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**THE CONTRIBUTION OF HARMONY GOLDMINE'S PROTECH TRAINING TO
TRAINEES' SOCIO-ECONOMIC DEVELOPMENT**

By

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DECLARATION OF ORIGINALITY

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I understand what plagiarism is and am aware of the policy of the University of Pretoria in this regard.

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ABSTRACT

The contribution of Harmony Goldmine's Protech training to trainees' socio- economic development

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Informal skills training programmes (ISTPs) are imperative in promoting the socio-economic development of poor people who have missed the opportunity to acquire formal skills training programmes (FSTPs). Mining companies have extensive multidisciplinary expertise in artisanal and technical skills, and are mandated by legislation to provide these skills to poor people to improve their socio-economic development. Mining companies subsequently report money spend on ISTPs without determining the contribution of such training to trainees' socio-economic development.

Protech training is an example of several ISTPs offered by Harmony Goldmine. It provides artisanal and technical skills to the youth of Wedela at Carletonville near Kusasalethu mining shaft. Harmony Goldmine reports money spend on their ISTPs, however due to the lack of studies programme contribution, Harmony does not know the contribution of Protech training to trainee's socio-economic development. It was against this background that the researcher embarked on a study to determine the contribution of Harmony Goldmines' Protech training to trainees' socio-economic development with specific reference to trainees' human development, employment, human dignity, housing, healthcare, and food security.

The applied research study used a qualitative research approach. The research design was a collective intrinsic case study. Purposive sampling was used to select two trainers and sixteen trainees who were part of Protech training at Kusasalethu mining shaft from 2013 to 2015 as participants for the study.

Data was collected by way of one-on-one interviews guided by a semi-structured interview schedule. Data was analysed in accordance to thematic analysis by Clark and Braun (2013). Relevant ethical considerations were adhered to during the study.

The themes that emerged from the data was similar for trainers and trainees and therefore presented in an integrated manner. Findings indicate that Protech training contributes to socio-economic development in that trainees acquire skills that approve their capabilities to find employment or self-employment. However, trainees face challenges in starting their own businesses due to a lack of entrepreneurship skills and tools, and the brief training period to master the newly learnt skill(s).

A human rights-based approach was an appropriate conceptual framework to determine the contribution of Protech training to trainees' socio-economic development. Employed and self-employed trainees were able to renovate their homes, and to attain sufficient and quality food. However, only employed trainees were able to access private health care services. Protech training contributes to promoting human dignity, but the actualisation thereof is influenced by the employment status of trainees.

In order to optimise informal skills training programmes' contribution to socio-economic development, the researcher recommends that Protech training be extended to at least six months, that the mine provide apprenticeship and learnerships, and place graduate trainees into jobs.

Key Concepts

Informal Skills Training Programmes (ISTPs)

Formal Skills Training Programmes (FSTPs)

Harmony goldmine

Protech training

Socio-economic development

Human rights

Acronyms

Adult Education and Training	AET
Broad-Based Black Economic Empowerment	BBEE
Construction Education and Training Authority	CETA
Energy and Water Sector Education and Training	EWSETA
Extended Public Works Programme	EPWP
Formal Skills Training Programme	FSTP
Growth, Employment and Redistribution Strategy	GEAR
Information Skills Training Programme	ISTP
National Development Plan	NDP
National Skills Development Strategy	NSDS
National Skills Fund	NSF
Professional Vocational Technical and Academic Learning	PIVOTAL
Reconstruction and Development Programme	RDP

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CHAPTER 1

GENERAL INTRODUCTION TO THE RESEARCH STUDY

1.1 Introduction

Informal skills training programmes (ISTPs) offered by South African mining companies are regarded as instrumental for the socio-economic development of the poor (Mabuza, Msezane & Kwata, 2010:2). This is because mining companies have extensive multidisciplinary expertise in skills required by the market economy and provide a wide range of skills training opportunities which can address the scourge of unemployment caused by skills shortages (Mantashe, 2008:14). ISTPs are essentially integral to the upliftment of poor people because they are offered in close proximity to trainees' residential homes, consider people who have missed the opportunity to acquire formal skills training programmes (FSTPs), and equip such people with skills to secure employment imperative for their human dignity (Smit, 2013:1). ISTPs enable the realisation of human rights, in the context of the study, as it provides education which forms part of human rights (Hölscher, 2008:117).

Mining companies recognise their role in enabling ISTPs for poor people's socio-economic development (Harmony Goldmine, 2016a). Protech training is an example of the ISTPs provided within the mining industry and one of four ISTPs at Harmony Goldmine (Machete, 2016). It is offered to poor people residing within the informal settlement of Harmony Goldmine's Kusasaletu shaft (Harmony Goldmine, 2016a). These people are not employed by the mine, but are children of deceased or retired Harmony Goldmine miners and who are classified as unemployed youth and have been deprived of some or all FSTPs (Machete, 2016).

Protech training aims to equip trainees with technical or artisanal skills which enable employment and the realisation of human dignity (Protech training, 2016:4). Human dignity is the inherent worth of every human that ought to be respected by others (Blennberger, 2006:7).

However, people who lack housing, healthcare and food experience lack human dignity (International Federation of Social Workers [IFSW], 2016:9), hence the need for ISTPs to enable employment, which in turn, facilitates access to housing, healthcare and food for the realisation of human dignity.

Skills training, employment and human dignity are in alignment with what developmental social welfare is about and seeks to achieve. Developmental social welfare is about fostering self-reliance for the poor (Lombard, 2007:300), and is primarily embedded in human rights (Ife, 2012:229). Human rights are divided into first, second and third generation rights (De Vos & Freedman, 2014:666).

First generation rights refer to civil-political rights and include the right to human dignity, whereas second generation rights refer to socio-economic rights and include rights to education, employment, food, water, healthcare as well as social assistance (United Nations Human Rights Office of the High Commissioner, 2016). Third generation rights refer to collective developmental rights which include people's rights to a clean and safe environment and Indigenous Peoples' rights (United Nations Human Rights Office of the High Commissioner, 2016). Protech training is about human development, employment and human dignity, and therefore the focus of the study was primarily on first and second generation human rights.

In South Africa, human rights are explicitly protected by the Constitution of the Republic of South Africa (RSA, 1996) and the realisation thereof is paramount to the socio-economic development agenda of the democratic dispensation (De Vos & Freedman, 2014:666). The focus on socio-economic development is aligned with the purpose of social development which involves providing poor people with training opportunities to improve opportunities for employment (Lombard, 2005:211). Employment secures income which creates improvements in people's social conditions (Midgley & Conley, 2010:16). These social conditions refer to housing and healthcare amongst other things (De Vos & Freedman, 2014:667) which ultimately enables the realisation of human dignity. Harmony Goldmine's Protech training is an example of a training opportunity for employment which Lombard (2005:211) alludes to.

Harmony Goldmine annually reports on the overall money spent on ISTPs, but does not evaluate the contribution of such training to trainees' socio-economic development. It is against this backdrop that the researcher intended to embark on a study to determine the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.

The concepts relevant to the study are as follows:

- **Harmony Goldmine** is a mining business with operations in the Free State, Mpumalanga, Gauteng and North West Province in South Africa. It bought Lydex mine in 1997, Evander in 1998, Kalgold in 1999, Randfontein in 2000, ARMgold in 2003, and Avgold in 2004 (Harmony Goldmine, 2016b). In the study, Harmony Goldmine refers to the Kusasaletu shaft located on the southwest of Johannesburg, close to Carletonville in Gauteng Province, South Africa (City of Johannesburg, 2016).
- **Protech training** is a company outsourced by Harmony Goldmine responsible for providing ISTPs to the youth. Training includes bricklaying, carpentry, plastering, plumbing, electrician, diesel mechanics, instrument mechanics, boiler makers, riggers and millwrights (Mining CSI, 2015:15).
- **Youth** refers to trainees who are children of former Harmony Goldmine miners, are between the ages of 18-35, unemployed, have missed some or all FSTPs and reside within Wedela, an informal settlement near the Kusasaletu shaft (Machete, 2016). Trainees and youth were used interchangeably in the research report.
- **FSTPs** refer to education provided for by primary, secondary, and high schools, as well as public and private higher institutions such as universities and colleges, where the end goal is the acquisition of a diploma or degree (Statistics South Africa, 2014).

- **Socio-economic development** is the cornerstone of social development within the developmental social welfare framework (Elliott, 2011:102). It is achieved through upholding human rights (Lombard, 2008:160). These rights are enshrined in the South African Constitution (RSA, 1996:9) and include the right to human dignity, equality, life, freedom and security of a person, privacy, freedom of religion, freedom of expression, freedom of association, political rights, citizenship, healthy environment, employment, education, housing, healthcare, food, water, and social security. For purposes of this study, socio-economic development focuses on education, employment, human dignity, housing, healthcare, and food security.

1.2 Theoretical framework

The framework for the National Skills Development Strategy 2011-2016 (RSA, 2010:6) identified artisanal and skills training as necessary for the socio-economic benefit of the poor and to South Africa's social development agenda. Developmental social welfare and social development are embedded in a human rights-based approach (Ife, 2012:229). Thus, the theoretical framework which guided the study was the human rights-based approach to socio-economic development.

Human rights are stipulated in the Constitution of the Republic of South Africa (RSA, 1996), and for purposes of the study, includes the right to education (human development in this study), employment, human dignity, housing, healthcare and food security. Harmony Goldmine's Protech training acclaims itself to uphold poor people's human rights in that it contributes to human development through equipping trainees with skills to secure employment or self-employment (Machete, 2016). It also enables the realisation of human dignity (Protech training, 2016:4), which is an inherent right to worth and respect (RSA, 1996:6). This is however, underscored by lack of access to housing, healthcare and food security (Blennberger, 2006:8). The human rights approach requires that people be recognised as key actors in their own development, rather than passive recipients of commodities and services (Carney, 2001:13). Therefore the researcher investigated trainees' view on the contribution of Harmony Goldmine's Protech training to their socio-economic development.

Furthermore, the human rights approach requires that programmes that promote human rights be monitored and evaluated (UNICEF, 2004:93). The study therefore explored how trainees have benefitted from Protech training in promoting their social and economic development through the lens of their right to human development, employment, human dignity, housing, healthcare, and food security.

1.3 Rationale and problem statement

ISTPs are regarded to be important in promoting the socio-economic development of people who have missed FSTPs (Smit, 2013:1). They generally provide artisanal and technical skills required by the South African economy to bridge the skills shortage gap (Mantashe, 2008:14). Furthermore, mining companies have been mandated by legislation to provide artisanal and technical skills for poor people's socio-economic development, thereby enabling the realisation of South Africa's social development agenda (South African Institute of Race Relations, 2014:4).

Mining companies report spending millions of rands on ISTPs, however; do not determine the contribution of such training to trainees' socio-economic development. Harmony Goldmine acclaims itself to uphold human rights and subsequently reports on the money spent on ISTPs (Harmony Goldmine, 2016c). However, due to a lack of programme contribution, it does not know the contribution of such training on trainee's socio-economic development. It is against this background that the researcher conducted the study to determine the contribution of Harmony Goldmines' Protech training to trainees' socio-economic development with an emphasis on human development, employment, human dignity, housing, healthcare, and food security.

The research question that guided the study was as follows;

What is the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development?

The following sub-questions informed the main question:

What is the contribution of training to trainees'

- human development,
- employment status,
- human dignity, and
- access to housing, healthcare, and food security?

1.4 Goals and objectives of the study

The goal of the study was to explore and describe the contribution of Harmony Goldmines' Protech training to trainees' socio-economic development.

The objectives of the study were as follows:

- Conceptualise socio-economic development and ISTPs in South Africa's mining industry within the theoretical framework of human rights.
- Explore and describe how Harmony Goldmine's Protech training contributes to trainees' human development, employment, human dignity, and access to housing, healthcare, and food security.
- Based on the findings of the study, recommend measures to streamline ISTPs to contribute to socio-economic development and to document this achievement.

1.5 Overview of the research methodology

A qualitative research approach was followed as the researcher intended to attain thorough insight from the participants (Creswell, 2014:4) on the contribution of Harmony Goldmine's Protech training to their socio-economic development. The type of research was applied as findings were meant to provide solutions to problems identified in the provision of ISTPs (Patton, 2002:217).

The research design was the intrinsic case study design which enabled the researcher to describe, analyse and interpret the perceptions of participants on the topic (Fouché & Schurink, 2011:320). The population for the study consisted of trainers and trainees who were part of Protech training at Kusasaletu mining shaft from 2013 to 2015 (O'Dywer & Bernauer, 2014:71).

Purposive sampling was used to select the participants in the study according to specific sampling criterion (Patton, 2002:230). The sample consisted of two trainers and sixteen trainees at Kusasaletu mining shaft.

Data was collected by way of one-on-one interviews guided by a semi-structured interview schedule (Bernard, 2000:191). Following a pilot study to test the research procedure and data collection instrument (Strydom & Delpont, 2011:395), data analysis was conducted in accordance with the steps alluded to by Braun and Clarke (2013, 121-123). The researcher applied four measures to enhance the trustworthiness of the findings.

A detailed discussion of the research methodology and ethical considerations underlying the study will be presented in Chapter 3.

1.6 Chapter outline

The research report consists of the following chapters:

Chapter 1 provided the background to the study, presented the key concepts relevant to the study, the theoretical framework, problem statement, goals and objectives of the study, brief overview of the research methodology, and finally the division of the chapters in the research report.

Chapter 2 presents the literature review which contextualises socio-economic development and ISTPs in South Africa's mining industry. Furthermore, it explores how Harmony Goldmine's Protech training, as an example of ISTPs, contributes to trainees' human development, employment, human dignity, housing, healthcare and food security.

Chapter 3 describes the research methodology, presents and discusses the research findings, and indicates the limitations in the study.

Chapter 4 presents the key findings of the study, indicates how the goals and objectives of the study were achieved, draws conclusions from the findings, and makes recommendations from the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

South Africa's past is characterised by strife, untold suffering and injustice which generated gross violation of human rights (De Vos & Freedman, 2014:15). Consequently, this history required that all post-apartheid legislation be premised on a human rights-based approach to achieve socio-economic development (Lombard, 2008:156). The framework for the National Skills Development Strategy (NSDS) 2011-2016 which is discussed in section 2.2 is no exception to this requirement.

Socio-economic development in the context of this study alludes to human rights which include human development, employment and human dignity (RSA, 1996:9). It is the cornerstone of social development within the developmental social welfare framework (Elliott, 2011:102). Midgley (2014:96) stipulates that social development is realised through social planning, social protection, asset building, microenterprise and microfinance, social capital development, and human development.

Human development is a critical pillar in the realisation of social development and it is defined as skills learnt and used for socio-economic benefit to eradicate poverty (Engelbrecht, 2008:168). Anticipating what skills will be needed for social development is no easy task (RSA, Framework for the NSDS 2011-2016, 2010:6). However, artisanal and technical skills training has been identified as necessary for the socio-economic benefit of poor people (South African Institute of Race Relations, 2014:4), and to South Africa's social development agenda (Kruger, 2011:207).

Artisanal and technical skills training are facilitated by the framework for the NSDS 2011-2016, and require ISTPs for those who have been excluded from FSTPs due to poverty. Most importantly, it requires evidential reporting on its contribution to poor people's socio-economic development (RSA, Framework for the NSDS 2011-2016, 2010:6).

This chapter firstly discusses the framework for the NSDS 2011-2016, followed by an overview of ISTPs within mining. Protech training as an example of one of the four ISTPs at Harmony Goldmine is discussed. Thereafter the contribution of ISTPs on trainees' socio-economic development with specific reference to human rights which include human development, employment, and human dignity will be discussed. Finally, a summary of the chapter will be presented.

2.2 The framework for the National Skills Development Strategy (NSDS) 2011-2016

The framework for the NSDS 2011-2016 (2010:6) was introduced as a national social development strategy to encourage companies to contribute to the human development of poor people through providing ISTPs within their area of operation. This framework specifically applies to the mining industry in that this industry has substantial expertise in market required skills, particularly artisanal and technical training, which could improve poor people's socio-economic development; in particular, the youth of South Africa (Mantashe, 2008:14).

The framework for NSDS 2011-2016 is the successor to the NSDS 2001-2005, and the NSDS 2005-2010 (RSA, Framework for the NSDS 2011-2016, 2010:7). These frameworks facilitated spending of skills training grants provided for by government, and ensured that not only the unemployed benefitted, but also the employed and self-employed with low skills level (Groener, 2014:13). Regrettably, the equity targets set out by NSDS 2001-2005 and NSDS 2005-2010 were not achieved (RSA, Framework for the NSDS 2011-2016, 2010:9). Equity targets, which will be discussed in section 2.2.2 below, refer to numerical objectives set in terms of class, race, gender, age, abilities and HIV/AIDS (RSA, Framework for the NSDS 2011-2016, 2010:11). Secondly, the former frameworks paid little attention to conditions operating in the different sectors of the economy (RSA, Framework for the NSDS 2011-2016, 2010:9). Mining, agriculture and manufacturing sectors were expected to produce identical numerical objectives without first considering the time period required for the skills training of each sector, and

overlooking the fact that skills training in certain sectors such as agriculture take longer than technical skills provided for in the mines (Wildschut & Mbatha, 2016:3).

Finally, government also identified that insufficient attention has been given to the skill requirements of its national, provincial and local strategies by the former frameworks, hence; the inception of the NSDS 2011-2016 (RSA, Framework for the NSDS 2011-2016, 2010:10). The vision, strategic areas, programmes, and stakeholders in programme delivery of NSDS 2011-2016 will be discussed next.

2.2.1 The vision of NSDS 2011-2016

The vision of the NSDS 2011-2016 is to enable a skilled and capable workforce to support an inclusive growth path (RSA, Framework for the NSDS 2011-2016, 2010:23). This vision coincides with the National Development Plan (NDP) 2030 which aims to equip 5 million people with skills between 2010-2020 to contribute to an economy that is more inclusive, and in which the fruits of growth are equitably shared amongst citizens (RSA, National Development Plan 2030 Executive Summary, 2012:28). Furthermore, this vision is aligned with goal 8 of the Sustainable Development Goals (SDGs) which aim to promote inclusive and sustainable economic growth as well as decent work for all (United Nations [UN], 2015).

Currently, South Africa's inclusive growth plans are endangered by fraud, corruption and tenderpreneurship (RSA, Framework for the NSDS 2011-2016, 2010:12). The Transparency International's Global Corruption survey indicate that corruption increased between 2001 and 2010, and most often involved public and private-sector participants (RSA, National Development Plan 2030 Executive Summary, 2012:46).

The NSDS 2011-2016 (2010:12) stipulates that if corruption is permitted to proliferate, then the poor will remain excluded from the economy whilst a few enrich themselves. Thus, human development interventions are not only a site where corruption practices are

apparent, but are also a means of which such practices can be challenged (RSA, Framework for the NSDS 2011-2016, 2010:12).

2.2.2 The strategic areas of the NSDS 2011-2016

South Africa promotes the equality of all and recognises that too many people continue to suffer unfair social and economic exclusion (Statistics South Africa, 2013a:28). Class, race, gender inequalities, age, disabilities and HIV/AIDS constitutes these unfair exclusions and are strategic areas of the NSDS 2011-2016 as indicated below (RSA, Framework for the NSDS 2011-2016, 2010:12).

2.2.2.1 Class

Class disparity is caused by the existence of huge discrepancies in the income of persons within the same context (Studies in Poverty and Inequality Institute, 2007:12), and South Africa is no exception to this reality in that great poverty and great wealth co-exist (Nicolson, 2015:1). An analysis of the South African population income in 2014 reveals that the average income of black workers was less than R1 600 a month, and the average monthly income of white workers was between R3 201 and R25 600 (Groener, 2014:9).

Exclusion from human development opportunities continues to create such income disparities (RSA, Framework for the NSDS 2011-2016, 2010:11). For reform to occur, all stakeholders of the economy ought to actively interrogate every human development opportunity to ensure that people who currently or historically suffered from poverty are assisted to participate in the economy (Hölscher, 2008:116).

Thus in the context of the study, this framework compels Harmony Goldmine's Protech training to prioritise black persons who are disadvantaged due to poverty and to equip them with market required skills so that they can participate in the economy and be equitably remunerated for their labour. Accordingly, this is what Harmony Goldmine aims to achieve (Harmony Goldmine, 2016c). However; they do not report on the contribution thereof; hence the need for the research study to investigate.

2.2.2.2 Race

Apartheid's dark legacy remains and must be continuously challenged for socio-economic reform to take place (Patel & Hochfeld, 2008:195). The appeal for Broad-Based Black Economic Empowerment (BBEE) remains a matter of national urgency as too often the poor are black with limited prospects for improvements (Mabuza et al., 2010:2). Low-skilled black people access low-income jobs and have limited employment opportunities, and this statement is premised on the argument that higher skills levels can increase employability, access to employment and access to higher-wage jobs for low-skilled black people (Groener, 2014:10). Protech training is specifically instrumental in providing skills training to low-skilled black people and to enable them to access jobs and increased wages (Machete, 2016). However; Harmony Goldmine does not know whether or not its trainees secure employment with their skills, and this is a factor which the research study envisages to investigate.

2.2.2.3 Gender

Women make up the largest percentage of the poor (RSA, National Development Plan 2030 Executive Summary, 2012:33). They remain vulnerable irrespective of many advances since democracy (Statistics South Africa, 2018:6). Government statistics show that in 2018, 40.9% of black women were unemployed followed by coloured women (28.9%), Indian (15.8%), and white women at 8.5% (Statistics South Africa, 2018:39).

The gender profile of the most prestigious and rewarding occupations remains male, and where this is the case, change is required (RSA, Framework for the NSDS 2011-2016, 2010:12). Emphasis is needed to enhance the development of black and female managers as professionals (RSA, National Development Plan 2030 Executive Summary, 2012:32). Skills development amongst women ought to be prioritised, however; Harmony Goldmine does not report to what extent women are prioritised in their skills development initiatives, and this is an element which the study observed.

2.2.2.4 Age

South Africa is a young society (Statistics South Africa, 2018:41), and yet far too many leave school with few prospects of finding decent work due to lack of skills (RSA, Framework for the NSDS 2011-2016, 2010:12). Unemployed youth, persons between the ages of 15 to 34, can easily be attracted to violence, crime, and alcohol abuse (RSA, National Development Plan 2030 Executive Summary, 2012:19). Cloete (2015:518) mentions that unemployment puts mental health at risk as most unemployed people show constant decrease in overall life satisfaction, general wellbeing, self-esteem, and are more likely to be suicidal as they display symptoms of depression. Human development and employment is not only an important bridge from youth into productive adulthood (RSA, Framework for the NSDS 2011-2016, 2010:12), but it is also of utmost importance for the mental wellbeing of young people (Cloete, 2015:19). The question of whether employment amongst youth post participation in Protech training contributes to mental wellbeing was explored in the study (see Chapter 3 Sub-theme 4.3).

2.2.2.5 Disabilities

People with disabilities are often excluded from contributing to society and its work force (RSA, Framework for the NSDS 2011-2016, 2010:12). However; if the NDSD 2011-2016 is to be genuinely inclusive then this reality cannot continue. Efforts to ensure relevant and accessible skills development programmes for people with disabilities, combined with equal opportunities for their productive and gainful employment, must be prioritised (RSA, National Development Plan 2030 Executive Summary, 2012:42). Currently the NSDS 2011-2016 aims to benefit 4% of people with disabilities (Groener, 2014:12), which is still not sufficient considering that the strategy could target advancing all people with disabilities. With this being said, there is an improvement in the percentage of people with disabilities entering and completing skills development programmes (Groener, 2014:13), and if Protech training is committed to the advancement of persons with disabilities, then it ought to make provision for their human development.

2.2.2.6 HIV/AIDS

An estimated 5.7 million people were living with HIV/AIDS in South Africa in 2009; and according to Tshoose (2010:408), this figure was more than in any other country in the world. The NSDS 2011-2016 (2010:12) recognises that the scourge of HIV/AIDS erodes efforts to realise socio-economic development and ought to be confronted at human development interventions. The devastation of HIV/AIDS-related deaths resulted in the social problem of AIDS orphans and child-headed households (Tshoose, 2010:409). AIDS orphans refer to children who lost both their parents to HIV/AIDS, and child-headed households refers to households that comprise of individuals aged 18 years or younger (Statistics South Africa, 2013b:8). Opportunities for a better future for this group of people are often undermined by a lack of parental care, growing up in the absence of a father figure, and exposure to violence (IFSW, 2016:38). Accordingly, the NSDS 2011-2016 specifically targets the youth who were AIDS orphans or headed households as children. Subsequently human development initiatives such as Protech training ought to target such persons.

2.2.3 Programmes of NSDS 2011-2016

Four overarching programmes have been proposed by NSDS 2011-2016 to create decent work. The first programme is to facilitate access, success and progression. The second is PIVOTAL programme which stands for Professional, Vocational, Technical and Academic Learning. The third programme and more relevant to the study refers to skills programmes and other non-accredited short courses, and lastly, a programme that builds the academic profession and engender innovation (RSA, Framework for the NSDS 2011-2016, 2010:13).

2.2.3.1 Programme that facilitates access, success and progression

The programme that facilitates access, success and progression is divided into three programmes namely; career guidance, recognition of prior learning, and raising the base.

2.2.3.1.1 Career guidance

Career guidance alludes to interventions that guide learners prior to enrollment on both the best match of their interests and abilities to occupational requirements; as well as their best prospects for employment and decent remuneration (RSA, Framework for the NSDS 2011-2016, 2010:14). An example of such a programme is, “take a girl child to work day”, initiated by a telecommunications company Cell C. This programme enables scholars to spend a day with a professional so as to gain insight on that occupation, prospects of employment, and remuneration prior to pursuing further training in that occupation (Cell C, 2017).

The success indicator for the implementation of career guidance is that organisations across the different sectors of the economy, such as Cell C in the telecommunications sector, submit an annual comprehensive report on employment opportunities within their organisation to their respective Sector Education Training Authority (SETA) known as Media, Information and Communications Technology Sector Education and Training Authority. Furthermore, it provides steps taken to expose prospective learners to work in its sector (RSA, Framework for the NSDS 2011-2016, 2010:14).

2.2.3.1.2 Recognition of prior learning

Recognition of prior learning suggests that people without standard entry qualifications need to be granted an opportunity to have their skills acquired through experience (RSA, Framework for the NSDS 2011-2016, 2010:14). This was common practice in most sectors of the economy where persons who did not have access to FSTPs or ISTPs learnt skills on the job, an example being an electrician, and proceeded to grow professionally either within or in other companies due to the years of experience in performing a specific skill (Wedekind, 2013:3).

The success indicator stipulated by the NSDS 2011-2016 for recognition of prior learning is that FSTPs, ISTPs, and the labour market must recognise prior learning in their selection of candidates to avoid excluding persons with experience lacking FSTPs or

ISTPs qualifications (RSA, Framework for the National Skills Development Strategy 2011-2016, 2010:14).

2.2.3.1.3 Raising the base line

Raising the base line introduces programmes which make it possible for adults and youth to gain access to education and training opportunities that enable a minimum qualification of grade 12 (RSA, framework for the NSDS 2011-2016, 2010:14). An example of such a programme is the Adult Education and Training (AET) institution which is provided by the government (Groener, 2014:13). The success indicator of this component is where FSTPs or ISTPs specify an entry requirement of grade 12 or above, these programmes must be complimented by the provision of AET which enables those who do not meet these requirements to have an opportunity to do so (RSA, Framework for the NSDS 2011-2016, 2010:14). Thus an appropriate referral system from FSTPs and ISTPs to AET institutions is required to include persons who would otherwise be excluded from FSTPs and ISTPs in the absence of such AET.

2.2.3.2 PIVOTAL programme

Section 22 of the Bill of Rights stipulates that every citizen has the right to freely choose their trade, occupation and profession (Constitution of the Republic of South Africa 1996:9). The practice of a trade, occupation or profession may be regulated by law, and it is from this right that the acronym PIVOTAL which stands for Professional, Vocational, Technical and Academic Learning has been derived (RSA, Framework for the National NSDS 2011-2016, 2010:15).

PIVOTAL programmes are those programmes that meet the critical needs of economic growth and social development (Wildschut & Mbatha, 2016:2). They merge course work at FSTPs with structured learning at work and are generally achieved through professional placements, work integrated learning, apprenticeships, learnerships, and internships (RSA, Framework for the NSDS 2011-2016, 2010:15).

Programmes where the end goal is the acquisition of a degree or diploma are examples of PIVOTAL programmes (RSA, Framework for the NSDS 2011-2016, 2010:16). Whilst the graduate unemployment trend is worrying, the problem for those without higher education qualifications is far greater in that they remain on the margins of formal employment - insecure and unable to obtain meaningful access to the formal economy with many facing permanent unemployment (Wedekind, 2013:7). The success indicator for the implementation of PIVOTAL programme is that FSTP such as universities and colleges ought to report on an increased number of graduates in 2016 in comparison to their April 2011 statistics (RSA, framework for the NSDS 2011-2016, 2010:16). However, FSTPs continue to have poor output rates and are not trusted by industry to deliver skilled workers (Wedekind, 2013:6).

2.2.3.3 Skills programme and other non-accredited short courses

Contrary to the PIVOTAL programme, the skills programme and other non-accredited short courses tend to be shorter programmes with a specific specialisation in mind such as how to operate new technology (RSA, Framework for the NSDS 2011-2016, 2010:17). These programmes are made available to employed persons yearning to learn skills for their current or future work place, as well as the unemployed, who have limited skills (RSA, framework for the NSDS 2011-2016, 2010:18). Statistics show that the total number of unemployed persons in such programmes between 2005 to 2007 were as follows: 79% blacks, 46% women, 3% people with disabilities and 69% youth. These statistics strengthen the rationale for determining the contribution of Protech training which is made available to black persons and the youth of South Africa.

Arguably, the challenge with non-accredited short courses is that the completion rate thereof is low (Groener, 2014:15). This completion rate may be caused by factors which impinge on the human dignity of people such as lower levels of literacy and numeracy skills than those assumed for success, the skills development programmes may not match their prior learning experiences, support from trainers may be limited, trainees may have insufficient money to access skills development opportunities, and they may not have

persons who can care for their children (IFSW, 2016:42). The success indicator of this component is that all companies ought to have skills training plans and need to produce an increased number of trainees who have completed such programmes by 2016 (RSA, framework for the NSDS 2011-2016, 2010:18). Given the above success indicator, Protech training is an example of a skills programme.

It is required to produce an increased number of trainee graduates in 2015 than when it was first introduced in 2011. This is an element which was also investigated in this study (see Chapter 3 Sub-theme 4.2).

2.2.3.4 Programme that builds the academic profession and engender innovation

The NSDS 2011-2016 (2010:18) mentions that academic researchers and innovators are often seen as inhabiting another world to that occupied by the human development community; however, this is far from true. Without academic researchers and innovators, industry would stagnate, and pressing health, social and economic problems would remain unresolved (RSA, Framework for the NSDS 2011-2016, 2010:18). Thus, it is for this reason that government funding ought to be made available to this sector on whose shoulders its future may well depend (RSA, Framework for the NSDS 2011-2016, 2010:19). The achievement of this component is measured in terms of the increase in the number of people entering the academic profession.

2.2.4 Stakeholders in programme delivery

The delivery of programmes mentioned in the NSDS 2011-2016 requires the participation of the public and private sector, as well as partnerships between workplaces and training institutions (RSA, Framework for NSDS 2011-2016, 2010:20). However, currently the level of trust amongst these stakeholders is low, and labour relations have become tense (RSA, National Development Plan 2030 Executive Summary, 2012:33).

It is often argued that government ought to be a catalyst for training programmes as many learners come from poor homes and are unable to pay course fees, but this does not

mean that there is no role for the private sector (RSA, Framework for the NSDS 2011-2016, 2010:20). In fact, it is inconceivable that an inclusive growth path can be achieved in the absence of public-private partnerships (RSA, National Development Plan 2030 Executive Summary, 2012:33). Thus, there is need for both the public and private sector to provide skills development programmes.

Government envisages promoting partnerships between workplaces and training institutions through providing two types of grants. The first grant is guaranteed and the second grant is acquired on producing evidence of trainees accepted into accredited workplace learning programmes (RSA, Framework for the NSDS 2011-2016, 2010:21).

The National Skills Fund (NSF) is the vehicle in the provision of these grants and it is therefore viewed as a national resource used to initiate and to respond to national skills priorities (Groener, 2014:11). Alternatively, workplaces and training institutions can request for grants through the NSF's social development funding window (RSA, Framework for the NSDS 2011-2016, 2010:22). Harmony Goldmine, as a private company, has adhered to government's call of instigating skills development through Protech training, however; whether the mine acquires the first and second grant through the NSF; or even requests for it, is not mentioned in their reports.

2.3 Overview of ISTPs within the mining context

It is impossible to discuss artisanal training and the attributes of the current artisan system in South Africa without first examining how the economy was organised around industrialisation (Mbatha, Wildschut, Mncwango, Ngazimbi, & Twalo, 2014:5). The importance of looking back to understand the present is highlighted by Wedekind (2013: 1) when he asserts that the South African artisanal training systems and its problems are inseparable to the economy, and any attempts to reform the system ought to be understood within the socio-economic context that shaped the society.

This section therefore traces the history of artisanal training from the formalisation of apartheid, to the period of reform initiated in the 1980s. The post-apartheid's focus on redistribution and transformation and the inception of ISTPs is outlined, and finally, Protech training as an example of ISTPs in mining is discussed.

2.3.1 Period between 1948-1959

The National Party's ascent to power in 1948 resulted in many racially exclusive policies, starting with the Group Areas Act 41 of 1950 and the Bantu Building Workers Act 27 (Mbatha et al., 2014:7). These Acts ensured the exclusion of black Africans from artisanal and technical training along spatial lines (Wedekind, 2013:1). While the Group Areas Act propagated racial exclusion by geographical location, the Bantu Building Workers Act sought to achieve the identical result via technical training (Mbatha et al., 2014: 7).

The Group Areas Act resulted in separate universities and technikons across racial lines (Wildschut & Mbatha, 2016:3), and while there were elements of commonality in curriculum; the organisational culture, financial resourcing and quality varied greatly with white South Africans enjoying the largest share (Wedekind, 2013:2). Thus, although the training of black people as artisans in the building trade was allowed, the Group Areas Act specified that they could only work in designated areas, hence; making it a criminal offence for them to undertake technical work in urban areas that were not designated for black people (South African History Online: Towards a People's History, 2017).

Racial exclusion was preferred even though the De Villiers Commission Report, which led to the passing of the Training of Artisans Act 38 of 1951, had identified the building

sector as most in need of artisan training, with a reported shortage of approximately 13 000 artisans in 1985 (Mbatha et al., 2014:7). The Commission proposed for the decentralisation and favorable location of artisanal skills training programmes to take advantage of cheap black labour and alleviate the shortage of skilled labour (Mukora, 2008:44). However, the compulsion of blacks into lower status skills resulted in whites

forming the majority of trainees in higher status skills (Wildschut & Mbatha, 2016:4). To further legitimise the status quo in education and the workplace, legislation such as the Bantu Education Act of 1953 was enacted alongside the job reservation and the Colour Bar policies (South African History Online: Towards a People's History, 2017). The core purpose was to maintain white supremacy and black subservience by giving preference to white workers, and prohibiting certification for acquired skills for Africans, Indians, and coloured persons (Mbatha et al., 2014: 7).

The Vocational Education Act 77 of 1955 sought to regulate the establishment, maintenance, management and control of vocational schools and part-time classes (Mummenthey, 2010:10). Vocational schools formed a strong foundation for technical skills in South Africa during this period although the output was not always enough to meet the increasing market demand of the 1950s (Mbatha et al., 2014:7).

While Africans continued to be excluded from technical training, white trainees were fully sponsored by an employer in that they studied part-time for a period of 3-5 years and were provided practical work experience under the supervision of a senior at their work place (Mummenthey, 2010:10). Other related labour market legislation which enforced racial segregation at the workplace included the Industrial Conciliation Act and the Labour Relations Act 28 of 1956 (South African History Online: Towards a People's History, 2017)

The key piece of legislation that aimed to cement the racial divide along spatial lines was the Promotion of Bantu Self-Government Act 46 of 1959 which led to the establishment of the ten homelands that were intended to become independent 'states' for Africans across ethnic lines (Mbatha et al., 2014:7). Homelands were seen as a dumping ground and a source of large reserves of cheap labour. The creation thereof led to the establishment of the Bantu Investment Corporation Act 34 of 1959 which provided for the creation of financial, commercial and industrial schemes to facilitate the growth of small businesses owned by black Africans in the homelands (South African History Online: Towards a People's History, 2017). These actions facilitated a discriminated and limited set of skills for black workers (Mbatha et al., 2014:7).

2.3.2 Period between 1960-1979

The period that followed demonstrated, again, the intense interplay between different labour market sectors and their related skills demands in the midst of political pressures (Wildschut & Mbatha, 2016:4). The construction of harbours and railway systems required appropriate technical skills (Mbatha et al., 2014:7). During this rapid industrialisation process, the agricultural and manufacturing sectors expanded their shares of the economy (Wildschut & Mbatha, 2016:4). These shifts led to increasing mechanisation processes and, in turn, an increase in the demand for skilled artisanal labour (Mbatha et al., 2014: 7). Artisans from the United Kingdom and Australia were subsequently recruited into South Africa between 1960 and 1970 to meet this massive demand (Mukora, 2008:44). However, the challenge of escalating white immigrant labour costs was overcome by government training programmes for unskilled white workers and by the colour bar, reclassification of jobs in terms of race (Wildschut & Mbatha, 2016:4).

Conversely at the beginning of the 1970s, this intervention was no longer sufficient to respond to the growing demand for artisanal skilled labour, particularly in manufacturing and infrastructure (Wedekind, 2013:2). Employers started to complain about skill shortages and began to explore options apart from immigration (Mukora, 2008:44). Subsequently, government heeded the call of employers and abolished the Colour Bar Act; which enabled the absorption of a limited number of Africans into artisanal training previously reserved for their white counterparts (Wildschut & Mbatha, 2016:4).

The amount of training required to permit the advancement of black workers into artisanal jobs was enormous (Mukora, 2008:45). However; employers proceeded to pressurise government to provide improved artisanal training for black Africans (Mbatha et al., 2014:8). The over-reliance of employers on government to provide skilled workers was due to companies' lack of recognition by the state as training partners (Mummenthey, 2010:10). Furthermore, government provided few incentives for companies to train, and many companies held the view that skilled staff is to be acquired externally from others

than internally trained (Mbatha et al., 2014:8). Thus, employers were skeptical about the merits of partaking in artisanal skills training (Mummenthey, 2010:10).

The exclusion of black people from artisanal training and extending better remunerated employment to be reserved for white employees meant little incentive to pursue artisanal certification for blacks (Wedekind, 2013:1).

The result of inefficiency is apparent in the data which stipulates that between 1951 and 1979 the vast majority of artisanal trainees per annum were white (37 600), followed by coloured (6 700) and black workers (560) (Mbatha et al., 2014:8). In addition, while the majority of white trainees were in the metal and engineering sector, the largest proportions of other race groups were found in the building sector with 55% Coloured, 35% African and 45% Asian trainees (Wildschut & Mbatha, 2016:4).

2.3.3 A shift to reform in the 1980s

In terms of gross domestic product, the economy continued to grow until the late 1970s, but this was only due to the dominance of the mining sector and the rise in the gold price (Mukora, 2008:43). Gold price increases led to positive injections into government revenues from mining taxes (Mbatha et al., 2014: 9). Government spending on projects included infrastructural investments in motorways, railway lines, electricity (Eskom), Sasol, and Iscor (Mukora, 2008:43). However, a politically hostile international environment and local unrest continued to have a detrimental effect on the economy as a whole (Mbatha et al., 2014:9). This resulted in failure by the apartheid government's attempts to reform the labour market, which in turn led to the economy's practical collapse in the 1980s (Mukora, 2008:45).

The economy was shrinking between 1981 and 1983; between 1984 and 1986 there was zero growth, and the economy confronted further negative growth from 1989 to 1992, with an annual rate of -2.1 in 1992 (Mbatha et al., 2014:10). In perpetual prices, the agricultural and mining sectors showed negative growth rates. Furthermore, the

contribution of the gold-mining sector to the fiscus dropped from 38% to 6% (Mukora, 2008:44).

The historically white system became inclusive and accessible to Africans with reforms recommended by the three government commissions in the late 1970s, namely: the Wiehahn, Riekert and De Lange Commissions (Mummenthey, 2010:10). The Manpower Training Act 86 of 1981 was introduced to give black people opportunities to receive artisanal skills training although still within a racialised socio-political structure (Wildschut & Mbatha, 2016:4), and at this juncture, 90% of trainees in technical colleges were now black and studied full time, mostly without being able to secure employer participation (Mummenthey, 2010:11). It can also be argued that this Act was an example of a sexist policy, and was not gender sensitive. Nonetheless, The Manpower Training Act 86 of 1981 enabled growth in the number of black artisans with 1 915 artisans compared with none in 1973 (Mbatha et al., 2014:10). The reference to 'Manpower' in the Act points to the gender insensitivity that remains a critical aspect in development as pointed out by the 2030 Agenda for Sustainable Development (UN, 2015).

Formalised training of black artisans in the 1980s can, in some aspects, be seen as too little too late as the economy was broken and many formal-sector jobs were lost from the late 1980s right through the 1990s (Wildschut & Mbatha, 2016:4). Attempts to make artisanal training informal through short-term courses was recommended and incorporated into the Amendment of the Manpower Training Act 39 of 1990 (Mukora, 2008:45). However, this did not stop the rapid decline of the training system from the 1980s through to the early 1990s (Mummenthey, 2010:11) in that implementation of informal artisanal training proved to be difficult.

From the above discussion it is evident that political objectives of the apartheid era inhibited the supply of technical skills to meet the demand for the country's socio-economic development. Nevertheless, by the late 1980s, there were robust political efforts to alter the labour market and training system. Thus, after 1994, the expectation was that

a new dispensation would radically influence the system by restructuring it, while at the same time responding to demands of the global economic environment.

2.3.4 Post-apartheid

After 1994, sturdy efforts to create a deracialised labour market system were consolidated (Wildchut & Mbatha, 2016:2). There was realisation that the labour market structure would reflect the socio-economic and political histories underpinning it, as such, the new government placed redistribution and transformation at the top of its agenda in policy making (Mbatha et al., 2014:13). In an effort to stimulate economic growth, redistribute wealth and support vulnerable sectors in the economy, strategies were formulated in the form of the Reconstruction and Development Programme (RDP) in 1994 and the Growth, Employment and Redistribution strategy (GEAR) in 1996 (Groener, 2014:11).

Economic growth was to be facilitated through GEAR, in which it was envisioned that employment in the formal economy would increase by 2.9% per annum, providing 400 000 new jobs by the year 2000 (Mbatha et al., 2014:13). One of the GEAR key objectives was to increase improved skills training and education, and artisanal skills training was viewed as critical to the expansion and strengthening of the post-apartheid South African labour market (Wildchut & Mbatha, 2016:5). Unfortunately, the adoption of GEAR meant that the ANC's pre-democratic welfare ideology was sidelined as it slowed down government's funding on its socio-economic programmes (Lombard, 2008:157). GEAR was a neoliberalism macro-economic strategy embedded in capitalism (Wildchut & Mbatha, 2016:5). Thus, it can be concluded that the NSF discussed in section 2.1.1.4 was limited or non-existent to fund socio-economic programmes such as Protech training after the inception of GEAR.

In an attempt to eradicate racial exclusion in artisanal skills training and inequality precipitated by the apartheid government, new legislation was enacted during this period: the Labour Relations Act 66 of 1995, the Basic Conditions of Employment Act 75 of 1997 and the Employment Equity Act 55 of 1998 (Mbatha et al., 2014: 13). Furthermore, in the

education and training sector, new programmes and frameworks were instituted to stimulate artisanal training for previously disadvantaged groups (Wildschut & Mbatha, 2016:5). These include the South African Qualifications Authority Act 58 of 1995, the Higher Education Act 101 of 1997, the Further Education and Training Act 98 of 1998, and the Skills Development Act 97 of 1998 (Mbatha et al., 2014: 13).

The Sector Education and Training Authorities were established to plan and co-ordinate skills development processes in specified sectors and among relevant stakeholders. The General and Further Education and Training Quality Assurance Act 58 of 2001 also deserves mentioning in that it forms the basis of the quality assurance of general and further education and training qualifications (Mbatha et al., 2014:13).

A key development in relation to skills training is the first NSDS which introduced ISTPs to address shortages in the artisanal skills system, given its historically entrenched exclusivity and inaccessibility to black learners (Wildschut & Mbatha, 2016:5). In the NSDS, government recognises informal skills training as a vital element in the emancipation from poverty, and a key tool in economic growth and social inclusion (Mummenthey, 2010:12). Protech training is an example of such an informal skills training programme.

2.3.5 Protech training as an example of ISTPs

Protech training is facilitated by the framework for the NSDS 2011-2016, and Harmony Goldmines' commitment to the socio-economic development of poor people within the informal settlement of Doornkop shaft (Harmony Goldmine, 2016c). It has been in existence at Harmony Goldmine since 2011 and provides training to poor people, and particularly, the youth (Protech training, 2016:5). It offers three months artisanal and technical training in bricklaying, carpentry, plastering, plumbing, electrician, diesel mechanics, instrument mechanics, boiler makers, riggers and millwrights (Mining CSI, 2015:15). Protech training acclaims itself to providing a holistic training approach that not only trains incumbents, but also leads to employment (Mining CSI, 2015:16). It is

accredited by the Energy and Water Sector Education and Training Authority (EWSETA), and the Construction Education and Training Authority (CETA), which ensures national recognition under the South African Qualifications Authority (SAQA) (Protech training, 2016:5).

The SAQA Act was the first piece of legislation passed by the post-apartheid government (Mukora, 2008:48). The notion was that the National Qualifications Framework, overseen by the SAQA, would integrate formal and informal skills training into a single qualifications framework (Protech training, 2016:5). This would ensure that people previously excluded from formal training, could gain access into informal skills training, acquire qualifications, and become integrated into formal employment (Mummenthey, 2010:12).

In a personal interview with Mr Machete (2016), Harmony Goldmine's Human Resource Manager overseeing Protech training, it was stated that Protech training affords trainees an accredited certification upon completion to find employment, or to create self-employment through establishing small businesses. However, Harmony Goldmine does not have any evidence that trainees get employed with their skills set (Machete, 2016).

Other ISTPs facilitated by the framework for the NSDS 2011-2016 include the Lonmin artisan school at Lonmin Platinum mine in the North West Province which provides training in diesel mechanics, instrument mechanics, boiler makers, riggers and millwrights to learners, community members, and miners who have been identified for skills training (Lonmin, 2016). Mogola Skills Development Academy at Exxaro coal mine provides training at the cost of the mine to community members in computer studies, bricklaying, and carpentry (Exxaro Powering Possibilities, 2015:32).

Sibanye Gold Academy in Westonaria, Johannesburg, provides training for community members to be absorbed at Sibanye Goldmine, and other companies where their artisan and technical skills could be best used (This is Gold, 2015:7).

From the above discussion, it appears that Harmony Goldmine provides a wider spectrum of skills training than Lonmin, Exxaro, and Sibanye, which will subsequently provide an indication of the contribution of wider scope of training. In the next section the contribution of ISTPs on human development, employment and human dignity is discussed.

2.4 Contribution of ISTPs on human development, employment and human dignity

As mentioned in section 2.1, human development is a critical pillar in the realisation of social development (Engelbrecht, 2008:168). It is about enhancing human choices and focuses on the richness of human lives rather than the richness of economies (United Nations Development Programme [UNDP], 2015:1). It focuses on the strengths of people rather than their deficiencies (Elliott, 2011:103), and thus applies the capabilities approach in that it recognises and embraces individualism (Sen, 1999:11).

Human development requires skills training for socio-economic benefit (Lombard, 2003:161), but as Rautenbach (2009:191) asserts, training alone will not result in socio-economic benefit. The socio-economic contribution of human development is attained through employment opportunities which enable people to improve their overall livelihoods and to ultimately realise their human dignity (UNDP, 2015:3). Thus the discussion below focuses on the contribution of ISTPs on human development, employment and human dignity.

2.4.1 Contribution of ISTPs on human development

Mbatha et al. (2014:5) argue that ISTPs are theoretically essential in improving poor people's skills level, because they most often have limited or no exposure to FSTPs due to lack of the money required to pursue such training. Only 3.2% of black youth aged between 18 and 29 were able to access FSTPs in 2013, with white attendance in the same demographic at 18.7%, 9.2% for Indian and Asian, and 3.1% for coloured attendance (Wakefield, 2014:1).

The lack of exposure to FSTPs hinders many poor people from finding work and exiting the poverty cycle prevalent within their families (Department of Social Development, 2016:2). In some instances they have acquired FSTPs, however of inferior quality, which inevitability makes it difficult to find work (Oluwajodu, Blaauw, Greyling & Kleynhans, 2015:3).

Statistician General Pali Lehohla in Wakefield (2014:1) asserts that the closing of teacher training schools post 1994, coupled with lack of textbooks in schools are some of the factors causing this inferior quality. Wedekind (2013:5) further mentions that high levels of teacher and learner absenteeism, low levels of teacher content and pedagogic knowledge, limited parental involvement, poor support from education authorities, and backlogs in infrastructure are features of a school system that are consistently referred to as being in crisis.

Rural provinces such as the Eastern Cape, KwaZulu-Natal, and Limpopo are mostly affected as they have the poorest schools in terms of human and material resources and consistently record pass rates below the national average (Equal Education, 2017). However, there are 30% of poor schools which are relatively stable that do function and produce results of reasonable quality, along with a growing private sector that caters to a growing number of poorer communities that are not serviced by state schools (Wedekind, 2013:5).

Harmony Goldmine is an example of a private company that caters for poor communities through its Protech training. It invites children of deceased or retired mineworkers residing at Wedela to participate in their preferred training programme. However, opportunities without determining the contribution thereof do not do justice to the intended outcome of ISTPs which is to improve poor peoples' lives. Harmony Goldmine, as in the case of Lonmin, Exxaro and Sibanye Gold mines, is not in a position to annually report on its respective ISTPs because they do not produce evidence on whether their trainees benefitted from such training in terms of human development, securing employment, and realising their human dignity (Mining CSI, 2015:11).

2.4.2 Contribution of ISTPs on employment

Statistics South African (2014) report indicates a strong link between increased levels of education and decreased levels of poverty (Mining CSI, 2015:11). This report indicates that at the end of November 2011, 75% of people with no education were living in poverty, with poverty levels declining to 55% for those who had completed primary school, 44% for those who had some secondary schooling, 23.6% for those who completed matric, and only 5% for people with higher education. Thus, these figures support the ideology that a higher education of some sort increase employment prospects above having just a matric certificate (Equal Education, 2017).

Oluwajodu et al. (2015:3) rightfully argue that education, and in the context of this study ISTPs, alone cannot eradicate poverty; but rather, education coupled with job opportunities enables poverty eradication. Mbatha et al. (2014:6) argue that ISTPs enable employment as they mostly provide artisanal and technical skills required by the South African economy to bridge the skills shortage gap. The framework for the NSDS 2011-2016 (2010:16) expresses an alarming skills shortage in artisan and technical skills required for the country's social development and promotes the provision of ISTPs by mining companies to poor people in informal settlements.

Poor people in South Africa are predominately black, between the ages of 15 and 35, and comprise almost 40% of the population (Nicolson, 2015:1). They are the country's youth, and employment acquired through ISTPs affords them the opportunity to improve the quality of their livelihood (Mbatha et al., 2014:13). Employment enables them to afford quality healthcare services provided for in the private sector, and grants them the opportunity to move into better living areas such as urbanised cities and towns, or to build their own homes with access to proper sanitation (Department of Social Development, 2016:2), which also constitutes human rights (RSA, 1996:11), as it is the case with human development, employment and human dignity.

The Doornkop community comprises of youthful parents who mostly acquire child support grants on behalf of their children (Machete, 2016). Thus, employment acquired post Protech training could reduce their dependency on social assistance provided for by the state. Social assistance is a human right, however, social assistance in the absence of human development inhibits the self-reliance which Lombard (2007:300) alludes to. Self-reliance is the ability of persons to sustain their livelihoods long after state remedial assistance ceases to exist (Carney, 2001:13).

However, it is the researcher's view that this is likely not to be reality where poor people, in this instance the Doornkop community, are solemnly reliant on social grants. South Africa's social assistance system is the largest in Africa, and it is government's most direct means of combating poverty (Berzin, 2012:187). Spending on social grants accounts for 3% of the gross domestic product, and it is expected to substantially rise due to lack of skills and employment amongst the poor (Department of Social Development, 2016:2).

Social grants significantly improve people's access to food and education (South African Social Security Services, 2016:3), however, do not enable them to meet all their basic needs (September, 2007:97). Basic needs refer to education, healthcare, housing, and food (Studies in Poverty and Inequality Institute, 2007:7). Consequently, inability of persons to meet basic needs restrains their human dignity (De Vos & Freedman, 2014:668).

2.4.3 Contribution of ISTPs on human dignity

As already mentioned, human dignity is the inherent worth of every human being not dependent on race, age, gender or social class (Blennberger, 2006:7). However, lack of respect for people's dignity is evident worldwide (IFSW, 2016:9). Arguably large numbers of people who lack access to housing, clean water and certainty for their futures experience lack of human dignity (Blennberger, 2006:8).

Human dignity is not merely hindered by lack of access to basic needs, but also to issues pertaining to inequality, sexism, domestic violence, and homelessness (IFSW, 2016:38). Kaufmann, Kuch, Neuhäuser and Webster (2011:12) mention other vulnerabilities to human dignity which include terror and torture, killing and rape, slavery, racism, hard and monotonous work, political and religious suppression, the refusal of citizenship, being prohibited from maintaining personal relations, state control and restriction of liberty, flagrant injustice, disregard of privacy, insult, and interference with one's biological make-up without their consent thereof.

Poverty which is precipitated by poor income, low literacy levels, and little technical skills severely inhibits people's human dignity (IFSW, 2016:38) and is a rationale for a research study to determine the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.

Poverty can be interpreted in a narrowest sense which means a lack of income, or a broader sense which means inability to afford basic needs as well as issues concerning social capital and inequality (Studies in Poverty and Inequality Institute, 2007:10). Social capital encompasses funding (Lombard, 2003:161) and reassures collectivism, justice and peace (Rozario, 2002:76). However, the apartheid era's fragmented social capital investment between black and white, particularly in skills training, resulted in a separated, unjust and hostile South Africa (Wedekind, 2013:2).

Although the new democratic dispensation has attempted to redress injustices of the past, inequalities continue to exist (Wakefield, 2014:1). The bulk of the country's wealth remains in the hands of the minority population (Terry, 2008:164), and the poor continue to be unemployed and excluded from the mainstream economy due to lack of skills (Studies in Poverty and Inequality Institute, 2007:12), thus rendering the existence of ISTPs imperative to equipping poor people with skills to secure employment so as to realise their human dignity.

While mines' capital investment in ISTPs cannot be disputed, it is unclear how it contributes to trainees' socio-economic development in the absence of measurement (Siyobi, 2015:4). Furthermore, lack of reporting on the contribution to socio-economic development creates an impression that mines automatically associate money invested in ISTPs with socio-economic development outcomes.

The overall ISTPs cost at Harmony Goldmine in 2015 amounted to R371 million, however, Harmony's integrated annual report for the said year does not provide specific costs spent on Protech training, nor its contribution to trainees' socio-economic development (Harmony Goldmine, 2016c). In an interview with the Human Resource Manager at Harmony Goldmine, Machete (2016) confirmed that ISTPs' contribution to socio-economic development is not measured.

He further indicated his support of a study exploring ISTPs' contribution to the socio-economic development of trainees from the Doornkop shaft.

2.5 Summary

The literature review focused on the framework for the NSDS 2011-2016 which guided what the researcher ought to look for in exploring training outcomes. This section was followed by an overview of ISTPs within mining, and thereafter the contribution of ISTPs on human development, employment, and human dignity. Harmony Goldmine's capital investment in ISTPs was acknowledged and Protech training was mentioned as an example of ISTPs aimed at contributing towards socio-economic development which in the context of the study refers to human development, employment and human dignity. Finally, the Human Resource Manager ratified that Protech training's contribution to socio-economic development is not measured, and endorsed a study to determine the contribution thereof.

CHAPTER 3

RESEARCH METHODOLOGY, EMPIRICAL STUDY AND FINDINGS

3.1 Introduction

This chapter outlines the research methodology that was applied in the study, and presents and discusses the research findings of the study. The research question that guided the study was:

- What is the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development?

The sub-questions that informed the main question were:

- What is the contribution of training to trainees;
 - human development,
 - employment status,
 - human dignity, and
 - access to housing, healthcare, and food security?

The section below begins with a discussion of the research methodology. This section will be followed by ethical aspects relevant to the study, followed by the limitations of the study. Then the research findings of the empirical study are presented and discussed.

3.2 RESEARCH METHODOLOGY

The methodology followed in this study is subsequently described.

3.2.1 Research approach

The research study stemmed from the constructivism paradigm where participants were actively involved as partners throughout the data collection process (De Vos, Strydom, Schulze & Patel, 2011:7). The study was explorative and descriptive in nature. Explorative research implies examining a subject in an attempt to gain insight, while descriptive

research is describing the characteristics of a phenomenon that is being studied (Fouché & De Vos, 2011:95; 96).

By exploring the contribution of training to trainees' socio-economic development, the researcher gained insight into the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development from participants. The descriptive research entailed an in-depth analysis of the socio-economic development and the meaning thereof for the participants; in relation how it contributes to their human development, employment, human dignity and access to housing, healthcare, and food security.

The research approach for the study was qualitative as the researcher aimed to acquire in-depth insight from participants' view (Creswell, 2014:4) regarding the contribution of Harmony Goldmine's Protech training to socio-economic development. Qualitative researchers focus on the socially constructed nature of reality, the intimate relationships between the researcher and what is being studied, and the constraints that shape inquiry (Denzin & Lincoln, 2011:8). Therefore the researcher collected data at the site where participants experienced the phenomenon (Creswell, 2014:4), which in the case of this study is how Protech training contributes to the socio-economic development of trainees who reside at Wedela, near Harmony Goldmine's Kusasaletu plant at Carletonville.

3.2.2 Type of research

The type of research selected for the study was applied because it was concerned with developing solutions to problems and applying such solutions in practice (Patton, 2002:217). In the study, the problem was that the youth in Wedela were unemployed and lived in poverty. Harmony Goldmine's Protech training trained the youth and subsequently reported on millions of rands spent on ISTPs in an attempt to advance their socio-economic development. However, without any evaluation of the contribution of ISTPs, there was no evidence to what extent this training was promoting the socio-economic development of the youth, and hence reduced their poverty and unemployment.

Applied research was undertaken to improve the quality of practice in the mine's provision of ISTPs. Thus, it was the researcher's intention to provide Harmony Goldmine with research outcomes that will enable them to determine the contribution of Protech training

on trainees' socio-economic development. Furthermore, based on findings and recommendations of the study, assist Harmony Goldmine to make ISTPs more efficient so that socio-economic development is promoted.

3.2.3 Research design

The intrinsic case study research design was most appropriate for the study because the researcher aimed to describe, analyse and interpret the phenomenon (Fouché & Schurink, 2011:320), which was the contribution of Harmony Goldmine's Protech training to trainees' human development, employment, human dignity, housing, healthcare, and food security. Case study design is specifically relevant when there is need for thorough understanding of an issue in its real life context (Fouché & Schurink, 2011:321), which in the context of the study was the contribution of Harmony Goldmine's Protech training at Kusasalethu mining shaft.

Furthermore, case study design explained complexities which could not be effectively captured through experimental survey designs (Gulsecen & Kubat, 2006:100) which are concerned with numerical and statistical methods (Fouché & Delport, 2011:64). In alignment with the qualitative nature of the study, the case study design was relevant to capture the perception of participants (Creswell, 2014:47) on the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.

3.2.4 Study population and sample

A study population refers to persons in the universe who have specific characteristics with which the research problem is concerned (O'Dywer & Bernauer, 2014:71). In the study the population was Protech training trainees, trainers and the manager who were involved in ISTPs planning and training at Kusasalethu shaft.

However, after four months of failed attempts to interview the manager, the researcher proceeded with presenting findings without the manager's contribution. The population consisted of all the people who had been part of Harmony Goldmine's Protech training from 2013 to 2015.

A sample is a smaller representative of a population which is selected to partake in the research study (Bell, 2010:149) and studied in an effort to comprehend the population from which it is drawn (Strydom, 2011a:224). In the study, the sample consisted of the following:

- Two Protech trainers
- Sixteen trainees residing at Wedela, the informal settlement of Harmony Goldmine's Kusasaletu shaft.

The researcher used non-probability sampling (Strydom & Delpont, 2011:391). Protech training produced a list of trainees who completed training between 2013 and 2015, and the first 16 trainees who were telephonically contacted meeting the purposive sampling criteria, were considered for the study. Purposive sampling, a type of non-probability sampling, was used when the researcher had identified the applicable participants, and subsequently approached them to participate in the study (Patton, 2002:230). The two trainers who were willing to participate in the study met the following criteria:

- Had been facilitating Protech training between 2013 and 2015,
- Were conversant in English, Setswana, or IsiZulu

The sixteen trainees willing to participate in the study met the following criteria:

- Trainees completed Protech training between 2013 and 2015,
- Trainees were conversant in English, Setswana, or IsiZulu,
- Trainees were at least 18, but not older than 35 years at the time of conducting the study.

3.2.5 Data collection methods

One-on-one interviews were used as a qualitative data collection method, and two semi-structured interview schedules (see Appendices A and B) was developed to guide the researcher in asking the questions to the trainers and trainees respectively (Greeff, 2011:352).

The advantage of one-on-one interviews is that they enable quick acquisition of large and meaningful data (Greeff, 2011:360). However, a disadvantage is that interviews, transcriptions, as well as data analysis are all time consuming (Greeff, 2011:360).

The researcher managed the time of the interviews as consciously as possible in accordance with the prior agreed time frame indicated in the informed consent forms. Interviews with trainees were conducted at Wedela community hall where participants were comfortable to express their views while being recorded. Interviews with trainers were conducted at the mine. Permission to record participants was requested in the informed consent form (see Appendix C).

3.2.6 Data analysis

Thematic analysis as presented by Braun and Clarke (2013:121-123) was used in the data analysis phase. The process begins with familiarising oneself with data, coding, searching for themes, reviewing themes, naming themes, and compiling the research report (Braun & Clarke, 2013:121-123).

During data collection, interviews were audio recorded. The researcher began to familiarise herself with data by continuously listening to recorded interviews (Braun & Clarke, 2006:124). Interviews were transcribed into written form in order to conduct a thematic analysis (Braun & Clarke, 2006:80). Once the researcher familiarised herself with the data, coding began. The different codes were categorised into potential themes (Braun & Clarke, 2013:80), and “mind maps” were used to categorise different codes into themes and sub-themes (Braun & Clarke, 2006:89).

After identifying the themes and sub-themes, they were reviewed and refined. If there was insufficient data to support them, they were then disregarded as themes (Braun & Clarke, 2013:90). The researcher ensured that themes appear in a coherent pattern (Braun & Clarke, 2006:91), so that they are clear and easily identifiable (Braun & Clarke, 2013:90).

The researcher proceeded to define and refine the themes that she presented for analysis, and analysed the data within them (Braun & Clarke, 2013:92). The essence of each theme

was identified, which enabled the researcher to compose a name for each theme (Braun & Clarke, 2013:93).

3.2.7 Trustworthiness of data

Credibility, conformability, external auditing, and peer debriefing were used to establish the trustworthiness of the research Creswell (2014:201;202). Credibility means that the research is conducted in a manner that ensures that participants have been accurately identified and described (Schurink, Fouché & De Vos, 2011:419). One of the techniques to ensure credibility is member checks, which require confirming responses conveyed by participants (Babbie, 2013:408). In the study, the researcher asked six participants to read their respective transcripts, and they reported that their views were accurately documented.

Conformability stresses the need to ask whether the findings of the study could be confirmed by another person (Schurink et al., 2011:421). Therefore, the researcher requested that a social work researcher working for a private organisation listen to recordings of interviews in order to corroborate findings and interpretations. Accordingly, the social work researcher's findings and interpretations corresponded with that of the researcher.

Creswell (2014:201;202) recommends the use of multiple approaches to ensure accuracy of findings. Thus in addition to a social work researcher, a colleague was appointed as an external auditor to review all transcripts and provide an objective assessment of the findings at the conclusion of the study. The colleagues' assessment of the findings was similar to the researcher's assessment.

As a means of peer debriefing, Rubin and Babbie (2011:211) stipulate the importance of meeting with mentors to dialogue regarding research decisions. Therefore, the researcher continuously engaged with her research supervisor to ensure that the most appropriate decisions about the study were taken.

3.2.8 Pilot study

A pilot study tested the entire research process which included the literature review, the experience of the researcher, the feasibility of the study as well as the information-collection instrument (Strydom & Delpont, 2011:395). During the pilot study, the researcher examined whether the literature review and selected theoretical framework genuinely guided the investigation (Delpont, Fouché & Schurink, 2011:298). Greeff (2011:350) states that piloting enables a researcher to become aware of their interviewing skills. Therefore, during the pilot study the researcher familiarised herself with the interview schedule in order to focus more on listening to participants in the actual study.

As part of determining the feasibility of the study, the researcher determined whether interviewing participants at their home was practical which turned out not to be the case due to the presence of other family members and lack of privacy between the researcher and participants during interviews. Hence, Wedela community hall was used to conduct interviews. Participants in the pilot study had the same attributes as those who participated in the actual study (Strydom & Delpont, 2011:394). Furthermore, the semi-structured interview schedule was pretested during the pilot study, to ensure clarity of the questions in the actual study (Strydom & Delpont, 2011:395). The first interviews in the respective participant categories, that was trainers and trainees, served as the pilot study. The interviews were audio recorded, transcribed, and analysed to determine whether data corresponds to the research questions. There were no changes required and findings were used in the actual study as is appropriate in qualitative studies (Greeff, 2011:351).

3.2.9 Ethical considerations

Ethics refer to a moral set of principles outlined by a group of individuals which are generally accepted and provide behavioural expectations about the most appropriate conduct towards research participants, employers, sponsors, co-researchers, assistants and scholars (Strydom, 2011b:114). The following ethical aspects were applicable in the study:

3.2.9.1 Avoidance of harm

Participants were not subjected to emotional or physical harm (O'Dywer & Bernauer, 2014:10). Possible emotional harm that could have been caused by trainees sharing their status as poor persons was minimised through the researcher's efforts in providing debriefing at the end of each interview.

3.2.9.2 Voluntary participation

Participation in the research study was voluntary, hence participants were not obliged to answer a question if they did not wish to and could withdraw their participation at any time without any consequences (Bell, 2010:45). The researcher requested verbally and in writing for trainers and trainees' participation and the purpose of the study was conveyed to them which enabled them to make a well informed decision to participate. The informed consent letter (see Appendix C) covered these aspects. All participants were willing to answer all the questions.

3.2.9.3 Violation of privacy and confidentiality

Privacy is the practice of safeguarding the identity of respondents, and confidentiality refers to agreements between persons that restrict others' access to participants' information (Bell, 2010:49). In the study, interviews were conducted at Wedela's community hall at a pre-scheduled date and time. The researcher verbally informed participants that although their views will be quoted to substantiate the study's findings, their responses could not be traced back to any participant specifically by people besides the researcher. This was also covered in the informed consent letter.

3.2.9.4 Actions and competence of researchers

Researchers are ethically mandated to ensure that they are honest, competent, and sufficiently skilled to undertake a research study (Bell, 2010:65). The researcher felt competent and sufficiently skilled to undertake the study. She passed a research methodology module as part of her postgraduate studies, and undertook the study under the guidance of a supervisor.

3.2.9.5 Corporation with sponsors

Strydom (2011b:124) states that researchers who are dependent on sponsors for research projects need to ensure that a sponsor is not prescriptive and manipulative. In an attempt to this possibility, the researcher contractually agreed with her sponsor, the Department of Social Development, to conduct her research project outside the department to avoid biasness in advantaging the department.

3.2.9.6 Publication of findings

Findings of the research must be introduced to the public in written form (Bell, 2010:54) and the research report must be conveyed clearly and unambiguously to the public (O'Dywer & Bernauer, 2014:14). The study received ethical clearance from the Research Ethics Committee of the Faculty of Humanities at the University of Pretoria prior to implementation (see Appendix D). In addition, Harmony Goldmine provided written permission to conduct the study with recipients of Protech training; trainers and the manager (see Appendix E).

Due to the non-disclosure agreement signed by the researcher with the mine, the researcher had to submit her research report to Harmony Goldmine, and only upon written consent from the mine, the researcher could submit her research report to the University of Pretoria.

Thus, Harmony Goldmine provided written consent for the research report to be submitted to the University of Pretoria, and for research findings to be used for publication(s) in accredited journal(s), and possibly presentation at a conference(s) (see Appendix F). The element of publication was disclosed in the informed consent form.

3.2.10 Limitation of study

The first limitation of the study was the unavailability of Harmony Goldmine's Human Resource Manager who was meant to be interviewed. Attempts to get hold of the manager were made, however; after four months of failed attempts, the researcher proceeded with presenting findings without the manager's contribution. With that being said, it is important to note that the absence of the manager's interview did not significantly hamper research

findings because the study was mainly on trainees' views about the contribution of Protech training to their socio-economic development.

Although there were only a few women participants, it did enable the researcher to get a glimpse from a female perspective and the role of gender in ISTP training and outcomes for employability. In hindsight, the researcher could have emphasised gender more specifically in the study and also included women participants in the sample. In addition, given the male dominance of the mining industry, it could have been that the male participants were suspicious of giving female researcher information. Finally, the study focused on trainees who graduated between 2013 and 2015. Although the findings of the study are limited to this time frame, it does provide insight into the experiences of participants of the contribution of Protech training to trainees' socio-economic development. It is highly likely that a study over a longer time frame of Protech training will point to similar tendencies.

3.3 Research findings and interpretation

The biographical details of the trainers and trainees will firstly be presented. The subsequent section will discuss the themes and sub-themes that emerged from the data.

3.3.1 Biographical information

The biographical details of the trainers and trainees are respectively summarised in Tables 3.1 and 3.2 below.

Table 3.1: Biographical information of trainers

Trainers	TR1	TR2
Gender	Male	Male
Age	36	54
Highest professional qualification	National diploma in information technology in business application	National diploma in constructive management, project management and plumbing
Years of experience in teaching ISTPs	12	10
Professional experience in ISTPs	Yes	Yes

The trainers were both males, qualified on a diploma level, and have extensive experience in teaching and the practice context of ISTPs.

Table 3.2: Biographical details of trainees

Trainees	T1	T2	T3	T4	T5	T6	T7	T8
Gender	Female	Male	Male	Male	Male	Male	Male	Male
Age	28	34	30	27	31	23	27	24
Racial group	African	African	African	African	African	African	African	African
Home language	Sesotho	SiSwati	Setswana	Setswana	IsiZulu	Setswana	IsiXhosa	IsiXhosa
Relationship status	Single	Single	Single	Single	Single	Single	Single	Single
Number of children in nuclear family	Only child	7	4	3	7	3	4	7
Highest school grade completed	Grade 12	Grade 8	Grade 12	Grade 10	Grade 12	Grade 11	Grade 12	Grade 12
ISTPs undergone before Protech training	Carpentry at Sibanye Gold	None	None	Construction, ventilation and safety rep at the mines	Boiler making and welding	None	Boiler making	None
Employment status	Unemployed	Unemployed	Employed	Unemployed	Unemployed	Self-employed	Self-employed	Unemployed

Trainees	T9	T10	T11	T12	T13	T14	T15	T16
Gender	Female	Male	Male	Male	Female	Male	Male	Male
Age	31	22	33	34	21	25	29	21
Racial group	African	African	African	African	African	African	African	African
Home language	IsiXhosa	IsiXhosa	Setswana	Setswana	Setswana	Setswana	Sepedi	Setswana
Relationship status	Single	Single	Married	Married	Single	Single	Single	Single
Number of children in nuclear family	4	7	5	2	2	4	Only child	5
Highest school grade completed	Grade 11	Grade 10	Grade 12	Grade 12	Grade 12	Grade 12	Grade 12	Grade 12
ISTPs undergone before Protech training	None	None	None	None	None	None	Bricklaying	None
Employment status	Unemployed	Self-employed	Employed	Employed	Employed	Self-employed	Self-employed	Employed

The biographical information of trainees indicates that three of the sixteen participants were female. Participants were all African; between the ages of 18 and 34, and their home languages were Sesotho, siSwati, Setswana, isiZulu, or isiXhosa.

Two participants were married and fourteen classified themselves as single. Participants' position in the family varied from being an only child to being a first born, middle and last born child. Moreover, all participants had high school education with the majority completing Grade 12.

The biographical information further indicates that five of the sixteen participants participated in other ISTPs prior to Protech training. Lastly, five participants were employed, five were self-employed, and six were unemployed.

3.3.2 Themes and sub-themes

This section discusses the themes and sub-themes that emerged from the findings of the study which are summarised in Table 3.3 below. The findings of the trainers and trainees elicited similar themes and will be integrated in the presentation.

However, the respective views of trainers (TR) and trainees (T) will be clearly distinguished where applicable. The findings will be substantiated by direct quotes from the participants and verified by literature as applicable.

Table 3.3: Themes and sub-themes

Theme 1	Expectation of trainees at the onset of Protech training
Sub-theme 1.1	Furthering tertiary education
Sub-theme 1.2	Secure employment
Sub-theme 1.3	Establish own businesses
Sub-theme 1.4	Use and refine learnt skills in own homes and communities
Theme 2	Challenges trainees experienced post training
Sub-theme 2.1	Lack of funding
Sub-theme 2.2	Unable to secure employment
Sub-theme 2.3	The training period was too brief for mastering the skill
Theme 3	Strategies for overcoming post-training challenges
Sub-theme 3.1	Extending the training period
Sub-theme 3.2	Providing apprenticeship and learnerships
Sub-theme 3.3	Placing trainees into jobs

Theme 4	Contribution of training to trainees socio-economic development
Sub-theme 4.1	Contribution to trainees' human development
Sub-theme 4.2	Contribution to trainees' employment status
Sub-theme 4.3	Contribution to trainees' human dignity
Sub-theme 4.4	Contribution to trainees' housing
Sub-theme 4.5	Contribution to trainees' healthcare
Sub-theme 4.6	Contribution to trainees' food security

Theme 1: Expectations of trainees at the onset of Protech training

Findings indicated that the expectations of trainees were to further their tertiary education, secure employment with Harmony Goldmine and other companies, establish businesses, and to use and refine their acquired skill(s) in their homes and community. Some of these expectations were only voiced by trainers, which will be pointed out in the following discussion of sub-themes.

Sub-theme 1.1: Further their tertiary education

The trainers indicated that some trainees expect to further their tertiary education in skills acquired from Protech training.

TR1 *"We do find in some instances for example with proxies, whom are young people, they want to follow such programmes as a career because they are still young and are able to go forward [to tertiary] with these programmes, and become professional artisans".*

TR2 *"...some of them they want to upgrade their level. Maybe if they have done level 2, then they want to go the college to do N1 courses or whatever they want to do".*

The researcher finds it interesting that it was only the trainers who mentioned that trainees would like to further their tertiary education on completion of the training. However, this view is based on their years of experience in training in ISTPs. They know that some trainees return to formal education because they know ISTPs restores and builds confidence for the youth to an extent that some trainees even return to formal education (Mandavha, 2011:26).

On the other hand, the trainees might have only focused on expectations prior to the training as opposed to after the training and did not elaborate because the researcher did not specifically prompt them in this regard. It may also be that they did not mention anything because they were unaware of the possibilities, or did not have an aspiration to study further. If they had information on further studies, it may have been an expected future outcome.

Bokolo (2013:3) states that mutual understanding regarding the purpose and intended outcome of a training programme between the trainers and trainees is pre-requisite to a successful programme.

The trainees focus on the immediate contribution of the learnt skill(s), as opposed to further training opportunities, is also an indication of the socio-economic reality and their need to secure an income. This view is supported by Masipa et al. (2014) and Palmer 2007 in Ausker and Rothman (2015:2), who highlighted that the critical role of training and skills development is enabling the economically vulnerable and socially excluded to access greatly needed skills to improve income, productivity and employment opportunities.

Masipa et al. (2014) and Palmer 2007 in Ausker and Rothman (2015:2) do not indicate furthering tertiary education as a goal of training and skills development programmes. However, they indicate that the goal of these programmes is to enable the economically vulnerable and socially excluded, which in the context of the study refers to trainees who have missed the opportunity to take part in FSTP, and are thus prevented to participate in the labour market, and through ISTPs get access to skills that improve income and employment opportunities.

Sub-theme 1.2: Secure employment

Participants had an overwhelmingly expectation that trainees will secure employment on completion of the training. Most participants expected that Harmony Goldmine will recruit them to work for the mine with their skill. The below quotes expresses some of the participant's views:

- TR1 *"...Once they get a certificate they are hopeful that they will get a job in the mine, and I think this is a wrong expectation".*
- TR2 *"There is usually a demand from the mine for plumbers, so they mostly want to go to the mine..."*
- T2 *"So I thought that after electrical engineering training of Protech, Harmony would absorb me on a permanent basis".*
- T3 *"The expectation was that I will be employed by Harmony Goldmine after the completion of the training".*
- T4 *"Yes, I was working on a contractual basis at the mine, and thought they will absorb me as a permanent employee".*

A few trainees expected to secure employment beyond Harmony Goldmine. They were disappointed that they could not find employment at other companies where they could apply the skill(s) acquired from Protech training. The disappointment in the inability to secure employment at other companies is depicted below in some of the trainees' views:

- T10 *"Yes, I had expected to use my skills, maybe it will help me get some employment..."*
- T11 *"I thought that I could start a future; I thought I would get some skills...and then I look for a job".*
- T14 *"I went through this training thinking that I might get a job. But I guess my expectations were never met".*

Protech training acclaims itself to providing a holistic training approach that not only trains incumbents, but also leads to employment (Mining CSI, 2015:16). Although Protech training does not explicitly promise trainees employment, it is the researcher's view that trainees' expectation is prompted by the fact that Protech provides them with skills compatible with what the market requires.

Palmer 2007 in Ausker and Rothman (2015:2) explicitly states that although skills development can resolve unemployment and poverty reduction, the resolution thereof is not achievable unless a successful pro-poor economic strategy is developed. Job creation is a pro-poor economic strategy and presents the principle pathway out of poverty.

An example of a pro-poor economic strategy is the Craft Food programme found in Senegal. The programme provides agricultural skills to young women; thereafter initiates long- term income generating projects to absorb these women on a full time employment basis with remuneration (Mandavha, 2011:26).

The Gash Sustainable Livelihoods Regeneration Project in Sudan is another example of a pro-poor economic strategy; trainees are provided artisanal skills and on completion of the training, are employed into government's irrigation and infrastructure rehabilitation project (International Fund for Agricultural Development, 2011:16).

The adoption of a pro-poor economic strategy could enable ISTPs, such as Protech, to curb unemployment and poverty through aligning training with decent work opportunities. The acquisition of employment on completion of the training could subsequently prevent the disappointment that many unemployed trainees experience as was the case in the researcher's study.

Sub-theme 1.3: Establish businesses

Findings show that a few trainees expected to use their skill to establish their own businesses. Participants held their skill in high-esteem and believed that their skill would create wealth for them through self-employment. The expectation of securing self-employment is indicated by participants in the below quotes:

TR1 *"Their expectation is that they go back home and...start-up their own businesses..."*

TR2 *"...The other learners will opt to start their own businesses..."*

T1 *"Yes...actually I thought I will use the skills to start my own business in the neighbourhood..."*

- T6 *“I can say that my expectations were that since I am unemployed, I would acquire skills to create employment”.*
- T7 *“So with my passion for business, I always thought that perhaps one day I will have a business supplying mines with pipes underground. I have always seen that it is a challenge to secure a job so I thought in future this skill will come in handy, and enable me to start my business”.*

According to Nyika (2016:54), ISTPs prepares the youth to be job creators as opposed to job seekers. Mandavha (2011:27) concurs that skills development programmes promote self-employment for the unemployed. The role of ISTPs in enabling self-employment is further alluded to by Machete (2016), Harmony Goldmine’s Human Resource Manager, who stated that Protech training afforded trainees an accredited certification upon completion to create self-employment through establishing small businesses. Accordingly, the expectation of trainees to secure self-employment is warranted; because Protech training provides youth with market required skills for employability.

The trainees alluded to the fact that South Africa had a high unemployment rate and given their rare skills, they could significantly contribute to job creation through opening businesses if they have the necessary tools. Trainees’ assertion regarding high unemployment particularly amongst black youth is supported by Mbatha et al. (2014:13), who also emphasise the provision of ISTPs in promoting self-employment to improve trainees’ livelihood. A study examining the contribution of ISTPs in Lephalale in Limpopo province, discovered that 11% of trainees secured self-employment after the training (Mandavha, 2011:59). Similarly, Nyika (2016:58) detected that 60% of trainees were earning a living wage through self-employment on completion of ISTPs. Thus, the above-mentioned studies affirm that ISTPs, such as Protech training, play a significant role in enabling self-employment.

Sub-theme 1.4: Use and refine learnt skills in their own homes and community

The majority of trainees had the expectation of using their skills in their respective homes as well as in the neighbourhood in order to further refine the skill learnt. Their views are reflected as follows:

- T1 *“I did electrical engineering at Protech, and my expectations were that I will use my skills to help people in my neighbourhood when they require their electronics to be fixed.”*
- T9 *“I wanted skills that could develop me; skills that could help me do things for myself...”*
- T11 *“...I thought I would get some skills and use it...around here in the community...”*

These findings indicate that trainees expected to apply their skills in their homes and communities as a method of refining the skill learnt. In essence, they yearned to serve their neighbourhood. Although the primary aim of training and skills development programmes is to enable greater access to income, productivity and employment opportunities as Masipa et al. (2014) and Palmer 2007 in Ausker and Rothman (2015:2) alluded to, using skills learnt in the community is also an imperative aim. The importance of using skills learnt in the community is pointed out by Nyika (2016:53), who mentions that people undergo training to improve their life and that of their communities. The author therefore highlights the fact that trainees undergo training, not merely to generate income, but to equip themselves with skills to develop their homes and their neighbourhood.

Mandavha (2011:68) found that 60% of trainees agreed that skills acquired from skills development projects benefitted their Lephale community. Nyika (2016:58) also discovered that the Gweru community significantly benefitted from the integrated skills outreach programme. These studies substantiate the view that trainees undergo training to develop their homes and communities. Malakwane (2012:78) asserts that the unskilled lose a sense of achievement. Applied to this study, trainees acquiring a skill from Protech training are presumed to attain a sense of achievement.

Theme 2: Challenges trainees experienced post the training

The challenges which participants expressed to be hindering trainees in meeting their expectations included lack of funding to further tertiary education, to start-up businesses, and to purchase tools. The inability to secure employment as well as lack of follow-up from the mine regarding trainees' employment status, and the training period being too brief to master the skill was also mentioned as challenges. These sub-themes will be discussed next.

Sub-theme 2.1: Lack of funding

Findings indicate that lack of funding to start-up businesses, to further tertiary education and to purchase tools is a challenge in trainee's meeting their expectations. The challenges are expressed in the below quotes:

- TR1 *“So the challenge for them which is something that I saw is to have a start-up capital, and to have a programme that deals with entrepreneurship and business management.”*
- TR 2 *“The challenge is that after the training they just get stuck... without furthering their training to do courses at colleges”.*
- T1 *“Not really...I have never applied skills learnt at Protech anywhere since the completion of the training itself. And this is because I did not have an electrical tool box and no money to purchase it”.*
- T5 *“In the community the problem is that I do not have the specific tools like the tester”.*
- T7 *“The problem is that if you do not have equipment or tools required by a boiler maker, then you will not be able to really experiment and apply this skill. So lack of resources limits your ability to apply this skill”.*

The findings corroborates with a study by Nyika (2016:57) that lack of funding and equipment was a challenge for trainees in implementing what they have learnt after the training. Funding is an important feature of socio-economic programme initiatives

(Lombard, 2003:161). Protech training is a socio-economic programme in that it promotes trainees' socio-economic development in terms of their education, employment, human dignity, housing, and access to healthcare and food.

Consequently, the absence of funding, be it money or equipment, restricts the contribution that socio-economic programmes, such as Protech training, could have on trainees. Human et al. 2008 in Ausker and Rothman (2015:3) argue that the private sector is able to contribute significantly towards enabling recipients of ISTPs to establish businesses due to funding generated from profits. Therefore, private companies such as Harmony Goldmine have a role to play in enabling trainees to establish businesses either through sponsoring them with money or equipment to practice their trait.

Sub-them 2.2: Unable to secure employment

Most participants stated the inability of trainees to secure employment on completion of the training as a challenge in meeting their expectations. The participants' view on this aspect is stipulated below:

T5 "I saw myself as being an artisan in the field, but now I am in this position- I am not working".

T7 "So having the skill but nothing is happening is pointless. I am like a person who does not have a skill at all".

T11 "I am still looking for a job".

One participant indicated that lack of follow-up from the mine regarding trainees' employment status is a challenge in trainees meeting their expectation. This participant proceeded to state that lack of follow-up disheartens trainees because they feel that the company does not care about their employment status:

TR2 "Mostly the client does not do follow up, remember I said that the client is the one that organises them, they will just say they have developed people. Furthermore, they do not even want to know which trainees met their expectations..."

Almost all of the six unemployed participants were disheartened as a result of their inability to find employment. The socio-economic contribution of human development is attained through employment opportunities which enable people to improve their overall livelihoods (UNDP, 2015:3). In addition, human development and employment is of utmost importance for the mental wellbeing of young people (Cloete, 2015:19). McCord (2012:10) asserts that constraints such as information about job openings, and inability to communicate skills to potential employers are factors which hinder recipients of training and skills development programmes to secure employment. McCord (2012:10) further adds that cash transfers on conclusion of the training can relieve constraints relating to job search, and publicising skills to potential employers. Interestingly, a study in Malawi found that participants saved a portion of their stipend during the course of the training, and used these savings on completion of the training to search for employment opportunities (Orozco, 2013:17). Thus the incorporation of cash transfers as McCord (2012:10) mentioned, or a stipend illustrated by Orozco (2013:17), could enable trainees in the context of the study to have money to search for work on completion of the training.

Sub-theme 2.3: The training period was too brief for mastering the skill

The majority of trainees mentioned that the training period was three and six weeks respectively, and as a result, hindered them from fully grasping the skill that they were taught. They mentioned that the training focused on basic information, and they subsequently felt compelled to practice without mastering their skill. The below quotes reflect participants' views:

T3 *“I still have a long way to go because as I mentioned twenty-one days is a very short period, and I still have a lot to learn to improve what I have learnt because I only grasped the basics during the training”.*

T9 *“Yes, because the training was six weeks, and those six weeks are not enough”.*

One participant alluded to the importance of longer training to build trainees' confidence in applying their learnt skill(s).

T2 *“There are many things which I still needed to learn so that I can be confident to apply my skills”.*

A few trainees mentioned that the brief training period results in them not being considered for employment by potential employers. They alluded to the fact that potential employers preferred to hire persons whom had acquired a diploma or degree from FSTPs as opposed to certificates acquired at ISTPs. The contention held by these trainees is captured below:

T3 *“No one can really hire you with twenty-one days training”.*

T5 *“You know after this course, because lack of exposure. They do not consider you as an electrician”.*

However, one participant was very specific in saying that the period of training was sufficient:

T7 *“Yes, it really depends on how fast you are in grasping what we [were] taught during the training”.*

Trainees’ assertions that potential employers are reluctant to consider them for employment due to brief training periods, concurs with Malakwane’s (2012:78) view that people who are long-term unemployed are often discriminated against as employers are not willing to take a chance on someone that no one else was willing to hire.

Protech training provides three months artisanal and technical training in various areas (Mining CSI, 2015:15). Conversely, the training period alluded to by Mining CSI (2015) appears to be inconsistent with feedback from the participants who mentioned that the training period was three and six weeks respectively. A possible rationale for Harmony Goldmine providing brief training can be found in McCord’s (2012:9) observation that organisations are reluctant to provide skills development programmes with an open-ended commitment due to the associated ongoing monetary commitment.

Skills development programmes cost millions of rands, as it is the case with ISTPs at Harmony Goldmine (Harmony Goldmine, 2016c). The trend of increasing costs as a result

of continuous provision of the programme was the finding of the Rural Enterprises Project study in Ghana (International Fund for Agricultural Development, 2011:13). McCord (2012:9) indicates that organisations prefer programmes of limited duration in which participants' acquire skills, the employability of participants is enhanced, and future reliance on the state is reduced.

Seemingly this is the aim of Protech training, to equip trainees with a technical skills to enable employability, and reduce state dependency (Protech training, 2016:4).

Theme 3: Strategies for overcoming post-training challenges

A few participants recommended strategies in overcoming post-training challenges. These strategies include extending the training period, providing apprenticeship and learnerships upon completion of training, and placing trainees into jobs.

Theme 3.1: Extending the training period

The challenges flowing from a short training period was discussed in sub-theme 2.3 above. Participants' recommendations on the training period are reflected in the view of two trainees below with specific reference to time, but also with regard to more exposure to opportunities to apply the learnt skills:

T3 *“In my perspective, if they can increase the training to six months, then trainees will see where they are going, and have confidence to start their own businesses”.*

T5 *“As I said before, you know what the confidence is not there. Yes you have the qualification, but the problem is the exposure. You need more exposure than theory that's it, because theory yes is important, but you need to be hands on”.*

Skills programmes and other non-accredited short courses, such as Protech training, tend to be shorter programmes with a specific specialisation in mind; such as how to operate a new technology (RSA, Framework for the NSDS 2011-2016, 2010:17). However, the International Fund for Agricultural Development (2011:8) emphasises the importance of

delivering high-quality relevant training, and to avoid very short training sessions which reach many people but prove useless.

McCord (2012:16) avers that short skill development programmes, with a mean duration of four to six months, limits the potential for skills transfer. Protech's intended training period of three months (Mining CSI, 2015:15) is a month less than the mean duration, namely four to six months as indicated by McCord (2012:16). As such, the duration of Protech training seemingly limits skills transfer and should be revised to enable trainees to fully grasp the skills they have learnt.

In addition to extending the training period, in a study conducted in Ghana, the International Fund for Agricultural Development (2011:13) illustrates the importance of post-training support as a means to intensifying opportunities to fully grasp skills learnt. Hence, the provision of post-training support could assist trainees to fully master the skill(s) learnt during Protech training.

Theme 3.2: Providing apprenticeship and learnerships

Some trainees suggested that internships and learnerships be provided to enable them to perfect the skill acquired:

T5 *“Maybe if they give me the theory part, and then take you through something like an internship for three months, or six months...”*

T7 *“...learnerships enable you to remain committed to the skill that you have acquired because there is a channel that you go through the learnership, and acquire a job, but if you not certain what is going to happen then you get discouraged.”*

The NSDS 2011-2016 (2010:15) mentions work integrated learning, apprenticeships, learnerships, and internships as vital for FSTPs. However, the NSDS 2011-2016 appears to have excluded the provision of integrated learning, apprenticeships, learnerships, and internships for ISTPs. The provision of internships and learnerships is important to trainees at ISTPs and ought to be prioritised in as much as internships and learnerships are prioritised for trainees at FSTPs.

Apprenticeships offer practical training with greater relevance to market requirements (International Fund for Agricultural Development, 2011:4). This statement is supported by findings in a study aimed at determining the effects of apprenticeship training for vulnerable youth.

The study uncovered that apprenticeships had large positive effects on skills level, investment into human development, and psychological wellbeing (Orozco, 2013:17). Therefore, the implementation of internships and apprenticeship after Protech training could enrich trainees' skill level so that they feel competent to practice their skill, and hence curbing the expectation to practice before mastering the skill. Internships and apprenticeship could also encourage trainees to further invest in their human development by using their stipend to pursue tertiary education. The stipend could thus address the challenge of lack of funds which limits trainees to further their tertiary education (see sub-theme 2.1). Finally, trainees could experience psychological wellbeing as a result of acquiring an income which enables them to provide for their basic needs (see sub-themes 4.3 – 4.6).

Theme 3.3: Placing trainees into jobs

A few trainees recommended that Protech training ought to place them into jobs upon completion by combining training programmes with direct employment opportunities. The following statement strongly captures the view of participants:

T7 *“...So the training must come as a package, after people are done then there is progress. This also refers to universities, when they absorb engineering students, this must be done with a certain project in mind, knowing that once they graduate they will be able to work on that project”.*

This finding coincides with Bokolo (2013:2), who states that the integration of skills development and concurrent employment creation is a sustainable option to the challenge of unemployment. The Expanded Public Works Programme (EPWP) in South Africa is perhaps an example of the type of programme that trainee 7 alludes to. The South African government introduced the EPWP in 2003 as a complementary measure to reduce rising unemployment and poverty (Bokolo, 2013:2). The EPWP incorporates training with

primary short-term public works employment (McCord, 2012:16), and provides unemployed people a source of income and training that would facilitate their absorption into the job market (Bokolo, 2013:2).

Whilst a criticism of EPWP is that the EPWP policy is based on government's assumption that unemployment is temporary rather than a persistent crisis (Malakwane, 2012:44), the fact that EPWP illustrates the incorporation of skills development and employment should not be overlooked. As it stands, Protech training does not incorporate skills development and employment, however, it could merge these two components for trainees to fully appreciate having gone through training.

A wage subsidy could also be introduced by government to encourage companies, such as Harmony Goldmine, to employ graduated trainees; in turn these companies could receive a subsidy from government for the remuneration paid to each trainee. Malakwane (2012:88) emphasises that wage subsidies should exclusively be targeted towards unemployed youth in critical sectors of the economy. Protech training graduates are the youth who are provided skills in critical sectors of the economy (Mantashe, 2008:14), and who could significantly benefit from the wage subsidy.

Theme 4: Contribution of Protech training to trainees' socio-economic development

Despite the challenges alluded to in theme 2, participants cited that Protech training contributed to trainees socio-economic development. As defined in Chapter 1, socio-economic development in the context of this study focused on human development, employment, human dignity, housing, healthcare, and food security. The ensuing section will discuss these aspects as sub-themes.

Sub-theme 4.1: Contribution to trainees' human development

Human development refers to skills learnt and used for socio-economic benefit to eradicate poverty (Engelbrecht, 2008:168). Most participants asserted that the acquisition of certificates recognised by the SAQA on completion of the training, confirms that Protech training contributed significantly to their human development. Participants maintained that

regardless of their employment status, they believed that Protech training equipped them with a skill which they would otherwise not have had. The participants' view on this aspect is quoted below:

TR1 *"I am talking about people who will graduate, and that will be their first certificate ever in their life".*

TR2 *"It is designed according to SAQA, South African Qualifications Authority. They set us some standards, and in those standards, they will make some unit standards, so trainees can accumulate some credits".*

T2 *"Electrical engineering...sometimes if there are people in the neighbourhood who need assistance with their appliances then I help".*

T9 *"I have a plumbing skill. I can do domestic plumbing, how to install a toilet, how to replace a water pipe, how to do a drain pipe".*

T10 *"I am fixing toilets at home. Neighbours maybe, they ask me to help them with their leaking toilets and I do that."*

Trainers also stated that the type of training selected by the mine was determined by the training needs of the trainees.

TR1: *"It is only the mine that speaks to trainees with regards to the type of programmes that they have or they want to give them."*

TR2: *"Yes they are consulted by the client, either the municipality or cooperatives such as the mine..."*

The International Fund for Agricultural Development (2011:4) explains that a certificate is a support document that can help convince a potential employer to hire its holder. It can enable its holder to secure business contracts for self-employed trainees; it acts as a visa for further training, hence bridging the gap between informal and formal skills training. A certificate is empowering and increases self-confidence as well as social status. Trainees' social status can be increased by using their skill to assist neighbours and by doing so, being perceived as skillful in their trade.

Human development initiatives are about enabling human choices (UNDP, 2015:1), recognising the strengths of people (Elliott, 2011:103), and embracing individualism (Sen, 1999:11). Thus, the fact that trainees expressed their training needs reflects that Protech is aligned with how human development is defined by UNDP (2015:1), Elliott (2011:103) and Sen (1999:11).

Mandavha (2011:25) adds that by virtue of promoting people's human choices, human development initiatives enable people to realise their potential of being productive. Consequently by virtue of Protech training endorsing trainees' choices, it enables trainees to fulfill their potential of working. Trainees take ownership, and acknowledge the usefulness of the skill acquired when they have chosen which training path they prefer to pursue.

In his study, Mandavha (2011:66) concluded that when trainees subjectively selected their training preference in technical skills, findings illustrated that the majority of trainees regarded the skill learnt as useful. The correlation between trainees selecting their preferred training, and viewing skills learnt as useful emphasises the importance of human development initiatives, such as Protech training, in enabling trainees' to choose their preferred training.

Sub-theme 4.2: Contribution to trainees' employment status

Oluwajodu et al. (2015:3) argue that education, and in the context of this study ISTPs, alone cannot eradicate poverty; but rather, education coupled with job opportunities enables poverty eradication.

The majority of participants asserted that the training contributed to trainees' employment status. Trainers mentioned that they regularly carried out random checks to determine whether trainees secured employment or started businesses, and also relied on hearsay to determine the employment status of trainees. Their views are indicated below:

TR1 *"...So the word of mouth helps us. But over and above we are able to check via our database, although it [is] something we do not do often."*

TR2 *“...I make a follow-up by creating a database, and check which ward they fall into in their communities and talk to the council or someone who is a leader in that community. And I check who has started cooperatives to check how it is going.”*

Trainees who were employed were not employed by Harmony Goldmine but by other companies. The below quotes demonstrate assertions of participants who secured employment:

T3 *“But I ended up getting employed by another company. I was a bit disturbed by the fact that I was not employed by Harmony, but due to the fact that I eventually got a job I made peace with that fact”.*

T13 *“...Without this training I would not have acquired employment...”*

Participants who became self-employed asserted that they used the skill acquired from the training to establish their own businesses. Their views are encapsulated below:

T2 *“I am not formerly employed, but I am able to use the skill to acquire income to buy food for myself here, and sent money in Mpumalanga so that my family can buy food for themselves and my child.”*

T11 *“Yes I work for myself. Just piece jobs.... right now neh, I can do anything. Well some of them I can do it. Before I was not affording anything, but at least right now I can afford some things you see.”*

T14 *“I am self-employed, so I use the skill that I have acquired on the training to do some piece jobs in the community where I live. If someone needs me to help, they call, and I go there and they give me money. They pay.”*

Although a few trainees were pursuing businesses, the training itself did not provide entrepreneurial skills. The absence of entrepreneurial skills is confirmed by one trainer:

TR1 *“So the challenge for them which is something that I saw is to... have a programme that deals with entrepreneurship and business management. That is something which I think the employer and Protech need to look at in*

future-starting a business as well as the financial management of a business. However, we do hear of cases where people have managed to help themselves.”

The findings concerning Protech training enabling employment correlates with that of the Statistics South African (2014) report. This report indicates that there is a strong link between increased levels of education, and decreased levels of unemployment (Mining CSI, 2015:11). Thus the more people acquire further education and training, then the higher the likelihood of them securing employment. The link between increased levels of education and decreased levels of unemployment is also confirmed in the study in that out of the sixteen trainees interviewed, five trainees were able to secure employment as a result of the training, and five were self-employed with the skill acquired from Protech.

Decreased education and training limits the youths' ability to participate in the economy, and also leads to illicit activities such as crime (Nyika, 2016:54). Unemployment is a major contributor to crime as many people resort to criminal activities to survive and to support their families (Malakwane, 2012:78). Mandavha (2011:11) agrees that people living in poverty are susceptible to crime, and also adds that they are more likely to abuse substances. The views of the above-mentioned authors imply that training and skills development programmes are not only a method of enabling employability, but of also preventing criminal activities.

None of the unemployed participants in the study reported resorting to criminal activities for survival or abusing drugs. Furthermore, a skill to trade is not sufficient without skills in entrepreneurship and business management.

Sub-theme 4.3: Contribution to trainees' human dignity

Human dignity is the inherent worth of every human being not reliant on race, age, gender or social class (Blennberger, 2006:7). Some participants alluded to the fact that the training contributed to trainees' human dignity. They mentioned that the training improved trainees' self-esteem regardless of their employment status in that it enabled them to see opportunities which they could not see prior, and opened their mind up to new possibilities. Participants' views on this matter are echoed in the following statements:

TR1 *“Many are able to realise that they can make a career of their new acquired skill. Those who start their businesses instill hope in others that it is possible.”*

TR2 *“Firstly we come in to motivate them for the course just to make them excited about the course and to see opportunities. We usually have what we call induction, they come for that induction session, which lasts for two days, it is sort of a workshop.”*

Findings from some participants that the training contributes to trainees' self-esteem irrespective of employment status is inconsistent with Cloete (2015:518), who mentions that unemployed people show constant decrease in overall life satisfaction, general wellbeing, self-esteem, and are more likely to be suicidal as they display symptoms of depression. Cloete's assertion is further supported by Malakwane (2012:78) who adds that it is not only the individuals themselves that are affected, but their families also suffer with them. The presence of decreased self-esteem as a result of unemployment is revealed in the below statements:

T4 *“...I am not doing anything with it in my life, I have done it, but still I am not working.”*

T7 *“... at this point I cannot be excited about anything because I am currently not benefiting from that skill.”*

An even more subtle effect of skills development programmes, such as Protech training, is that they contribute to a more efficient lifestyle without necessarily increasing income or aiding in employment (Auskar & Rothman, 2015:3). The authenticity of this statement is reflected in the findings from a few participants who lacked certainty for their futures in that they were unemployed, however; mentioned that other people's positive view of them after the training confirms to them that indeed the training contributed to their human dignity. The following statements are representative of the contributions of the participants regarding this aspect:

- T2 *“I think they are happy for me because when a person is stranded with electronics then they know they can call me to assist- they have confidence that I can help.”*
- T10 *“Yah they view me positively. Talking from experience like, the neighbours ask me to help them with their leaking toilets. So that makes [me] feel like okay, people look at me in a positive scrutiny you know. They view me properly I could say that.”*
- T15 *“They view me as someone who they would like to work with. Sometimes I get guys who would ask that they work with me in my business. I guess that it is healthy for them to have someone like me in their environment. They can come to me to get experience.”*

Lack of respect for people’s dignity is evident worldwide (IFSW, 2016:9), and large numbers of people who lack certainty for their futures experience lack of human dignity (Blennberger, 2006:8). Although a few trainees lacked certainty for their future in that they were unemployed, they were treated with human dignity by their community after the training. Women in particular conveyed that they felt empowered, and their feelings of self-worth had improved significantly because they acquired skills often associated with their male counterparts. The contribution of female trainees is captured in the below quotes:

- T1 *“Yes because electrical engineering is often seen traditionally as a male thing, and I felt empowered because I am female and managed to pursue this training.”*
- T9 *“It has highly influenced my feelings of self-worth because after the training I learnt that I can start my own business with this skill.”*
- T13 *“Now I feel good about myself because I can provide for my family. I can provide for myself...”*

Women have been cited as showing interest in white collar courses like secretarial, beauty care and clerical studies, while men are interested in blue-collar fields like building, motor mechanics and carpentry (Nyika, 2016:56). Women are often reluctant in taking courses which are traditionally male dominated, and consequently, face challenges in getting self-employment (Nyika, 2016:56). However, this was not the case in the study as female participants embraced skills training traditionally done by their male counterparts.

Mandavha (2011:29) states that women still have fewer opportunities to improve their capacity to find work and in developing countries such as South Africa; less attention has been given to female education and skills acquisition. Accordingly, training and skills development programmes must target women so that they may overcome historical barriers, and be presented with greater opportunities (Bokolo, 2013:3). Thus, the inclusion of females in Protech training confirms Harmony Goldmine's commitment to the socio-economic upliftment of women to enable women to overcome historical barriers.

Masipa et al. 2014 in Ausker and Rothman (2015:3) mention that targeting women in developing a better standard of living legitimises their role in their communities and local economy. Hence the participation of women in ISTP such as Protech training, confirms their role of being active participants in critical sectors of the economy, and nullifies the perception that women often show interest in white collar courses as was indicated by Nyika (2016:56).

Sub-theme 4.4: Contribution to trainees' access to housing

Findings indicated that purchasing a house depended on whether trainees secured employment or self-employment post the training. All participants who were employed were able to use the skill acquired to build or renovate their homes. None of the participants had purchased a home as a result of the training. The statements below indicate the views of participants:

TR2 *"...So it is only upon employment or self-employment that they are able to access housing..."*

T8 *“Yes... there are few changes there and there-improvements actually. My home where I am from has improved there and there.”*

T12 *“Yes it has helped me to paint the house and to change the roof.”*

T13 *“I helped with the renovations at home. We lived in a four room. But now we have extended it. It is big enough for everyone. And I am just hoping to buy a house after a couple of years of working harder.”*

Feedback from participants coincide with a report from the Department of Social Development (2016:2), which emphasises that in most cases it is only through employment that the youth are able to improve their own homes with access to proper sanitation. Intriguingly, Mandavha (2011:78) reached the conclusion stipulated by the Department of Social Development in his study, namely that trainees' living conditions changed for better as they were generating income after participating in a skills development programme.

Whilst buying a house was not a finding in this study, the training enabled trainees to improve their housing. It is vital to emphasis that housing constitutes a basic need (Studies in Poverty and Inequality Institute, 2007:7). Consequently, peoples' inability to meet this basic need confines their human dignity (De Vos & Freedman, 2014:668). In the absence of employment or self-employment, trainees in this study indicated that they are exclusively reliant on their families for shelter, and this inevitability hampers their human dignity.

Unemployment does not only make people dependent on relatives for shelter, but it also forces people to remain stagnant in informal settlements such as Wedela. Employment on the other hand, enables people to move out of informal settlement into urban areas. The relocation from informal settlements into urban areas was one of the positive contribution s of the integrated skills outreach programme in rural communities of Zimbabwe (Nyika, 2016:57). The study indicates that 60%of the youth who participated in the programme moved into urban centers for self-employment (Nyika, 2016:57).

Although Protech training offers similar skills as the integrated skills outreach programme in Zimbabwe, the contrary was found by the researcher in this study, namely that only employed participants relocated from the informal settlement of Wedela into urban areas such as Carletonville and Krugersdorp, where they were nearer to their places of work. Self-employed and unemployed participants remained in Wedela on completion of the training. However, movement will be influenced by the level of income, but also by choice. Some people choose to stay where they are for various reasons.

Sub-theme 4.5: Contribution to trainee's access to healthcare

One participant expressed that trainees' access to private healthcare services was based on whether they were employed or self-employed on completion of the training. The majority of trainees proceeded to access public healthcare services as they were self-employed or unemployed. A few trainees who were employed indicated that the training enabled them to access private healthcare services. Their views are captured below:

TR2 *"...So it is only upon employment or self-employment that they are able to access... healthcare..."*

T3 *"I am using the private healthcare services..."*

T13 *"Yes at work they do offer medical aid services, so they take a portion of my salary at the end of the month. That has really helped because I used to go to clinics. The lines were long. I am not saying it is bad to go there. But it is way better going to a private hospital."*

T16 *"Medical aid has been the greatest gift of employment. At least now when I am sick I do not panic. I know I will be helped as I arrive at the clinic or hospital. I do not have to stand long queues anymore."*

The view that employment enables access to private healthcare services corresponds with the claim of the Department of Social Development (2016:2), which stipulates that

employment enables a person to afford quality healthcare services which are mostly provided for in private clinics and hospitals.

A person's income status has a profound influence on their health as well as the health of their family members, with higher rates of morbidity and mortality for individuals with lower income status across multiple health conditions (Malakwane, 2012:78). Accordingly, persons with higher income jobs tend to experience lower rates of morbidity and mortality.

Regretfully, the study did not investigate the contribution of training to trainees' or their family members' health in respect of morbidity and mortality, rather; the contribution of training to trainees' access to private healthcare. Findings only point out to the contribution of the training to trainees' self-esteem which was discussed under Sub-theme 4.3.

Sub-theme 4.6: Contribution to trainees' access to sufficient and quality food

All participants declared that trainees' ability to access sufficient and quality food was based on their ability to generate income. While unemployed trainees expressed lack of income and reliance on relatives for food, employed and self-employed participants indicated that the training enabled them to have money to buy sufficient and quality food for themselves and their family as articulated in the following quotes:

TR2 *"...So it is only upon employment or self-employment that they are able to access... food security."*

T3 *"...The food ought to sustain them for the whole month. I do not buy food for them actually, I just give them the cash, and they decide what to do with the cash. But yes I am happy with how I cater for them."*

T14 *"Well when coming to food yes we used to buy these cheap-cheap foods in the spaza shops, but at least now we can buy in bulk. Now we have a healthy diet. It is better than before."*

T15 *"Oh yes, I am also able to ensure that my child gets food and clothing. My child is only seven months old so those are the things he needs now."*

The Studies in Poverty and Inequality Institute (2007:10) explain that poverty can be interpreted in a narrowest sense which means a lack of income, or a broader sense which means inability to afford basic needs such as food. Six trainees were unemployed at the time of conducting the study, thus; it can be said that these trainees were poor in the narrowest and broadest sense in that they lacked income and were unable to afford food.

Malakwane (2012:25) mentions that inability to afford basic food reflects severe poverty. Mandavha (2011:12) agrees, and adds that poverty takes away people's human rights and dignity. Food is a human right and the inability of persons to purchase basic food severally hinders the realisation of their human dignity (IFSW, 2016:9).

Accordingly, unemployed participants within the context of the study can be regarded as experiencing severe poverty because they cannot afford basic food. They are deprived of exercising their right to access food and subsequently denied the right to realise their human dignity.

The relationship between trainees' access to food and their realisation of human dignity is confirmed in a study by Mandavha (2011:59). Findings of this study indicate that the ability to buy food; inevitability results in improved self-esteem in that people move from a place of dependence to being self-reliant.

The confirmation from this study that there is a relationship between accessing food and human dignity; further signifies the importance of ISTPs such as Protech training in enabling employability so that trainees can afford basic food and realise their human dignity.

3.4 SUMMARY

The study enabled the researcher to explore and describe the contribution of Harmony Goldmines' Protech training to trainees' socio-economic development. The study took place in the mining community of Wedela near Kusasalethu plant at Carletonville, whereby trainers and trainees participated. The views of the trainers and trainees were incorporated in the themes. Participants stipulated expectations of trainees were to further their tertiary education, secure employment with Harmony Goldmine and other

companies, and to establish businesses. Participants also indicated that trainees expected to use and refine learnt skills in their own homes and communities.

The challenges trainees experienced after the training were lack of funding to further tertiary education, to start-up businesses and to purchase tools. Participants alluded to their inability to secure employment, lack of follow up from the mine regarding trainees' employment status, and the training period being too brief to master their respective skill as challenges. Participants also reported that the brief training period made them lack self-confidence to practice their skill, and to feel that they will not be considered for employment by potential employers.

Strategies for overcoming challenges recommended by trainees were that the training period ought to be extended; trainees must be provided with apprenticeships and learnerships, and be placed into jobs. Finally, participants stipulated the contribution of training to trainees' socio-economic development with specific reference to trainees' human development, employment status, human dignity, housing, healthcare and food security.

In Chapter 4 the focus will be on the key findings of the study, the conclusions and recommendations.

CHAPTER FOUR

KEY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

4.1 Introduction

This chapter concludes the research report. It begins with outlining the extent to which the research goal and objectives were achieved. Thereafter the researcher stipulates key findings and conclusions from the study and finally sets out the recommendations.

4.2 Goals and objectives of the study

The goal of the study was to explore and describe the contribution of Harmony Goldmines' Protech training to trainees' socio-economic development.

The goal of the study was reached through accomplishing the following research objectives:

Objective 1

- Conceptualise socio-economic development and ISTPs in South Africa's mining industry within the theoretical framework of human rights.

The researcher accomplished the first objective in Chapter 2 (see subsections 2.1 - 2.4) Human development was identified as a crucial pillar in realising social development and was defined as skills learnt and used for socio-economic benefit to eradicate poverty. Artisanal and technical skills training facilitated by the framework for the NSDS 2011-2016 was identified as necessary for the socio-economic upliftment of the poor. The significance of ISTPs for persons excluded from FSTPs due to poverty was stipulated as essential in improving poor people's skills level. Furthermore, the role of the mining industry in the provision of ISTPs was emphasised given their extensive expertise in market required skills.

Protech training, as an example of existing ISTPs at Harmony Goldmine and also the focus area of the study, was discussed with regard to its contribution to trainees' socio-economic development. Socio-economic development within the context of the study

referred to the following pillars: human development, employment, human dignity, housing, healthcare and food security.

Objective 2

- Explore and describe how Harmony Goldmine's Protech training contributes to trainees' human development, employment, human dignity, and access to housing, healthcare, and food security.

Objective two was achieved in Chapter Three (sub-themes 4.1 – 4.6), where research findings based on the views of the trainers and trainees were presented. Findings indicated that Protech training contributes in various ways and degrees to trainees' human development (see sub-theme 4.1), employment status (see sub-theme 4.2), human dignity (see sub-theme 4.3), access to housing (see sub-theme 4.4), access to healthcare (see sub-theme 4.5), and access to sufficient and quality food (see sub-theme 4.6).

Objective 3

- Based on the findings of the study, recommend measures to streamline ISTPs to promote socio-economic development.

Recommendations of measures to streamline ISTPs to promote socio-economic development are made in section 4.4 below.

4.3 Key findings and conclusions

This section presents the key findings and conclusions of the study. Each key finding is directly followed by its conclusion.

- The findings indicated that Protech training contributes to human development. Trainees mentioned that irrespective of their employment status, the training contributed considerably to their human development with regards to enabling them to

choose their preferred training and equipping them with knowledge and skills which placed them in a better position to find employment. Of the sixteen trainees who participated in the study, five were employed, five were self-employed, and six were unemployed after the training. Although in the minority compared to males, females are included in the training. Participants indicated that a recognised certificate from Protech training place them in a better position to look for work as opposed to doing so with only a high school education. However, Protech does not directly engage in facilitating employment which appears to be an expectation of trainees when they embark on the training.

- ❖ It can be concluded that Protech training provides opportunities for skills development and human progress of both males and females. However, Protech training does not facilitate networks with the external work environment to create employment opportunities related to specifically market related skills. Although Protech trains women and men, there is no particular attempt to recruit and train more females to empower them towards independent livelihoods.

- The findings revealed that there are several aspects that hinder trainees to find employment or becoming self-employed, including not being trained in entrepreneurship, the training period being too brief to master the skill learnt, and lack of tools. These factors play a role in trainees' confidence to practice the trade learnt.

- ❖ It can be concluded that business management skills, extending the training period and the provision of starting equipment are necessary components in creating an enabling environment for trainees to secure employment or self-employment.

- The findings signified that only employed and self-employed trainees were able to build or renovate their homes. None of the trainees had purchased a home as a result of the training.

- ❖ It can be concluded that Protech training indirectly contributes to trainees right to shelter/housing as employment and income are means to this end (UNDP, 2015:64). While Protech training plays a significant role in enabling trainees to improve their living conditions and livelihoods, it does not deliberately network for employment opportunities in the external environment or mining company, or for apprenticeships. Furthermore, Protech does not lobby for starter equipment to enable self-employment and access to income.

- The findings showed that trainees' access to private healthcare services was rooted in whether they were employed or self-employed on completion of the training. Whilst the majority of trainees proceeded to access public healthcare services as they were self-employed or unemployed, trainees who were employed indicated that the training enabled them to access private healthcare services which contributed to improved healthcare. They were content because they associated quality healthcare services with private clinics and hospitals.

- ❖ It can be concluded that Protech training opens the opportunity to access private, and hence better quality health services, however, this can only be realised in the case where employment and income secures such benefits. Employment therefore does not in itself guarantee access to private healthcare, as it does not necessarily include health benefits or provide sufficient income to afford such services.

- The findings indicated that whereas unemployed trainees expressed lack of income and dependence on family for food, employed and self-employed trainees pointed out that the training enabled them to have money to buy sufficient and quality food for themselves and their family.

- ❖ It can be concluded that Protech training contributes to food security and poverty reduction when trainees access an income through employment or self-employment.
- Findings showed that Protech training has an contribution on human dignity and self-esteem. However, employment and self-employed trainees experience a more significant increase in agency and human dignity as work facilitates access to income, and in turn to food security, and more options for improved healthcare and housing. Although unemployment after training negatively influenced trainees' self-esteem and human dignity, trainees indicated that the training raises their self-worth and dignity in relation to being more able to spot opportunities which they could not see prior to the training. Conversely, the majority of trainees stated that other people's positive view of them after the training raised their self-esteem. Women in particular expressed that they felt empowered, and their feelings of self-worth had significantly improved because they acquired skills often associated with their male counterparts.
- ❖ It can be concluded that Protech training contributes to promoting human dignity and agency, but that the level of work experience in this regard is directly related and influenced by the employment status of trainees. Furthermore, the training has an immediate positive contribution on self-worth through the eyes of other people, and the trainee him/herself, irrespective of immediate employment or not. However, the positive contribution waives as the period of unemployment continues. It can also be concluded that human dignity and agency are directly related to employment status, as the right to work gives access to an income which in turn gives access to the right to good healthcare, housing and food.
- The above findings indicate that a human rights-based framework can be used to determine the contribution of Protech training on trainees' human and socio-economic development.

- ❖ It can be concluded that Harmony Goldmine's Protech training can acclaim that it contributes to upholding poor people's socio-economic rights to a more or lesser extent, depending on whether trainees are employed or self-employed after training. However, the extent of the contribution depends on the level of income attached to the employment. Within the context of developmental social work, which is embedded in a human rights-based approach, social workers can contribute to human and socio-economic development through programmes and interventions that promote peoples' human rights.

4.4 Recommendations

Based on the key findings and conclusions of the study, the researcher recommends measures which Harmony Goldmine's Protech training can apply to improve the socio-economic development outcomes of the training.

- **Embracing participation in human development**

Harmony Goldmine's Protech training should continue creating an environment in which trainees choose which training path to pursue so that the training matches their interests and strengths. Consequently, trainees can take ownership for the training and develop their agency, and capabilities towards earning a sustainable livelihood. Protech training prioritises skills development amongst women, however; it needs to increase the participation of women by adopting a recruitment and training policy for women development because women still have less opportunities to improve their capacity to find work (Mandavha, 2011:29). Increasing the participation of women in Protech training will not only enable women to improve their socio-economic development and agency, but Harmony Goldmine can also claim to contribute to a key sustainable development goal of gender equality as stipulated in the 2030 Agenda for Sustainable Development (UN, 2015:20).

- **Creating an enabling environment for employment and self-employment**

Given the fact that trainees lacked training in entrepreneurship and business management, Harmony Goldmine should provide trainees with such skills.

The mine can also appoint mentors to assist trainees with launching and managing their businesses. Furthermore, findings confirm that the training period is brief, thus Harmony Goldmine needs to review the training period, and possibly extend it to at least six months. Internships and learnerships should also be provided to enable trainees to confidently apply their skill learnt after the training. Finally, Harmony Goldmine needs to provide or lobby for capital and equipment to enable trainees to establish their own businesses.

- **Absorbing trainees for employment at Harmony Goldmine**

Protech training hails itself to providing a holistic training approach that not only trains incumbents, but also leads to employment (Mining CSI, 2015:16). Protech training does not place trainees into jobs; however, the researcher recommends that this position be revisited in relation to facilitating networks between trainees with the external employment environment based on market related skills. In addition, it is recommended that Protech training commits to employing a certain percentage of graduated trainees so that both the trainees and mine benefit from the investment made in the training to improve their socio-economic development. Such commitment will also ensure an updated and relevant training programme that meets the market skills for employment or self-employment. Furthermore, the acquisition of employment creates income and other opportunities for human development, including furthering their tertiary education, and as was demonstrated by this study, increased or restored human dignity by virtue of being able to secure proper housing, private healthcare services, as well as quality and sufficient food.

- **Providing support services to trainees**

Harmony Goldmine ought to provide support services to trainees who struggle to secure employment. This includes services to address feelings of low-self-esteem; linking them with possible employment opportunities, mentoring them or arranging for a mentor in starting an own business, and where possible, provide further skills training, or linking them with relevant training opportunities.

Social services professionals such as social workers can be appointed in this regard to provide psychosocial services, and subsequently link unemployed trainees with community based projects such as computer training or food gardening; so that they can keep busy and better cope with the distress that comes with being unemployed.

- **Future research**

It is recommended that future research be conducted as a follow-up study on the contribution of Protech training when Harmony Goldmine has integrated the above recommendations, and hence facilitate a more enabling environment for employment or self-employment. A comparative study can also be done to explore and describe the contribution of ISTPs found at other South African mines to fully comprehend the large scale contribution of ISTPs to socio-economic development. It is also recommended that longitudinal studies be conducted to ascertain whether training is market related and how soon or long it takes for trainees, if at all, to find employment or start an own business. More so, a longitudinal study could monitor what level of income is achieved in the case of employment in order to determine whether people are lifted out of poverty. Finally, the prospects of undertaking a doctoral study linked to several ISTPs at their respective mines in South Gauteng could be explored.

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APPENDIX A

INTERVIEW SCHEDULE: TRAINERS

Goal of the study: To determine and describe the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.

Section A: Biographical Information

1. Gender:
2. Age:
3. Highest professional qualification?
4. Years of experience in teaching Informal skills training programmes (ISTP)?
5. Have you received any professional training in ISTP?

Section B: Questions

1. Were trainees consulted about their training needs?
2. To what extent was trainees' expressed needs incorporated in the training?
3. What is the expectation of your trainees upon graduating from ISTPs?
4. What are the challenges that trainees face in meeting their expectations?
5. How is the training designed to contribute to trainees' human development?
6. To what extent are you informed whether trainees secure employment or self-employment on completion of training?
7. How is the training designed to build the self-esteem of trainees?
8. How do you think training facilitates opportunities to trainees to access housing, health care and food security?

APPENDIX B

INTERVIEW SCHEDULE: TRAINEES

Goal of the study: To determine and describe the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.

Section A: Biographical information

1. Gender: _____
2. Age: _____ (years)
3. Racial group: _____
4. Home language: _____
5. Relationship status (e.g. single, engaged, partner): _____
6. Number of children in nuclear family: _____
7. Highest education (e.g. school grade) completed: _____
8. The number of informal skills training undergone before Protech training, and if you can remember more or less when?
9. Employment status (none; employed: self-employed or unemployed): _____

Section B: Questions

1. What were your expectations when you went on training and how were these expectations met?
2. Contribution of training to human development.

Possible probes:

- What skill or skills did you have prior to Protech training?
 - What skill or skills do you have as a result of Protech training?
 - To what extent are you currently using the skills that you have learnt?
3. Contribution of training to trainees' human dignity.

Possible probes:

In what way has the training influenced your feelings of self-worth?

- To what extent has your view of yourself before the training changed after the training?
- How do you think others view you?

4. Contribution of training to trainees' access to housing, healthcare, and food security.

Possible probes:

- In what way has your housing conditions changed after your training? Where you able to buy, build or renovate your house?
- To what extent has your access to healthcare services changed as a result of your training? What kind of healthcare services do you acquire, i.e. private or public healthcare services?
- To what extent have you been able to access sufficient and quality food?

APPENDIX C

Department of Social Work & Criminology

16/02/2017



Faculty of Humanities

Our Ref:

Researcher: Mmakgosi Chaane

Telephone: 078 077 4143 or 012 730 0164

INFORMED CONSENT FORM

Introduction

I am a master's student at the University of Pretoria. I kindly request your consent to participate in my research study. The information about the nature and purpose of the research are as follows:

- 1. Title of the study:** The contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.
- 2. Purpose of the study:** The goal of the study is to determine and describe the contribution of Harmony Goldmine's Protech training to trainees' socio-economic development.
- 3. Procedures:** If I agree to take part in this study, I expect to be interviewed by the researcher one-to-one. With my permission, I understand that my responses will be recorded to assist me to have an accurate account of our discussion. The recording will be transcribed and analysed. I am aware that the interview will not take more than an hour of my time.

- 4. Risks and harm:** There are no physical risks in participating in the study. However, I am aware that the information I am going to share with the researcher might cause emotional distress for me. I understand that the researcher will do a debriefing after the interview, but that she is obliged to refer me to a social worker at Harmony Goldmine should I require counselling.
- 5. Benefits:** I understand that there are no financial or any other benefits for participating in this study.
- 6. Participant's rights:** I am aware that participation in this study is voluntarily and that I can withdraw at any time from the study should I wish to do so without any negative consequences.
- 7. Confidentiality:** I understand that the researcher will not disclose my name or present research findings in a way that will identify me. The participants will be known to the researcher, but she will use pseudo names or codes to refer to them in her data analyses and research findings.
- 8. Dissemination of research results:** I take note that the findings of the study will be submitted to Harmony Goldmine prior to submitting to the University of Pretoria. Only upon written consent from Harmony Goldmine, will research findings be used for conferences, publications in scientific journals, or any further research. Furthermore, I am aware that in accordance with the University of Pretoria policy, the data will be archived for a period of 15 years in the Department of Social Work and Criminology.

By signing this letter of consent, I confirm that I have read and clearly understood its contents. I understand that I do not give up any legal right by signing this letter of informed consent.

Signature of participant

Date: _____

Signature of researcher

Date: _____

APPENDIX D



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Humanities
Office of the Deputy Dean

12 April 2017

Dear Ms Chaane

Project: The contribution of Harmony Gold's Protech training to trainees' socio-economic development
Researcher: PM Chaane
Supervisor: Prof A Lombard
Department: Social Work and Criminology
Reference number: 28565402 (GW20170308HS)

Thank you for the application that was submitted for ethics review.

I am pleased to inform you that the above application was **approved** by the **Research Ethics Committee** on 11 April 2017 **with the following comments:**

- Should Harmony Gold mine not be satisfied with the content of the research report, the researcher undertakes to remove the name of the mine from the title as well as the content of the research report.

Data collection may therefore commence. Please note that this approval is based on the assumption that the research will be carried out along the lines laid out in the proposal. Should the actual research depart significantly from the proposed research, it will be necessary to apply for a new research approval and ethical clearance.

The Committee requests you to convey this approval to the researcher.

We wish you success with the project.

Sincerely

Prof Maxi Schoeman
Deputy Dean: Postgraduate and Research Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA
e-mail: tracey.andrew@up.ac.za

cc: Prof A Lombard (Supervisor)

Research Ethics Committee Members: Prof MME Schoeman (Deputy Dean); Prof KL Harris; Dr L Blokland; Ms A dos Santos; Dr R Fasselt; Ms KT Govinder; Dr E Johnson; Dr C Panebianco; Dr C Puttergill; Dr D Reyburn; Dr M Taub; Prof GM Spies; Prof E Taljard; Ms B Tsebe; Dr E van der Klashorst; Dr G Wolmarans; Mr V Sithole

APPENDIX E



HARMONY GOLD MINING COMPANY LIMITED
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F +27 11 692 3879
W www.harmony.co.za

NYSE trading symbol HMY
JSE trading symbol HAR

UNIVERSITY OF PRETORIA

Private Bag X20
Hatfield
0028
South Africa

Attention: **Prof Antoinette Lombard**
Email: Antoinette.lombard@up.ac.za

7 February 2017

Dear Madam

HARMONY GOLD MINING COMPANY LIMITED ("HARMONY") // MS PORTIA MMKAGOSI CHAANE -

1. We hereby wish to notify you in writing that Harmony hereby grants Ms Portia Mmakgosi Chaane, student number 28565402, permission to proceed with her study titled "*The contribution of Harmony's Protech training to trainees' socio-economic development*".
2. This study may be conducted at Doornkop and/or Kusasaletu mine operations under the supervision of Mr George Masha on condition that a Confidentiality and Non-Disclosure Agreement ("NDA") is entered into between Ms Chaane and Harmony.
3. Kindly note that the study may only be conducted as agreed in the NDA.
4. We trust that the above is in order.

Yours faithfully,

John Machete
Human Resources Leader
Unisel Operations
Harmony Gold Mining Company Limited

Directors: PT Motsepe* (Chairman), JM Motloba* (Deputy Chairman), PW Steenkamp (Chief Executive), F Abbott (Financial Director), HE Mashego (Executive Director), JA Chisano*, FFT De Buck*, KV Dicks*, Dr DSS Lushaba*, CE Markus*, M Msimang*, JL Wetton*, AJ Wilkens*, KT Nondumo*, VP Pillay*
*Non-Executive: *Mozambican

Secretary: Riana Bisschoff

Registration Number: 1950/038232/06

APPENDIX F



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JSE trading symbol HAR

UNIVERSITY OF PRETORIA
Private Bag X 20
Hatfield
0028
South Africa

Attention: Prof Antoinette Lombard
Email: Antoinette.lombard@up.ac.za

16 March 2018

Dear Sir

HARMONY GOLDMINE MINING COMPANY ("HARMONY") // MS PORTIA MMAKGOSI CHAANE-

1. I hereby wish to notify you in writing that I have reviewed the research report compiled by Ms Portia Mmakgosi Chaane titled "The contribution of Harmony's Protech training to trainees' socio-economic development".
2. This report may therefore proceed to be assessed and published by the University of Pretoria.
3. We trust that the above is in order.

Yours faithfully,

Olwyn Linden
Learning and Development Manager
Harmony Gold Mining Company Limited

Directors: PT Motsepe* (Chairman), JM Motlaba* (Deputy Chairman), PW Steenkamp (Chief Executive), F Abbott (Financial Director), HE Mashego (Executive Director),
JA Chasano*, FTT De Buck*, KV Dicks*, Dr DSS Lushaba*, M Maimang*, JL Wetton*, AJ Wilkens*, KT Nondumo*, VP Pillay*
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Secretary: Riana Bischoff

Registration Number: 1950/038232/06