in the WfW context, and an understanding of how far a service provider is expected to go in terms of support should be established.

The White Paper for Post-School Education and Training (DHET, 2013b) starts to tackle the interface between public programmes and accredited training with the move towards community colleges, where it is specifically mentioned

Community colleges will have to link directly with the work of public programmes to provide appropriate skills and knowledge. These programmes include the Expanded Public Works Programme (EPWP) ... Such programmes can provide work-integrated learning opportunities while the colleges provide classroom and workshop-based learning. There is an important role for SETAs in facilitating such partnerships. (DHET, 2013b, p. 22)

This is an encouraging move, and it is recommended that WfW look to strengthen public and private partnerships with community colleges in order to provide the appropriate environment and necessary support needed for the ELSP and other training. This move may weaken some of the main constraining conversion factors applicable to both beneficiaries and contractors.

For example, it has been identified that in the lives of some beneficiaries and contractors, fragmented family structures and living environments have made it difficult to complete educational opportunities in the past. Additionally, transport to and from places of education and training is problematic in terms of affordability. Offering a supportive and specialised training environment (such as a sleeping over venue where meals are provided, with dedicated study areas) to people who have difficulties at home (such as overcrowded living spaces and no electricity) could help in removing the social constraint, even temporarily, to achieve completion of the course work. In terms of the learning pathway terminology expressed earlier, this

approach would be a supportive and guided approach to reaching certain stepping stones. Ultimately, it is the agent's choice as to what direction they step in or whether they take any steps at all, but a proactive approach by training authorities and service providers in bringing the stepping stones closer together is recommended.

Returning to the White Paper for Post-School Education and Training, (introduced in Chapter 3, section 3.6), the Department of Higher Education and Training recognises the difficulties that affect the majority of South Africans who struggle to access adult education, and as such the Department has a distinct mandate:

The focus on 'community' implies that these colleges are located within communities, and that they will contribute to local needs and local development, building social agency and social cohesion. Links to communities will take several forms, including building relationships with NGOs, CBOs, local government, and the local economy and labour markets. (DHET, 2013b, p. 22)

### **7.3.2 The enabling and constraining elements of family structure and children**

**Analytical statement 6: Family structures and children are seemingly two of the most influential social conversion factors that are both enabling and constraining.**

As can be viewed in Figure 7.1, an interesting finding is that families and children are both enabling and constraining factors in the lives of beneficiaries and contractors. As explained in Chapter 6 (section 6.2), family structure can constrain or enable a person's opportunities depending on how dependent the family and extended family are on the individual, and depending on how supportive the family is of the individual. The support referred to is both financial and emotional support, and the stories related by the contractors and beneficiaries (excerpts in Chapter 6) are evidence of this.

Similarly, raising children can constrain an individual in that they feel the need to prioritise work and earning money to service the immediate needs of children, over developing themselves educationally towards a better future. However, children can also act as a motivator to work hard, to search for better work and to pursue further education in order to increase earning potential in the future. Relating to the capability approach (Sen, 1999) and social realism (Carter

& New, 2004; Sayer, 2000), in the domain of the empirical it is observable that many WfW beneficiaries and contractors prioritise caring for their children by taking any paid work they can find. This is a result of various social, environmental and personal enabling and constraining factors (in the actual domain), which are determined by activated powers of the structures in the real domain (for example, those listed in Figure 7.1).

Beneficiaries may prefer to be and do differently; for example, they may prefer to have their children supported by government and family while they return to school or studies. But their freedom to choose that option (agency) is limited by various structurally determined factors (Sen, 1999; Archer, 1995) such as unreliable child grants, living far away from relatives, a lack of schooling options or barriers to accessing the available learning options such as not having a matric certificate.

#### **7.3.2.1 Recommendation:**

Recognition of the importance of family and children in both an enabling and constraining role, allows for two recommendations. Firstly, acknowledging that families and children can be constraining in terms of self-development further emphasises the need for clearer pathways into Green Economy occupations (recommendation 7.2.4.1). When a person's focus is so clearly set on immediate financial gain to look after family and children, a supportive action on the part of the South African government (DHET or DEA) could be to facilitate further research (via directive and funding) into elementary green occupations and their pathways. Sharing this important information could help in broadening narrow occupational vision (when a person is focussed on servicing immediate family needs), strengthening the chances of individuals being able to lead the types of lives they value leading, and could help beneficiaries to be and do as they want to be and do.

Secondly, if it is acknowledged that families and children are major motivators for individuals towards improving their quality of life, there is an opportunity to build this motivation into the ELSP course materials. There is little mention in both the beneficiary and contractor courses on the meaning that environmental degradation has in terms of impacts on the individual and specifically on their families and children. Understanding how passionately people feel about improving the range of opportunities available to their children, it is then possible to leverage off

this social enabler to make the materials and content more accessible and applicable to the context of the beneficiaries and contractors. It is recommended that activities and material be revisited to include content and questions such as ‘What does global warming mean for my children?’ or ‘What most worries me about global warming, and what can our society do to lessen our impact on the environment?’ It would be useful to build ideas such as these into the content that could be more tangible and meaningful to learners on the ELSP, versus content that is highly removed from the individual’s real world environment. This could possibly make elements of the course more meaningful and could provide further motivation for completing the course.

### **7.3.3 Cognisance of structures and their powers and liabilities**

**Analytical statement 7: Underlying objects, with their structures, powers and liabilities, influence the options and choices that agents (beneficiaries and contractors) can make with regard to their educational and occupational pursuits.**

The analytical statement above is broad based and generalised, as the objects identified in the Real Domain (Figure 7.1) are numerous and equally broad in their expansive structures and influential power. However, it is recognised that there are many levels and sects of government and educational structures that interlink and influence the lives of beneficiaries and contractors.

In applying the capability approach as a theoretical framework in this study, it is recognised that along with structural powers and liabilities, people’s choices and decisions are enabled and constrained by social, personal and environmental conversion factors. The existence of most of the conversion factors (in particular, social conversion factors) is due to structure and agency interplay (Sayer, 2000). With this basic theory laid down, it is possible to argue on an equally basic level that broader educational structures (such as DHET) influence the accredited training structures that beneficiaries and contractors have interacted with on the ELSP pilot, through the WfW and the broader structure of the EPWP. This is illustrated in Figure 7.2 on the following page.



**Figure 7.2: The chain of influence from broader educational structures and Government structures, through to the WfW beneficiaries and contractors that interact with these structures**

There are certain limitations caused by the powers and liabilities of educational structures that affect beneficiaries and contractors, and that is an important factor to note, even if it is difficult to put into a solid recommendation for the purposes of this study. A key example, mentioned in Chapter 6, section 6.3.1.1, stands out. A beneficiary with proficient English skills had written her final exams at the end of Level 4 of ABET, only to have the exam papers lost by the department officials. This impacted on her life in many ways, but importantly the structural liability that she experienced restricted her movement along a learning trajectory and limited her options and possible choices going forward. The White Paper for Post-School Education and Training admits that adult and post-school youth education opportunities thus far (such as Public Adult Learning Centres) have “been insufficient, and their quality has generally been poor. Public Adult Learning Centres are the only state-funded institutions that offer general education to adults, and their efforts have been inadequate” (DHET, 2013b, p. 21).

### **7.3.3.1 Recommendation**

A full breakdown of the structural powers and liabilities of the accredited training system could be an important step towards improving accredited training processes nationally. There are numerous factors, ranging from service provider issues to SETA related issues, which hinder the progress of learners through accredited training processes to the successful attainment of qualifications (C. Makunike, personal communication, 2013; J. Turner, personal communication, 2012; Fourie et al., 2013). These were experienced pre-, during and post- the ELSP pilot. Understanding where these structural difficulties lie, can help service providers to plan and negotiate the difficulties in a proactive way and could be used by the SETAs to understand how and where their structural liabilities ultimately affect the learning trajectory of learners, albeit in an EPWP context.

A basic example and recommendation for the ELSP is that the SETA signing process for corrections of POEs is extremely time consuming and arduous when service providers are not in

close proximity to the learners. At least four learners didn't complete the ELSP due to restricted access to the trainers, and the length of time they had to wait between sessions. For all ELSP training, the service providers chosen for the training should be located in the city closest to the training group and regular tutoring sessions should be arranged. This would reduce a barrier that restricts learners from achieving their educational goals, and would enable WfW to reach their training quotas.

However, should the community college system (as suggested in the White Paper for Post School Education and Training) roll out timeously and efficiently, many of the constraining factors that affect WfW beneficiaries and contractors could be limited or reduced. The White Paper states, "Communities also have learning needs which are not catered for by the current public education and training institutions ... The state has a responsibility to meet these needs to the best of its ability" (DHET, 2013b, p. 20).

#### **7.4 IMPLICATIONS OF THE STUDY FOR THE EPWP IN THE CONTEXT OF AN EMERGING GREEN ECONOMY**

While the EPWP and the Green Economy are linked (as explained in Chapter 2, section 2.4.2), the implications of this study for each of these can be discussed separately and as a whole.

##### **7.4.1 Implications for the EPWP**

The main implications of this research for South Africa's EPWPs centre on the training portfolios that the different EPWPs design and implement. This study implies that environmental training options (such as the ELSP and the Environmental Practices qualification from which it is derived) are useful to EPWP beneficiaries and contractors more generally than specifically. Currently, they improve understanding of environmental issues and facilitate the development of skills that are useful in environmental work, but they do not direct people into specific green occupations.

Looking at beneficiary training in particular, one of the larger implications of this study (as discussed in Chapter 5, section 5.2.1.2) is that the issue of English language abilities and literacy separates those who can access NQF Level 2 courses from those who cannot. The broader implication is that since the majority of beneficiaries in WfW nationally are not literate in English (and in some cases, cannot read and write in the vernacular), accredited training that requires

written, original evidence in English will exclude the majority of WfW beneficiaries. This exclusion thus raises the question of how accessible accredited training is in the overall EPWP context. However, those who are illiterate in English should not be denied the opportunity to access accredited training. Rather, the purpose is to explain that structural racial policies of the past have impacted on the majority of WfW and other EPWP beneficiaries in terms of English literacy. Thus, it could be argued that the present policy structures (regarding English) of accredited training systems elaborate the liabilities caused by Apartheid structures of the past in an EPWP context.

Thus, when environmental training in the EPWP context is planned, the structural constraints that beneficiaries and contractors will experience in the process of accredited training should be carefully considered before investing in that particular methodology of education.

#### **7.4.2 Implications for the Green Economy**

Referring back to Chapter 2 and Carl Death's analysis of differing Green Economy discourses, Death (2014) cautioned that it is important for national structures to consider the range of discourses carefully, in particular those that promote social equity, as with a largely Green Growth focus the Green Economy may perpetuate the socio-economic divide. It is acknowledged that the EPWPs support the transition to and maintenance of a Green Economy, as the EPWPs are responsible for many of the natural resource management schemes. WfW, Working for Wetlands, Working for Ecosystems, Working on Fire, Working for the Coast and others all aim at protecting and conserving South Africa's natural resources to ensure sustainable development in line with Green Economy objectives (see Chapter 2, section 2.5).

Therefore, it is suggested that to meet Green Economy objectives, the South African government rely heavily upon EPWP workers (including WfW). When viewed from a capability approach perspective, EPWP labour is minimum wage labour, and this study begins to suggest that by working on EPWPs, upskilling and occupational training (albeit well intentioned) does not necessarily translate into enabling functionings (achievements or outcomes) that will allow beneficiaries and contractors to lead the kind of life they value leading (freedom). Returning to Death's statement on perpetuating the socio-economic divide, this study implies that the benefits of a Green Economy may not as yet be felt by those who work in EPWP programmes

(specifically in relation to education and career pathing), even though they are named in large numbers in the green jobs projections (Maia et al., 2011). Unless beneficiaries and contractors can gain tangible benefits, achieving valued beings and doings, the Green Economy (as a model of economic, social and environmental development) might not offer true freedoms to those who are seeking to access pathways out of poverty.

#### **7.4.3 Implications for the EPWP and the Green Economy as a whole**

To summarise, the Green Economy is reliant on the services that the EPWPs supply in terms of looking after South Africa's natural capital. However, the high skills development strategy (McCord, 2005) adopted by government does not seem to service the needs of the EPWP beneficiaries and contractors. Evidence of this is displayed by a lack of elementary green occupations found on the OFO and the complete lack of Major Group 8 occupations on the National Scarce Skills List: Top 100 occupations in demand (DHET, 2014). It is debateable whether accredited training can add to the development of low- and mid-level environmental skills in the EPWP context, based on the constraining structural requirements of such training, and the lack of a focussed link to actual green occupations. Unless research is done into identifying Major Group 8 occupations, and unless career guidance and platforms of engagement are created for people to move towards these occupations, it is felt that the ELSP may have limited effects in terms of career progression. This indicates that a reliance on supply programmes alone are inadequate and further efforts to engage a systems-based approach are needed, as also recommended by the ESSP (DEA, 2010) and the more recent national green skills system building programme started in 2015 (Green Skills Project homepage, 2016).

### **7.5 LIMITATIONS OF THE STUDY AND THE RESEARCH PROCESS**

#### **7.5.1 Limited scope**

The scope of this study was limited to a small sample of WfW beneficiaries and contractors, situated specifically in the Eastern Cape and under the jurisdiction of the implementing agent, Gamtoos Irrigation Board. Thus, it is not advisable to use this study as an example applicable to the national WfW context. However the results include causal mechanisms or reasons (as established in section 7.4.1 above) that could be generalisable in that they are common to many people, and the causal mechanisms link to conversion factors in people's lives that are thus

generalisable too, as can be seen from the brief overview of other studies conducted at this level (Mohano, 2013; Giqwa, 2011; Masara, 2010; Hamaamba, 2004, referred to in Chapter 2). Importantly, events observed and experienced in the Empirical Domain cannot be said to be typical of all WfW beneficiaries, contractors and training contexts. I therefore advise against use of this study in such definitive applications; it would be preferable to generalise at the level of the mechanism (i.e. one can say that many beneficiaries do not have matric, based on lack of finances, family pressure, social problems etc., and those are generalisable mechanisms that exist across the country due to the impacts of apartheid and other related factors).

The patterns that have emerged in this study echo patterns in studies such as those of Mohano (2013), Giqwa (2011) and Masara (2010); in particular issues of English instruction and language of learning, limited opportunities in work and learning pathways for elementary occupation workers (DEA, 2010) and the difficulty of meeting SETA accredited training requirements in municipal and EPWP contexts, indicating that this is an area worthy of further consideration at a more generalised level.

### **7.5.2 Limited language and cultural context**

Due to the limited scope as described above, only English, Afrikaans and isiXhosa languages were observed in this study. Similarly, only cultural factors relating participants who were amaXhosa, coloured and white (using South African race categories) were observed and noted in the results of this study. Eight other official languages and associated language-culture factors (and variations thereof) exist in South Africa, and this study is not inclusive of the full spectrum of South African language-culture experiences.

### **7.5.3 'High level' of learner compared to the average WfW learner**

The ELSP pilot group comprised learners who were considered above average (compared to the broad base of WfW beneficiaries and contractors) in terms of their prior education and their learning abilities. This is not how learners are selected in typical EPWP training, and as such one cannot expect the number of people who pass through the training successfully to be similar to the numbers displayed in the pilot.

#### **7.5.4 Specific conditions of the pilot**

The pilot conditions (events happening locally and nationally at the time) would have influenced results, which add to the empirical uniqueness of the results. It is the nature of case study to be unique and dynamic (as described in Chapter 4, section 4.4.2) and this case study is limited in its generalisability for WfW as a whole. The service provider that implements training (in the pilot's case, WESSA) also brings with it the conditions that they experience during the same period, adding another layer or set of structural influences to consider.

The condition that most affected the research process itself was that of the WfW 'layoff' that occurred parallel to the ELSP pilot training period. Beneficiaries and contractors were not paid and further work was halted indefinitely, causing many of the people who had been part of the pilot moved to different towns (some as far as Cape Town) to find better job prospects. While this was interesting as a finding, it limited my access to those individuals for interviews and additionally made some of the participants feel uneasy about giving their time to a person who was, in their minds, affiliated to WfW.

### **7.6 RECOMMENDATIONS FOR FURTHER RESEARCH**

In the presentation of the analytical statements, recommendations for further research have already been mentioned. To prevent lengthy repetition, they are summarised below:

#### **7.6.1 Elementary green occupations**

It is recommended that further research be initiated around actual elementary green occupation options in both the formal and informal market (including more in-depth research into recycling occupations). This research could possibly highlight occupations that require classification on the OFO and would also be helpful in supporting career advice for beneficiaries and contractors who receive EPWP training.

Additionally, detailed research into the occupational pathways (or myriad stepping stones and workstreams) that people do and could potentially take towards these occupations could be investigated. There may be valuable information showing training options (such as mentoring, apprenticeships, entrepreneurial know-how etc.) that facilitate career path progression, which could challenge, extend and improve structured accredited training options.

### **7.6.2. Main liabilities associated with accredited training structures**

A broader recommendation that is not specific to green occupations would be to perform research into the main liabilities (or restrictions) of accredited training structures as they are currently operationalised via the SETA system. A review of the main structural problems that service providers incur when implementing accredited training in the EPWP context could highlight problem areas, such as workplace based assignments as experienced in this study, which may be useful if and when the SETAs wish to review their own systems.

### **7.7 CONCLUSION: IF AND HOW DOES THE ELSP RESPOND TO WFW LEARNERS' CAPABILITIES AND THE ENABLING AND CONSTRAINING FACTORS THAT SHAPE THESE, AND TO THE DEMANDS OF THE WFW TRAINING SETTING IN AN EMERGING GREEN ECONOMY?**

The ELSP does respond to WFW learners' capabilities and educational background to some degree. As has been established in section 7.2, one of the key issues identified during training was language, which created a knock-on effect of other problems such as time limitations. The facilitators responded to capabilities that stemmed around language with translation, one-on-one tutoring and extra corrections sessions, and the facilitators are versed in Active Learning, which means they utilise learning methodologies that are participatory and investigative, encouraging learners to relate content back to their own lives. However, it does not respond to the fact that many learners are missing sects of information in their prior learning (from exiting school in early high school or late primary school), which the unit standards assumes to be in place (for example, a basic understanding of ecosystems in Module 1).

The ELSP falls short on performing positively in the WfW training environment on many fronts. It does not respond to the restrictions on learners' time and their responsibilities at home, it does not respond to the erratic and unstable nature of WfW's operations, and it does not respond to the fact that many learners have never done project work before (which is a large part of the assessment activities in certain modules). The accredited training structures that are built into the ELSP are often in conflict with enabling and constraining factors in the learners' lives and in conflict with WfW's operational and training context, which makes it hard to achieve competency. In essence, a highly structured course being implemented in the uncertain EPWP context over time may not necessarily be the best choice in terms of an educational pursuit for

beneficiaries and contractors unless the nature of the accreditation system is changed under the future community college system.

The WfW training setting typically demands training that helps beneficiaries and contractors perform their work in WfW, with an assumption that these courses will help in finding employment outside of the programme. The ELSP provides environmental knowledge and insights into the purpose of WfW work, but it does not answer to the operational demands of WfW in general. In other words, it is 'nice to have' training option as opposed to a 'have to have' training programme.

WfW invested in environmental training as a result of national policies supporting the development of a Green Economy, but without the tangible link between what the course is teaching and where it can be applied vocationally, it is failing to respond to learners' broader capabilities and the enabling and constraining factors that shape these. A learner cannot convert the resource of environmental training into the functioning of employment if the link, or occupational stepping stone, or awareness of, and access into appropriate green jobs is missing.

Ultimately, the ELSP is responsive, however it is not responsive enough for WfW beneficiaries and contractors to utilise it in the WfW training context, when considering learner capabilities and the enabling and constraining factors that shape these.

### **7.7.1 Usefulness**

This study suggests that the ELSP is useful in supporting the development of environmental knowledge and skills, despite academic and practical usability limitations, and the difficulties associated with accredited training structures. Whether or not these skills will help people access elementary green occupations remains an unclear finding for two reasons. Firstly, because it has not been possible to track all the beneficiaries and contractors who took part in the course to understand if it has been useful in career progression, which thus means the results cannot be generalised to other contexts of environmental employment. Secondly, the lack of information and public discussion regarding actual accessible green elementary occupations acts as an obscuring factor.

### **7.7.2 Key recommendations for future ELSPs in the WfW context**

If the ELSP was to be run in the future in the WfW context, I would recommend that careful planning take place between the on-the-ground managers, the training and development coordinators as well as a student (contractor/beneficiary) representative who can voice concerns and ask questions (supporting their agency). Making trainers aware of constraints in the learners' lives makes it easier to plan and to think about ways to help learners through legitimate constraints. Due to the erratic nature of WfW operations (as experienced during the ELSP pilot), this kind of planning is necessary when considering expensive accredited training options. Additionally, dual-language facilitators who are well trained in participatory education techniques are instrumental to the success of ELSP training, at both the beneficiary and contractor level. The service provider must be in close proximity to the learner group to arrange more frequent study sessions, as well as to be able to observe learners in their workplace.

### **7.7.3 Study contribution**

As posed in the problem statement in Chapter 1, there is a lack of research and literature that focuses on capabilities within the environmental training sector. Masara (2010) explained that there was a need for socio-cultural, political and economic complexities to be researched to limit constraints in learning programmes. This study looks critically at how underlying structures influence training and development outcomes, and will be useful for researchers who want to understand key challenges in accredited training as well as limitations in occupational and learning pathway progression in an environmental and Green Economy context.

## References

- Alkire, S. (2008). Using the capability approach: Prospective and evaluative analyses. In F. Comim & M. Qizilbash (Eds.), *The capability approach: Concepts, measures and applications* (pp. 26–50). Cambridge: Cambridge University Press. Retrieved 20 February, 2014, from <http://www.ophi.org.uk/wp-content/uploads/Alkire-Using-Prospective-Eval-07.pdf>
- Archer, M. S. (1995). *Realist social theory: The morphogenetic approach* (1<sup>st</sup> ed.). Cambridge: Cambridge University Press.
- Bassey, M. (1995). *Creating education through research: A global perspective of educational research for the 21st century*. Newark: Kirklington Moor Press.
- Bassey, M. (1999). *Case study research in educational settings*. Buckingham, Philadelphia: Open University Press.
- Bhaskar, R. (1979). *The possibility of naturalism*. London: Routledge.
- Bhaskar, R. (1998). General introduction. In M. Archer, R. Bhaskar, A. Collier, T. Lawson, & A. Norrie (Eds.), *Critical realism: Essential readings* (pp. 1-18). London: Routledge.
- Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40.
- Buch, A., & Dixon, A. B. (2009). South Africa's Working for Water Programme: Searching for win-win outcomes for people and the environment. *Sustainable Development*, 16(3), 129–141. Retrieved March 11, 2013 from <http://0-onlinelibrary.wiley.com.wam.seals.ac.za/store/10.1002/sd.359/asset/359ftp.pdf?v=1&t=huvmwvel&s=069dbf5772af276c83d6d73208fb5483a0103894>
- Carter, B., & New, C. (Eds.) (2004). *Making realism work*. New York: Routledge.
- Cohen, L., Manion, L., & Morrison, K. (Eds.). (2007). *Research methods in education* (6th ed.). New York: Routledge.
- Connole, H. (1998). The Research Enterprise. In H. Connole, B. Smith, & R. Wiseman (Eds.), *Issues and methods in research: Study guide* (pp. 17 – 42). Underdale, SA: Distance Education Centre, University of South Australia.
- Crocker, D. A. (2008). *Ethics of global development: Agency, capability and deliberative democracy*. New York: Cambridge University Press.
- Crocker, D. A., & Robeyns, I. (2010). Capability and Agency. In C. W. Morris (Ed.), *Amartya Sen* (First., pp. 60 – 90). New York: Cambridge University Press.
- Danermark, B., Ekstrom, M., Jakobsen, L., & Karlsson, J. (Eds.). (2002). *Explaining society. Critical realism in the social sciences*. London: Routledge.
- Davies, S. M. (2009). *The potential of a stratified ontology for developing materials in community-based coastal marine environmental education processes*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Death, C. (2014). The green economy in South Africa: Global discourses and local politics. *Politikon: South African Journal of Political Studies*, 41(1), 1–22. doi:10.1080/02589346.2014.885668
- Department of Environmental Affairs (DEA). (2008). *National Framework for Sustainable Development*. Pretoria.

- Department of Environmental Affairs (DEA). (2010). *Environmental Sector Skills Plan for South Africa*. Pretoria. Retrieved April 20, 2013 from [www.environment.gov.za](http://www.environment.gov.za)
- Department of Environmental Affairs (DEA). (2011). *National Strategy for Sustainable Development and Action Plan (NSSD 1)* (pp. 6–37). Pretoria. Retrieved April 20, 2013 from [www.environment.gov.za](http://www.environment.gov.za)
- Department of Environmental Affairs (DEA). (2012). Working for Water training matrix. Cape Town: Department of Environmental Affairs.
- Department of Environmental Affairs (DEA). (2013). *Working for Water homepage*. Retrieved January 20, 2013, from <https://www.environment.gov.za/projectsprogrammes/wfw/about>
- Department of Higher Education and Training (DHET). (2011). *National Skills development Strategy III* (pp. 1–27). Pretoria. Retrieved January 20, 2013 from [http://www.etdpseta.org.za/live/index.php/component/docman/cat\\_view/27-skills-development/39-nsds-iii?Itemid=](http://www.etdpseta.org.za/live/index.php/component/docman/cat_view/27-skills-development/39-nsds-iii?Itemid=)
- Department of Higher Education and Training (DHET). (2012). *Organising Framework for Occupations (OFO) 2012*. Pretoria.
- Department of Higher Education and Training (DHET). (2013a). *Organising Framework for Occupations (OFO) 2013*. Pretoria.
- Department of Higher Education and Training (DHET). (2013b). *White paper for post-school education and training*. Pretoria.
- Department of Higher Education and Training (DHET). (2014). *Call for comments on the National Scarce Skills List: Top 100 Occupations in Demand* (pp. 3–23). Pretoria.
- Department of Labour. (2010). Basic Conditions of Employment Act, 1997. Pretoria: Department of Labour.
- Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management*, 39(1), 118–128. doi:10.1016/j.indmarman.2008.06.004
- Eisner, E. (1985). *The educational imagination* (2nd ed.). New York: MacMillan.
- Elster, J. (1998). A plea for mechanisms. In P. Hedström & R. Swedberg (Eds.), *Social mechanisms: An analytical approach to social theory* (pp. 45–73). Cambridge: Cambridge University Press.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023. Retrieved April 20, 2014 from <http://www.jstor.org/stable/10.1086/231294>
- Flick, E., von Kardoff, E., & Steinke, I. (2004). *A companion to qualitative research*. London: Sage.
- Fourie, K., Rowlands, K., & Wigley, J. (2013). *Working for Water training needs analysis*. Howick: WESSA.
- Giqwa, N. L. (2011). *Investigation of learning in an Environmental skills programme : a case study of workers' training in the Department of Environmental Affairs Expanded Public Works Project*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Green Skills Project homepage*. (2016, November 11). Retrieved November 11, 2016, from <http://www.greenskills.co.za>

- Hamaamba, T. (2004). *Training needs for municipal employees: A case study of Makana Municipality*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Harris, R., Rainey, L., & Sumner, R. (2006). *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education*. Australia: Adelaide. Retrieved March 13, 2013 from <http://files.eric.ed.gov/fulltext/ED495911.pdf>
- Hays, S. (1994). Structure and agency and the sticky problem of culture. *Sociological Theory*, 12(1), 57–72. Retrieved June 20, 2013 from <http://links.jstor.org/sici?sici=0735-2751%28199403%2912%3A1%3C57%3ASAAATS%3E2.0.CO%3B2-J>
- Heap, B., & Kent, J. (2000). *Towards sustainable consumption: A European perspective*. London: Royal Society.
- Hope, R. . (2006). Water, workfare and poverty: The impact of the Working for Water Programme on rural poverty reduction. *Environment, Development and Sustainability*, 8(1), 139–156. doi:10.1007/s10668-005-1780-4
- Hough, J. (2010). *Beneficiary dependence on the South African Working for Water Programme: A multi-site case study of four projects in the Western Cape*. University of Stellenbosch, Stellenbosch. Retrieved March 13, 2013 from <http://hdl.handle.net/10019.1/5428>
- Hough, J. A., & Prozesky, H. (2012). Beneficiaries' aspirations to permanent employment within the South African Working for Water Programme. *Social Dynamics: A Journal of African Studies*, 38(2), 331–349. doi:10.1080/02533952.2012.719395
- Hough, J., & Prozesky, H. (2013). "I don't want to go back to the farm': A case study of Working for Water beneficiaries. *South African Journal of Science*, 109(9), 1–8.
- Intergovernmental Panel on Climate Change (IPCC). (2014). *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (p. 151). Geneva, Switzerland.
- Knipe, A. (2004). *The development of independent contractors within the Working for Water Programme over a twenty-four month period: A programme evaluation: western region, Eastern Cape*. Rhodes University, Grahamstown.
- Lotz-Sisitka, H., & Ramsarup, P. (2012). *Absenting absences in learning pathways: A methodological exploration*. SAQA / Rhodes University discussion paper
- Maia, J., Giordano, T., Kelder, N., Bardien, G., Bodibe, M., Du Plooy, P., Jafta, X.; Jarvis, D.; Kruger-Cloete, E.; Kuhn, G.; Lepelle, R.; Makaulule, L.; Mosoma, K.; Neoh, S.; Netshitomboni, N.; Ngozo, T.; Swanepoel, J. (2011). *Green jobs: An estimate of the direct employment potential of a Greening South African economy* (pp. 1–159). Retrieved March 20, 2013 from <http://www.idc.co.za/projects/Greenjobs.pdf>
- Makunike, C. (2013). Unpublished interview to support contextual profiling of Working for Water. Pretoria.
- Mantzoukas, S. (2005). The inclusion of bias in reflective and reflexive research: a necessary prerequisite for securing validity. *Journal of Research in Nursing*, 10(3), 279 – 295.
- 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.
- Mbeki, T. (2003). *State of the Nation Address of the President of South Africa*. Houses of Parliament, Cape Town. Retrieved March 12, 2013 from <http://www.gov.za/state-nation-address-president-south-africa-thabo-mbeki-houses-parliament-cape-town-14-february-2003>

- McCord, A. (2005). A critical evaluation of training within the South African national public works programme. *Journal of Vocational Education and Training*, 57(4), 565–588. Retrieved from April 11, 2013 from [http://www.saldru.uct.ac.za/pwp/papers/McCord Journal Vocational and Educational Training 57\\_4\\_proo.pdf](http://www.saldru.uct.ac.za/pwp/papers/McCord%20Journal%20Vocational%20and%20Educational%20Training%2057_4_proo.pdf)
- McGrath, S., Badroodien, A., Kraak, A., & Unwin, L. (Eds.). (2004). *Shifting understandings of skills in South Africa: Overcoming the historical imprint of a low skills regime*. Cape Town: HSRC Press.
- McKenzie, P. (2000). *Pathways for youth in Australia*. Retrieved July 12, 2014 from [http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=lsay\\_conference](http://research.acer.edu.au/cgi/viewcontent.cgi?article=1001&context=lsay_conference)
- Meyer, S., & Lunnay, B. (2013). The application of abductive and retroductive inference for the design and analysis of theory-driven sociological research. *Sociological Research Online*, 18(1). Retrieved September 21, 2015 from <http://socresonline.org.uk/18/1/12.html>
- Mohanoe, N. E. (2013). *Learning pathways of key occupations relevant to sustainable development in Makana Municipality*. Unpublished master's thesis, Rhodes University, Grahamstown.
- National Planning Commission (NPC). (2012). *National Development Plan 2030. Our future - make it work*. Retrieved June 20, 2013 from <http://www.statssa.gov.za/wp-content/uploads/2013/07/NDP-2030-Our-future-make-it-work.pdf>
- Raffe, D. (2003). Pathways linking education and work: a review of concepts, research, and policy debates. *Journal of Youth Studies*, 6(1), 3–19. doi:10.1080/1367626032000068136
- Ramsarup, P. (2016). *A critical realist dialectical understanding of learning pathways associated with two scarce skill environmental occupations within a transitioning systems frame*. Unpublished master's thesis, Rhodes University, Grahamstown.
- Reichertz, J. (2004). Abduction, deduction and induction in qualitative research. In E. Flick, E. von Kardoff, & I. Steinke (Eds.), *A companion to qualitative research*. London: Sage.
- Renganathan, S. (2009). Exploring the researcher – participant relationship in a multiethnic, multicultural and multilingual context through reflexivity. *Qualitative Research Journal*, 9(2), 3–17. doi:10.3316/QRJ0902003
- Richards, R., Ismail, Z., Macun, I., Wildschutt, A., Kimmie, Z., Sias, M., ... Ramkissoo, Y. (2007). *An assessment of the socio-economic impact of the Working for Water Programme on the households of the beneficiaries* (pp. 1–102). Johannesburg. Retrieved March 18, 2013 from [http://www.case.org.za/images/docs/assessment\\_of\\_the\\_socio.pdf](http://www.case.org.za/images/docs/assessment_of_the_socio.pdf)
- Robeyns, I. (2005). The capability approach: A theoretical survey. *Journal of Human Development*, 6(1), 93–117. doi:10.1080/146498805200034266
- Robeyns, I. (2006). The capability approach in practice. *The Journal of Political Philosophy*, 14(3), 351–376. Retrieved January 20, 2014 from <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9760.2006.00263.x/epdf>
- Rosenberg, E., O'Donoghue, R., & Olvitt, L. (2008). *Methods and processes to support change-oriented learning*. Grahamstown: Rhodes University/Share-Net.
- Sayer, A. (1992). Problems of explanation and the aims of social science. In *Methods in social science: A realist approach* (pp. 232–266). London: Routledge.
- Sayer, A. (2000). *Realism and Social Science*. London: Sage. doi:10.4135/9781446218730

- Schmidt, C. (2004). The analysis of semi-structured interviews. In E. Flick, E. von Kardoff, & I. Steinke (Eds.), *A companion to Qualitative Research*. London: Sage.
- Sen, A. (1992). *Inequality re-examined*. Oxford: Clarendon Press.
- Sen, A. (1999). *Development as freedom*. New York: Alfred A. Knopf, Inc.
- Sen, A. (2013). The ends and means of sustainability. *Journal of Human Development and Capabilities: A Multi-Disciplinary Journal for People-Centred Development*, 14(1), 6–20. Retrieved from <http://dx.doi.org/10.1080/19452829.2012.747492>
- South African Qualifications Authority homepage. (2014). Retrieved December 01, 2014, from <http://www.saqa.org.za/>
- Squire, D. (2012). Understanding the “Organising Framework for Occupations” – OFO’s. Skills Portal. Retrieved September 20, 2015 from <http://www.skillsportal.co.za/page/features/contributors/des-squire/1274644-Understanding-the-Organising-Framework-for-Occupations-OFOs#.VBrT5WSUfM4>
- Tao, S. (2013). Why are teachers absent? Utilising the capability approach and critical realism to explain teacher performance in Tanzania. *International Journal of Educational Development*, 33(1), 2–14. doi:10.1016/j.ijedudev.2012.01.003
- Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48(4), 388–396.
- Turner, J. (2012). Unpublished interview with Working for Water Assistant Director of Training to support WESSA Working for Water Training Needs Analysis. Cape Town.
- United Nations Environment Programme. (2013). *Green economy scoping study: South African green economy modelling report (SAGEM)* (pp. 1–128). Retrieved August 9, 2015 from [https://www.environment.gov.za/sites/default/files/docs/publications/greeneconomy\\_modelling\\_report.pdf](https://www.environment.gov.za/sites/default/files/docs/publications/greeneconomy_modelling_report.pdf)
- United Nations. (2000). Millennium Summit of the United Nations. Retrieved December 21, 2014, from <http://www.un.org/en/development/devagenda/millennium.shtml>
- Van Wilgen, B. W., Marais, C., Magadlela, D., Jezile, N., & Stevens, D. (2002). Win-Win-Win: South Africa’s Working for Water Programme. In S. M. Pierce, R. M. Cowling, T. Sandwith, & K. MacKinnon (Eds.), *Mainstreaming biodiversity in development: Case Studies from South Africa* (1<sup>st</sup> ed.). Washington D.C.: The World Bank Environment Department.
- Ward, K., Holliday, E., & Walker, S. (Eds.). (2011). *Wildlife and Environment Society of South Africa: A celebration of 85 years of caring for the earth!* Howick: WESSA.
- Ward, M. (2012). *WESSA’S five-year strategy 2012 - 2015*. Howick: WESSA.
- World Commission on Environment and Development (WCED). (1987). *Our common future (Brundtland Report)*. Oxford: Oxford University Press.
- Wigley, J., & Sisitka, L. (2011). Environmental Education and Training Needs Analysis - To inform the development of a curriculum framework and learning support materials for the National Certificates: Environmental Practices (NQF Levels 1 - 4). Howick: WESSA.
- Wikgren, M. (2005). Critical realism as a philosophy and social theory in information science? *Journal of Documentation*, 61(1), 11–22. doi:10.1108/00220410510577989

Yin, R. (1994). *Case study research: Design and methods*. London: Sage.

Yin, R. (2014). *Case study research: Design and methods* (5<sup>th</sup> ed.). Thousand Oaks, California: Sage.

### **Personal Communications**

Makunike, C. (2013, April 20 ). Director of EPWP Training Support, Department of Public Works, Pretoria. Personal communication.

Molapo, G.R. (2014, June 26). Education Training Development Quality Assurance Specialist, Local Government Sector Education and Training Authority, Johannesburg. Personal communication.

Turner, J. (2012, August 7). Assistant Director of Training, Working for Water, Cape Town. Personal communication.

Turner, J. (2013, November 15). Assistant Director of Training, Working for Water, Cape Town. Personal communication.

Section 7: Appendices

Appendix A: Working for Water Training Matrix 2012

**WORKING FOR WATER PROGRAMME TRAINING MATRIX 2012/13**

COURSE INFORMATION								JOB CATEGORIES					
WRW COURSE #	COURSE NAME	PRIORITY	ACCREDITED Yes / No/Aligned	UNIT STANDARD ID #	NQF LEVEL	CREDITS	COURSE DURATION	CONTRACTOR	MACHINE OPERATOR	HERBICIDE APPLICATOR	PEER EDUCATOR	HEALTH & SAFETY OFFICER	FIRST AIDER
<b>FUNCTIONAL</b>													
1	Induction	Before Operations	Aligned	117049			3	3	3	3	3	3	3
2	Plant Identification	Before Operations	Aligned	252453			1	1	1	1	1	1	1
3	Chainsaw Operations	Before Operations	Yes	117049			10	10	10	10	10	10	10
				117058	2	4							
				117061	2	2							
				117062	2	2							
				117064	3	5							
117069	2	2											
4	Chainsaw Refresher	Every 6 months	Aligned				1	1	1				
5	Brushcutter Operations	Before Operations	Yes	123243	2	5	10	10	10				
6	Brushcutter Refresher	After 6 months	Aligned	123243			1	1	1				
7	Herbicide Applicator	Before Operations	Yes	117966	1	2	3	3		3			
				252453	2	3							
8	Herbicide Refresher	Every 6 months	Aligned	117966; 252453			1	1		1			
9	Pest Control Operator's Course	First month	Yes	123134	1	3	5	5					
10	Environmental Awareness	First month	Yes	12512	1	4	1	1	1	1	1	1	1
11	Chainsaw Management - Chainsaw Mechanics Appreciation	After 6 months	No				5	5					
12	Arbor Team Induction	Before Operations	Aligned	117049			1	1	1	1	1	1	1
13	Arbor Rope Training	Before Operations	Yes	229998	1	2	5	5	5	5	5	5	5
				23000	2	6							
14	Chainsaw Operations - Arbor Team	Before Operations	Yes	117066	3	3	10	5	5				
				117071	3	2							
15	Module 1-Basic Fitness and Mountain Orientation	Month 1	Yes	TBC			10	10	10	10	10	10	10
16	Module 2- Mountain Survival Skills	Month 2	Yes	TBC			10	10	10	10	10	10	10
17	Module 4- Rope Assisted Chainsaw @ 60 degrees	Month 3	Yes	TBC			10	10	10	10	10	10	10

18	<b>Aquatic Weed Team Induction</b>	Before Operations	Aligned	117049			1	1	1	1	1	1	1
19	<b>Aquatic Weed Plant Identification</b>	Before Operations	Yes	252453	2	3	1	1	1	1	1	1	1
20	<b>Herbicide Applicator Training for Aquatic</b>	Before Operations	Yes	117966	1	2	3	3		3			
				252453	2	3							
21	<b>Boat Handling</b>	Within 1 month	No				5	5					
22	<b>Boat Operators'</b>	Within 3 months	No				5	5					
23	<b>Advanced Boat Operators' Course</b>	Within 6 months	No				5	5					
24	<b>Aquatic Refresher Training</b>	Every 6 months	No				2	2	2	2	2	2	2
25	<b>Bio-control Induction</b>	Before Operations	No				1	1	1	1	1	1	1
26	<b>Bio-control Plant &amp; Agent Identification</b>	Before Operations	No				5	5					
27	<b>WIMS/GPS Mapping Introduction</b>	Before Operations	No				2	2					
<b>HEALTH AND SAFETY</b>													
28	<b>First Aid I</b>	Within 1 month	Yes	116509			2						2
29	<b>First Aid II</b>	Within 6 months	Yes	120496			5						5
30	<b>First Aid III</b>	Within 12 months	Yes	120336			5						5
31	<b>Health &amp; Safety Level I</b>	Within 6 months	Aligned	116533			2					2	
32	<b>Health &amp; Safety Level II</b>	Within 12 months	Yes	116533			3					3	
33	<b>Fire Awareness</b>	Before Operations	Yes	117079			1	1	1	1	1	1	1
34	<b>Fire Fighting</b>	Within 6 months	Yes	117082; 123140; 123000			3					3	3
35	<b>Workplace Risk Assessment</b>	Within 3 months	Yes	115101			5					5	
36	<b>Understanding COIDA Procedures</b>	Within 6 months	Yes	116508			3					5	
37	<b>Preliminary Incident Investigation</b>	Within 6 months	Yes	115087			3					3	
38	<b>Advanced Driving</b>	Within 3 months	Yes	257025 or 123257			5						
39	<b>Dangerous Animals Awareness</b>	Within 1 month	No				1	1	1	1	1	1	1
40	<b>Field Safety &amp; Survival</b>	Within 1 month	No				1	1	1	1	1	1	1
41	<b>Snake Awareness</b>	Within 1 month	No				1	1	1	1	1	1	1
42	<b>Safety &amp; First Aid in Working for Water (Refresher)</b>	Annually	No				1	1	1	1	1	1	1
43	<b>First Aid Level 1 for Aquatic Teams</b>	Within 1 month	Yes	116509			3						3
44	<b>First Aid Level 2 for Aquatic Teams</b>	Within 6 months	Yes	120496			3						3

45	Water Safety Level 1	Before Operations	No			3	3	3	3	3	3	3
46	Water Safety Level 2	Within 3 months	No			1	1	1	1	1	1	1
<b>SOCIAL DEVELOPMENT</b>												
47	HIV/AIDS	Annually	Yes	8494		1	1	1	1	1	1	1
48	Peer Educator Course	Before Appointment	Yes	9224		5				5		
49	Counselling	Within 3 months	Yes	13203		10				10		
50	Healthy Living	Within 6 months	Yes	14659		1	1	1	1	1	1	1
51	Personal Finances	Within 12 months	Yes	15092, 11912		1	1	1	1	1	1	1
52	Diversity (Race and Gender)	Within 12	Yes	14664		2	2	2	2	2	2	2
53	Adult Learning (Literacy/Numeracy - ABET)	As arranged	Yes									
<b>CONTRACTOR DEVELOPMENT</b>												
54	WFW Contractor Course Unit 1-11	Within 6 months	No			10						
55	WFW Contractor Course Practical	Within 6 months	No			2						
56	WFW Contractor Course Unit 12-16	Within 12 months	No			5						
57	WFW Contractor Course Unit 17-19	Within 18 months	No			3						
58	Advanced Entrepreneur Course	Within 24 months	No			2						
59	Worksite management	Within 6 months	No			1						
<b>TOTAL TRAINING DAYS PER JOB CATEGORY</b>												

<b>54 courses</b>
<b>26 unit standard aligned</b>
<b>28 no unit standards or unit standard aligned</b>
<b>Accredited Training Target 40%</b>
<b>Non-accredited Training Target 60%</b>

**Courses 12 to 17 : Under review as Arbor Teams may no longer**  
**Courses marked in pink - awaiting in-house course outcomes.**

## Appendix B: Specific Outcomes and Assessment Criteria for all ELSP Modules

ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 2 (WFW BENEFICIARIES)			
Module	Title	Unit Standard	Credits
1	<b>Understanding Our Natural Environment</b>	<b>Unit Standard 116064: Recognise and identify the basic functions of the ecological environment</b>	<b>4</b>
<b>SO 1:</b>  Recognise patterns and processes of the environment and how they relate to the sustainable utilisation of agricultural land.		<b>AC 1:</b> Rainfall patterns and distribution are explained.  <b>AC 2:</b> The broad distribution of the fauna and flora in South Africa in both the past and the present is explained, and the concept of ecosystems is described.  <b>AC 3:</b> The relationship between climate, soil and indigenous vegetation is explained.  <b>AC 4:</b> Methods of generating alternative energy are understood.	
<b>SO 2:</b>  Demonstrate an understanding of natural resources and recognise their limitations within the agricultural environment.		<b>AC 1:</b> Natural resources and their uses are identified and explained.  <b>AC 2:</b> Different waste resources are identified and explained.  <b>AC 3:</b> Different energy resources and alternative energy resources (renewable) are identified and different uses and applications are explained.	
<b>SO 3:</b>  Demonstrate an understanding of sustainable agricultural principles.		<b>AC 1:</b> Basic preparation and application of natural fertilizers are described.  <b>AC 2:</b> Basic methods of natural pest control are described.  <b>AC 3:</b> Basic soil conservation methods are described.  <b>AC 4:</b> Basic crop rotation methods are described.	
<b>SO 4:</b>  Recognise environmental degradation indicators.		<b>AC 1:</b> Soil erosion is recognised.  <b>AC 2:</b> Basic signs of land degradation are recognised.  <b>AC 3:</b> Invasive species are identified.  <b>AC 4:</b> Basic pollution symptoms are recognised.	

ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 2 (WFW BENEFICIARIES)			
Module	Title	Unit Standard	Credits
2	<b>Understanding and Using Environmental Management Tools</b>	<b>Unit Standard 119554: Apply environmental management tools to assess impacts</b>	<b>5</b>
<b>SO 1:</b>  Identify a variety of potential and actual impacts on the environment and use the correct terminology to describe them.		<b>AC 1:</b> General components of the environment and their interrelationships are identified and described appropriately and accurately.  <b>AC 2:</b> General impacts of human activities on the biophysical environment are identified and described appropriately and accurately.  <b>AC 3:</b> Specific impacts of human activities on the environment in the learner's context are identified and described appropriately and accurately.  <b>AC 4:</b> Environmental terminology is used correctly.	
<b>SO 2:</b>  Explain the reasons for using particular assessment tool(s).		<b>AC 1:</b> The difference between predictive and monitoring tools is explained.  <b>AC 2:</b> Typical applications of a variety of types of tool are identified and described accurately.	
<b>SO 3:</b>  Use environmental management tools to assess the impacts.		<b>AC 1:</b> Relevant tools are used correctly to assess a selection of impacts on the environment.  <b>AC 2:</b> Assessments are made that are adequate, accurate and relevant.	
<b>SO 4:</b>  Record and maintain data and identify anomalies.		<b>AC 1:</b> Data is recorded accurately and as required by the tools.  <b>AC 2:</b> Data is maintained in accordance with requirements.  <b>AC 3:</b> Anomalies in the data are identified and reported accurately.	
<b>SO 5:</b>  Determine the immediate causes of the identified impacts.		<b>AC 1:</b> The immediate causes of selected environmental impacts in the learner's context are identified correctly.  <b>AC 2:</b> The causes identified are recorded and reported accurately.	

ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 2 (WFW BENEFICIARIES)			
Module	Title	Unit Standard	Credits
3	<b>Best Environmental Practice in my Workplace</b>	<b>Unit Standard 119553: Take action to address impacts on the environment</b>	<b>10</b>
<b>SO 1:</b>  Determine an appropriate response to a variety of identified environmental impacts.		<b>AC 1:</b> The differences between preventive, corrective and remedial responses are explained correctly.  <b>AC 2:</b> Responses are chosen that are appropriate to the level of authority or capacity of the learner.  <b>AC 3:</b> Responses are made in a timely manner.	
<b>SO 2:</b>  Develop an appropriate plan to address each identified impact.		<b>AC 1:</b> The plan is developed that is logical, practical and sufficiently detailed.  <b>AC 2:</b> Other parties are informed of the plan and required assistance requested.	
<b>SO 3:</b>  Implement the plans and evaluate the results.		<b>AC 1:</b> The actions are taken that are in accordance with the plan.  <b>AC 2:</b> The implementation of the plan is monitored and appropriate adjustments made where necessary.  <b>AC 3:</b> The impacts are addressed properly.	
<b>SO 4:</b>  Record and maintain data and identify anomalies.		<b>AC 1:</b> Data is recorded accurately and as required by the tools.  <b>AC 2:</b> Data is maintained in accordance with requirements.  <b>AC 3:</b> Anomalies in the data are identified and reported accurately.	
<b>SO 5:</b>  Record and report interventions and results achieved.		<b>AC 1:</b> Records are completed and accurately made so that they reflect the key issues succinctly and clearly.  <b>AC 2:</b> Reports are compiled and presented appropriately.	

ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 4/5 (WFW CONTRACTORS)			
Module	Title	Unit Standard	Credits
1	Understanding Sustainable Development with a focus on global warming and climate change	Unit Standard 264459: Demonstrate an understanding of human sustainability	8
<p><b>SO 1:</b></p> <p>Demonstrate knowledge of the dynamics of human-environment relationships.</p>		<p><b>AC 1:</b> The ways in which particular societies impact on the environment are described in terms of how they differ in the use of resources and pollution levels.</p> <p><b>AC 2:</b> Changes in the availability of resources are described in terms of the organisation of particular societies that emphasise the interaction between society and the environment.</p> <p><b>AC 3:</b> Changes in social organisation are described in terms of changes in the environment that emphasise the interaction between society and the environment.</p>	
<p><b>SO 2:</b></p> <p>Describe the influence of political, economic and social processes on the environment.</p>		<p><b>AC 1:</b> Major political, economic and social processes and organisations that have influenced environmental challenges within a particular context are identified and described in terms of how human activity continuously impacts on the environment.</p> <p><b>AC 2:</b> Processes and organisations that have influenced environmental challenges within a particular context are assessed to gauge the extent of the impact on the environment.</p> <p><b>AC 3:</b> Processes and organisations that could help to resolve environmental challenges within a particular context are identified and described in terms of the potential that exists to intervene to preserve the environment.</p>	
<p><b>SO 3:</b></p> <p>Demonstrate an understanding of the concept of human vulnerability.</p>		<p><b>AC 1:</b> The concept of human vulnerability is explained in relation to actions and their consequences.</p> <p><b>AC 2:</b> The concept of human resilience is explained in terms of adapting to new circumstances and conditions.</p> <p><b>AC 3:</b> The trends that combine to cause or increase human vulnerability are outlined and explained in terms of the power of these trends to impact on society.</p> <p><b>AC 4:</b> The way in which human vulnerability assessments are made is explained for various circumstances.</p>	

<p><b>SO 4:</b></p> <p>Investigate alternative resources/ways to protect the environment and prevent depletion of vital resources.</p>	<p><b>AC 1:</b> The use of firewood and methane as a source of energy are contrasted in terms of viability for the long term.</p> <p><b>AC 2:</b> Converting feedstock (plant material) into compost is investigated as a practical way of reusing current resources.</p> <p><b>AC 3:</b> The concept of mass balance is explained to show the environmental impact of resource use.</p> <p><b>AC 4:</b> Techniques to use water optimally are investigated that will prevent the depletion of this vital resource.</p>
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ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 4/5 (WFW CONTRACTORS)			
Module	Title	Unit Standard	Credits
2 <sup>17</sup>	<b>Understanding Mentoring</b>	<b>Unit Standard 114215: Mentor a colleague to enhance the individual's knowledge, skills, values and attitudes in a selected career path.</b>	<b>8</b>
<p><b>SO 1:</b></p> <p>Explain the concept of mentoring.</p>		<p><b>AC 1:</b> The concept of mentoring is explained with examples.</p> <p><b>AC 2:</b> The difference between mentoring, coaching, counseling and training is explained and an indication is given of when each is appropriate.</p> <p><b>AC 3:</b> The roles and responsibilities of the mentor and employee to be mentored are explained and an indication is given of the relationship between the two parties.</p> <p><b>AC 4:</b> A written contract including a code of ethical conduct in the relationship is negotiated with a prospective employee to be mentored.</p> <p><b>AC 5:</b> The boundaries in a mentorship contract are negotiated with reference to realistic, agreed goals.</p>	
<p><b>SO 2:</b></p> <p>Describe the characteristics of a good mentor.</p>		<p><b>AC 1:</b> The importance of communication in the mentoring process is explained and an indication is given of how communication skills can enhance or destroy the relationship.</p>	

<sup>17</sup> Module 2 was originally *Understanding Environmental Management Tools* (Unit Standard 264455: Demonstrate understanding of integrated environmental analysis tools) but was replaced with Unit Standard 114215, focussed on mentoring in selected career paths, which was deemed to be far more relevant within and outside of the WfW context for contractors. It forms part of the Environmental Practices Level 4 qualification.

	<p><b>AC 2:</b> The characteristics of a good mentor are identified based on personal experience and reflection.</p> <p><b>AC 3:</b> Three different models of mentoring are explained and an indication is given of the one that is most appropriate in a specific environment.</p> <p><b>AC 4:</b> The characteristics of a potential employee to be mentored are identified and matched for compatibility with own personality.</p> <p><b>AC 5:</b> The consequences of a mismatch in the selection of mentor or employee to be mentored are identified with examples.</p>
<p><b>SO 3:</b></p> <p>Explain the importance of knowledge in mentoring.</p>	<p><b>AC 1:</b> The importance of relevant knowledge and experience in a mentoring situation is explained and an indication is given of why it is necessary to keep up to date.</p> <p><b>AC 2:</b> Questions are asked to determine knowledge level in a specific situation.</p> <p><b>AC 3:</b> Information required to fill knowledge gaps is accessed for a specific situation.</p>
<p><b>SO 4:</b></p> <p>Apply the skills and techniques required of a mentor.</p>	<p><b>AC 1:</b> Interpersonal communication skills required of a mentor are demonstrated for three different scenarios.</p> <p><b>AC 2:</b> Relationships, dynamics and personality aspects in a situation are assessed using active listening and observation skills.</p> <p><b>AC 3:</b> A plan to mentor an individual is developed with reference to goal setting, critical path schedule, continuous monitoring and review.</p> <p><b>AC 4:</b> Feedback on an individual's progress is provided in terms of measured objectives and the negotiated mentoring contract.</p>

ENVIRONMENTAL LITERACY SKILLS PROGRAMME: LEVEL 4/5 (WFW CONTRACTORS)			
Module	Title	Unit Standard	Credits
<b>3</b>	<b>Using a Systems Approach to Environmental Decision Making</b>	<b>Unit Standard 252026: Apply a systems approach to decision making</b>	<b>6</b>
<b>SO 1:</b>  Apply critical and analytical skills to analyse an issue or problem		<b>AC 1:</b> Critical and analytical skills are applied to analyse and define an issue/problem affecting the functioning of a unit.  <b>AC 2:</b> Critical and analytical skills are applied to determine factors impacting on the issue/problem and other areas in a unit and the entity affected by the issue/problem.	
<b>SO 2:</b>  Engage with stakeholders in analysing the issue/problem and developing solutions.		<b>AC 1:</b> The purpose of the consultation is communicated to stakeholders with reference to the aspects of the issue/problem and solutions to be discussed.  <b>AC 2:</b> The critical and analytical processes for analysing the issue/problem and generating ideas on addressing the issue/problem are explained with examples.  <b>AC 3:</b> The participation of stakeholders is obtained in analysing the unit's internal and external environment to identify factors relevant to the issue/problem.  <b>AC 4:</b> The participation of team members is obtained in developing solutions to the issue/problem that would contribute towards the functioning of the unit and the broader system within which it operates.  <b>AC 5:</b> The different ideas, values and perspectives of team members and stakeholders are recognised and respected in view of the value they add to the solution developed.	
<b>SO 3:</b>  Select feasible solutions through a systems approach.		<b>AC 1:</b> The inputs from stakeholders are analysed to identify feasible solutions to the issue/problem that would improve the functioning of the unit and the broader system within which it operates.  <b>AC 2:</b> The identified solutions are prioritised in terms of their potential outcomes on the various processes/sections in the unit, the wider entity and external stakeholders.  <b>AC 3:</b> A solution(s) is selected that is most appropriate within a systems context taking into consideration	

	interrelated issues that impact on the solution and areas that will be impacted upon by the implementation of the solution.
<p><b>SO 4:</b></p> <p>Formulate and communicate the decision.</p>	<p><b>AC 1:</b> The decision on addressing the issue/problem is formulated with reference to the impact of the decision on the unit and the broader system within which it operates.</p> <p><b>AC 2:</b> Actions required to implement the decision in the unit are described with reference to activities, role players, resources and time lines.</p> <p><b>AC 3:</b> Change processes that are required to support the implementation of the decision are described with reference to their impact on the success of the implementation of the decision.</p> <p><b>AC 4:</b> The decision is communicated to relevant team members in the unit and other stakeholders who will be involved in its implementation in a user-friendly format.</p>

## Appendix C:

### Evaluation Rubric (Completed)

Schedule Item	1. Introduction to Environmental Management Tools
Learner Response	Discussion around High Level Tools – need more local examples?
Facilitator Response	Facilitator tried to come up with alternative examples, other facilitators jumped in with examples.
Power Point	Fine, no adjustments
Learner Manual	<p>Page 5 – diagram is messed up, needs to be reformatted to show the missing writing.</p> <p>Maybe draw a flow diagram with images of politicians designing high-level tools, flowing into a mid-level tool like people doing an SEA/EIA, then into low level.</p> <p>Predictive, Monitoring, Controlling, and Limiting – needs explanation in simple words, i.e. predictive: before something happens, monitoring: during the process, controlling or limiting: reducing impacts.</p> <p>Put simple summary in the front, shorted the high level box.</p> <p>Definitely confusion that blankets things when learners try to specifically link examples of tools to limiting, controlling, predictive.</p>
Work Book	WB Activity 1: might be worth adding in ‘controlling’ as currently it just says predictive or monitoring, and that doesn’t really allow for decision-making by the learners and means they wind up applying monitoring to high level tools that are neither predictive or monitoring tools...They really do find this difficult.
Other	

### Evaluation Rubric Log

File Name	File Name Extended
PO_CG_M1_D1	Participant Observation Contractor Group Module One Day One
PO_CG_M1_D2	Participant Observation Contractor Group Module One Day Two
PO_BG_M1_D1	Participant Observation Beneficiary Group Module One Day One
PO_BG_M1_D2	Participant Observation Beneficiary Group Module One Day Two
PO_CG_M2_D1	Participant Observation Contractor Group Module Two Day One
PO_CG_M2_D2	Participant Observation Contractor Group Module Two Day Two
PO_BG_M2_D1	Participant Observation Beneficiary Group Module Two Day One
PO_BG_M2_D2	Participant Observation Beneficiary Group Module Two Day Two
PO_CG_M3_D1	Participant Observation Contractor Group Module Three Day One
PO_CG_M3_D2	Participant Observation Contractor Group Module Three Day Two
PO_BG_M3_D1	Participant Observation Beneficiary Group Module Three Day One
PO_BG_M3_D2	Participant Observation Beneficiary Group Module Three Day Two

Appendix D: Evaluation Questionnaire (Completed)

**Names of Student:** NAME REMOVED

**Date of Course:** 22/08/2014

**Venue:** Bio control Nursery

**Course Name & Module:** Environmental Literacy Understanding Mentoring

1. Please comment on the logistics of the course (i.e. was the venue okay, were travel arrangements made for you, was the catering suitable and so on): This course was done at the right place, everything good well prepared nice food, friendly caterers

2. Please comment on the course materials – are they at the right level for you, were they easy to use?  
Yes the materials are at right standard with us, I understood well.  
Please list any activities here that you found confusing (use Activity Number):  
What would you change if you were allowed to change two things:  
1. N/A  
2. N/A

3. Did the course facilitators present the course well? They presented very well, we had different language speaking facilitators that is good because they explain in Xhosa  
Did you have any language problems?  
No, Everything was clearly understood  
Did the facilitators respond to your learning needs?  
Yes, they are very good, they were prepared

4. Was the course programme timed correctly? (i.e. was it too 'full' and packed, or did you feel you could do all the work you were asked to do?)  
Yes because were scheduled this time last year so it was correct time

5. Will this course prove useful in your workplace? if so, how?  
Yes because I learnt a lot as a contractor I needed this information to improve my leadership skills

PLEASE WRITE ANY OTHER COMMENTARY ON THE BACK OF THIS PAGE

## Appendix E: Structured Short Interview (Excerpt)

**B11/Structured Interview** Note: Respondent was Afrikaans but chose to speak in English  
The items in **bold** refer to the set questions as per the interview schedule

R: So this is just like a, MP3 player, um that records stuff (noise of player being slid over), so, the first thing...you can just make yourself comfortable...so we gonna try keep this into ten minutes, I'm just going to put it closer to you so it records your voice, so can you just **tell us your full name**.

K: Um, Kenton Milton Toontjies

R: And your **age**?

K: Uh 23...

R: And your **position on the team**?

K: Uh, I'm a Peer Educator

R: And **how long have you been working for WfW**?

K: Almost a year, a year and a few months

R: Ok, what's it been like so far?

K: Eh, it has been fun at the beginning, but the driving is a lot of stress because you have to go and fetch people there at KwaNobuhle, from Despatch, KwaNa to here.

R: So everyday you have to do this trip to collect everyone. But fun in the beginning. Ok. And tell me a little bit **about your school experience**?

K: (Laughs). Ahh, my school, ay, I only. Okay I made it to matric, okay, but then and after that I actually failed. I tried again, but I didn't pass. And after that I almost gave up. I actually did give up. But ja, I still want to try and finish...

R: Your matric?

K: Ja, it's only these two subjects that I failed. So I need to pass one.

R: Okay. Which one are you going to try do?

K: Biology, because what's that other...Geo...Geo?

R: Geography?

K: Yes, Geography, it's a little difficult for me. The teacher wasn't that great.

R: The teacher was the problem?

K: Ja, because he, he gave us too much free periods when we, in the class, ja, then he's always on his computer playing games or watching videos. Then after maybe, at the end of the, maybe near exam time, then he wants to push all the information into our heads and after that I...

R: So did everyone fail?

K: Ah, not everyone, but ja...

R: A lot?

K: Ja, a lot. But only a few people took that subject actually.

R: Okay, okay. Um, and can you tell us a little bit **about your home life**? Like, where do you stay, do you have any children, and in the family that you live with how many people are in the house, and that kind of thing?

K: Um, I don't have any children. I have two, ja, brothers and one sister. I live with my father, my step Mum ja. My brother's girlfriend also lives there. And my Contractor Thombi, she's my Auntie, her child also lives there, and her brother.

R: So quite a few people live there?

K: Ja, it's a nice, it's a big house.

## Appendix F: Semi-Structured Interview (Excerpt)

C6/Semi-Structured Interview

K: I guess the idea is just to tell me about what you did after school, or a little bit about your school as well, how you did and what interested you and what you wanted to do. Basically all the way to where you are now and what you intend to do going forward.

D: Yoh, [laughs]. So, school, first?

K: Yes.

D: What about school? Courses I took? Subjects I took?

K: Actually, lets start maybe just when you were born. You were saying you lived in KZN and then you moved here.

D: My high school was in the Western Cape. I went to Rondebosch Boys in Cape Town and matriculated in York High in George. I did er ... loved my maths and my accounting and hence the course I took in PE Tech which was the Financial Information Systems. I tried a bit of auditing as well. After that, I came out and I helped my mother with her business. We won the SAB Kickstart Competition [language 0:01:27] mama? 2007, the regional and the national, unfortunately, competition was a bit different than I thought, but basically I always wanted to, you know, have my own business.

[inaudible 0:01:45] I wanted to work. I've never worked for anyone in my entire life [chuckles], which is a bit of a sad thing because now my CV is empty and very weak [chuckles]. Yes, Working For Water basically ... someone saw an Ad for me in the paper and just told me about it and since I've helped my cousin before – my cousin also worked for Working For Water as a contractor. So, I applied. Knew a bit of what is going on there and yes, just been Working For Water since.

K: Okay, if we just go back a bit to school – the reason why you moved around so much – was your mom moving for work?

D: Yes, my father was a reverend at the Methodist Church, so they probably lived a year there, two years there, four years there, so we were always on the move. I was the youngest in my family, so [language 0:02:49] whenever they moved, I went along with them. My brothers were older so they stayed in boarding school.

K: Oh okay, so were you a laat lammetjie?

D: Yes [laughs].

K: So, that's why you were at Rondebosch Boys and then you finished in George because your parents had moved up to George [inaudible 0:03:10]?

D: They moved up to George, yes.

K: Then they moved to PE, so you did ... you came with and started at PE Tech?

D: I came with and ... yes.

K: The question I want to ask is that ... I know you started – I saw your transcript that you'd given me in case that was good enough for the matric certificate. You'd started a whole bunch and you've completed quite a few of them, but you didn't finish at Tech, so I was just wondering why? What was the reason why you did not finish?

D: I loved money too much [laughs] and studying about that money and not making it sort of frustrated me, so.

K: How many years were you at Tech?

D: Four, four years.

K: Four. Were you doing like business in between?

D: Yes.

K: Were you trying to build a business while you studied?

D: Yes, I was trying ... I had a car wash at PE Tech. I tried a car wash in New Brighton, as well. I was helping my mother at the same time and then I decided, no, let me just focus on this because it had a bit more, you know, future to it, so I came this side.

K: So, you literally got a bit tired of studying and thought you'd try your hand at business, straightaway?

D: Uhm and [inaudible 0:04:16] real money [chuckles].

K: So, there was no financial reason that you stopped?

D: No-.

K: A lot of people have said they stopped because of money.

D: I was in a sports bursary. I played rugby, so as long as I perform on the rugby field I was sorted.

MOTHER: He was a good rugby player.

D: My fees were always sorted because I performed all the time on the rugby field.

K: That's cool

D: I got paid, as well.

K: That's wonderful. Okay and then you decided you were going to focus on your mom's business? Is it just the two of you working in the business?

D: My older brother, as well, was young, but at the time he was in [language 0:04:53], Jo'burg?

MOTHER: Cape Town.

D: Cape Town.

K: This is the business? The-?

D: Yes.

K: Is it a fashion-design and ...?

D: Fashion design, it's everything.

K: Everything?

D: Overalls, church garments, fashion, tracksuits.

K: It's all there.

D: It's all there.

K: So, 2007 was this SA Kickstart-?

D: Yes, SA Brewery Kickstart Competition.

K: Oh, okay, so if you had a good business idea they would give you some capital. Is that the idea?

D: The idea was ... They went around Easter Cape, people applied and [language 0:05:44] ... okay, you applied then they look at your business – is it viable or not and then they shortlisted I think about 50 people from the Eastern Cape and then we went for a two-week business course and then we'd have to make a presentation after that and then they chose the final five.

K: Okay, cool. So, you won the regional, the business one – regional and then it went through to a national portfolio and then, as you said, it was pretty stiff. What year again? You have told me before ... so that was 2007, so when did you look at the Working For Water stuff?

D: Working For Water I helped my cousin – as I said. She started working 2002, so whilst I was at school I was also helping her out on my off days.

K: What were you doing? Like ground work or what sort of stuff is it?

D: I was driving her employees to work and just leaving them with the basic day's chores and shoot off to school and went to pick them up afterwards again and then I applied in 2010, no 2011.

K: Was it ... did you want to do it or was it kind of a, 'Oh, I need to start branching out'?

D: Uhm.

K: Why did you do that [inaudible 0:07:07]

## Appendix G: Document Log

Document	Date	Producer	Type	Contents
Unit Standard 116064	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
Unit Standard 119554	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
Unit Standard 119553	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
Unit Standard 264459	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
Unit Standard 114215	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
Unit Standard 252026	2012 07/01	SAQA	Unit Standard	US Range, Specific Outcomes, Assessment Criteria, US Accreditation and Moderation options, US Essential Embedded Knowledge, Critical Cross-field Outcomes
B2/POE/M1 B2/POE/M2 B2/POE/M3	2014	Learner: B2	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B3/POE/M1	2014	Learner: B3	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B5/POE/M1 B5/POE/M2	2014	Learner: B5	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B6/POE/M1 B6/POE/M2 B6/POE/M3	2014	Learner: B6	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B7/POE/M1 B7/POE/M2 B7/POE/M3	2014	Learner: B7	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B8/POE/M1 B8/POE/M2 B8/POE/M3	2014	Learner: B8	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP

B9/POE/M1 B9/POE/M2 B9/POE/M3	2014	Learner: B9	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B10/POE/M1 B10/POE/M2 B10/POE/M3	2014	Learner: B10	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B11/POE/M1 B11/POE/M2 B11/POE/M3	2014	Learner: B11	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B12/POE/M1 B12/POE/M2 B12/POE/M3	2014	Learner: B12	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B13/POE/M1 B13/POE/M2 B13/POE/M3	2014	Learner: B13	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B14/POE/M1 B14/POE/M2 B14/POE/M3	2014	Learner: B14	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
B15/POE/M1 B15/POE/M2 B15/POE/M3	2014	Learner: B15	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C1/POE/M1 C1/POE/M2 C1/POE/M3	2014	Learner: C1	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C2/POE/M1 C2/POE/M2 C2/POE/M3	2014	Learner: C2	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C3/POE/M1 C3/POE/M2 C3/POE/M3	2014	Learner: C3	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C4/POE/M1 C4/POE/M2 C4/POE/M3	2014	Learner: C4	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C5/POE/M1 C5/POE/M2 C5/POE/M3	2014	Learner: C5	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C6/POE/M1 C6/POE/M2 C6/POE/M3	2014	Learner: C6	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C7/POE/M1 C7/POE/M2 C7/POE/M3	2014	Learner: C7	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C8/POE/M1 C8/POE/M2 C8/POE/M3	2014	Learner: C8	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C9/POE/M1 C9/POE/M2 C9/POE/M3	2014	Learner: C9	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C10/POE/M1 C10/POE/M2 C10/POE/M3	2014	Learner: C10	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP

C11/POE/M1 C11/POE/M2 C11/POE/M3	2014	Learner: C11	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C12/POE/M1 C12/POE/M2 C12/POE/M3	2014	Learner: C12	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C13/POE/M1 C13/POE/M2 C13/POE/M3	2014	Learner: C13	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C14/POE/M1 C14/POE/M2 C14/POE/M3	2014	Learner: C14	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
C15/POE/M1 C15/POE/M2 C15/POE/M3	2014	Learner: C15	Portfolio of Evidence	Completed and semi-completed workbooks linked to each module of the ELSP
F1/FR/BG/M1 F1/FR/CG/M1 F1/FR/BG/M2 F1/FR/CG/M2 F1/FR/BG/M3 F1/FR/CG/M3	2014	Delana Eksteen	Facilitator Reports	Comprehensive, self-critical reports from the facilitators who were involved on both the Level 2, Level 4 and Level 5 modules of the beneficiary and contractor ELSP
F2/FR/BG/M1 F2/FR/CG/M1 F2/FR/BG/M2	2014	Pamela Magida	Facilitator Reports	Comprehensive, self-critical reports from the facilitators who were involved on both the Level 2, Level 4 and Level 5 modules of the beneficiary and contractor ELSP
F3/FR/BG/M1 F3/FR/BG/M2 F3/FR/CG/M2 F3/FR/BG/M3	2014	Marilyn Govender	Facilitator Reports	Comprehensive, self-critical reports from the facilitators who were involved on both the Level 2, Level 4 and Level 5 modules of the beneficiary and contractor ELSP
F4/FR/BG/M1 F4/FR/CG/M2 F4/FR/BG/M3	2014	Abulele Xulu	Facilitator Reports	Comprehensive, self-critical reports from the facilitators who were involved on both the Level 2, Level 4 and Level 5 modules of the beneficiary and contractor ELSP

Appendix H: Consent Form

Ethical Permission Form

I, **NAME REMOVED**, hereby agree to take place in a Rhodes University research initiative. The researcher has made her intentions known, and has assured me of personal anonymity if I wish.

I have agreed to answer questions around my socio-economic context (questions about the choices I have made with regards progression in my education and career opportunities), and I have agreed to be recorded by a voice recorder, video camera and stills camera.

Wish to remain anonymous  YES  NO

Signature: *[Signature]*

Place: *Rochesters*

Date: *28/07/2014*

Witness: *[Signature]*

**Appendix I:** Profile of all Beneficiaries and Contractors enrolled on the ELSP (An extract from the ELSP Evaluation Report). Please note names removed for anonymity purposes.

## 1.1 ELSP Beneficiaries

Fifteen beneficiaries made up the learner group to be trained in the Environmental Literacy Skills Programme. These individuals are from Despatch and KwaNobuhle, urban living areas that surround Uitenhage. Despatch has a population of roughly 33 000 people, and the majority speak Afrikaans with the second most widely spoken language being Xhosa. KwaNobuhle is a small town with over 120 000 inhabitants, about 4km outside of Uitenhage. It was primarily established to house black residents of Uitenhage that were forcibly removed via the Group Areas Act. Established in 1967, the town is now a primarily Xhosa speaking residential area.

Out of the 15 beneficiaries, three were to drop out. **Beneficiary 11: (name removed)** left after Module 1 as she was pregnant and had her baby in January. She could have completed the Unit Standard she did attend, but she didn't return to do the corrections she needed to do in order to be assessed as competent. **Beneficiary 12: (name removed)**, dropped out after Module 1, as he was no longer working for WfW. Reasons for his leaving were unclear. **Beneficiary 15: (name removed)**, completed Module 1 (competent), and attended Module 3. However she did not hand in a workbook for Module 3, and did not return for Module 2. One of the WESSA facilitators had been approached by Beneficiary 15 about conflict she was experiencing with her niece, and we suspect that an unresolvable issue caused her to exit the pilot. Beneficiary 15 did sign off on her corrections and will gain 4 credits for Module 1 on her SAQA Statement of Results.



ID's of all learners removed for Anonymity







Beneficiary 1 (B1)	<b>(name removed)</b>
Module 1	Further Corrections necessary to achieve this Unit Standard
Module 2	NA
Module 3	NA
Comment	<b>(name removed)</b> seemed like a good student, but we were unable to see her potential as she dropped out after Module 1 due to her child being due in January.
Beneficiary 2 (B2)	<b>(name removed)</b>
Module 1	Complete – To Sign
Module 2	Complete – To Sign
Module 3	Further Corrections: 3.2.1 & 3.2.2
Comment	<b>(name removed)</b> moved to Cape Town to pursue job opportunities, and unfortunately did not complete her very minor corrections or sign her POEs. Her books are with her father, who is a WfW Contractor. She should be able to successfully complete the full ELSP if her corrections are accepted, and she has the potential to study further by gaining two more unit standards of the electives in the Environmental Practices Skills Programme. She communicates well in both spoken and written English.
Beneficiary 3 (B3)	<b>(name removed)</b>
Module 1	Complete
Module 2	NA
Module 3	NA
Comment	<b>(name removed)</b> only completed Module 1, although she did attend Module 3 but didn't hand in a project. She left, apparently, due to personal conflict with her niece who was also in the pilot. Both are relatives of one of the contractors from the Level 5 group, <b>(name removed)</b> . They do not, however, work for him, but are contracted by <b>(name removed)</b> who is another contractor on the Level 5 course. I do not have recommendations for <b>(name removed)</b> further development.
Beneficiary 4 (B4)	<b>(name removed)</b>
Module 1	Further Corrections necessary to achieve this Unit Standard
Module 2	NA
Module 3	NA
Comment	Did not return after Module 1 (Dropped Out)

Beneficiary 5 (B5)	<b>(name removed)</b>
Module 1	Further Corrections: 2.4, 2.6, 3.4
Module 2	Complete – To sign
Module 3	NA
Comment	<b>(name removed)</b> unfortunately missed the whole of Module 3. He would need to attend this and complete the assessment activities successfully to gain the ELSP Skills Programme. He is very bright and speaks well in English, but his absence in class on some days and for a whole module has impacted his ability to complete the ESLP. This is a pity, as he is a smart person; apparently he missed Module 3 due to court appearances.
Beneficiary 6 (B6)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is an exceptional student, and could easily continue to complete the full Environmental Practices Skills Programme, choosing from two electives of five offered. Her interest in the environment and her passion for insects, biology and the natural world is inspiring. Ideally, someone like <b>(name removed)</b> should be working in a nature reserve or in children’s environmental education.
Beneficiary 7 (B7)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Further Corrections: Activity 1, Problem 2, 2.1, 2.2, Activity 3, Activity 4 - Must be in PEN
Comment	<b>(name removed)</b> managed to complete Module 1 and 2, and seemed to respond very well to the activities and become engaged with the whole process. <b>(name removed)</b> would be a good candidate to complete the Environmental Practices Skills Programme, however he moved to Peddie to look for work in between the end of the course and the corrections sessions and was not expected to return.
Beneficiary 8 (B8)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is very bright and completed some of her Modules in English, but it seemed she struggled with Module 3 with regards to completing her projects. She was assessed as competent in Module 3, and will receive the full ELSP certificate. From there she would be eligible to study two more Unit Standards that would be electives from the Environmental Practices Skills Programme, after which she would hold the EPSP too.
Beneficiary 9 (B9)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete

Module 3	Complete
Comment	<b>(name removed)</b> is very switched on, and despite missing one day of Module 2 due to losing his Grandmother the night before, he managed to maintain his poise and catch up on all the work that he needed to do to complete his assignments. <b>(name removed)</b> completed the ELSP successfully. It would be beneficial for him to do the further two electives of the Environmental Practices Skills Programme. <b>(name removed)</b> primarily writes in Afrikaans but understands English well.
Beneficiary 10 (B10)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> completed all of his modules in Afrikaans, and did all of his corrections thoroughly. He works well with his peers, and on completion of the ELSP, if he were able to complete two electives of the Environmental Practices Skills Programme it would benefit him greatly.
Beneficiary 11 (B11)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> was another bright learner, who was fairly confident in speaking in front of the class thus was often chosen as the leader in group activities. He completed the ELSP. He would be another prime candidate for completing two electives from the Environmental Practices Skills Programme. <b>(name removed)</b> is also only one subject shy of completing his matric (Biology) and it is hoped that he will be supported in being able to achieve that in the next year or so, which could open his opportunities further.
Beneficiary 12 (B12)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Corrected and handed back on the 29th July, needs to go to Assessor
Comment	<b>(name removed)</b> has completed Module 1 and 2 successfully, but still needed to one small correction on Module 3. <b>(name removed)</b> struggles in English, and is much more comfortable talking and writing in Afrikaans. He relied on translation for a lot of his understanding.
Beneficiary 13 (B13)	<b>(name removed)</b>
Module 1	Complete
Module 2	Corrected: Handed In
Module 3	Further Corrections: 1.1, 1.2, 1.3, P2 1.4, 2.2, 4 (P2)

Comment	<b>(name removed)</b> did not complete his corrections on Module 3 at the corrections session, and I am unsure if this was through confusion or because he didn't want to do the corrections (they were extensive). I have left the book with <b>(name removed)</b> at the Biocontrol Centre, who was going to try and help <b>(name removed)</b> with either completing it or starting another book from scratch (due to the amount of problems in it). <b>(name removed)</b> really struggled with writing in both English and vernacular, and it was really through extensive support from the facilitators that he was able to complete Module 1 and 2. <b>(name removed)</b> is the type of learner who possibly should not have been selected to participate in accredited training, but he has gained two unit standards from this training exercise, which will be beneficial to him on the Statement of Results issued by SAQA.
Beneficiary 14 (B14)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Further Corrections: Activity 3.2.1, 3.2.2, 4.1, 4.2. Problems 1 and 2, Activity 4 (very incomplete)
Comment	While <b>(name removed)</b> did very well to complete his first two modules, his Module 3 POE was handed in very incomplete. The assessor sent it back with large correction and completion requirements and I am unsure if he will manage this alone. The beneficiaries who had supportive and literate contractors seem to do better than those who don't (as they can ask them for guidance), and I do not think <b>(name removed)</b> contractor is the academically supportive type. <b>(name removed)</b> also left to find work in Jeffreys Bay, which means it is unlikely he will complete this course.
Beneficiary 15 (B15)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is a very competent student, but he is reliant on being able to write and speak in Xhosa. In terms of commitment, he really is a very eager learner and during the first module he missed the first day due to an epileptic fit. His parents wanted him to stay at home the rest of the week, but he insisted on being able to join the class on day 2 and caught up with the exercises he missed. He is very supportive of his peers, and although he struggled with some sections he tried very hard to achieve competency. If he completes the ELSP, he could probably achieve the full Environmental Practices Skills Programme by completing two further electives.

## 1.2 ELSP Contractors

The contractor group comprised 15 individuals from many different towns and suburbs around this part of the Eastern Cape (with Port Elizabeth being the closest large city). The group included four contractors from Grahamstown, one from Bathurst, one from Rockland (near Uitenhage), three from Thornhill, one from Motherwell (PE), one from Despatch, one from Kwa-Lang (Uitenhage), two from KwaNobuhle and one from Uitenhage proper. Only three of the contractors in this group had beneficiaries that formed part of the Level 2 ELSP.

Contractor 1 (C1)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> has struggled to manage her work on her own, and was strongly reprimanded by the assessor for copying <b>(name removed)</b> work and writing verbatim answers out of the learner manual instead of in her own words. She communicates well in the spoken word, but refuses to really engage with the group activities or take turns to present group work. The fact that she has had three attempts at Module 1 and 2 for corrections seems to indicate that she doesn't try very hard on the course and doesn't really have a true interest in the environment. <b>(name removed)</b> also expressed she was keen to move out of contractor work and into anything that doesn't mean she needs to be outside. Her calling doesn't seem to be towards natural resource management and further training isn't recommended.
Contractor 2 (C2)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete – To Sign
Comment	<b>(name removed)</b> was not at the corrections session, but his POEs were left in Uitenhage to be signed and corrected. <b>(name removed)</b> is very bright, but rushes his work and does the minimal amount to pass. He is very active on his cell phone and is businessman first and foremost. <b>(name removed)</b> could easily complete a full Environmental Practices Skills Programme, Level 4 or 5. Further training would only be recommended if he proved himself as being truly interested in environmental management.
Contractor 3 (C3)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> (from Grahamstown) needed to be helped a lot individually to get his work completed. Level 5 is probably a bit too hard for him (more in getting his answers down in English rather than understanding the content). Recommended further study would be more Level 4 than Level 5, although his answers were thoughtful. He

	seems like the right kind of person to be able to teach Level 2 to small groups of people, as he is quite quiet and not a fan of speaking in class.
Contractor 4 (C4)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is one of the Grahamstown contractors who drove through to Uitenhage every day for training. In general, the Grahamstown contractors were very hard-working students who put in a lot of effort with their work and to support one another. Daluxolo has worked hard on his corrections, and while he speaks excellent English he finds it hard to transfer this to writing. A full Level 4 Environmental Practices Skills Programme would be easier for <b>(name removed)</b> to achieve in the future than a Level 5.
Contractor 5 (C5)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is a very capable learner, and extremely confident. He engaged well in all the groups he was placed in, and understood all the ideas and terminology well. <b>(name removed)</b> could complete a Level 5 Environmental Practices Skills Programme, and could confidently teach Level 2 to beneficiaries. He has a keen entrepreneurial side to him, which could also be investigated further as a line of development.
Contractor 6 (C6)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is a very relaxed person, who is bright and interested in what he is learning. He enjoys debating, and will stand up for his argument. <b>(name removed)</b> understood the content of all the modules quite well, but would sometimes misinterpret what the questions were requiring of him, making small mistakes. <b>(name removed)</b> could complete a full Level 5 Environmental Practices Skills Programme, or could also be a candidate for facilitation of Level 2 depending on his commitment.
Contractor 7 (C7)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is an exceptional learner. <b>(name removed)</b> has a tertiary certificate in human resources, and is a very efficient and confident person. She didn't have any problems with the modules, and provided the most constructive criticism on the materials and activities. <b>(name removed)</b> has worked in training before (ABET), and expressed a keen interest in moving back into training in the future. She is a prime

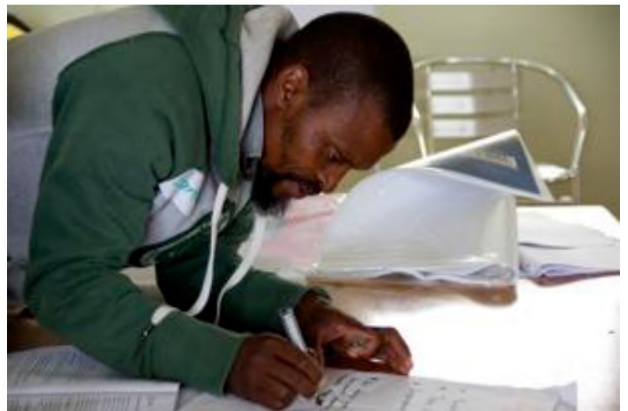
	candidate for development into a training officer or facilitator, and would easily be able to facilitate the Level 2 ESLP with minimal training. For ultimate development, <b>(name removed)</b> could complete a Level 5 Environmental Practices Skills Programme and then move into facilitation.
Contractor 8 (C8)	<b>(name removed)</b>
Module 1	Further Corrections: 1.4 (redo) and 3.3.2 (field trip) (Final Op)
Module 2	Further Corrections: 1.4, 1.8.2, 2.4, 2.8 (Final Op)
Module 3	Further Corrections: 3.1 (Final Op)
Comment	<b>(name removed)</b> , although a very cheerful person, should not have been placed on this training. He cannot write in English, and struggles to read and converse in English. It isn't really fair to put him through this type of training, and his anxiety and nervousness around the workbooks is obvious. We tried to encourage him to write in Xhosa, but we are unsure what his abilities are to write in general. The assessor picked up different hand writing in his book, and he has asked people to answer questions for him in the book; thus he is actually trying to complete it but not in the right way. Despite facilitator support, he still hands in workbooks missing answers, or leaves sections blank and I don't expect him to be assessed as competent by the end of his third chance. He could try the Level 2 training, but even that may be problematic due to the literacy element.
Contractor 9 (C9)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is a serious student, and a respected community member who is active in his church. <b>(name removed)</b> concentrates very hard in training, and works to complete his tasks on time. Answering in Afrikaans is far easier for him, but he prefers to complete his work in English. <b>(name removed)</b> would have no trouble completing a Level 4 or 5 Environmental Practices Skills Programme, and would be capable of facilitating Level 2 training in Afrikaans and English.
Contractor 10 (C10)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is a contractor from Bathurst, who works very hard during training sessions but seems to be struggling with completing his workbooks to competency. Unfortunately he was not at the corrections session, so he didn't receive the extra support that the other Grahamstown contractors received. <b>(name removed)</b> met with me one-on-one to complete his corrections and achieved ELSP competency.
Contractor 11 (C11)	<b>(name removed)</b>
Module 1	Complete

Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> (Grahamstown) is not very confident, and has struggled on certain parts of her training journey although she works with guidance from Nomakaya. Further study towards a full Environmental Practices Skills Programme should probably not be advised, unless <b>(name removed)</b> was very keen and enthusiastic.
Contractor 12 (C12)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> has successfully completed Module 1, 2 and 3. Interestingly, <b>(name removed)</b> was one the learners who struggled with transferring his answers into the written form despite being a very good speaker even in front of the class. He worked hard on his own and produced better answers when he had more time and less class pressure. <b>(name removed)</b> could go forward to complete a full Environmental Practices Skills Programme at either Level 4 or 5, but his written English would probably be better suited to Level 4 unless he has quite strong support from the service provider. <b>(name removed)</b> spoke of his interest in municipal work, so it would be interesting to see if his new ELSP certificate will hold currency in this arena. <b>(name removed)</b> has the right temperament to teach Level 2 in Xhosa, if he was taken through the training materials rigorously.
Contractor 13 (C13)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> (from Grahamstown) also works very diligently in class, and is a well-respected top performing contractor in Grahamstown. While she freely admitted that she found the course work hard, she also made a large effort to understand the content and look things up. <b>(name removed)</b> would be a great teacher of Level 2 content (with some facilitator training or mentoring), and could probably complete a full Environmental Practices Skills Programme at Level 4 or 5. However, I think she is more a people's person, and loves to help others on her team; hence a facilitator role could suit her.
Contractor 14 (C14)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete

Comment	<b>(name removed)</b> is very respectful, and works hard during class. He prefers to communicate in Afrikaans. He has struggled a bit with grasping what is required of him in certain questions and sections, and although he puts in a lot of effort it would be worth assessing his true interest in the environment before investigating further training options.
Contractor 15 (C15)	<b>(name removed)</b>
Module 1	Complete
Module 2	Complete
Module 3	Complete
Comment	<b>(name removed)</b> is in fact not a contractor, but a Groen Sebenza Pioneer working at the Uitenhage Biocontrol Centre. We were only made aware of that fact after the first session, which meant that replacing her with another contractor would be difficult. It has been interesting to see how <b>(name removed)</b> (who has an Honours degree from Walter Sisulu) would fair on the course, and it was assuring to see that while her answers were longer and more in-depth, she didn't stand out too far ahead of the crowd. No further training or development plans are recommended for <b>(name removed)</b> , although she could possibly work in Level 2 facilitation if she was interested.



Names of all learners removed for anonymity





“It is not that there are the starry heavens above and the moral law within, as Kant would have it; rather, the true basis of your virtuous existence is the fact that the starry heavens are within you, and you are within them” – Roy Bhaskar, *The Philosophy of MetaReality*, p. 351

Roy Bhaskar, 1944 - 2014