AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

by

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SUPERVISOR: PROF M C MULAUDZI

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Open Rubric

DECLARATION

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SUMMARY/ABSTRACT

AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

by

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SUPERVISOR: Prof MC Mulaudzi (Department of Human Resource Management)

DEGREE: Doctor of Philosophy in Management Studies

The purpose of this study was to develop an integrated return on investment (ROI) framework for human resource development (HRD) interventions provided to academic staff in South African public universities. This study was conducted from an interpretivist philosophical position and was qualitative in nature. Purposive and snowballing sampling strategies were used to select the participants. Primary data was collected from 14 participants who were interviewed, representing six universities, the Department of Higher Education and Training (DHET), the Department of Science and Innovation (DSI), and the Education, Training and Development Practices Sector Education and Training Authority (ETDPSETA). In addition, secondary data was collected from documents. Thematic analysis and document analysis were conducted to analyse the interviews and secondary data, respectively.

The identified four themes included the following: training and development interventions (Theme 1); management of training and development interventions (Theme 2); support for training and development interventions (Theme 3); and measuring ROI (Theme 4). This study found that South African public universities measured the impact of the HRD interventions provided to academic staff through

the first three levels, namely reaction, learning and behaviour. Another key finding was that universities hardly measured the results and ROI. However, certain aspects of the ROI methodology were measured, including the determination of training costs, financial benefits and non-financial benefits of interventions. Furthermore, this study found that government institutions did not measure ROI for training and development interventions provided to academic staff in South African public universities, as universities were expected to evaluate the impact of their own interventions. However, universities were required to achieve various objectives and targets set by relevant government institutions. This study contributed an integrated ROI framework for HRD interventions provided to academic staff in South African public universities. Subsequently, the study provides recommendations for practice and future studies.

Key terms: Academic staff; Department of Higher Education and Training; Human resource development; South African post-school education and training; Public universities; Return on investment; Return on expectation; Skills development; Training; Training evaluation

SAMARI/NKOMISO LOWU NGA NA MONGO NDZAVISISO

MBUYELO LOWU HLANGANEKE WA RIMBA RA VUVEKISI EKA NHLUVUKISO WA VANHU EKA SEKTHARA YA DYONDZO YA LE HENHLA EAFRIKA DZONGA

hi

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DIGRI Doctor of Philosophy in Management Studies

Xikongomelo xa ndzavisiso lowu a ku ri ku hluvukisa rimba ra mbuyelo wa vuvekisi ku nga *return on investment (ROI)* eka vungheneri bya vufambisi bya nhluvukiso wa vanhu ku nga *human resource management development (HRD)* leswi nyiketiwaka eka xitafu xa tiyunivhesiti ta hinkwavo ta Afrika Dzonga. Ndzavisiso lowu wu endliwe hi ku landza xiyimo xa *interpretivist philosophical position* na swona a wu ri wa *qualitative* hi muxaka wa wona. Ku tirhisiwe maqhinga ya sampuli ya snowballing ku hlawula vakhomaxiavo. Primary data yi hlengeletiwe eka vakhomaxiavo va 14 lava va nga inthavhyuwiwa, lava yimeleke tiyunivhesiti ta ntsenvu, va Ndzhawulo ya Dyondzo ya le Henhla na Vuleteri ku nga Department of Higher Education and Training (DHET) na Department of Science and Innovation (DSI) na va Education, Training and Development Practices Sector Education and Training Authority (ETDPSETA). Na le henhla ka sweswo, secondary data yi hlengeletiwe hi tidokumende. Nxopaxopo wa thematic na nxopanxopo wa tidokumende wu endliwe hi ku xopaxopa tiinthavhyu na secondary data hi ku landzelelana.

Tinhlokomhaka ta mune ti katse leswi landzelaka: vuleteri na vungheneri bya nhluvuko (Theme 1); management of training and development interventions (Theme 2); support for training and development interventions (Theme 3); and measuring

ROI (Theme 4). Leswi kumekeke swi kombise leswo tiyunivhesiti leti nga kamberiwa na switandzhaku swa vungheneri bya vuleteri na nhluvukiso hi ku tirhisa tilevhele ta mune, ku nga, vuanguri, ku dyondza, matikhomelo na vuyelo. Tiyunivhesiti a ti amukeri methodoloji wa ROI ku pima switandzhaku na vuyelo bya vungheneri bya vuleteri na nhluvuko. Kambe swiyenge swo karhi swa methodoloji ya ROI swi pimiwile, ku katsa ku vona timali ta tihakelo ta vuleteri, mimbuyelo ya swa timali na mimbuyelo ya vungheneri byo ka byi nga ri bya swa timali. Tiinstituxini ta mfumo a ti pimangi ROI eka vungheneri bya vuleteri na nhluvuko lebyi byi nyiketiweke xitafu xa akhademiki xa Afrika Dzonga, hikuva tiyunivhesiti a ti rindzeriwe leswo ti kambela vuyelo bya vungheneri bya tona. Kambe tiyunivhesiti a ku laveka leswo ti fikelela swikongomelo na tithagete to hlayanyana. Ndzavisiso wu nghenise voko eka rimba ra ROI leri hlanganeke eka vungheneri bya HRD lebyi byi nyiketiwaka xitafu xa akhademiki eka tiyunivhesiti ta hinkwavo ta Afrika Dzonga. Endzhaku ka sweswo, rhiseche yi nyiketa swibumabumelo swa maendlelo na mindzavisiso ya ka mundzuku.

Matheme ya nkoka: return on investment (mbuyelo eka vuvekisi), human resource development (nhluvukiso wa vanhu), training and development (vuleteri na nhluvuko), academic staff (xitafu xa akhademiki), South African higher education sector (sekthara ya dyondzo ya le henhla ya Afrika Dzonga), training evaluation (nkambelo wa vuleteri), public universities (tiyunivhesiti ta hinkwavo)

MANWELEDZO

FUREMIWEKE YO ṰANGANELAHO YA MBUELO YA VHUBINDUDZI HA MVELEDZISO YA VHASHUMI KHA SEKITHARA YA PFUNZO YA NṰHA YA AFRIKA TSHIPEMBE

nga

RONNY SHIBITI

MUṰOLI: Phurofesa Vho MC Mulaudzi (Muhasho wa Ndangulo ya Vhashumi)

DIGIRII: Vhudokotela ha Fiḽosofi kha Ngudo dza Ndaulo

Ndivho ya ngudo heyi ndi u bveledza furemiweke ya mbuelo ya vhubindudzi ho ṱanganelaho (ROI) ya u dzhenelela ha mveledziso ya vhashumi (HRD) yo ṋetshedzwaho vhashumi vha akademi kha yunivesithi dza nnyi na nnyi dza Afrika Tshipembe. Ngudo heyi yo itwa u bva kha nḓila ine vhathu vha tshenzhela ngayo matshilisano a ḽifhasi yo dovha ya vha ya khwaḽithethivi. Zwiṱirathedzhi zwa tsumbonanguludzwa dzo sedzaho kha zwiṱaluli zwine zwa ṱoḓiwa na zwine mudzheneli wa ṱhoḓisiso a livhisa kha muṅwe zwo shumiswa u nanga vhadzheneli. Data yo bveledzwaho nga muṱoḓisisi yo kuvhanganywa u bva kha vhadzheneli vha 14 vhe vha inthaviwu, vho imelelaho yunivesithi dza rathi, Muhasho wa Pfunzo ya nṱha na Vhugudisi (DHET), Muhasho wa Saintsi na Vhubveledzi (DSI), na Pfunzo ya Sekithara ya Maitele a Pfunzo Vhugudisi na Mveledziso na Maanḓalanga a Vhugudisi (ETDPSETA). U ḓadzisa kha zwenezwo, data i bvaho kha zwiṅwe zwiko yo kuvhanganywaho u bva maṅwalwa. Kuitele kwa u saukanya data ya khwaḽithethivi kwo itwa u saukanya inthaviwu na data i bvaho kha zwiko nga u tevhekana.

Thero nṋa dze dza topolwa dzi katela zwi tevhelaho: u dzhenelela na vhugudisi na mveledziso (Thero 1); ndangulo ya u dzhenelela ha vhugudisi na mveledziso (Thero 2); thikhedzo ya u dzhenelela na mveledziso (Thero 3); na u ela ROI (Thero 4); na

mveledziso. Mawanwa o wanulusa uri yunivesithi dzo linga mveledzwa dza u dzhenelela ha vhugudisi na mveledziso nga kha ḽevele dza u thoma nṋa, dzine dza vha tshiitei, ngudo, kuḓifarele na mvelelo. Yunivesithi a dzo ngo themendela ngona ya ROI u ela mveledzwa dza u dzhenelela ha vhugudisi na mveledziso. Naho zwo ralo, zwiṅwe zwiteṅwa zwa ngona ya ROI zwo elwa' hu tshi katelwa u ta mitengo ya vhugudisi, u dzhenelela ha mbuelo dza masheleni na mbuelo dzi si dza masheleni. Zwiimiswa zwa muvhuso a zwo ngo ela ROI kha u dzhenelela ha vhugudisi na mveledziso ho ṋetshedzwaho vhashumi vha akademi kha yunivesithi dza nnyi na nnyi Afrika Tshipembe, sa musi yunivesithi dzo vha dzi tshi khou lavhelelwa u linga mveledzwa dza u dzhenelela hadzo. Naho zwo ralo, yunivesithi tho ṱoḓea u swikelela zwivhalo na zwipikwa zwo fhambanaho. Ngudo yo shela mulenzhe kha furemiweke yo ṱanganelaho ya ROI kha u dzhenelela ha HRD ho ṋetshedzwaho vhashumi vha akademi kha yunivesithi dza nnyi na nnyi dza Afrika Tshipembe. Nga murahu ṱhoḓisiso yo ṋetshedza themendelo kha ngudo dza nyito dza tshifhingani tshiḓaho.

Maipfi a ndeme: mbuelo ya vhubindudzi, mveledziso ya vhashumi, vhugudisi na mveledziso, vhashumi vha akademi, sekithara ya pfunzo ya nṱha ya Afrika Tshipembe, u linga vhugudisi, yunivesithi dza nnyi na nnyi

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LIST OF ABBREVIATIONS

4IR	Fourth Industrial Revolution
ABET	Adult Basic Education and Training
AsgiSA	Accelerated and Shared Growth Initiative for South Africa
ASTD	American Society for Training and Development
ATR	Annual Training Report
BAAP	Black Academics Advancement Programme
BBBEE	Broad-Based Black Economic Empowerment
BCR	Benefit-Cost Ratio
BSC	Balanced Scorecard
CET	Community Education and Training
CETA	Continuing Education and Training Act
CETCs	Community Education and Training Colleges
CHE	Council on Higher Education
CIPP	Context, Input, Process, Product
CIRO	Context, Input, Reaction, Outcome
COVID-19	Coronavirus Disease 2019
CPD	Continuing professional development
DEL	Department of Employment and Labour
DHET	Department of Higher Education and Training
DoE	Department of Education
DSI	Department of Science and Innovation
EACEP	Existing Academics Capacity Enhancement Programme
ERP	Emerging Researcher Programme
ETDPSETA	Education, Training and Development Practices Sector Education and Training Authority
FETCA	Further Education and Training Colleges Act
GEAR	Growth, Employment and Redistribution
HEA	Higher Education Act
HEIs	Higher Education Institutions
HEQC	Higher Education Quality Committee
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

HR	Human Resource
HRD	Human Resource Development
HRDC	Human Resource Development Council
HRDSA	Human Resource Development Strategy for South Africa
HRM	Human Resource Management
HSS	Humanities and Social Sciences
ICT	Information and Communication Technology
ILO	International Labour Organisation
IMTEE	Integrated Model of Training Evaluation and Effectiveness
IYDS	Integrated Youth Development Strategy
JIPSA	Joint Initiative on Priority Skills Acquisition
KPIs	Key Performance Indicators
NAMB	National Artisan Moderation Body
NGO	Non-Profit Organisation
NDP	National Development Plan
NESP	Nurturing Emerging Scholars Programme
nGAP	New Generation of Academics Programme
NQF	National Qualifications Framework
NRF	National Research Foundation
NSA	National Skills Authority
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
NYDA	National Youth Development Agency
OFO	Organising Framework for Occupations
OQSF	Occupational Qualifications Sub-Framework
PDP	Professional Development Programme
PFMA	Public Finance Management Act
PhD	Doctor of Philosophy degree
PSET	Post-School Education and Training
QCTO	Quality Council for Trades and Occupations
RDP	Reconstruction and Development Programme
ROE	Return on expectations

ROI	Return on investment
SAQA	South African Qualifications Authority
SARChI	South African Research Chairs Initiative
SCM	Success Case Method
SDA	Skills Development Act
SDLA	Skills Development Levies Act
SDPs	Skills Development Providers
SETA	Sector Education and Training Authority
SOEs	State-Owned Enterprises
SSAU-DP	Staffing South Africa's Universities Development Programme
SSAUF	Staffing South Africa's Universities Framework
SSEP	Supplementary Staff Employment Programme
SSP	Sector Skills Plan
TVET	Technical and Vocational Education and Training
UCDP	University Capacity Development Programme
UK	United Kingdom
UNISA	University of South Africa
USA	United States of America
USAF	Universities South Africa
VET	Vocational Education and Training
WP-PSET	White Paper on Post-School Education and Training
WSP	Workplace Skills Plan
YAP	Young Academics Programme

CHAPTER 1: BACKGROUND AND CONTEXTUALISATION OF THE RESEARCH

1.1 INTRODUCTION

The speed of change, ambiguity, unpredictability, and unpredictability of events, as well as the rapid advancement of contemporary technology, dynamically affect the workplace, impacting trends and approaches taken in employee development (Mikołajczyk, 2022). To be competitive, organisations require that training programmes be planned and implemented in the best possible manner resulting in the best possible return on investment (ROI) (Chandrakala & Nijaguna, 2021; Salimian, 2021). Measuring the ROI and the improvement in employees' performance resulting from training and development is increasingly earning a place among the most important topics in the human resource development (HRD) field (Meyer & Opperman, 2016; Phillips, 2003; Phillips, Phillips & Schell, 2015). HRD practitioners are under intense pressure from top management to demonstrate accountability in terms of concrete business benefits for their interventions (Kalita & Das, 2022; Meyer & Opperman, 2016). Consequently, the purpose of this study was to develop an integrated ROI framework for HRD interventions provided for academic staff in South African public universities. This chapter outlines the background and motivation for the study. Furthermore, the problem statement, research questions, research aims, significance of the research and research assumptions of the study are discussed. The chapter also defines the key terms and gives an overview of the methodology adopted. A discussion of the ethical considerations and an outline of the study complete the chapter. The chapter ends with a summary.

1.2 BACKGROUND TO AND MOTIVATION FOR THE RESEARCH

Against the backdrop of globalisation, innovative information technology and fierce competition, the mindset on remaining competitive has moved towards intellectual

resources (Jain, 2015). Organisations devote millions of dollars to improving employees' performance by implementing training and development activities and programmes (Sadik, 2019). Training and development is seen as a crucial strategic tool for improving organisational and employee performance (Bailer, Mankin, Kelliher & Garavan, 2018; Botek, 2018; Šebestová & Popescu, 2022; Siengthai, 2015). As a result, organisations increase the training budget every year, hoping that this will earn them a competitive advantage (Alola, Osibanjo & Ojo, 2014; Jain, 2015; Teixeira & Pereira, 2015).

The presence of the Fourth Industrial Revolution (4IR) is expected to change the world of work, as we know it. The 4IR comprises the internet, artificial intelligence, computers, machine learning, digital systems, smartphones and automation (Govender & Adegbite, 2022). According to Xing, Marwala and Marwala (2018), 4IR is steadily changing the way production in the economy is done, leading to changes in the skill set required for the new economic paradigm. However, training and employment systems have not kept pace and are still designed in a way that people take their first 25 years being trained for a job and dedicate the rest of their lives to the workplace (Xing et al., 2018). This needs to change to ensure that individuals are trained and learn continuously for the rest of their lives, meaning that lifelong learning will no longer be earmarked for those who are ambitious but will be a necessity for all employees (Xing et al., 2018).

Training and development will be more important than ever during the 4IR era and post-Coronavirus Disease 2019 (COVID-19) (Mikołajczyk, 2022; Westfall, 2022). Many organisations have experienced problems regarding staff development and training, added to the fact that their training programmes were disturbed because of the COVID-19 pandemic (Ceesay, 2021; Mikołajczyk, 2022; Simplilearn, 2022). Hence, training providers, employment services and social partners organised interventions for a speedy response to alleviate many of the critical labour and skill shortages that were experienced at the time (ILO, 2021). In the face of the technological reality of migrating operations to digital platforms, employees need a new set of skills that will empower them to stay productive and significant within the economic system (Samuel & Moagi, 2022; Simplilearn, 2022).

HRD plays a fundamental and strategic role in ensuring optimal individual and organisational performance. Consequently, management invest in training and development interventions in the confidence that the investment will bring a competitive advantage for their organisations. South African organisations are also following an international trend by investing millions of rands in the development of employees to improve their competitiveness (Meyer & Opperman, 2016). In a competitive environment, if organisations want to accomplish their specified goals and objectives, investment in suitable employee training and development cannot be overemphasised (Alola et al., 2014). As the development and implementation of training require a substantial investment of time and money from management, organisations must have training evaluation systems in place to guarantee satisfactory returns on such investment (Siengthai, 2015). Globally, training and development is in a serious predicament as training budgets are some of the first to be reduced when economic times become difficult (Kirkpatrick & Kirkpatrick, 2019; Sadik, 2019).

In line with the investment in training and development, organisations must make efforts to take full advantage of the benefits resulting from resources invested in HRD (Phillips, 2003; Tessema, Tesfayohannes-Beraki, May, Tewolde & Andemariam, 2015). Human resource (HR) managers must be able to communicate the business value of their interventions and provide proof of return through improved measurable results and organisational performance (Kalita & Das, 2022; Sachdeva, 2014; Teixeira & Pereira, 2015). The increasing need for evidence to back policy decisions, direct resource allocation and show results has elevated the need for expertise in monitoring and evaluation (Morkel & Ramasobama, 2017). Demonstrating the bottom-line impact of training programmes offers a platform for deciding which programme is to be funded further or should be terminated, in addition to substantiating that the programme is valuable for the organisation (Jain, 2015).

For more than a decade, American organisations have been encouraged by the Association for Talent Development to measure ROI in training (Meyer & Opperman, 2016). The ROI Institute, based in the United States of America (USA), also assists organisations to determine the success of projects and programmes, including

measuring the financial ROI. However, measuring the ROI of training interventions is not only prominent in the USA, as it is starting to be imperative in the United Kingdom (UK) and the Netherlands (Meyer & Opperman, 2016). The ROI Institute is now available in more than 70 countries all over the world (ROI Institute, 2020) including the countries mentioned above. In the economic and political environment of the 21st century, measuring ROI is becoming a significant topic when considering current and future programmes and technology development for training and operational purposes (Moss et al., 2016). This is now more relevant than ever, as in the last two years COVID-19 has ushered in a new normal globally that has driven organisations into technology-dependent and remote-based operations. Furthermore, organisations have had to prepare for a post-COVID-19 workplace by reskilling staff for business recovery. Now is the time for organisations to strengthen their commitment in terms of their learning budgets and commit to reskilling (Agrawal, De Smet, Lacroix & Reich, 2020). This is an expensive investment for which the measure of the ROI is inevitable. We are in a climate where every cent counts because the pandemic has shifted budget priorities and the way we work (Faragher, 2020). With the onset of the COVID-19 pandemic, it is imperative to recognise why there should be investments in human capital to safeguard hard-won achievements from being diminished (World Bank, 2022).

According to Meyer and Opperman (2016), skills development legislation in South Africa now obliges organisations to invest in staff development. Consequently, managers are increasingly demanding greater articulation of how HRD interventions benefit their organisations financially, in addition to accountability for skills development (Meyer & Opperman, 2016). The following trends have been identified as having contributed to the increased attention and use of ROI for HRD interventions in South African organisations:

- The introduction of the Skills Development Act (SDA) resulted in higher training costs.
- Extra training and development interventions are being carried out to form part of organisations' workplace skills and employment equity plans.

- The training department in organisations is under intense pressure from top management to demonstrate accountability in terms of concrete organisational benefits.
- Since management prefers to outsource some or most of their training, HRD practitioners are becoming aware that measuring the ROI for training interventions can validate their presence in the organisation (Meyer & Opperman, 2016).

As much as HRD consultants are influenced by the factors highlighted above to measure ROI, there are benefits and challenges that come with embarking on this process. According to Wang, Dou and Li (2002), Kirkpatrick's model of evaluation does not provide detailed, quantitative procedures for the evaluation of training programmes, even at its fourth level, except for some broad evaluation recommendations. Rather, Kirkpatrick's model is more of a categorisation structure than a methodology for training evaluation (Wang et al., 2002). To advance Kirkpatrick's model, Phillips (1996) presented a framework that can be used to measure the financial impact of training. The paramount impact of Phillips's ROI framework is that it has substantively improved awareness of the significance of evaluation and ROI measurement in the HRD field and for top management (Meyer & Opperman, 2016; Wang et al., 2002). Measuring ROI for HRD interventions is a process that is far more intricate than the accounting version of ROI, as the former includes dynamic human behaviour. According to Sachdeva (2014), cost-effective and systematic implementation of the ROI process needs appropriate planning around an established framework, genuine evaluation objectives and collective responsibilities throughout the major phases of the process.

The fascinating reality about measuring ROI is that HRD practitioners know that ROI must be demonstrated; nonetheless, very few are doing so (Bennington & Laffoley, 2012; Meyer & Opperman, 2016). In the USA, a McKinsey Quarterly report highlighted that only 8% of organisations evaluate the worth of HRD interventions and in most cases, those who try to measure ROI, hardly go beyond requesting participants to provide feedback instantly after the training (Bennington & Laffoley, 2012). Tessema et al. (2015) argue that HRD interventions may be able to produce

capable individuals but it is challenging to produce motivated, committed and productive individuals, as the latter appears to be a challenge to organisations. Jasson and Govender (2017) found that the relationship between investment in training and improved work performance is both supported and criticised by researchers. Moreover, an organisation's financial performance can often be associated with both HRD interventions and numerous other moderating variables (Jasson & Govender, 2017).

According to Bennington and Laffoley (2012), the current ROI approach fails to separate the impact of true HRD interventions from that of other intervening variables. Furthermore, the purpose of some HRD programmes is to change participant behaviour, which can rarely be measured monetarily (Bennington & Laffoley, 2012; Grant, 2012; Wang et al., 2002). ROI is considered inappropriate and flawed by some, although others describe it as the only answer to their accountability concerns (Phillips & Phillips, 2002). Furthermore, some see it as a ticket to additional funding and executive support (Phillips & Phillips, 2008). Evaluating the success of training is problematic, especially when the predetermined learning outcomes involve softer skills such as improved collaboration, decision-making, innovativeness and the ability to think strategically (Bennington & Laffoley, 2012). It can be argued that binding ROI to a monetary amount may not always be a suitable measurement (Bennington & Laffoley, 2012; Grant, 2012), but establishing the return on expectations (ROE) may be a suitable alternative (Bennington & Laffoley, 2012). Hence, measuring ROE is another topical issue that HRD practitioners and scholars should investigate to complement ROI in training and development.

According to Meyer and Opperman (2016: 2), HRD managers offered the following justifications for not measuring ROI during conferences organised by the American Society for Training and Development (ASTD) Global Network South Africa:

- Training practitioners are not aware of where to start.
- Training departments do not have a measurement culture.
- Training departments are not given the means to calculate ROI.

- Establishing ROI for other types of training is problematic, for example, interventions aimed at developing soft skills.
- ROI is highly complex.
- Excessive effort is needed to establish ROI.
- Time to calculate ROI is not available; as such practitioners are busy with their training interventions and Sector Education and Training Authority (SETA) requirements.
- They are afraid that if ROI is calculated, it will prove that their initiatives do not contribute to the organisation and they might lose their jobs.

It is therefore necessary that the above reasons for not measuring ROI in South Africa be engaged with and an appropriate ROI framework be developed. This will not only enhance accountability for HRD expenditure but will also strengthen the importance of the HRD function in organisations.

The South African government is committed to investing profoundly to provide training interventions for academic staff in the public higher education sector. However, successful investment in human capital should bring returns for the nation through improvements in skills and productivity, with important long-run gains for both direct beneficiaries and others benefiting from economic growth (DHET, 2018a). Investing in staff development is similar to investing in any other area and it should produce a return as is expected with other investments (Simkins, Scott, Stumpf & Webbstock, 2016). Consequently, it is very important to measure the ROI for HRD in the South African higher education sector as part of accountability for money invested by the government and the value that these interventions ought to add to the country's development.

Phillips and Phillips (2002) suggest that the use of ROI should be reserved for interventions that are more expensive, have a wide reach, are important to management, or are extremely visible within the organisation. This is the case with the higher education context in South Africa. Nevertheless, current literature does not indicate that measuring the ROI for HRD interventions provided to academic staff has been investigated in the South African public universities, and this is the gap that

the current study seeks to close. Svetlik and Lalić (2016) were also unable to find relevant literature dealing with the measurement of ROI in the higher education sector, even though the quality of teaching and research depends largely on academic employees' development.

1.3 RESEARCH PROBLEM

The purpose of this study was to develop an integrated ROI framework for HRD interventions provided for academic staff in South African public universities. In today's difficult economic climate, HRD budgets are being scrutinised more than ever (Bennington & Laffoley, 2012; Moss et al., 2016). Research on training and development expenditure shows an overall drop in spending since the economic predicament of 2008 (McCarthy & Sheehan, 2014; Moss et al., 2016). The ASTD industry report found that there has been a 4% decline in direct expenditure per employee on learning and development interventions and infrastructure since 2010 in the USA (McCarthy & Sheehan, 2014). Elsewhere, the Chartered Institute of Professional Development found that in the UK, the median training budgets and training hours per employee had both declined (McCarthy & Sheehan, 2014). The global financial predicament has the potential to upset the HRD field considerably in terms of investment levels in training and development; evaluation mechanisms used to establish ROI in HRD; the nature, content and focus of HRD interventions; and the role of HRD scholars and practitioners in enabling organisations to navigate such uncertain and turbulent economic environments (McCarthy & Sheehan, 2014). To exacerbate this matter, the dawn of the COVID-19 pandemic led to some of the training budget being redirected to health and safety interventions. At the same time, managers should upskill and reskill the employees to provide new business models in the post-pandemic period (Agrawal et al., 2020). Therefore, the cutting of training budget will not assist as the current crisis will need a robust skill shift (Agrawal et al., 2020).

According to McCarthy and Sheehan (2014), if training and development initiatives are perceived as an investment that can generate short- and long-term returns for the organisation, then investment levels in HRD may be maintained or improved

during difficult periods. Conversely, if training and development are perceived as a cost that cannot be recovered in accounting terms, then it is more likely that such spending will be reduced or eliminated during difficult economic times (McCarthy & Sheehan, 2014). In contrast, HRD interventions commonly deliver long-term value compared to other investments that generate short-term effects; hence, senior leaders consider eliminating HRD interventions as a quick fix to reduce costs (Bennington & Laffoley, 2012).

Considering the increased pressures to reduce HRD budgets, it is necessary for HRD researchers to further investigate how HRD can be viewed as an investment instead of a cost, and for practitioners to find suitable methods for showing accountability for HRD spending to prove the value of an investment instead of taking a sunk cost perspective (McCarthy & Sheehan, 2014). An ASTD Global Network South Africa survey found that less than 8% of South African companies are measuring ROI in training (Meyer & Opperman, 2016). Many training departments have not made the extra effort to demonstrate the financial benefits of their training programmes (Deloitte, 2011; Meyer & Opperman, 2016). Furthermore, South African companies are squandering millions of rands annually on employee training and development interventions that are not aligned with their strategic goals (Deloitte, 2011). Nemec (2018) highlights that there is some evidence, supported by experts in the HRD field, to show that the most common training approaches are futile, resulting in no financial return or a negative return.

In an environment where competition is aggressive and resources are limited, senior managers are no longer content with HRD qualitative outcomes, but instead require clearly articulated economic ROI, where every financial cent invested should improve the business bottom line (Meyer & Opperman, 2016; Phillips et al., 2015; Sachdeva, 2014; Teixeira & Pereira, 2015). Thus, every intervention implemented must generate value; in other words, improve financial return, either by growing business, decreasing costs or increasing efficiency (Teixeira & Pereira, 2015). Measuring ROI enhances decision-making on resources used for professional development interventions by presenting the financial results of such interventions (Opperman, Liebig, Bowling, Johnson & Harper, 2016). A training process review should be carried out to get feedback for further improvement of the interventions (Siengthai,

2015). Findings can be taken into consideration when making internal decisions in the department and can form part of administrative reports to the organisation (Deloitte, 2011; DeSilets & Dickerson, 2010). Consequently, it makes sound economic logic to go further than smiley sheets and to create integrated measures that capture ROI to ensure that even the most critical of reviewers can realise the value of HRD interventions in an organisation (Bennington & Laffoley, 2012; Sachdeva, 2014). Measuring ROI for training interventions is a great way to demonstrate the value of training investments to top management in financial terms (Meyer & Opperman, 2016; Sachdeva, 2014).

Concerning the South African higher education sector, the National Treasury warns that there are several fiscal risks, including uncertainty regarding the funding of higher education (DHET, 2018a). Thus, it is warranted for South African public universities to have a precise measure of the ROI for HRD interventions, as this contributes to their human capital investment decisions. While well-designed studies of ROI in training in the behavioural sector may not be practical in most cases, empirical research is necessary to establish what measures might indicate effective training outcomes (Teixeira & Pereira, 2015). Prior to this study, no framework for measuring ROI for HRD interventions aimed at academic staff was found to exist in the South African higher education context. However, the following accountability challenges do appear to exist in the HRD space in South Africa:

- The DHET requires universities to develop measurable targets for the success and transformation obligations of interventions supported by their grants (DHET, 2015a).
- South African companies are collectively squandering millions of rands annually on employee training and development interventions that are not aligned with strategic goals (Deloitte, 2011).
- Executives require actual ROI, where every monetary unit spent should enhance the business's bottom line (Teixeira & Pereira, 2015).
- Organisations globally require quantifying the costs incurred in providing training programmes and the results associated with the interventions (Kalita, & Das, 2022).

- HRD managers are not aware of how they can measure ROI (Meyer & Opperman, 2016).
- Organisations lack an ROI measurement culture and HRD practitioners are not given resources to measure ROI (Meyer & Opperman, 2016).
- The current ROI approaches fail to distinguish between the impact of HRD interventions and the influence of other moderating variables. There is a range of factors that can influence ROI apart from costs and benefits (Schueler, Stanwick & Loveder, 2017).
- Binding ROI to a monetary amount may not always be the appropriate measurement (Bennington & Laffoley, 2012; Opperman et al., 2016; Kirkpatrick & Kirkpatrick, 2009), especially for the South African higher education sector which is not profit-driven.

It is precisely because of the challenges outlined above that this study becomes important. If conclusive proof of ROI for funds spent on training and development interventions aimed at academic staff is established in South African public universities, the government (as the main funder of public universities) through its various agencies, the donor community, and the universities themselves may be comfortable deciding on how much and what type of training to fund for the development of the employees. Thus, an integrated ROI framework for the South African higher education sector, as developed through this study, becomes a critical instrument that contributes to good governance and accountability for HRD expenditure, and also towards the creation of a climate of sound decision-making by those tasked with the management of public universities.

1.4 RESEARCH QUESTIONS

From the challenges discussed in the preceding section, the following research questions were formulated to guide both the theoretical and the empirical phases of this study:

1.4.1 Central research question

What empirical dimensions should inform an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities?

1.4.2 Research questions regarding the literature review

Research question 1: How does the literature conceptualise skills development?

Research question 2: What is the nature of the theoretical relationship between investment in HRD and organisational performance as conceptualised in the literature?

Research question 3: What is the nature of the South African skills development landscape?

Research question 4: What training interventions are provided in the South African higher education context as indicated in the literature?

Research question 5: What are the various HRD evaluation models?

Research question 6: How is the measurement of ROI in HRD conceptualised and explained by theoretical models in the literature?

1.4.3 Research questions regarding the empirical study

Research question 1: What are the typical HRD interventions provided to academic staff in South African public universities?

Research question 2: How do South African public universities manage the HRD interventions provided to academic staff?

Research question 3: How do South African public universities support the HRD interventions provided to academic staff?

Research question 4: What is the role of government institutions in the training and development of academic staff in public universities?

Research question 5: How do South African public universities measure ROI for the HRD interventions provided to academic staff?

Research question 6: What are the dimensions of an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities?

Research question 7: What are the conclusions, limitations and recommendations arising from the findings of this study?

1.5 RESEARCH AIMS

This study aimed to achieve the following aims:

1.5.1 General aim

The general aim of this study was to develop an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities.

The following were the specific aims of the literature review and the empirical study:

1.5.2 Research aims regarding the literature review

Research aim 1: To conceptualise skills development.

Research aim 2: To explore the theoretical relationship between investment in HRD interventions and organisational performance.

Research aim 3: To investigate the nature of the South African skills development landscape.

Research aim 4: To explore the training interventions provided in the South African higher education context.

Research aim 5: To study various models of HRD evaluation.

Research aim 6: To determine how the measurement of ROI in HRD is conceptualised and explained by theoretical models in the literature.

1.5.3 Research aims regarding the empirical study

Research aim 1: To examine the typical HRD interventions provided to academic staff in South African public universities.

Research aim 2: To assess how South African public universities manage the HRD interventions provided to academic staff.

Research aim 3: To establish how South African public universities support the HRD interventions provided to academic staff.

Research aim 4: To investigate the role of government institutions regarding the training and development of academic staff in public universities.

Research aim 5: To explore how South African public universities measure ROI for the HRD interventions provided to academic staff.

Research aim 6: To develop an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities.

Research aim 7: To formulate the conclusions, limitations and recommendations arising from the findings of this study.

1.6 SIGNIFICANCE OF THE RESEARCH

This study is relevant and significant to the current South African HRD context, with specific emphasis on how HRD interventions for academic staff in the higher education sector can be measured in terms of ROI. It adds value on three levels, namely, theoretical, empirical and practical contributions.

1.6.1 Theoretical level

At a theoretical level, this study serves as baseline research that contributes to understanding the measurement of ROI for HRD interventions aimed at academic staff in the South African higher education sector. Furthermore, the study adds value to the body of knowledge on training evaluation, especially since the training measurement framework that is presented expands on the Kirkpatrick-Phillips training evaluation model and applies the theory to the South African higher education context. It is anticipated that the framework developed in this study will guide future research intended to understand the phenomenon under investigation.

1.6.2 Empirical level

This study operationalised the dimensions of an ROI framework for HRD interventions aimed at academic staff suitable for the South African higher education sector. To date, no framework seems to exist in the South African higher education context that focuses on measuring ROI for such HRD interventions. Therefore, this study contributes significantly to the HRD discourse, as it sought to empirically develop an integrated ROI framework for HRD suitable for the South African higher education context. The newly developed framework will guide future research pertaining to training evaluation and measurement of ROI in HRD.

1.6.3 Practical level

On a practical level, ROI information for HRD interventions aimed at academic staff in the South African higher education sector is useful at the line management, university and government level. The study provides the officials responsible for managing and overseeing HRD interventions provided to academic staff in the public

higher education sector with an understanding of how ROI can be measured. Furthermore, providing information on ROI for HRD in the South African public higher education sector is important, as this will provide government and funders of the sector with valuable evidence of success and/or failure regarding the sector and further provide justification for expenditure and future investment in the sector.

1.7 RESEARCH ASSUMPTIONS

Research assumptions are the basic principles that are expected to be true without verification or proof and form the foundation of scientific research (Joubert, 2012; Tshilongamulenzhe, 2012). All concepts encompass assumptions, namely, statements about the nature of aspects that are not necessarily observable or testable but are accepted as a necessary starting point for research (Neuman, 2000). Consequently, identifying the assumptions on which a concept is based depends on one's understanding of that concept (Tshilongamulenzhe, 2012). The assumptions discussed in the following sections are made in the current study to advance an understanding of the measurement of ROI for the HRD interventions provided to academic staff in South African public universities.

1.7.1 Ontological assumptions

Scotland (2012) defines ontology as a part of philosophy focused on the assumptions researchers make to believe that something makes sense or is real, or the very nature or essence of the social phenomenon researchers investigate. It is the study of being, that is, the nature of existence and what constitutes reality (Gray, 2017; Kivunja & Kuyin, 2017; Saunders, Lewis & Thornhill, 2015). For the purpose of this study, it was deemed best to interview the participants to comprehend their understanding of the ROI measurement process and the challenges they face daily. Hence, an interpretivist philosophy was chosen. This philosophy is discussed in detail in the research methodology chapter (Chapter 5) in subsection 5.2.1. The collected data were useful for developing an integrated ROI framework for HRD interventions provided to academic staff in South African public universities.

1.7.2 Epistemological assumptions

According to Kivunja and Kuyin (2017: 27), “epistemology has its aetiology in Greek where the word *episteme*, means knowledge”. Epistemology provides a philosophical background for deciding what kind of knowledge is legitimate and adequate (Babbie, 2008; Gray, 2017; Saunders et al., 2015). Epistemology can be regarded as the theory of knowledge and should be concerned with the principles and rules that will help the researcher to decide whether and how phenomena can be known or how this knowledge can be demonstrated (Babbie, 2008). Therefore, the main aim of the study was to generate valid findings that approximate reality as closely as possible.

This study had the following epistemological assumptions:

- People view the truth differently and it depends on the situation – there is more than one way to know something, and knowledge is associated with its context.
- The worldview of the individual conceptualises and alters perceptions of people.
- People perceive the world according to their lived experiences.

The researcher believed that the aims of the study would best be achieved when the views and opinions of the participants were taken into consideration. Consequently, the researcher engaged with and interviewed participants to establish their views and perspectives on measuring ROI for the HRD interventions provided to academic staff in South African universities.

1.7.3 Working assumptions

The reviewed literature led to the construction of a set of working assumptions pertinent to the questions of the study. These assumptions were as follows:

- An integrated framework for measuring the ROI in HRD is associated with the successful implementation of HRD interventions and may address the measurement and accountability challenges identified in this study.
- Some role players may not be aware of the importance of measuring ROI in HRD as a basis for the successful implementation of HRD interventions for academic staff in the South African higher education sector.

1.7.4 Theoretical assumptions

The theoretical assumptions below served as underlying truths from which the theoretical reasoning arises in this study:

- Universities differ widely in how they evaluate HRD interventions.
- Effective measurement of ROI for the HRD interventions provided to academic staff is important for the successful implementation of the interventions to ensure that the goals of government and the mandates of universities are achieved.
- Workplaces differ widely in how they support, implement and manage HRD interventions.
- HRD interventions succeed when all key stakeholders account for the investment made.

The next section presents the theoretical model that has been adopted to lay the foundation of this study.

1.8 THEORETICAL FRAMEWORK

A theory is a conceptual generalisation that offers a coherent description of relationships between phenomena (Bryman, 2015; Tshilongamulenzhe, 2012). It contains principles for clarifying, predicting and monitoring phenomena (Neuman, 2000). A theoretical model offers collections of assumptions, concepts and forms of explanation. Theoretical beliefs are testable statements about the prescription (what) and interpretation (why) of phenomena and human behaviour. They include all

statements, which form part of typologies, hypotheses, theories, models and conceptual descriptions (Mouton & Marais, 1996). According to Bryman (2015), a theory is significant to the researcher because it offers background and a basis for the study, as well as a framework within which phenomena can be understood and the research findings can be interpreted.

Phillips's (1996) ROI methodology formed the core of the theoretical framework underpinning this study. The purpose of a model that describes the concept of the measurement of ROI in HRD is to depict the concept systematically to make the concept more meaningful. The literature on HRD evaluation and ROI was presented and several systems, frameworks and models for measuring ROI in HRD provide a solid theoretical foundation for this study. These systems, frameworks and models are discussed in detail in Chapters 3 and 4.

1.9 DESCRIPTION OF KEY CONCEPTS

This section describes the main concepts in this study, namely, ROI, HRD, South African public universities, academic staff, government institutions and training evaluation.

1.9.1 Return on investment (ROI)

The measurement of ROI refers to a measure of the benefit of an investment relative to the cost of that investment (Bukhari, Andreatta, Goldiez & Rabelo, 2017; Schueler et al., 2017) and provides bottom-line figures and accountability for all types of training, human resources, performance improvement and technology programs (Phillips, 2003). It is a performance measuring mechanism used to evaluate the efficiency of an investment or compare the efficiency of several investments. To calculate ROI, the benefit of an investment is divided by the cost of the investment and the result is stated as a percentage (Sachdeva, 2014). Nevertheless, it is not simple to implement the costs and benefits approach, as the processes involved in HRD intervention are much more complex than accounting. HRD interventions involve dynamic human behaviour and the benefits resulting from the interventions

are usually mixed with the impact of other organisational variables (Nemec, 2018; Olexová, 2018; Wang et al., 2002).

1.9.2 Human resource development (HRD)

For the purpose of this study, the term “HRD” is used interchangeably with the concept of training and development. Training and development comprise initiatives that prepare leaders, managers and employees to manage subordinates, increase performance and implement strategies for business goal achievement (Jasson & Govender, 2017). HRD covers improving performance on the current job (training), preparing individuals for future but identifiable jobs within the organisation (education), and assisting individuals to grow to meet future organisational growth (development) (Poell & Van der Krogt, 2014).

1.9.3 South African public universities

The South African public university system consists of 26 universities differentiated into eleven general academic universities, nine comprehensive universities and six universities of technology (DHET, 2015b; 2017a). A public university in South Africa is any higher education institution that is established, deemed to be established or declared as a public higher education institution under the Higher Education Act (HEA) 101 of 1997.

1.9.4 Academic staff

According to Rosewell and Ashwin (2019), scholars associate being an academic with, to a certain extent, teaching and research, intellectual stimulation, autonomy and freedom, and ideas around making a difference, and a sense of calling. Conventionally, academic staff were expected to participate in teaching, scholarly research and publications, and administration tasks (Miller, Alexander, Cunningham & Albats, 2018). Recently, there has been an augmented focus on academic staff having an impact on society (including both knowledge transfer activities and engagement in technology commercialisation activities), becoming more entrepreneurial and winning research funding (Miller et al., 2018). In the South

African context, academic staff is defined as “any person appointed to teach or to do research at a public higher education institution and any other employee designated as such by the council of that institution” (HEA 101: 4).

1.9.5 Government institutions

In the context of this study, government institutions refer to institutions that are under the direct or indirect control of the government of South Africa. Such institutions are responsible for funding and managing the training and development of staff members, especially academic staff. In this study, the focus was limited to the DHET and its subsidiaries, the Department of Science and Innovation (DSI), ETDPSETA, and the National Research Foundation (NRF).

1.9.6 Training evaluation

Training evaluation is the last phase of the training and development cycle (Erasmus, Loedolff, Du Plessis, Mda & Nel, 2019). Training evaluation is a systematic process of gathering information aimed at establishing the effectiveness and efficiency of training programmes and making decisions about training (Arora & Talwar, 2019; Kunene, 2017; Rao & Kumar, 2017). The evaluation of training effectiveness measures the improvement in the knowledge, skills and behaviour of employees in the workplace resulting from a training programme (Perez-Soltero et al., 2019). The measurement assists to compare the cost incurred in the design and implementation of training with the related benefits (Sahoo & Mishra, 2017). The process encompasses all efforts taken to find feedback on the impact of a training programme and to assess the value of the training using the collected information (Lee, Jeon, Kim & Lee, 2017; Sadik, 2019).

1.10 RESEARCH METHODOLOGY

This section provides an overview of the research methodology adopted in this study, with the full details being discussed in Chapter 5. This study was conducted from an interpretivist philosophical position and was qualitative in nature. Purposive

and snowballing sampling strategies were used to select the participants. Primary and secondary data were collected, with primary data being collected through interviews and secondary data from documents. Thematic analysis was done to analyse the data collected from the interviews and document analysis was conducted to analyse the secondary data.

1.11 ETHICAL CONSIDERATIONS

The research complied with the social sciences ethical guidelines and the details of the actions the researcher undertook are presented in Chapter 5 (Research methodology).

1.12 OUTLINE OF THE STUDY

The study is structured as follows:

Chapter 1: Background and contextualisation of the research

This chapter outlined the background and motivation for the study. Furthermore, the problem statement, research questions, research aims, significance of the research, and research assumptions of the study were discussed. The chapter also highlighted the definitions of key terms, and gave an overview of the methodology and data analysis techniques that were used. Lastly, the ethical considerations and an outline of the study were presented.

Chapter 2: The skills development landscape and the South African higher education sector

This chapter starts by conceptualising the term “skills development” followed by addressing skills development in the international context. The chapter delves deep into the South African skills development legislative and policy framework. Skills development initiatives that have been formulated and implemented to address skills challenges in the South African higher education context are also highlighted.

Chapter 3: Models of HRD evaluation

This chapter begins by defining training evaluation. This is followed by a discussion of the tools used for training evaluation, models of HRD evaluation, the benefits of training evaluation and the factors hindering training evaluation.

Chapter 4: Theoretical framework underpinning this study

This chapter conceptualises ROI and explains how the measurement of ROI is linked to strategic management, as managers need to understand the strategic purpose of this process before planning for and conducting the ROI process. Furthermore, Phillips's (1996) ROI model is discussed in detail followed by a discussion of a risk measurement approach to ROI frameworks. The chapter further discusses the challenges faced when measuring ROI in HRD.

Chapter 5: Research methodology

This chapter discusses the methodological framework adopted in this study. The framework includes aspects such as the research philosophy, methodological choice, types of research, research approach, research design, research choice, time horizon, research setting, population, sampling strategy, data collection methods and procedure, and data analysis.

Chapter 6: Research findings

In this chapter, the findings of the study are discussed. The chapter commences with an overview of the participant profile and the secondary data. Thereafter, data collected from the interviews and secondary sources are presented and interpreted. This is followed by sections in which both the primary and secondary data are integrated. Finally, the research aims are examined in light of the key findings of the study in order to establish whether the aims have been achieved.

Chapter 7: Conclusions, limitations, and recommendations

The focus of this chapter is on the key research findings in terms of whether they answer the corresponding empirical research questions. This is followed by drawing a number of conclusions regarding the central question, the core finding and the entire research. The limitations and the practical recommendations or implications of this study are presented followed by recommendations for future studies. The last section provides the conclusion of the study that summarises the work covered in the chapters.

1.13 CHAPTER SUMMARY

This chapter outlined the background and motivation for the study. The research problem, research questions, research aims, significance of the research, research assumptions, paradigmatic perspectives and theoretical framework of the study were briefly discussed. The methodology and data analysis techniques that were used and the ethical considerations of the study were also highlighted. Finally, an outline of chapters was provided.

The next chapter (Chapter 2) discusses the skills development landscape and the South African public higher education sector.

CHAPTER 2: THE SKILLS DEVELOPMENT LANDSCAPE AND THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

2.1 INTRODUCTION

The chapter starts by conceptualising the term “skills development” and thereafter addresses skills development in the international context. The chapter further examines the South African skills development legislative and policy framework in depth focusing on the contribution of global skills development to the South African system, the post-apartheid era of skills development in South Africa, skills development legislation, skills development plans and strategies, other legislation and programmes with an impact on skills development, structures that contribute to skills development in South Africa, and challenges faced by the post-school education and training (PSET) system. This is followed by a discussion concerning the South African public higher education context, which addresses the historic nature of the sector, the current setting and interventions implemented to address the skills challenges. The chapter ends with a summary.

2.2 CONCEPTUALISING SKILLS DEVELOPMENT

Interest in skills and human capital dates back a long way (Mellander & Florida, 2019). In his classic book titled *The wealth of nations* published in 1776, Adam Smith suggested that the acquired and useful abilities of all citizens is the fourth factor of production operating in conjunction with labour, land and production (Mellander & Florida, 2019). In the present day, skills development has become an important research focus area in the study of comparative and international education policies and practices (Groener, 2014). In the following section, the term “skills development” will be defined. However, before defining skills development, one needs to understand the meaning of skill. A skill refers to an ability an individual holds or qualities people share and can be recognised in terms of formal qualifications (Reddy et al., 2018). However, some skills are informal but may be formalised through the recognition of prior learning process; accordingly, skills are the outcome of formal, informal and non-formal learning. Furthermore, the description of

intermediate and high-level skills, core or foundational skills, scarce skills and occupations in high demand, critical skills and the like, is contextual (Reddy et al., 2018).

2.2.1 Skills development

A broad definition of skills development sums up all forms of PSET, which take into consideration a range of dimensions of what a skill is, its uses and its purposes (Reddy et al., 2018). According to Bridgford (2017), the complete spectrum of formal and informal vocational, technical, and skills-based education and training for work and/or self-employment is what is meant by skills development. Skills development is about empowering individuals and collectives to play a productive role in their lives and to have the opportunity to use their capabilities to adapt to dynamic opportunities and challenges (Chandrakala & Nijaguna, 2021; Reddy et al., 2018). Skills development at times refers to occupational education and workplace-based training programmes, for example, apprenticeships or shorter training programmes in the workplace, but at times relates to all education and training that is aimed at the workplace (Allais, 2012). According to the ILO (2016), skills development increases the worth and performance of employees, empowers and enriches their lives, and improves the productivity, competitiveness and sustainability of enterprises.

The term “skills development” is sometimes used interchangeably with the term “HRD”. According to the HRDC (2017b), HRD is an integral part of the HR function of an organisation, which is responsible for the development of employees through training programmes and experiential learning. Enhancing individual and group effectiveness and performance, over and above increasing organisational effectiveness and performance by means of developing individual knowledge, skills and competencies, seems to be at the heart of HRD (Grobler & Wärnich, 2016). Several studies have examined human resources as a source of sustained competitive advantage, specifying that the high-performance work systems shaped by certain HRD and HRM practices result in greater firm performance (Chapman, Sisk, Schatten & Miles, 2018). A comprehensive definition of HRD was suggested by Hamlin and Stewart (2010: 213), which states that “HRD encompasses planned activities, processes and/or interventions, designed to have an impact upon and

enhance organisational and individual learning, to develop human potential to improve or maximise effectiveness and performance at either the individual, group/team and/or organisational level, and/or to bring about effective, beneficial personal or organisational behaviour change, and improvement within, across and beyond the boundaries (or borders) of the private sector (for-profit), public sector/governmental or third voluntary sector (not-for-profit) organisations, entities or any type of personal-based, work-based, community-based, society-based, culture-based, political-based or nation-based host system".

Now that the definition of skills development has been addressed, the following section focuses on how skills development emerged from human capital theory.

2.2.2 Human capital theory as the foundation for skills development

Human capital theory was formally advanced in the 20th century, but its legitimate conceptualisation was pronounced centuries before then (Kiker, 1968 as cited in Sweetland, 1996). Baptiste (2001) highlights that some authors were of the view that the articulation of a formal theory of human capital began in the mid-20th century with the so-called Chicago School. Gary Becker devised the classic human capital theory in his first publication of the book titled *Human capital* in 1964 (Blair, 2011; Marginson, 2019; Tan, 2014). However, Kucherov and Manokhina (2017) are of the view that the foundations of human capital theory were laid by Schultz in 1961, who referred to human capital as knowledge and skills people had attained through education and training; this capital was a result of intentional investment that produced positive outcomes. According to Blair (2021), the trio of Chicago-school economists, Jacob Mincer, Gary Becker, and Theodore Schultz, constituted the first generation of human capital theorists with the first spate of papers appearing in the late 1950s and early 1960s.

Human capital as a strategic resource gained attention in strategic management as part of the advancement of the resource-based view (Boon, Eckardt, Lepak & Boselie, 2018). According to the resource-based view, the core business skills of the organisation's competitive advantage were found in internal development within the organisation (Viljoen, 2012). Human capital theory had a philosophical influence on

various disciplines including education, economics and sociology (Tan, 2014). Although human capital research had not only focused on education, it generally embraces empirical measures of education and yields outcomes that influence educators and education policy (Kang & Mok, 2022; Sweetland, 1996). This theory highlights that organisations choose the amount they are prepared to invest in human capital by comparing it with the potential expected benefits (Viljoen, 2012). Human capital is regarded as the traits one brings to the job: intelligence, ability to learn, creativity, positive work energy and attitude, reliability and commitment and imagination. These need to be developed by both the employee and the employer (Kucherov & Manokhina, 2017).

Human capital comprises employees' relationships with other parties both internal and external to the organisation, good health, knowledge of popular culture, machinery operations, capacity to adjust and innovate in a dynamic environment, and the ability to organise and lead other people (Blair, 2011). The term "human capital" refers to knowledge, attitudes and skills that are developed and valued mainly for their economically fruitful capabilities (Baptiste, 2001; Boon et al., 2018; Šebestová & Popescu, 2022; Suseno & Pinnington, 2018). Human capital theory suggests that individuals with more or greater quality human capital achieve greater performance in executing relevant tasks (Dimova & Shepherd, 2005; Kang & Mok, 2022). In principle, human capital theory advocates that education increase the productivity and earnings of individuals; as a result, education is regarded as an investment (Blair, 2011; Payumo, Gerard & Neisler, 2019; Tan, 2014; Suseno & Pinnington, 2018). Hence, individuals and society achieve economic benefits from investments in people (Arthur-Mensah & Alagaraja, 2018; Johanson & Adams, 2004; Nafukho, Hairston & Brooks, 2004; Sweetland, 1996).

While the types and means of education are different, the benefits resulting from education are also different and complex (Sweetland, 1996). Human capital theory is based on the belief that investment in education and training produces positive outcomes for the individual, the organisation and the community (Arthur-Mensah & Alagaraja, 2018; Yamauchi, Poapongsakorn & Srianant, 2009). Different definitions of human capital theory show that the main results from investment in people include change at the individual level in terms of improved performance, change at the

organisational level in terms of improved productivity and profitability and change at the societal level in terms of returns that benefit the entire society (Nafukho et al., 2004). As widely found in the literature, training and development practices in addition to rigorous recruitment and selection processes may improve the level of human capital in the organisation (Nieves & Quintana, 2018). Learning opportunities in an organisation lead to improved chances of employee retention, satisfaction, skills and knowledge, as well as promotion, and this converts into better organisational performance (Bennington & Laffoley, 2012).

Some liberal scholars have harshly criticised the term “human capital”, owing to its negative inferences in relation to slavery (Blair, 2021; Nafukho et al., 2004; Tan, 2014). Another criticism of human capital theory is that it does not pass the realism test due to methodological flaws such as closed system modeling, a single theoretical lens, incorrect use of mathematical tools, and multivariate analysis of interdependent variables (Marginson, 2019). Furthermore, detractors of human capital have contended that considering education and training, like investments in physical assets, is deceptive as it leads attention away from the personal and cultural motives for people seeking out certain educational experiences or seeking to master certain bodies of knowledge (Blair, 2011).

An important objective of both developing and developed countries is to expand their national skills pool (Jarbandhan & Mothopeng, 2015). A very small number of countries realise long-term economic growth without a considerable amount of investment in their citizens (Arthur-Mensah & Alagaraja, 2018). Advancement in education shows up more often in comparative studies as a strategic determining factor of economic performance and income redistribution in the long run (Department of Finance, 1996). Government and non-government institutions in South Africa and numerous other countries have integrated skills development into their educational guidelines and organisational provisions (Groener, 2014). Furthermore, international bodies, governments across the globe and even non-governmental organisations agree on emphasising the benefits of educational investment as a vital strategy in combating poverty and attaining development (Meyer & Slomana, 2014; Tarabini, 2010). The following section addresses the skills development models adopted globally.

2.3 SKILLS DEVELOPMENT IN THE INTERNATIONAL CONTEXT

Investing in skills development in a country benefits the individual, the employer and the economy (Arthur-Mensah & Alagaraja, 2018; Johanson & Adams, 2004). As cited in Johanson and Adams (2004), the 1991 World Bank Policy Paper on Technical and Vocational Education and Training (TVET) suggests that the public sector's involvement in training should be streamlined, the private sector's role should be expanded, and there should be more sources of funding for training. Backing for the development of national policies, strategies and plans for skills development was a key part of the ILO's efforts in many countries (ILO, 2016). At the 97th session of the International Labour Conference held in 2008, the resolutions adopted encouraged member states to develop skills policies that were dedicated to aligning skill supply to demand, assisting employees and organisations to adjust to change and building and sustaining competencies for future labour market needs (ILO, 2016). Table 2.1 indicates that the ILO was also very active in supporting skills policy development at the country level.

Table 2.1: Examples of ILO skills policy development activities

Country	Description
Albania	Assisted in the drafting of the National Vocational Education and Training (VET) and Lifelong Learning Strategy with both the Ministry of Labour and the Ministry of Education
Botswana	Advice to integrate a skills strategy into the National Development Plan (NDP)
Haiti	Technical support for a new national TVET policy including an apprenticeship policy
India	Advice on the employment and skills elements of the 12th five-year plan and on strategies to re-engineer India's skills system
Malawi	Advice to constituents developing the National Employment Policy and the Malawi Growth and Development Strategy II, which both include skills policies
Mozambique	Technical assistance for the employment and skills component of the government's five-year plan
South Africa	Technical inputs into the draft National Development Plan including skills development
South Sudan	Support for the Ministry of Labour in finalising and validating the vocational training policy and in unifying the country's TVET approach
Tanzania	Technical assistance with the review of the TVET policy and apprenticeship

	policy
Zimbabwe	Technical guidance for the National Employment Policy Framework and the National Skills Development Policy

Source: ILO (2016: 11)

Through a collaboration with the European Union and the Government of Bangladesh, the ILO also had a significant impact on the creation of a national TVET policy for Bangladesh. The country's skill development policies and mechanisms were reviewed and strengthened as part of the TVET reform project, which began in 2008 (ILO, 2016). The United Nation's publication "Transforming our World" launched the Sustainable Development Goals in 2015, providing an ambitious and transformational vision intended to relieve people from the oppression of poverty and rebuild and protect the planet (United Nations, 2015).

The principal element of Goal 4 of the Sustainable Development Goals, vocational education and training (VET) strives for inclusive and fair quality education and encourages lifelong learning opportunities (United Nations, 2015). This is in contrast to the Millennium Development Goals, which did not include a goal targeted specifically toward VET. According to the ILO (2005), member states should identify HRD, education, training and lifelong learning policies

- supporting lifelong learning and employability as part of a variety of policy initiatives aimed at achieving sustainable economic and social growth and the creation of decent jobs.
- Considering economic and social goals, emphasising sustainable economic development in the context of a globalised economy and knowledge and skills-based society, as well as skills development, promotion of decent work, job preservation, social development, social inclusion and poverty reduction
- stressing the importance of innovation, competitiveness, productivity, economic growth, decent job creation and people's employability, as innovation creates new job opportunities and requires new approaches to education and training to meet the requirement for new skills

- addressing the challenge of transforming informal economy activities into decent work that is fully integrated into mainstream economic life; policies and programmes should be developed to provide decent employment and education and training opportunities, and to validate prior knowledge and skills to help workers and employers transition into the formal economy
- encouraging and sustaining public and private investment in the infrastructure required for the use of information and communication technology (ICT) in education, training and teacher and trainer training, using local, national and international collaborative networks
- decreasing disparity in involvement in education and training
- realising that education and training are a right for all and work in cooperation with the social partners to ensure access to lifelong learning for all
- acknowledging that the achievement of lifelong learning should be based on an explicit commitment to invest and create conditions that improve education and training at all levels by governments and the training of workers by companies, and in the development of individuals' competencies and careers

There is no doubt that many countries are willing to implement skills development strategies. However, the challenge that exists is to understand and resolve the seeming contradictions in the strategies used by and within different countries (Tshilongamulenzhe, 2012). The deliberation around the world is with regards to the most appropriate framework in which skills development should be conducted. The section below addresses three models of skills development adopted by various countries globally.

2.3.1 The market approach or Anglo-Saxon model

The Anglo-Saxon (also known as the liberal market) model was initiated by Adam Smith and developed further by the Chicago School of Economics into neoliberalism (Wood & Brewster, 2021). The Anglo-Saxon approach to skills development relies on government entities assuming a coordinating role instead of providing one,

establishing a qualification framework that employers can adopt, taking into consideration the level of resourcing they have (Clarke & Winch, 2015). Culturally speaking, Anglo-Saxon countries include the USA, the UK, Ireland and three of the former dominions: Canada, Australia and New Zealand (Wood & Brewster, 2021). South Africa in some instances can also be classified according to the market approach (Wood & Brewster, 2021). The Anglo-Saxon approach is based on the idea of industrial training or the preparation of individuals for working in specific fields, not necessarily particular occupations (Clarke & Winch, 2015). Under this system, Higher Education Institutions (HEIs) have great freedom in that they have rational financial and economic independence and their services are paid for by the end-users (Jurabaevich & Bulturbayevich, 2021). However, in the South African context, the government plays an important role in funding students from previously disadvantaged backgrounds through the National Student Financial Aid Scheme (NSFAS).

Table 2.2 below summarises the Anglo-Saxon model in terms of the countries that have adopted it, its main characteristics, government's role, trade unions' role, its weaknesses and its strengths.

Table 2.2: Summary of the Anglo-Saxon model

Countries	The USA, the UK, Australia, New Zealand and Canada
Main characteristics	• The model primarily focuses on the labour market to provide an equilibrium between the supply of and demand for skills in the economy with the assumption that the labour market can deliver a high-skills society. • The responsibility for acquiring general training resides with individual employees, whereas organisations provide specific internal and work-specific training. • Individual choice and contesting for skills development funds are prevalent.
Government's role	• Government only plays a role when there are market challenges such as unemployment.
Trade unions' role	• Management decides on the influence of trade unions.
Weaknesses	• There is usually an interval between when an excess skills supply or skills demand occurs and the consequent equilibrium. • Employers focus mainly on work-specific skills and, as a result, the improvement of specific soft skills including planning, communication and numeracy is not stimulated. • A disjointed approach to skills formation occurs owing to the lack of a

	comprehensive national skills development strategy (NSDS).
Strengths	• To meet their skills needs, role players may adopt a voluntary approach to skills development. • Highly skilled employees and those who engaged in further training and development have unlimited opportunities and higher wages.

Source: Adapted from Tshilongamulenzhe (2012: 69)

The disadvantage of this model is that it is based on highly flexible labour market regulations and lacks a comprehensive system of protection for the unemployed and active measures for professional training are given little attention (Chenic, 2013). Consequently, the unskilled experience obstructions entering the labour market (Chenic, 2013). A different global skills development model, the Asian Tiger model, is discussed next.

2.3.2 The social partnership approach or the Asian Tiger model

The Asian Tiger model was adopted from the Anglo-Saxon model (Tshilongamulenzhe, 2012). This system is characterised by a standardised, centralised and top-down approach, which creates educational opportunities and raises the education level of citizens (Mok, 2003). This means that government plays a huge role compared to what it does in the Anglo-Saxon model. While the government identifies and resolutely directs how economic development is conducted, the market plays an important role in the provision of lasting economic objectives (Sung & Raddon, 2017). The social partnership approach of this model accommodates the interests of different social groups and people, representatives of local communities and zones, along with local governments and public authorities (Frolova, Medvedeva, Kabanova, Kurbakova & Vinichenko, 2016).

This model enabled the Asian Tiger countries to progress towards high-skill economies with added value. The most notable challenge of this model is that in the face of globalisation and in striving for long-term instead of short-term goals, the government steadily loses its ability to provide direction to capital and labour (Sung & Raddon, 2017). Table 2.3 below summarises the Asian Tiger model in terms of the countries that have adopted it, its main characteristics, government's role, trade unions' role, weaknesses and strengths.

Table 2.3: Summary of the Asian Tiger model

Countries	South Korea, Singapore, and Taiwan
Main characteristics	• This model adopts the view that skills development and subsequently the economy can be enhanced through the supply of and demand for skills being controlled by the government. • A dynamic labour market policy is present, involving all the social partners such as government, employers and trade unions in both negotiation and decision-making on the design and delivery of the skills development system.
Government's role	• Government is extremely engaged in balancing the supply of and demand for expertise in the labour market.
Trade unions' role	• Trade unions are a significant stakeholder in skills development and play an active role.
Weaknesses	• The system lacks practicality in a larger and more differentiated economy and an open-minded democratic social and political climate. • Government inadequacies may make this approach unproductive. • This approach may be challenging to manage, is too expensive and is insensitive to individual enterprise's needs.
Strengths	• It can improve the demand for skills and specifically improve the skill levels demanded. • Provides a robust skills pool across all economic sectors. • The welfare of all social partners is effectively integrated, as there is a broad national system of skills development. • The scope of training is broadened because social partners have inducements to use their impact in shared regulatory bodies. • Employers are unable to evade commitment to training goals as they are able to do in other circumstances. • Employer bodies and trade unions are motivated to provide valuable training interventions for their employees, which enhance and add value to mutually maintained skills development activities.

Source: Adapted from Tshilongamulenzhe (2012: 69)

According to Aliyeva (2016), the cases of Singapore, South Korea and Taiwan have shown that countries can be successful under authoritative rule. However, there is an international debate on whether the authoritarian regime explains the prosperity of the Asian Tigers or if it was a fluke (Aliyeva, 2016). The next section focuses on the Germanic model of training.

2.3.3 The Germanic model

According to Graf (2013), dual apprenticeship training in Austria, Germany and Switzerland differentiates itself from vocational training in most other European

countries as it integrates training in schools and organisations through broad coordination and mediation between the government, employers and trade unions. In this “dual corporatist” model, practical vocational training plays a more dominant role than academic, general education (Graf, 2013; Martin, 2017). Vocational training is well structured and a dual system integrates school-based theoretical and workplace-based practice learning (Krebs et al., 2021). Employees are trained by relatively small organisations, which use apprentices as a source of low-cost labour and which are then recruited by larger organisations (Martin, 2017). Table 2.4 below summarises the Germanic model in terms of countries that have adopted it, its main characteristics, government’s role, trade unions’ role, weaknesses and strengths.

Table 2.4: Summary of the Germanic model

Countries	Germany, Denmark, Switzerland and Austria
Main characteristics	• To some extent, skills development undertakings are driven by the market. • Role players such as government, unions and employers are firmly incorporated into the undertaking of establishing the need for and offering qualifications and training for several occupations in diverse fields.
Government’s role	• To limit the discretion of managers, government offers a broad legal framework for industrial relations and training. • This is a planned model; however, it integrates levels of government and the social partners and links the institutional structures of VET with the economy.
Trade unions’ role	• Trade unions participate in training decisions as they enjoy legal rights.
Weaknesses	• As economies move towards globalisation and knowledge-based, this system becomes rigid when it comes to dealing with the types and locations of skills to support labour market structures. • It can result in an undesirable impact on the quality of education and a weakened platform for the enhancement of high-order and generic skills. • It depends mainly on multiple and complex planning functions that lack flexibility. • In the training system, there is a lengthy process that is partially obsolete that focuses on the formation of typical occupational and middle-level skills against the backdrop of the rising significance of higher-level skills.
Strengths	• The system’s forte is its emphasis on a mutual training culture. • It can yield a large number of intermediate skills. • All stakeholders are involved in business decisions, consequently preventing managers from maximising short-term gains at the expense of employees. • Employers and trade unions collaborate to implement the apprenticeship system, resulting in intermediate skills formation.

Source: Adapted from Tshilongamulenzhe (2012: 69)

The dual training systems associated with the Germanic model have been criticised for being difficult for society to comprehend and adopt in some countries (Li & Pilz, 2021). In addition, social partners play a very limited role, resulting in unevenness in the system (Martin, 2017). Notwithstanding some cultural and institutional similarities, a comparison of societal cultural practices and institutional approaches highlights significant dissimilarities within the Germanic Europe cluster (Krebs et al., 2021). Moving from an international perspective to local settings, the section below discusses skills development in South Africa.

2.4 SKILLS DEVELOPMENT IN SOUTH AFRICA

For South Africa to thrive, greater skills and higher productivity are required among employees because of technological innovation and the increased competition flowing from trade liberalisation. Skills development has also become more important and difficult, as health issues intensify because of diseases such as human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), COVID-19, cancer and tuberculosis. HIV/AIDS has reduced the scarce human capital and heightened the need to substitute the skills lost in a wide range of industries (Johanson & Adams, 2004). The literature on the skills development and employment discourse contends that inadequate opportunities for quality PSET is gradually placing the country's ability to produce a sustainable skills base and decrease high levels of unemployment at risk (DHET, 2017a). There is a common voice that skills development plays an important role in addressing the triple challenges of unemployment, poverty and inequality, over and above the imperative need to fast-track growth and equity in the context of an underperforming economy within a fragile global economy in South Africa (DHET, 2014a). This is still the case today. South Africa is one of the most unequal countries globally and is also characterised by increasingly high levels of inequality and extremely high levels of poverty and unemployment (Futshane, 2021; Tregenna, Ewinyu, Oqubay & Valodia, 2021).

In the face of the country's substantial skills shortage, its NDP (Vision 2030) could crumble if the required skills are not developed to stimulate economic development

(Jarbandhan & Mothopeng, 2015). Notwithstanding the high levels of investment in skills development since 1994, the country is still struggling with a low supply of skills and the marginalisation of over 3,1 million young individuals aged between 15 and 24 years who are unemployed, not in education or training, or not involved in economic activities (DHET, 2017a). During the first quarter of 2022, the youth aged 15–24 years were more vulnerable in the labour market with an unemployment rate of over 63,9%, an absorption rate of about 9% and a labour force participation rate of 24,9% (StatsSA, 2022). This is expected to be worsened by the impact of the emergence of 4IR and the COVID-19 pandemic. Hence, skills development is critical to the country's development (Akoojee, 2012). The nature of the national development challenges in South Africa are considerable and skills development provides an important backdrop to understanding the country's development in the post-apartheid era (Akoojee, 2012; DHET, 2013).

In this section, the way in which global skills development has contributed to the South African system will be discussed, followed by a discussion of the post-apartheid era of skills development, skills development legislation, other programmes and strategies, structures contributing to skills development and challenges faced by PSET in South Africa.

2.4.1 Contribution of global skills development to the South African system

The level to which South African skills development policy post-1994 has been influenced by international standards is complex (Badroodien & McGrath, 2005; McGrath & Badroodien, 2006). The evolution of South African skills development was positively facilitated by the ability of elements within the trade union movement to expose existing and potential leaders to international debates (Badroodien & McGrath, 2005). Some might argue that the Congress of South African Trade Unions could not be as successful as a negotiator of changes in skills development and workplace organisation, with less exposure to international debates in countries like Australia and Germany (Badroodien & McGrath, 2005). In addition, an initial vision of an integrated National Qualifications Framework (NQF) in South Africa was strongly influenced by similar strategic debates to be found in the Anglo-Saxon NQF

community such as England, Scotland, New Zealand and Australia (Mummenthey, 2010). However, it should be noted that the South African government, for various reasons, did not formally ratify ILO conventions that deal directly with skills development and vocational training (Marock, 2017). In addition, the Department of Employment Labour (DEL), as the lead department in ILO engagements, was no longer responsible for skills development in the country and, therefore, could not prioritise this area (Marock, 2017). Instead, the DHET was responsible for developing the human resources of the workforce inclusively in South Africa. Furthermore, the government reflected on the costs of implementing these skills conventions from the employers' perspective and concluded that it would be too expensive to sanction (Marock, 2017).

2.4.2 The post-apartheid era of skills development in South Africa

The democratic government in South Africa inherited a state in which most of its citizens were deeply rooted in poverty and where the black majority had been excluded from participating in certain labour markets (Futshane, 2021). Various authors suggest that skills development under apartheid in South Africa was characterised by low skills production, voluntarism on the side of employers, artisan training for white men through state-owned enterprises (SOEs), and a vastly unbalanced public education system (Allais, 2012). A prominent challenge for the South African government in the course of moving from apartheid to democracy was to dismantle fundamental racial imbalances for the historically disadvantaged population, especially black South Africans, as well as low-skilled, unemployed adults and the youth (Groener, 2014). A completely new training system was implemented, with more focus on improving the skills of black South Africans who were previously excluded from education and training prospects under apartheid (Kraak, 2008; Soudien, Reddy & Harvey, 2022).

In 1994, when the first democratically elected government came to power, education and training were split between the Department of Education (DoE) and the DEL, which were responsible for schools, adult education, colleges and universities, and skills development, respectively (Allais, 2012). Skills development then became a national priority, supported by a robust legislative framework to regulate skills

development (DHET, 2013; Jarbandhan & Mothopeng, 2015; Meyer & Slomana, 2014). The SDA was the principal legislative tool used to present the new system (Kraak, 2008). The skills development strategies, as well as broader education policy, were supported by the NQF introduced in 1996, which was envisioned to substitute all prevailing qualifications in the country with a set of new outcomes-based qualifications designed by new stakeholder-based structures (Allais, 2012). Since 1994, consecutive national social and economic development interventions, such as the Reconstruction and Development Programme (RDP), the Growth, Employment and Redistribution (GEAR) and the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) and its skills development section, the Joint Initiative on Priority Skills Acquisition (JIPSA) have aimed to address the national challenges (Akoojee, 2012).

In 1997, the DEL introduced the NSDS to replace the apartheid “skills” system (Allais, 2012). The main drivers of the new institutional architecture, SETAs (Kraak, 2008), were then introduced (McGrath & Badroodien, 2006) to substitute the Industry Training Boards (Allais, 2012). As of late 1999, the primary emphasis of system-level work progressed to implementation, as the main legislative and policy elements of the South African skills development strategy were in place (Badroodien & McGrath, 2005).

In 2009, a new Cabinet was proclaimed with considerable changes for education and training. Two departments were created, namely, the Department of Basic Education, and the DHET, which saw skills development being moved from the DEL to the DHET (Allais, 2012; DHET, 2019; Marock, 2017). The creation of the DHET sought to house the entire PSET system in a single department, comprising workplace-based training and other complex institutions that were involved in the levy-grant system (Allais, 2012), with a more extensive focus on employability and responsiveness than in the past (Kruss, McGrath, Petersen & Gastrowa, 2015). The formation of a new education and training department, which divided the school sector from the PSET sector, had substantial effects on skills development provisioning in the country (Akoojee, 2012). It is important to note that although there have been changes in education and skills legislation, policy, institutional structures and resourcing arrangements since 1994, resulting in considerable improvements,

this has not happened at the required speed and the educational targets the country aspired to have not been achieved (Reddy et al., 2018).

The South African system, in its current form, is still a young system struggling to rid itself of its apartheid roots (Soudien et al., 2022). The subsequent sections discuss the skills legislation, policies, strategies and structures in South Africa.

2.4.3 Skills development legislation

Whereas many countries pursue skills development by creating suitable national policy frameworks and processes aimed at inspiring organisations to embark on skills training, South Africa embraced a more interventionist style based on compliance (Meyer & Slomana, 2014). The core skills development legislation promulgated in South Africa is discussed below.

2.4.3.1 Skills Development Act (SDA) (Act 97 of 1998)

The SDA was initiated to repeal the Manpower Training Act of 1981, the Guidance and Placement Act of 1981, the Local Government Training Act of 1981, and sections of the Telecommunications Act of 1996 (Reddy et al., 2018). The proclamation of the SDA moulded the institutional and regulatory framework for intensifying strategic investment in education and training across all economic sectors (Jarbandhan & Mothopeng, 2015; Marock, 2010; Marock, 2017). According to the National Youth Development Agency (NYDA) (2017), the SDA encourages the state to improve the quality of life for workers, their prospects of work and labour mobility; to improve productivity in the workplace and the competitiveness of employers; to establish a National Skills Authority (NSA) and SETAs; to improve self-empowerment; and to improve the delivery of social services. The Act introduced the SETAs, NSA and National Skills Fund (NSF) as additional implementing agents of the NSDS (Jarbandhan & Mothopeng, 2015). The SDA aimed to provide an institutional framework to formulate and implement national, sector and workplace strategies to enhance the South African workforce's skills (Rajab, Nomvete, Manda & Keevy, 2020; Republic of South Africa, 2017).

The purposes of the SDA were to (SDA 97: 4)

- enhance the South African workforce's skills to advance the quality of life of workers, their prospects of work and labour mobility, to increase efficiency in the workplace and the competitiveness of employers, to encourage self-employment, and to expand the delivery of social services
- intensify the levels of spending on education and training in the workplace and advance the return on that investment
- inspire employers to use the work environment as a dynamic learning environment, to offer opportunities to employees for them to obtain new skills, to offer opportunities for new participants in the workplace to gain work experience, and to hire persons who find it hard to be hired
- inspire employees to take part in learnership and other training programmes
- increase the employment possibilities of persons from a previously disadvantaged background and amends those disadvantages through training and education
- maintain the standard of education and training to suit the needs of the workplace
- support job-seekers to find work, retrenched employees to re-enter the labour market, and employers to access suitable employees
- offer and standardise employment services.

Those purposes were to be achieved by (SDA 97: 4)

- instituting an institutional and financial context consisting of the NSA, NSF, skills development levy-grant scheme as envisaged in the Skills Development Levies Act (SDLA), SETAs, labour centres, and the Skills Development Planning Unit
- boosting collaboration between the public and private sectors to deliver education and training suitable for the workplace
- collaborating with the South African Qualifications Authority (SAQA).

According to Reddy et al. (2018: 55–56), the SDA has been revised since 1998 as follows:

- The first amendment was urged by the SDLA.
- The second amendment of 2003 provided more details in terms of the SETA landscape, specifically to improve their financial management and operation and governance, including their amalgamation in some cases, in addition to matters related to the NSF, learnerships and standards of good practice in skills development.
- The third amendment was prompted in part by the promulgation of the NQF Act in 2008, extending the application of the SDA and the functions of the NSA, and giving extra functions to SETAs. Furthermore, it endorsed an increase in the quantity and quality of artisans by reintroducing apprenticeships, establishing the National Artisan Moderation Body (NAMB), the listing of trades and occupations, a national register of artisans and trade tests; it also established the Occupational Qualifications Sub-Framework (OQSF) and the Quality Council for Trades and Occupations (QCTO), and Skills Development Institutes, as well as other matters.
- The Higher Education Laws Amendment Act 26 of 2010 brought the fourth amendment to the SDA in that it changed responsibility for the SDA from the then Minister of Labour (current Minister of Employment and Labour) to the Minister of Higher Education and Training. Additionally, it amended some of the constitutions of QCTO and related matters.
- The Fifth Amendment in 2011 concentrated again on the SETA landscape, financial management, governance and accountability.
- Finally, the Employment Services Act 4 of 2014 replaced those sections in the SDA dealing with employment services and productivity in South Africa, which continue to fall under the Ministry of Employment and Labour.

2.4.3.2 Skills Development Levies Act (SDLA) (Act 9 of 1999)

The SDLA formalised the effective funding for SETAs by the means of the skills development levy: organisations were expected to contribute 1% of their total payroll to the South African Revenue Service (HRDC, 2017b; Jarbandhan & Mothopeng, 2015; SDLA 9; Rajab et al., 2020). Eighty percent of the skills development levy goes to the SETAs, which then earmark at least 90% for skills development interventions and the remaining amount is used for operational costs (Rajab et al., 2020). The SDLA was amended in 2012 to lessen the mandatory grant that employers could get for submitting the Workplace Skills Plan (WSP) and the Annual Training Report (ATR) from 50 to 20% (Marock, 2017). The other 80% was to be distributed in such a manner that 10% is used for SETA administration; 0,5% for the QCTO and 49,5% for discretionary grants (Marock, 2017). According to the SDLA no.9, the levy was not payable by

- any public service employer in the national or provincial sphere of government
- any employer where section 3(1)(a) or (b) applies and during any month, there were reasonable grounds for believing that the total amount of remuneration, as determined per section 3(4), paid or payable by that employer to all its employees during the following 12-month period will not exceed R500 000
- any public benefit organisation contemplated in section 10(1) of the Income Tax Act, which solely carries on any public benefit activity contemplated in paragraphs 1, 2(a), (b), (c) and (d) and 5 of Part I of the Ninth Schedule to that Act; or solely provide funds to public benefit organisations contemplated in subparagraph (i)
- any national or provincial public entity, if 80% or more of its expenditure was defrayed directly or indirectly from funds voted by Parliament
- any municipality in respect of which a certificate of exemption is granted on such conditions and for such period as the Minister may prescribe by regulation, in consultation with the Minister of Finance and the Minister for Provincial and Local Government.

2.4.3.3 South African Qualification Authority (SAQA) (Act 58 of 1995)

The purpose of the SAQA Act was to provide for the initiation and adaptation of the NQF and, for this purpose, to create the SAQA and deliver for matters connected with it (SAQA Act 58). The SAQA Act was ultimately repealed in 2008 and was replaced with the NQF Act 67 of 2008 (Reddy et al., 2018).

2.4.3.4 Higher Education Act (Act 101 of 1997)

According to the DHET (2017a: 15), the higher education sector operates in terms of the HEA. Between 2014 and 2015, the Act went through a widespread review resulting in the Higher Education Amendment Act (Act no. 9 of 2016) being promulgated on 17 January 2017 in *Government Gazette* Volume 619 Number 40548, Notice Number 21 (DHET, 2017a). The Act facilitates numerous developments in the sector such as improving the balance between public accountability and institutional autonomy, setting transformation targets for the system by the Minister, in addition to supporting a more simplified system with the introduction of three institutional categories, namely, universities, university colleges and higher education colleges (DHET, 2017a). The purposes of the HEA include to (Rajab et al., 2020:22; HEA 101: 1)

- regulate higher education by providing for the establishment, composition and functions of a Council on Higher Education (CHE)
- provide for the establishment, governance and funding of public HEIs
- provide for the appointment and functions of an independent assessor
- provide for the registration of private HEIs
- provide for quality assurance and quality promotion in higher education
- provide for transitional arrangements and the repeal of certain laws
- provide for matters connected therewith.

The HEA desires to (HEA 101: 1)

- establish a single coordinated higher education system, which promotes cooperative governance and provides for programme-based higher education
- restructure and transform programmes and institutions to respond better to the HR, economic and development needs of the Republic
- redress past discrimination and ensure equal access
- provide optimal opportunities for learning and the creation of knowledge
- promote the values that underlie an open and democratic society based on human dignity, equality and freedom
- respect freedom of religion, belief and opinion
- respect and encourage democracy, academic freedom, freedom of speech and expression, creativity, scholarship and research
- pursue excellence, promote the full realisation of the potential of every student and employee, tolerance of ideas and appreciate diversity
- respond to the needs of the Republic and of the communities served by the institutions
- contribute to the advancement of all forms of knowledge and scholarship, in keeping with international standards of academic quality, and
- whereas HEIs should enjoy freedom and autonomy in their relationship with the state within the context of public accountability and the national, need for advanced skills and scientific knowledge.

2.4.3.5 Continuing Education and Training Act (CETA) (Act 16 of 2006)

The CETA came into effect in 2006 (Republic of South Africa, 2020) and was intended to establish Community Education and Training Colleges (CETCs) as another institutional type within the higher education sector (DHET, 2015b). The CETA focuses specifically on the actual provision of skills development and important institutions set up in the PSET system (Reddy et al., 2018). The programmes to be offered by the CETCs are vocationally oriented skills and knowledge programmes leading to sustainable livelihoods outside the formal sector and programmes that are appropriate to their particular communities (Rivombo, 2018). The CETA was initially named the Further Education and Training Colleges

Act (FETCA) (Act 16 of 2006) but was renamed by the 2013 FETC Amendment Act with effect from 2014. The renaming extended the application of the Act to include Adult Basic Education and Training (ABET) (annulling the ABET Act of 2000), the rebranding of FET colleges to TVET colleges and allowed for the instituting of CETCs. The CET subsystem was vital for improving access to the core, intermediate and high-level occupational competencies by historically disadvantaged individuals and for boosting the country's general level of skills (Reddy et al., 2018).

The CETA aims to develop a successful FET system in line with the long-term goal of the initial FET policy framework (Reddy et al., 2018: 45):

- Offering differentiated programmes presenting the knowledge, skills, attitudes and values that individuals in South Africa need to be lifelong learners and economically productive citizens.
- Offering the crucial intermediate to higher-level skills and competencies the country needs to compete in the 21st-century global competitive environment.
- Transforming and broadening involvement in FET to also take in adults in the workplace and individuals facing enduring unemployment.

Given the value of the CET sector for economic and social development, there is a need to equitably and fairly fund CETCs, considering the anticipated increase in enrolments in these institutions, the need for dedicated infrastructure, the provision of quality teaching and learning, and effective student support services (Republic of South Africa, 2020).

2.4.3.6 National Qualifications Framework (NQF) Act (Act 67 of 2008)

The NQF Act can be seen as an overarching Act governing all education and training in the country (DHET, 2013). It aims to create equal hierarchies of opportunity and movement as well as open and clear learning and career pathways for all South Africans (Mummenthey, 2010; Van den Heever, Hattingh, Singaram, Arnesen & Maree, 2021). The purpose of the NQF Act was to (Rajab et al., 2020: 22)

- create a single integrated national framework for learning achievements
- facilitate access to, and mobility and progression within, education, training and career paths
- enhance the quality of education and training
- accelerate the redress of past unfair discrimination in education, training and employment opportunities.

The NQF consists of 10 levels of education and training and includes Basic Education, Adult Education and Training, and academic, vocational, occupational and technical qualifications. The development and implementation of the NQF is overseen by the SAQA (Van den Heever et al., 2021).

It is important to note that after the creation of DHET in 2009, several key pieces of legislation discussed above were amended to offer the needed legislative authority for the new framework. The SDLA (as amended in 2010), altered the line function of the entire skills development levy structure, from the DEL to the DHET, and the Higher Education and Training Laws Amendment Act No. 25, 2010 and the Higher Education Laws Amendment Act, No. 26 2010 amended the ABET Act, 2000, the FETCA, 2006, the HEA, 1997, the SDA 1998, and the NQF Act, 2008 along the same lines (Reddy et al., 2018). Figure 2.1 summarises the timeline of legislative change with a direct bearing on the production of skills in South Africa since 1994.

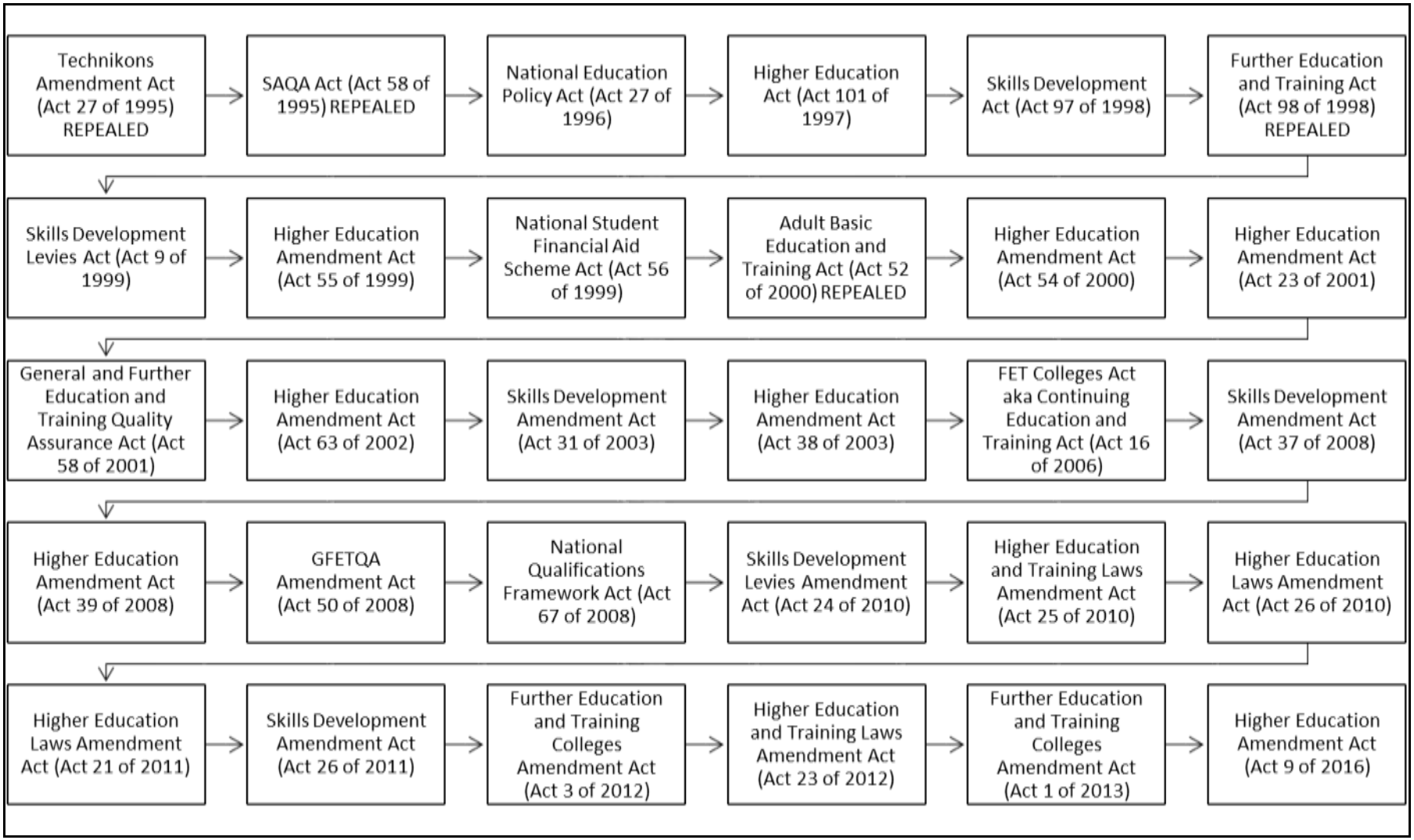

Figure 2.1: Legislative change relating to skills development in South Africa since 1994

Source: Adapted from Reddy et al. (2018: 4)

In light of the skills development legislation, the following section discusses the plans and strategies that were implemented by the government to alleviate the challenges of a lack of skills, unemployment, inequality and poverty.

2.4.4 Skills development plans and strategies

Discussed below are the main South African skills development plans and strategies.

2.4.4.1 Human Resource Development Strategy for South Africa (HRDSA)

The first HRD Strategy for South Africa of the democratic government was launched in 2001 with the main aim of maximising the capabilities of South African citizens by equipping them with knowledge and skills to work productively and competitively for improving the quality of life for all. It was also intended to establish an operational plan and necessary institutional arrangement (HRDC, 2009; 2017b; Mummenthey, 2010). The priority of the strategy was to accelerate skills development so that the supply of skills in the country equals the demand for a skilled workforce (Rajab et al., 2020). The initial HRD strategy was intended to complement several development interventions to achieve the following (HRDC, 2009: 23):

- Advancement in South Africa's human development index and global ranking.
- Enhancement in the degree and standing of South Africa's economic competitiveness.
- Decrease in the Gini coefficient resulting in a lessening of inequality of wealth in the country.
- Enhancement in the degree of social cohesion established by certain social surveys.

Later on, Cabinet approved the updated HRDSA (2010–2030) in 2010 (HRDC, 2017b). The HRDSA seeks to consolidate previous initiatives whilst ensuring a coordinated and integrated response to the provision of scarce skills in the country; a lack of such skills is considered a key constraint for economic and social

development (HRDC, 2017b). The strategy focuses on reducing the scourge of poverty and unemployment; promoting justice and social cohesion; and improving national economic growth and development through the improved competitiveness of the South African economy (NYDA, 2017).

Table 2.5 shows the action plan (five-year targets) of the HRDSA, highlighting the commitments and strategic priorities. All of the HRD subsystems, including the SETAs, FET, higher education, the HRD Strategy for the Public Sector and the Technology and Innovation System, had comprehensive strategic priorities, inputs, outputs and performance indicators that were expounded within their corresponding strategic plans (HRDC, 2009).

Table 2.5: Commitments and strategic priorities of the HRDSA

Commitments	Strategic priorities
COMMITMENT ONE: We will urgently overcome the shortages in the supply of people with the priority skills needed for the successful implementation of current strategies to achieve accelerated economic growth	Strategic Priority 1.1: To accelerate training output in the priority areas of design, engineering and artisanship that are critical to the manufacturing, construction and cultural industries. Strategic Priority 1.2: To increase the supply of skilled personnel through net immigration in the priority areas of design, engineering and artisanship that are critical to manufacturing, construction and cultural activities. Strategic Priority 1.3: To increase the number of new training graduates in priority economic sectors identified in ASGISA, the National Industry Policy Framework (NIPF) and the industrial policy action plan.
COMMITMENT TWO: We will increase the number of appropriately skilled people to meet the demands of our current and emerging economic and social development priorities.	Strategic Priority 2.1: To ensure that skills development planning is credible, integrated, coordinated and responsive to social and economic demands. Strategic Priority 2.2: To ensure that skills development programmes are demand-led through substantive and systematic input from employers in the determination of the skills demands for the country. Strategic Priority 2.3: To improve the employment outcomes of PSET programmes. Strategic Priority 2.4: To ensure that FET and HET are responsive to the skills demands arising from South Africa's social and economic development imperatives.
COMMITMENT THREE: We will ensure improved universal access to quality basic education and schooling (up to Grade 12) purposefully focusing on: (a) achieving a dramatic improvement in educational outcomes for the poor; (b) equipping learners with optimal capacity for good citizenship; and (3) the pursuit of post-school VET or employment.	Strategic Priority 3.1: To ensure equity in education inputs and learning outcomes. Strategic Priority 3.2: To ensure that education outcomes promote values that are consistent with good citizenship and the provisions of the South African Constitution. Strategic Priority 3.3: To improve learner performance and the quality of education in the schooling system. Strategic Priority 3.4: To expand age-appropriate participation in early childhood education. Strategic Priority 3.5: To improve the percentage pass rate in Grade 12 and ensure that the profile of passes is commensurate with the country's social and economic imperatives. Strategic Priority 3.6: To ensure that all learners, especially the poor, have access to basic health-promoting interventions that are aimed at removing barriers to learning.
COMMITMENT FOUR: We will urgently implement skills development programmes that are purposefully aimed at equipping recipients/citizens with the requisite skills to overcome the related scourges of poverty and unemployment.	Strategic Priority 4.1: To ensure that unemployed adults, especially women, have access to skills development programmes which are explicitly designed to promote employment and income-promoting outcomes. Strategic Priority 4.2: To ensure that all unemployed adults have access to training opportunities in literacy and ABET. Strategic Priority 4.3: To accelerate the participation and graduation rates in FET and HET of learners

	coming from poor families or households.
COMMITMENT FIVE: We will ensure that young people have access to education and training that enhances opportunities and increases their chances of success in further vocational training and sustainable employment.	Strategic Priority 5.1: To accelerate the implementation of training programmes for the youth that are focused on employment creation. Strategic Priority 5.2: To leverage public and private sector programmes to create employment opportunities and work experience for new entrants into the labour market. Strategic Priority 5.3: To improve the coverage and efficacy of vocational guidance and labour market information in a manner that promotes the optimal uptake of training and employment opportunities available to the youth.
COMMITMENT SIX: We will improve the technological and innovation capability and outcomes within the public and private sectors to enhance our competitiveness in the global economy and to meet our human development priorities.	Strategic Priority 6.1: To increase the supply of skilled personnel in areas of science, engineering and technology. Strategic Priority 6.2: To improve South Africa's performance in areas of teaching, research, innovation and the commercial application of high-level science, engineering and technology knowledge.
COMMITMENT SEVEN: We will ensure that the public sector can meet the strategic priorities of the South African developmental state.	Strategic Priority 7.1: To improve the credibility and impact of training in the public sector by improving service delivery. Strategic Priority 7.2: To leverage the SETAs to contribute optimally to capacity development in the public sector.
COMMITMENT EIGHT: We will establish effective and efficient planning capabilities in the relevant departments and entities for the successful implementation of the HRDSA.	Strategic Priority 8.1: To improve the credibility, validity, utility and integrity of the various data and management information systems, which are vital for the successful planning and implementation of the HRDSA.

Source: HRDC (2009: 24-43)

The commitments and strategic priorities of the HRDSA were expanded to include the strategic objectives and indicators/outputs. The Minister of Higher Education and Training was responsible for the management of the strategy and it was coordinated by the HRDC among government, organised business, organised labour, community representatives, professional bodies, research and academic representatives and other relevant stakeholders (HRDC, 2009). Other role players were responsible for different interventions that should contribute to the planned growth. For example, the following role players had certain roles, which are explained below (HRDC, 2017b: 13–14):

- The Department of Trade and Industry gave vital assistance in finding sectors of the economy for growth and implementing different programmes to achieve this.
- The economic development department energised programmes including the Strategic Integrated (Infrastructure) Projects.
- The Department of Public Enterprises and the numerous SOEs play a significant role as a training ground for the development of the necessary technical skills countrywide.
- The DST conducts investigations into possible new industries and how innovation and scientific advancement can be converted to new or extended industries and work opportunities.
- The Department of Trade and Industry also focuses on the incorporation of small and micro enterprises and cooperatives with the recently established Department of Small Business Development.

These role players are all subsequently supported by the work being undertaken by early childhood development, schooling and post-schooling (HRDC, 2017b). Turning from the HRDSA, the next section focuses on the NSDS.

2.4.4.2 National Skills Development Strategy (NSDS)

The NSDS was developed as a remedial intervention to rectify South Africa's skills development challenges and is regulated by skills development legislation. The NSDS aims to align worker and employee participation in skills development

interventions intended to develop and expand the economy of the country (Jarbandhan & Mothopeng, 2015). The NSDS is a framework for sector skills development and training and sketches the five-year skills development priorities of South Africa (Jarbandhan & Mothopeng, 2015). It aims to encourage employability, with a specific focus on the designated groups, to develop their knowledge and experience in a workplace environment and to encourage critical skills to drive the development agenda of the country (Jarbandhan & Mothopeng, 2015). Since its inception in 2001, three NSDSs had been published.

2.4.4.2.1 National Skills Development Strategy I (2001–2005)

The initial phase of the NSDS strategy (2001–2005) was formally launched by the Minister of Labour in 2001, to improve the South African education and training sector by refining the quality and quantity of education and training provision (Jarbandhan & Mothopeng, 2015).

2.4.4.2.2 National Skills Development Strategy II (2005–2010)

The concern that skills development was becoming a binding constraint on development encouraged a new set of interventions by the government, aimed at revising skills mismatches and deficits (Jarbandhan & Mothopeng, 2015). The NSDS II was initially planned to be enforced from 2005 to 2010 but was postponed by a year, to allow time to evaluate the landscape of SETAs and the NSDS design (Jarbandhan & Mothopeng, 2015). According to the NSDS II, its mission was to enhance the sustainable development of skills growth and development and the equity of skills development institutions by matching their work and resources to the skills needed for effective delivery and implementation. The objectives of the NSDS II include (Republic of South Africa, 2005: 2)

- prioritising and communicating critical skills for sustainable growth, development and equity
- promoting and accelerating quality training for all in the workplace

- promoting employability and sustainable livelihoods through skills development
- assisting designated groups, including new entrants, to participate in accredited work, integrating learning and work-based programmes and acquire critical skills to enter the labour market and self-employment
- improving the quality and relevance of provision.

Moreover, the NSDS II was directed by the following principles (Republic of South Africa, 2005: 2):

- Boosting economic growth for job creation and poverty extinction.
- Stimulating efficiency for all populations by bringing into line skills development with national strategies for growth and development.
- Fast-tracking broad-based black economic empowerment (BBBEE) (85% black, 54% women, and 4% people with disabilities, including the youth in all categories).
- Boosting, observing and gauging the delivery and quality assurance systems required for the implementation of the NSDS.
- Evolving the culture of experience in skills development and lifelong learning.

The NSDS II was guided by 20 broad success indicators accommodating all economic sectors and milestones with fixed timeframes. The SDA clearly defined the responsibilities of SETAs and identified them as the leading implementing institutions of the strategy, while the DEL was mandated to monitor the performance of SETAs (Jarbandhan & Mothopeng, 2015). However, the implementation of the NSDS II was restricted by the institutionalised lack of monitoring and evaluation by the SETAs. Questionable and inaccurate information was communicated by the strategy, as highlighted, but a dependable labour management information system was absent (Jarbandhan & Mothopeng, 2015).

2.4.4.2.3 National Skills Development Strategy III (2010–2015)

Following the establishment of the DHET, the Minister of Higher Education and Training published the NSDS III in January 2011 (DHET, 2019; FASSET, 2011). The NSDS III was a subcomponent of the HRDSSA and operated concurrently with the first five-year term of the country's second HRDSSA. The NSDS III aimed to improve both the effectiveness and the efficiency of skills development and served as the blueprint for skills development in South Africa for the period between 2010 and 2015 (FASSET, 2011). It was later extended to 31 March 2020. The vision of the strategy was to develop skilled and capable employees who share in, and contributes to, the opportunities and benefits of economic growth and an inclusive growth path (DHET, 2019), and was underpinned by the following seven pillars (FASSET, 2011: 5):

- Sector strategies.
- Relevant sector-based programmes.
- Professional, vocational, technical and academic learning (PIVOTAL) programmes.
- Programmes that contribute to the renewal of VET.
- Inducements for training and skills development capability in the cooperative, Non-Profit Organisation (NGO) and trade union sectors.
- Collaborations among public and private training providers, SETAs and resolving cross-sectoral and inter-sectoral needs.
- Augmented attention on skills for rural development to boost the prioritisation of rural development by the government.

NSDS III was guided by and measured against seven developmental and transformational imperatives, including race, class, gender, geographic considerations, age differences, disability and the HIV/AIDS pandemic (FASSET, 2011). Table 2.6 shows the differences between the NSDS I, II and III.

Table 2.6: The differences between the NSDS I, II and III.

NSDS I	NSDS II	NSDS III
The emphasis was placed on equality and the need to cultivate lifelong learning in a workplace environment. The vision of the NSDS I was based on the following guiding principles: • Lifelong learning • The promotion of equity • Demand driven to support and enhance productivity • Flexibility • Partnership and cooperation between and among the social constituencies • Efficiency and effectiveness in the delivery	The NSDS II emphasised equity, quality training and skills development in the workplace. The vision of the NSDS II was based on the following objectives: • Prioritising and communicating critical skills for sustainable growth, development and equity • Promoting and accelerating quality training for all in the workplace • Promoting employability and sustainable livelihoods through skills development • Assisting designated groups, including new entrants, to participate in accredited work, integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment • Improving the quality and relevance of provision	The NSDS III focused more on the direction of institutional learning linked to occupational-directed programmes by promoting the growth of TVET colleges and the use of workplace skills programmes to address national skills needs. The vision of the NSDS III was driven by the following eight objectives: • Establishing a credible institutional mechanism for skills planning • Increasing access to occupationally directed programmes • Promoting the growth of a public FET college system that was responsive to sector, local, regional and national skills and priorities • Addressing the low levels of youth and adult language and numeracy skills to enable additional training • Encouraging and supporting cooperatives, small enterprises, worker-initiated NGOs and community training initiatives • Increasing public sector capacity for improved service delivery and supporting the building of a developmental state • Building career and vocational guidance

(Sources: Adapted from FASSET, 2011; 5)

The initial and secondary phases of the NSDS (NSDS I and NSDS II) were implemented from 2001 to 2005 and 2005 to 2010, respectively, with the tertiary phase (NSDS III) executed between 2012 and 2016 (Jarbandhan & Mothopeng, 2015). The next section discusses the White Paper on Post-School Education and Training (WP-PSET).

2.4.4.3 White Paper on Post-School Education and Training (WP-PSET)

The WP-PSET, which sets out a vision for integrated post-school education, was published by the DHET in 2013 (DHET, 2019; NPC, 2020; Tumubweunee & Luescher, 2019). The aim was to consolidate the various similar processes concerning higher education, TVET, and workplace-based training in the PSET system (DHET, 2013; Tumubweunee & Luescher, 2019). This was intended to provide coherence and unlimited opportunities between various learning routes from education to the workplace, as well as from the workplace to education (Rajab et al., 2020). The envisaged integrated system of PSET should be able to respond to the needs of the South African society and economy (DHET, 2020). The policy objectives of the WP-PSET were to develop the following (NQF Act 67, as amended: 4; DHET, 2014b: 2; DHET, 2020: 17):

- A democratic, equitable, fair, non-sexist and non-racial South Africa
- A distinct, synchronized PSET system
- Expanded access, enhanced quality and augmented diversity of provision
- Robust and more accommodating partnerships between education and training institutions and the workplace
- A PSET system that responds to the requirements of different citizens and employers in both public and private sectors, in addition to broader societal and developmental objectives.

According to Reddy et al. (2018), the WP-PSET envisions substantial growth of the system at all levels in line with targets in the NDP and predominantly seeks to grow the vocational part of the system. FET colleges were to be rebranded as TVET colleges, the role of the South African Institute for Vocational and Continuing

Education and Training was explained, and universities were to be distinguished (DHET, 2013).

2.4.4.4 National Skills Development Plan (NSDP) 2030

The Minister of Higher Education and Training approved the NSDP on 7 March 2019, enacting it effectively from 1 April 2020 (DHET, 2020). The NSDP was drafted following extensive engagement and consultation by the DHET and broad deliberations with social stakeholders at the National Economic Development and Labour Council and the NSA. The NSDP builds on the goals of the NSD III and was developed to respond to the policy goals of the WP-PSET to improve both the amalgamation of the PSET system and the interaction between PSET and the work environment (DHET, 2020; Republic of South Africa, 2017). The NSDP seeks to provide adequate, appropriate and high-quality skills in the country that contribute to economic growth, employment creation and social development (Rajab et al., 2020; Republic of South Africa, 2019). The NSDP was grounded in the overarching policy objectives of the WP-PSET and aims to address the challenges and possibilities in the skills landscape that were identified by the WP-PSET. The challenges include the need to integrate the organisation into the skills landscape with PSET institutions, including universities and colleges; the need to sketch a clear mandate and role for SETAs for the longer term; the need for better-aligned funding, planning and monitoring mechanisms; and the reduction of multiple accountabilities (Republic of South Africa, 2017). Furthermore, the NSDP sketches the future roles of the SETAS, NSF, NSA and QCTO and the improvements necessary to develop more effective skills planning mechanisms and the role of other stakeholders in supporting formal skills development as part of PSET (Republic of South Africa, 2017; 2019).

The purposes of the NSDP were to (Republic of South Africa, 2017: 6):

a) Address the expiry of the NSD III in March 2016 (as extended to 31st March 2020) to allow for the finalisation of the NSDP.

b) Build on the important policy shifts that were introduced in NSDS III and highlighted in the WP-PSET, including the need to:

- Provide greater levels of access to education and training in rural areas.
- Increase collaboration between the skills system, government and industry.
- Drive skills development primarily through the public education system, and in particular through universities and TVET colleges.
- Focus on numerical targets and more on outcomes and impact.

c) To address challenges that emerged from NSDS III, including work placement difficulties for graduates and limited practical workplace experience, highlighting that workplace learning must be an integral part of the qualification and programme design and that tertiary institutions must be strengthened and changed where appropriate.

d) To provide a plan for the DHET to:
   - Ensure that the levy-paying institutions contribute to the vision of the WP-PSET and in so doing, support the work of the DHET with funds from the National Treasury.
   - Indicate the roles played by DHET and the key institutions implementing the NSDP.
   - Guide the disbursement of the levy grant money.
   - Indicate how the DHET will work with social partners to realise the intentions of the plan.

Besides the legislation, strategies and plans discussed above, there were other interventions that, in part, address the challenge of skills development in the country. The next section addresses that legislation and programmes.

2.4.5 Other legislation and programmes with an impact on skills development

This section presents other legislation and programmes that are relevant to skills development in the South African context but were not specifically promulgated to address skills development.

2.4.5.1 The Constitution of the Republic of South Africa, 1996

According to the HRDC (2017b), the imperative to raise education levels and coordinate the supply of skilled workers so that they match the needs of the economy and society in the country was first given expression in the Constitution of the Republic of South Africa, 1996, which is the supreme law of the country. The Constitution offers the legal basis for the existence of the Republic, stipulates the rights and duties of its citizens, and explains the structure of the government. Chapter 2 of the Constitution comprises a Bill of Rights, which highlights that everyone has the right to basic education and further education, which the state must make progressively available and accessible through reasonable measures (HRDC, 2017b).

2.4.5.2 Reconstruction and Development Programme (RDP)

After 1994, urgent efforts were made to amend some of the severe inheritances of apartheid through the RDP (Badroodien & McGrath, 2005). The RDP, a policy framework for integrated and coherent socioeconomic progress, was approved by the then president of South Africa, Nelson Mandela, in 1994 (Republic of South Africa, 1994). It endeavoured to mobilise South African citizens and resources in order to finally eradicate the consequences of apartheid (Reitzes, 2009; Wessels, 1999). Its goal was to shape a democratic, non-racial and non-sexist future and represented a vision for the fundamental transformation of South Africa (Republic of South Africa, 1994: 7):

- Creating robust and steady democratic institutions.
- Safeguarding representivity and participation.
- Making sure that South Africa grows into a completely democratic, non-racial and non-sexist society.

- Generating growth and development path that is sustainable and environmentally friendly.

One of the key programmes for the RDP was the development of the workforce to drive the implementation of reconstruction and development in South Africa (HRDC, 2009; Reitzes, 2009). According to the Republic of South Africa (1994), the RDP aimed to provide a suitable education and training programme, appropriate recognition for previously ignored skills and a unified approach to education and training that guaranteed the achievement of maximum capacity. The RDP was intended to nurture the concept of lifelong learning and work towards restructuring training and education to integrate the energies of all the institutions from the preschool upward (Republic of South Africa, 1994). Discrimination on the grounds of race, class and gender was abolished and the creative capacity of the society was anticipated to be unlocked (Republic of South Africa, 1994). However, the RDP was critically undermined by serious resource limitations, including a huge inherited debt burden (Badroodien & McGrath, 2005).

2.4.5.3 Growth, Employment and Redistribution (GEAR)

The RDP and GEAR were the most thorough and comprehensive macroeconomic strategies for action to be documented concerning government policy in the early years of South African democracy (Wessels, 1999). The GEAR introduced in 1996 was an effort to stimulate growth and sustain policy credibility by reducing spending and inflation, in addition to redeploying the budget to redress the expenditure inequities of the previous administration (Badroodien & McGrath, 2005; Reitzes, 2009). GEAR aimed to tackle successfully the related challenges of satisfying basic needs, improving involvement in the independent institutions of civil society, developing employees and implementing the RDP in all its facets (Department of Finance, 1996). Furthermore, GEAR was meant to accelerate the establishment of financing mechanisms that would be supported by both the business sector and organised labour. Sustained developments in the quality of general education were largely the responsibility of the government while, in most cases, industrial training remained the responsibility of employers (Department of Finance, 1996). The AsgiSA replaced GEAR in 2005 (South African History Online, 2017).

2.4.5.4 Accelerated and Shared Growth Initiative for South Africa (AsgiSA)

The AsgiSA was enacted as a development strategy designed to assist the South African state meet the African National Congress's 2004 election promises to reduce unemployment by 50%, reduce poverty by 50%, and fast-track BBBEE (HRDC, 2009; McGrath and Akoojee, 2007). The six themes identified for AsgiSA were infrastructure programmes, sector investment (or industrial) strategies, skills and education initiatives, second economy interventions, macroeconomic issues and public administration issues (McGrath & Akoojee, 2007). The approach this strategy took embraced the education and skills sector, where post-basic provision was given substantial attention (McGrath & Akoojee, 2007).

The challenge of skills shortages, including professional skills such as scientists and engineers, managers such as project managers and financial personnel, and skilled technical employees such as IT technicians and artisans, was to be addressed through the following interventions (McGrath & Akoojee, 2007: 425):

- Attaining higher numeracy and literacy levels in the early grades of school.
- Increasing high school graduates with maths and science by 2008.
- Raising career guidance.
- Improving public FET colleges.
- Growing ABET offering.

The AsgiSA plan also introduced a new structure to drive the process: the JIPSA led by the deputy president (DHET, 2019; McGrath & Akoojee, 2007). The continued skills crisis resulted in a decision to launch JIPSA in 2006, as it was apparent that the AsgiSA goals would not be achieved if interventions were not instantly set up to find and address obstacles and limitations in the skills development system and fast track the development of priority skills (Marock, 2010). JIPSA brought together ministers, business leaders, trade unionists and educationalists to pinpoint critical skills needs and speedy and effective solutions (Mummenthey, 2010; Republic of

South Africa, 2006). Key elements of JIPSA included the following (McGrath & Akoojee, 2007: 426):

- Curriculum reform in the education system was based on a move to an outcomes-based model and the promulgation of an NQF.
- Higher education reconfiguration consisted of a new institutional landscape characterised by the merger and advancement of technikons to become universities of science and technology, and a stronger quality assurance system, monitored by the CHE.
- Further education and training transformation also featured institutional mergers, which, more recently, have focused on curriculum reform and a recapitalisation programme.
- The inclusion of a new skills development system, driven by the National Skills Development Strategies and featuring a new vocational qualification (the learnership), a levy-grant mechanism and new SETAs.
- ABET advancement, with new qualifications and delivery mechanisms and a commitment to the recognition of prior learning.
- A predominant HRD strategy intended to coordinate the work of the DoE and the DEL and other national and provincial departments.

2.4.5.5 National Development Plan (NDP)

The NDP was published in 2012 (DHET, 2019) and aimed to unite South Africans, release the energies of its citizens, foster an inclusive economy, build capabilities and enhance the capability of the state and leaders to work together to solve complex problems (NYDA, 2017). The Plan sought to ensure that all South Africans attain a decent standard of living through the elimination of poverty and a reduction in inequality (Chilenga, 2017; DHET, 2020; NYDA, 2017; Rajab et al., 2020). One of the core elements was to provide quality education and skills development (Chilenga, 2017; NYDA, 2017). To improve the education, training and innovation system, the objectives of the NDP entailed implementing the following relevant actions (DHET, 2020: 16):

- Grow the college system by focusing on the improvement of quality to enhance confidence in the college sector and attract more learners. The acclaimed 25% participation rate would take about 1,25 million enrolments.
- CET centres to offer 1 million learning opportunities.
- Produce 30 000 artisans every year.
- Increase enrolment at universities to approximately 1,62 million enrolments by 2030, which is equivalent to at least 70% increase.
- Increase the number of students fit to study mathematics and science degrees to 450 000 by 2030.

The DHET was also guided by the NDP, which pinpoints the improvement of teaching quality, an increase in the number of TVET colleges and the need for a drastic increase in university enrolment as a direct approach to lessen the burden of poverty in South Africa (DHET, 2019).

2.4.5.6 Integrated Youth Development Strategy (IYDS) 2020

The Department of Planning, Monitoring and Evaluation in partnership with the NYDA had the directive to ensure development and empowerment for the youth in South Africa (NYDA, 2017). To this effect, a National Youth Policy 2020 was developed and approved by Cabinet in 2015 (NYDA, 2017). The goal of the National Youth Policy 2020 was to combine and advance youth initiatives that improve the capabilities of young people to participate actively and innovatively in the economy and society (The South African Presidency, 2015). The goal will be achieved by providing the necessary support to develop the youth; addressing their needs; and promoting positive outcomes, opportunities, choices and relationships mostly for those outside the economic, social and political mainstream (The South African Presidency, 2015). The IYDS was then created as a national reaction to youth development, taking into cognisance both particular, historical disparities and the general challenges of sustainable development and global growth (NYDA, 2017). The purpose of the IYDS was to stimulate youth innovation, entrepreneurial development, and skill development through targeted government, commercial, and

civil society programs, as well as to support initiatives that promote these factors, especially activities that generate income and wealth (NYDA, 2017).

2.4.5.7 Public Finance Management Act (PFMA) (Act 1 of 1999)

The PFMA controls the financial management of SETAs and other government institutions and ensures that all assets, liabilities, income and expenditure of SETAs, together with other government units, are managed properly (Jarbandhan & Mothopeng, 2015). The PFMA requires the QCTO and SETAs to create their five-year objectives against articulated outcomes, as well as a three-year budget for these objectives, and to submit performance plans annually (Republic of South Africa, 2017). These plans will be evaluated in line with the DHET plans for the PSET system (Republic of South Africa, 2017).

Other legislation such as the Labour Relations Act No. 66, 1995, Employment Services Act No 4 of 2014, BBBEE Act No. 53, 2003, Employment Equity Act No 55, 1998, Income Tax Act No. 58, 1962, Basic Conditions of Employment Act No 75, 1997 and Further Education and Training Act No 98, 1998 were beyond the scope of this study, hence they are not discussed. However, these pieces of legislation provided a dynamic labour market and social inclusion strategies for redress with a possible impact on skills (Reddy et al., 2018). The analysis of the policy system in South Africa highlights that the system was focused mainly on achieving the target of nurturing responsiveness and the relevance of skills and was structured to produce high-level skills, but focused less on developing core skills and promoting employability (Reddy et al., 2018).

2.4.6 Structures that contribute to skills development in South Africa

The PSET system is complex as it has at least seven different types of institutions, besides government departments, that share responsibilities at the national level. These include the NSA, quality councils, the NAMB, SETAs, NSF, an advisory body and professional bodies, the NSA and the HRDC (Rajab et al., 2020). The DHET provides national strategic leadership in support of an integrated PSET system in order to improve the quality of life for the citizens of South Africa (DHET, 2019).

Other critical organisations in the skills development landscape are located (DHET, 2019: 2)

- in the DHET, for example, the NSF, NSA Secretariat and HRDC Secretariat
- outside the DHET, but receive funds from the DHET obtained from the government and skills levy, for example, public HEIs and QCs
- outside the DHET and do not receive funds from the DHET, but the DHET does have certain related legislative functions such as private HEIs and Umalusi
- outside the DHET and do not receive funds from the DHET, nor does the DHET have legislative functions concerning these organisations. Nevertheless, DHET structures may have certain legislative responsibilities for these organisations (e.g., SAQA registers professional bodies and QCTO accredits workplaces for work-based learning).

Figure 2.2 depicts various structures that are involved in skills development in South Africa.

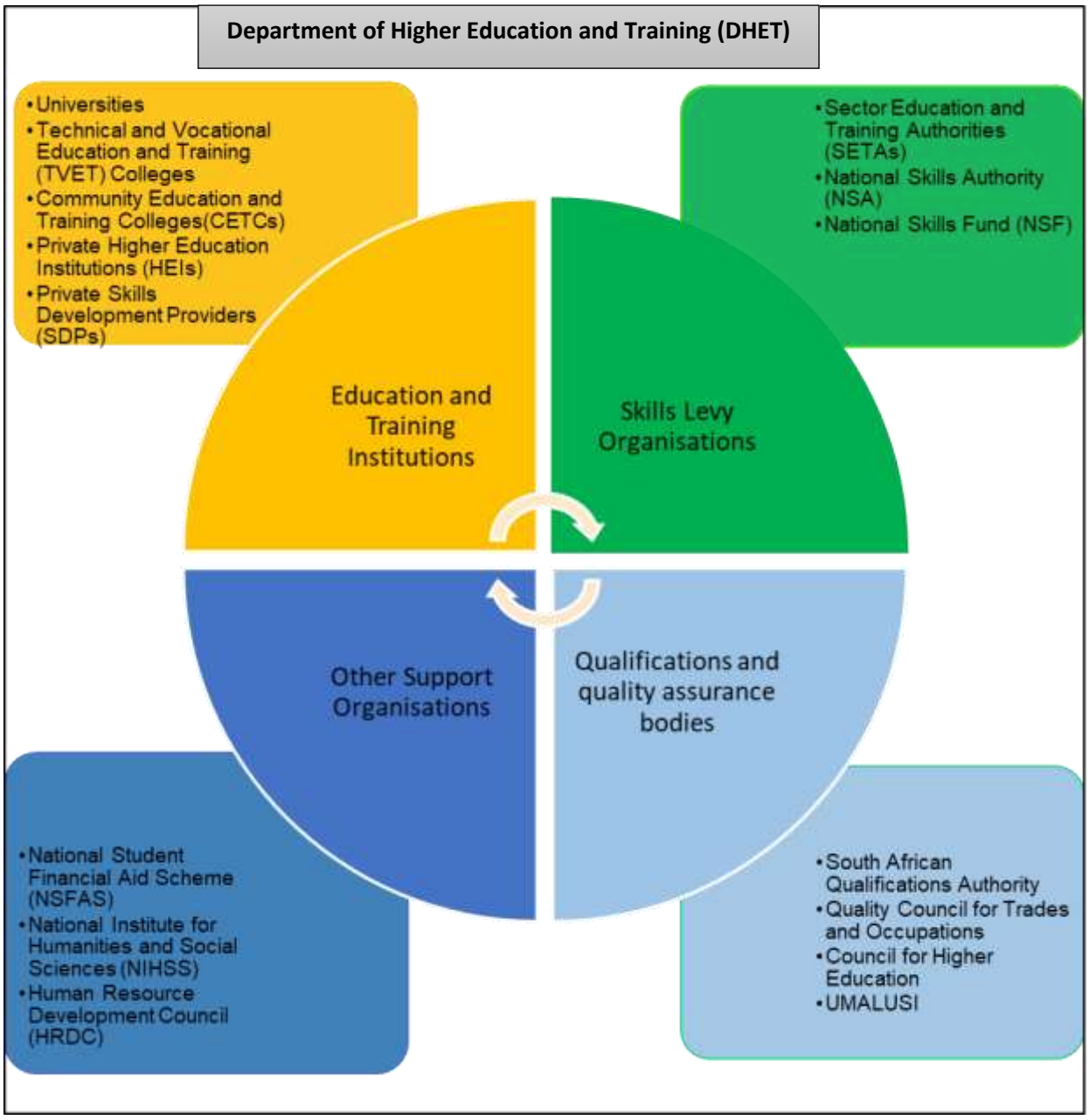

Figure 2.2: The South African Post–School Education and Training (PSET) system
Source: Adapted from DHET (2021a: 20)

2.4.6.1 The Department of Higher Education and Training (DHET)

According to Reddy et al. (2018), the DoE was responsible for higher and technical vocational education provided by universities and FET colleges between 1994 and 2009. The DEL was responsible for workplace skills programmes, delivered mainly by the SETAs. This fragmentation in education, training and workplace skills training

resulted in a lack of effectiveness and efficiency in the skills system and hampered delivery in education and training (Reddy et al., 2018).

The DHET was initiated in 2009 when the former DoE was separated into two departments: Basic Education and Higher Education and Training (DHET, 2019). The department includes aspects of skills development, which previously resided in the DEL, and derives its mandate from the Constitution, within the intention of section 29, read with schedule 4, which includes education at all levels, with tertiary education as a functional area of parallel national and provincial legislative competence (DHET, 2022). The department in its latest form was established to focus on PSET holistically and this extended its scope of operations broadly (DHET, 2022). All skills-related functions aligned to the NSDS, SETAs, NSF, NSFAS, as well as the NQF and SAQA, were shifted from the DEL to the DHET (DHET, 2015a). The four main categories of PSET institutions, namely, public and private HEIs, TVET colleges, CETCs and private colleges are monitored by the department (DHET, 2021b).

The DHET's vision was of a South Africa in which there was a fully inclusive and differentiated post-school system that enables South Africans to access fitting PSET and to achieve the economic and social goals of involvement in an inclusive economy and society (DHET, 2022; DHET, 2021b).

2.4.6.1.1 DHET mission

The mission of the DHET includes the following (DHET, 2022):

- To train capable, well-educated and skilled South Africans who can participate in a knowledge-intensive, diversified and sustainable international economy, which reaches the development goals of our country.
- To reduce the skills blockages, particularly in priority and scarce skills areas, improve low involvement rates in the post-school system, correct distributions in the shape, size and distribution of access to PSET and

improve the quality and efficiency of the system, its subsystems and institutions.

2.4.6.1.2 DHET value statement

The department's value statement includes (DHET, 2022):

- Quality and distinction in all our work attempt to create a nation with a qualified and capable workforce.
- Integrity, tenacity, and dedication to giving all South Africans access to individualized education and training opportunities.
- The effectiveness of work practices and competence of all DHET workers in carrying out the Department's mandate.
- Teamwork, cooperation, and unity in achieving the common objectives with our partners in higher education and training.
- The need for transformation in order to address issues of social injustice, racial discrimination, gender inequity, ageism, geographic isolation, HIV/AIDS, and disability in all of our higher education and training institutions.

The legislative mandate given to the DHET can be summarised as follows (Reddy et al., 2018: 4):

- Responsibility for the university system and the CHE in terms of the HEA (as amended)
- Responsibility for the public and private adult education system as directed by the Adult Education and Training Act (abolished in 2013)
- Responsibility for public and private colleges as directed by the CETA (previously known as the FETCA)
- Responsibility for the student financial aid system as directed by the NSFAS Act

- Responsibility for the NQF and sub-frameworks together with related institutions such as the SAQA, QCTO, Umalusi and the Higher Education Quality Committee (HEQC) as directed by the NQF Act
- Responsibility for the skills development system, focusing on the SETAs, NSF, NSA, NSDS and SDL, and the administration of apprenticeships and learnerships in line with the SDA and SDLA.

The DHET embarked on a three-year evaluation of the impact each SETA and QCTO makes on the envisioned objectives of the system and on this basis determine amendments to the next three-year medium-term strategic framework budget against its five-year medium-term strategic framework plan and priorities (Republic of South Africa, 2017). This was evaluated for the extent of alignment to the performance outcomes and ultimately to the NDP (Republic of South Africa, 2017).

2.4.6.2 Education and training institutions

In 2019, the PSET system had 503 institutions consisting of 26 public universities, 131 private HEIs, 50 TVET colleges, 287 registered private colleges and nine CETCs (DHET, 2021b).

2.4.6.2.1 Universities

According to the HEA 101, university means any university established, deemed to be established or declared as a university under the HEA. Such a university is regarded as a juristic person. Public higher education in South Africa comprises 26 public universities, including 11 traditional universities, six universities of technology and nine comprehensive universities (DHET, 2017a). The dissimilarity between these three categories of universities lies in the qualifications that they provide. Traditional universities provide broad formative and professional academic programmes, comprising undergraduate, honours, master's and doctoral programmes, universities of technology provide undergraduate programmes that are

career focused, and comprehensive universities infuse the characteristics of both these types of universities (DHET, 2019).

2.4.6.2.2 Technical and Vocational Education And Training (TVET) colleges

Under the South African PSET system, TVET colleges are classified with universities as providers of higher education (Sebola, 2022). The TVET colleges, previously known as Further Education and Training (FET) colleges, offer vocational or occupational programmes that provide students with the education and training required to develop skills for a specific range of jobs, employment or entrepreneurial opportunities. In 2019, there were 50 TVET colleges, with over 260 campuses (DHET, 2019).

2.4.6.2.3 Private Higher Education Institutions (HEIs) and colleges

Private HEIs are regarded as universities and provide local or internationally accredited degree programmes (DHET, 2019). According to the HEA 101, a private HEI means any institution fully or conditionally registered as a private higher education institution in line with Chapter 7 of the HEA.

2.4.6.2.4 Community Education and Training Colleges (CETCs)

According to the DHET (2019), CETCs were established to accommodate mostly youth and adults who did not finish their schooling or who by no means attended school and, as a result, do not meet the requirements to enrol at colleges and universities. The focus on community in the CETCs enables easy access for youths and adults, orientating and locating this type of adult and youth education in communities with better relationships with those communities in their varied forms, from NGOs and community-based organisations to local government and the local labour and economy markets (DHET, 2015b). According to Rivombo (2018), the only features of diversity highlighted in South African CETCs are age, geographical setting and class.

2.4.6.2.5 Private skills development providers (SDPs)

The QCTO is in charge of the accreditation of SDPs that offer the following programmes and qualifications that fall under the OQSF: N4–N6 programmes, old trades and occupational qualifications (QCTO, 2019).

2.4.6.3 Quality Councils (QCs)

Quality councils manage qualifications, assessment, certification systems and standards through the three key bands of the qualifications system (DHET, 2013). The three quality councils are discussed below.

2.4.6.3.1 Umalusi

Umalusi was initiated in 2001 as a result of its founding act, the General and Further Education and Training Quality Assurance Act (Act 58 of 2001), and thus allocated the task of quality assurance of the NQF bands 1–4 (DHET, 2019; SAQA Act 67). Umalusi also fulfils the quality assurance function in TVET, private and CETCs (DHET, 2019).

2.4.6.3.2 The Council on Higher Education (CHE)

The CHE was initiated as a juristic person in line with the requirements of the HEA (HEA 101; SAQA Act 67) with the mandate of monitoring and quality assuring the higher education sector (DHET, 2017a; Rajab et al., 2020). The CHE must institute the HEQC as a permanent committee to conduct the quality assurance and quality advancement tasks of the CHE in line with the HEA and the NQF Act (HEA 101). The functions of the CHE include the following (HEA 101: 8):

a) The CHE may advise the Minister on any aspect of higher education on its initiative and must:
    - Advise the Minister on any aspect of higher education at the request of the Minister.
    - Arrange and coordinate conferences.

- Subject to section 7 (2), through its permanent committee, the HEQC promotes quality assurance in higher education; audits the quality assurance mechanisms of HEIs; and accredits programmes of higher education.
- Publish information regarding developments in higher education, including reports on the state of higher education, regularly.
- Promote the access of students to HEIs.
- Perform any other function conferred on or assigned to it in terms of this Act or the NQF Act; delegated or assigned to it by the Minister by notice in the Gazette.

b) The advice contemplated in subsection (1) (a) includes advice on:
- Qualifications, quality promotion and quality assurance.
- Research.
- The structure of the higher education system.
- The planning of the higher education system.
- A mechanism for the allocation of public funds.
- Student financial aid.
- Student support services.
- Governance of HEIs and the higher education system.
- Language policy.

c) The Minister must:
- Consider the advice of the CHE.
- Provide reasons in writing to the CHE if the Minister does not accept the advice.

d) The Minister may act without the advice of the CHE:
- If the matter was urgent or
- If the CHE had failed to provide the advice within a reasonable time.

e) If the Minister acts without the advice of the CHE the Minister must:
- Notify the CHE of such action.

- Provide reasons in writing to the CHE for such action.

2.4.6.3.3 Quality Council for Trades and Occupations (QCTO)

Formed in 2012, the QCTO is in charge of the sub-framework for the NQF related to trades and occupations, and for the quality assurance of programmes within that sub-framework (Rajab et al., 2020). The role of the QCTO is to ensure the quality of occupationally related qualifications (Marock, 2017; Republic of South Africa, 2017) as provided for in the SDA (SAQA Act 67). The NSDP requires that the functions carried by the SETA Education and Training Quality Assurers, as well as those undertaken by the NAMB, are effectively integrated into the QCTO as initially anticipated (Republic of South Africa, 2017). The QCTO is funded by 0,5% of the SETA levy, which is allocated to ensure that it can perform the relevant quality assurance functions for the intermediate-level vocational and occupational programmes offered by both public and private providers (Republic of South Africa, 2017). Furthermore, saved funds from the shared services could be distributed to support extra expenses sustained by the QCTO as it takes over some of the tasks that were delegated to SETAs in the past (Republic of South Africa, 2017).

However, although numerous professional bodies exist in line with legislation and fall under various ministers, some are independent and do not owe their existence to legislation (DHET, 2018a). For example, there are additional professional bodies such as the South African Nursing Council and the South African Institute of Chartered Accountants that are subject to the NQF Act, which have oversight of qualifications in specified areas (DHET, 2018a).

2.4.6.4 Sector Education and Training Authorities (SETAs)

The South African Parliament approved the SDA in 1998 and established a new SETA system to develop and manage sector-specific training programmes in line with the NSDS (Jarbandhan & Mothopeng, 2015). The SDA, as amended in 2008, established SETAs as the main drivers behind the policy in all economic sectors to effectively encourage the objectives of the NSDS (Jarbandhan & Mothopeng, 2015; Marock, 2010). SETAs were mandated to manage and promote skills development

in South Africa (Jarbandhan & Mothopeng, 2015; Kraak, 2008; Mummenthey, 2010; Van den Heever et al., 2021) and were expected to enable the delivery of sector-specific skills interventions that support the goals of the NSDS III and develop the skills needed by employers in the workplace (DHET, 2019). The SETAs were used by the government to create a system by which skills development programmes such as learning programmes, learnerships and skills programmes could be provided (Groener, 2014).

SETAs are required to (DHET, 2016: 5)

- develop sector skills plan (SSP) within the framework of the NSDS
- implement their SSPs plans by instituting learning programmes, approving WSPs and ATRs, distributing grants in the prescribed way to employers, education and SDPs, as well as workers, and monitoring education and skills development provision in the sector.
- promote learning programmes (apprenticeships, learnerships and skills programmes) by ascertaining workplaces for real-world work experience, assisting with the development of learning materials, humanising the facilitation of learning and helping with the conclusion of agreements for learning programmes
- register agreements for learning programmes
- perform any functions delegated to them by the QCTO
- gather the skills development levies and distribute the levies allocated to them in their sector in terms of sections 8 and 9 of the SDLA when obliged to do so as envisioned in section 7(1) of the SDLA.
- interact with the NSA on the NSDS, the national skills development policy and its SSP
- interact with the labour centres of the DEL, provincial offices and any education body instituted in terms of any law regulating education in the Republic to increase information about employment opportunities, as well as between education, SDPs and the labour market.
- interact with the skills development forums instituted in each province.

The funding of SETAs occurs as follows (Republic of South Africa, 2017: 20):

- An amount equalling 20% of the sector's SETA levy paid will be allocated to SETAs, to be paid to employers as a mandatory grant process.
- A maximum of 10% of the sector's SETA levy paid will be earmarked to upkeep the administrative functions of the SETA in order to provide them with organisational stability to perform their roles.
- A total of 0.5% of the SETA levy will be distributed to the QCTO by the SETA to enable it to execute the relevant quality assurance functions for the intermediate-level vocational and occupational programmes offered by both private and public providers.
- An amount equivalent to 49,5% will be allocated to the SETA levy to back occupational programmes that are necessary to encourage employment creation, advance growth and support social development.

After six months of the establishment of the DHET, a new SETA landscape was recommended. Although some stakeholders demanded that the SETA system be abolished, the DHET took less drastic action. Fifteen of the then 23 SETAs were relicensed with only slight modifications and six new SETAs were initiated by merging SETAs that were present or subsectors of SETAs, resulting in the total elimination of two SETAs (Reddy et al., 2018). Currently, all major sectors of the economy have their own SETAs, with a total of 21 SETAs representing the entire economy (Van den Heever et al., 2021).

2.4.6.5 National Skills Authority (NSA)

The NSA was established to replace the National Training Board instituted in terms of the Manpower Training Act of 1981, as a result of the Act being repealed by the SDA (Reddy et al., 2018). The NSA includes business, government, labour and community (Marock, 2010), and advises the Minister of Higher Education and Training on national skills development policy and a NSDS (DHET, 2019; Marock, 2010; Mummenthey, 2010).

2.4.6.6 National Skills Fund (NSF)

The NSF is a catalytic fund that permits the government to implement significant skills strategies over and above meeting the training needs of the unemployed, community structures, NGOs, non-levy paying cooperatives and vulnerable groups. The main sources of revenue for the NSF are 20% of the skills development levies as enshrined in the SDLA and interest accumulated on investments with the Public Investment Corporation (DHET, 2020). The money from the NSF may be used for the primary objectives stipulated by the SDA as follows (DHET, 2020: 13):

- To fund projects identified in the NSDS as national priorities.
- To fund projects related to the achievement of the purposes of the SDA as the director-general determines.
- To fund any activity undertaken by the minister to achieve a national standard of good practice in skills development.
- To administer the NSF within the prescribed limits of the SDA.

The financing of all training was based on a levy-based scheme regulated in the SDLA (Mummenthey, 2010). All employers who are not normally exempted by the Act (such as public service employers, religious or charitable institutions, and national or provincial public entities) and whose total employee payroll as calculated by Pay as You Earn exceeds R500 000 per annum, have to pay a skills levy of 1% of their total employee payroll (Mummenthey, 2010). An amount equalling 20% of the levy is distributed to the NSF and the remaining 80% is transferred to the SETAs (Marock, 2017; Mummenthey, 2010). The NSF was formed to provide funding for the national imperatives established in the NSDS, in addition to other projects recommended by the director-general (Reddy et al., 2018), and spends its budget as follows (Republic of South Africa, 2017: 21):

- An amount equivalent to 20% is assigned to the NSF to fund interventions that will satisfy the needs of the poor in a manner that supports the equity imperatives, with the focus on skills development provided through the CET system.

- The NSF will carry on supporting broader government strategies including a youth programme, rural development and the building of small businesses and cooperatives.
- Examine the PSET system including institutional development.

2.4.6.7 Human Resource Development Council (HRDC)

The HRDC was launched in March 2010 as a result of a key recommendation of the HRDSA (HRDC, 2017b). The HRDC was instituted under the leadership and stewardship of the deputy president of the Republic and is the main institution for coordinating HRD interventions. This institution is led by organised business, the government, organised labour, professional bodies, research and academic representatives, community representatives and other relevant stakeholders (HRDC 2009; 2017b; Marock, 2017). A Technical Working Group, which reflects members, reports to the HRDC and is presided over by one of the deputy chairs appointed by the deputy president in consultation with the Minister of Higher Education and Training (HRDC 2009). The role of the Technical Working Group is to advise Council on strategic matters concerning HRD issues and to implement the decisions of the Council (HRDC, 2009). The DHET provides the HRDC with the required strategic management, technical, administrative and logistical support by the means of an HRD Support Unit and Secretariat.

2.4.6.8 South African Qualifications Authority (SAQA)

The SAQA was established as a juristic person in accordance with the repealed SAQA Act (Act 58 of 1995) and is currently regulated by the NQF Act 67 of 2008. The SAQA is the central quality authority for all education and training in South Africa (Department of Finance, 1996; Marock, 2017; Mummenthey, 2010) and has established a new framework for education and training, and introduced a sole, integrated system for related qualifications within the country (Jarbandhan & Mothopeng, 2015). The objectives of the SAQA are to (NQF Act 67 of 2008)

- advance the objectives of the NQF contemplated in Chapter 2 of the NQF Act
- oversee the further development and implementation of the NQF
- coordinate the sub-frameworks.

The SAQA covers all education and training qualifications from ABET up to higher education (Badroodien & McGrath, 2005). This was achieved by introducing the NQF, which sets the standards by which all learning is quality assured and accepts the diverse forms of learning through national standards and qualifications (SAQA Act 58). The SAQA is the institution with overall responsibility for the implementation of the NQF (NQF Act 67, as amended).

The NQF was formally initiated on 28 March 1998, with eight levels and later expanded to 10 levels, consisting of three sub-frameworks: General and Further Education and Training Qualifications (Levels 1–4), Higher Education Qualifications (Levels 5–10), and OQSF (Levels 1–8) (NQF Act 67, as amended). The NQF is a broader system sanctioned by the Minister for the classification, registration, publication and articulation of national qualifications that are quality assured (NQF Act 67). Table 2.7 highlights the levels and sub-frameworks of the NQF.

Table 2.7: NQF levels and sub-frameworks

NQF	General and Further Education and Training Qualifications Sub-Framework	Higher Education Qualifications Sub-Framework	Occupational Qualifications Sub-Framework
10		Doctoral Degree Doctoral Degree (Professional)	
9		Master's Degree Master's Degree (Professional)	
8		Bachelor Honours Degree Postgraduate Diploma Bachelor's Degree	Occupational Certificate (Level 8)
7		Bachelor's Degree Advanced Diploma	Occupational Certificate (Level 7)

6		Diploma Advanced Certificate	Occupational Certificate (Level 6)
5		Higher Certificate	Occupational Certificate (Level 5)
4	National Certificate		Occupational Certificate (Level 4)
3	Intermediate Certificate		Occupational Certificate (Level 3)
2	Elementary Certificate		Occupational Certificate (Level 2)
1	General Certificate		Occupational Certificate (Level 1)

Source: Adapted from Reddy et al. (2018: 30)

The NQF was intended to (NQF Act 67, as amended; Mummenthey, 2010; SAQA Act 58; 2010)

- expedite access to mobility and progression within education, training and career paths
- generate an integrated national framework for learning achievements
- speed up the rectification of historical unfair discrimination in education, training and employment opportunities.
- improve the education and training quality

2.4.6.9 National Artisan Moderating Body (NAMB)

The NAMB is part of two new structures that are imperative to the skills landscape (Republic of South Africa, 2018). The NAMB was in particular tasked to connect the artisan development system to the colleges by performing the following functions (Republic of South Africa, 2018: 14):

- Establishing, preserving and applying a national database of instruments for the assessment and moderation of artisan trade tests.
- Developing standards for quality artisan training.
- Establishing and sustaining a national database of registered artisan trade assessors and moderators.

- Reviewing the performance of and moderating accredited artisan trade test centres.
- Endorsing the certification of artisans to the QCTO.

The NAMB (in collaboration with the QCTO) plays a critical role in safeguarding that all artisan training is subjected to a single national regime of quality assurance and that artisan training is of high standard and quality (Republic of South Africa, 2018).

2.4.6.10 National Student Financial Aid Scheme (NSFAS)

The NSFAS provides funding for financially needy and academically qualifying students to access university education (DHET, 2017a), as well as for the administration of such loans and bursaries under the NSFAS Act No. 56 of 1999 (DHET, 2017b).

2.4.6.11 National Institute for Humanities and Social Sciences (NIHSS)

The National Institute for Humanities and Social Sciences (NIHSS) was officially launched in December 2013 as a result of comprehensive work to draft the 2011 Charter for Humanities and Social Sciences (NIHSS, 2019). The NIHSS statutory mandate was derived from the Regulations for the Establishment of an NIHSS published in 2013 in accordance with the provisions of the HEA (Molotja & Ralphs, 2018; NIHSS, 2019). The NIHSS develops and arranges the institutional and logistical framework for imagined HEIs for the Humanities and Social Sciences (HSS). Broadly, the responsibility of the Institute is to support and enhance the HSS in South Africa and outside the country and to guide government and civil society on any matters that are related to HSS (NIHSS, 2019). It does so through its different programmes, such as the African Pathways Programme, the Catalytic Projects and the Doctoral Schools, and by assisting the DHET to implement the recommended corrective initiatives (NIHSS, 2019). Additional functions of the NIHSS include (NIHSS, 2019)

- promoting learning within its specific application or scope by ensuring partnership or the coordination of the work of HEIs
- offering services to the higher education domain linked to the HSS
- guiding the Minister on matters relating to its specific scope or application, or to higher education
- advocate equity, justice and social responsibility.

The presence of these pieces of legislation, strategies, programmes and structures to assist with skills development does not, however, mean that all challenges are eliminated. The following section discusses the challenges experienced by various parts of the PSET system in South Africa.

2.4.7 Challenges faced by the Post-School Education and Training (PSET) system

The literature on skills development and labour highlights that inadequate opportunities for quality PSET are gradually placing the country's capacity to produce a sustainable skills base and lessen the burdens of unemployment at risk (DHET, 2017a). The PSET system in South Africa has experienced numerous changes post-1994 (DHET, 2019) and there is still inconsistency in the pathways between secondary schools, TVET colleges, CET centres, workplace skills development and higher education (NPC, 2020). Furthermore, the development of ICT-enabled platforms and solutions to improve operational efficiency and governance in the PSET system are largely uncoordinated (Rajab et al., 2020). The growing introduction of technologies related to the 4IR, including robotics and digitalisation, provides both challenges and opportunities in terms of employment creation and eliminating the digital and developmental gaps with developed countries (Tregenna et al., 2021). Apart from the accomplishments in higher education in the initial twenty years of democracy, findings show that the system still yields and reinforces inequalities in terms of racial divide, gender and class (DHET, 2015b). These disparities persist to weaken the vision of the South African Constitution of a democratic, prosperous, non-sexist, equal and non-racist society (DHET, 2015b). However, recently, the DHET (2019) has indicated that much has been achieved in

terms of equity. This is evident mainly in the changes in the racial proportions of registration and graduates of universities, and private and TVET colleges (DHET, 2019). Furthermore, gender equity has been achieved in relation to female entrance to and outputs of the PSET system. The section below discusses some of the difficulties that are faced by the PSET.

2.4.7.1 DHET

The DHET has experienced several legacy concerns in taking over the responsibilities of the DEL, and in terms of its interlinkages with the basic education system, as there is an interdependent relationship between an operative, effective operational general education system and the significant progress of the youth in PSET and the workplace (DHET, 2014a). Additionally, the DHET is by no means a unit with unique elements as there is a multifaceted group of directorates that are responsible for different facets of PSET in addition to different strands of reporting and analysis (DHET, 2014a). Currently, all the PSET-related statutory agencies such as the SETAs, QCTO, SAQA, CHE, NSA and Umalusi are established by one or another Act, but are independent of each other and are operated according to their own vision, mission and goals (Van den Heever et al., 2021).

2.4.7.2 Higher education institutions (HEIs)

There is a growing need for universities globally to add to the countries' economic growth by developing a knowledge economy that is responsive, competitive and open to innovation, contributing to the technological expertise of industry (HRDC, 2017b). Globalisation, economics and the internationalisation of business require HEIs to equip employees to work effectively in the fast-evolving global market (Jurabaevich & Bulturbayevich, 2021). The South African higher education sector is no exception. Higher education plays a fundamental role in the socioeconomic advancement of any country and it is important to realise the need for knowledgeable and experienced employees capable of improving the rate of progress in a society (DHET, 2017b; Uzoka & Akinyokun, 2005). According to Kruss et al. (2015), the PSET sector was not the main concern of global policy or research funding in past decades. However, since the turn of the new millennium,

governments became advocates for the global knowledge economy and higher education enrolment growth has been astonishing (Kruss et al., 2015). Higher education plays a critical role in the socioeconomic advancement of any country by meeting the need for a high-level, knowledgeable and skilled workforce capable of improving the rate of progress in society (Parvez, Anjum & Ahmed, 2015; Pouris & Inglesi-Lotz, 2014).

Local and global macroenvironmental factors have influenced many shifts in higher education, motivated by the need for innovative change to ensure education remains relevant and current (Bruwer, 2018). While the number of student enrolments has increased considerably in the South African higher education sector, the academic staff complement has not increased accordingly, to the extent that the student-to-staff ratio has increased over the past two decades (DHET, 2015c; HESA, 2011; Webbstock & Fisher, 2016; Webbstock & Sehoole, 2016). Furthermore, the reality is that many existing employees in the higher education sector may not be in harmony with a swiftly changing student body, curriculum and context (DHET, 2015c; Quinn, 2012; Webbstock & Fisher, 2016; Webbstock & Sehoole, 2016). Since the outbreak of COVID-19, universities have made rapid shifts to online education, with many academic staff simply replicating online conventional classroom-based instruction (Teräs et al., 2020). While some may be inspired by the notion that this is the "perfect" method of instruction and learning, many people simply lack knowledge about alternative teaching methods (Teräs et al., 2020).

Changes in higher education such as globalisation, massification and the dialogue of high skills have resulted in a different workplace for academic staff where they have had to cope with new identities and expectations (Quinn, 2012). The national plea for improved teaching and learning quality and a higher throughput rate has shifted the lens to academic staff development. Simultaneously, the academic staff themselves are in search of means to advance their practice and understand their settings in a more pedagogically informed manner (Quinn, 2012). Furthermore, the South African higher education sector is currently facing extreme challenges regarding the composition, size and capacity of its academic staff (DHET, 2015c). The challenge is multidimensional, having to do with the sluggish speed of change, transformation and regeneration, the aging workforce, the comparatively less qualified academic

employees, meagre postgraduate student numbers resulting in an inadequate supply of future academic staff, and global events in higher education that require ever advanced expertise from employees (DHET, 2015c).

According to the University of the Witwatersrand (2016), the benefits of a lively and flourishing higher education system are clear. Improved access to higher education improves both individual opportunity and national economic development and competitiveness in a gradually more globalised world (Blanco-Ramírez & Berger, 2014). Universities and graduates contribute directly to knowledge and innovation and the country's economic growth, for example, in 2009 over R87bn was contributed by South African universities to the economy and this represented roughly 2,1% of the Gross Domestic Product (University of the Witwatersrand, 2016). The importance of upholding and improving quality in academic staffing, especially in a developing country where higher education is expected to contribute enormously to economic and social development to meet national goals, cannot be over-emphasised (Webbstock & Sehoole, 2016). Thus, it is essential to provide staff members in the higher education sector with more suitable and effective HRD interventions to meet these numbers. Whether or not universities gain a competitive advantage depends on how they train and develop their employees (Sadler & Van Jaarsveldt, 2012).

2.4.7.3 Technical and Vocational Education and Training (TVET) colleges

According to the DPME (2017), there is limited involvement by industry in the TVET curriculum and qualification design and unsustainable operationalising of TVET campuses. Moreover, there is uncertainty on the policy direction and weak data systems for TVETs making it difficult to measure efficiency and plan effectively, unequal efficiency in producing graduates through PSET, few work experience opportunities available for students in SOEs and departments, and weak articulation for students to access PSET in many ways (DPME, 2017). Going forward, the quality and efficiency of producing graduates and backing the poor to continue getting into the PSET system are likely to be a challenge (DPME, 2017). At present, CETCs are still in their early stages and do not yet offer a practical alternative for training large numbers of individuals (DHET, 2019).

2.4.7.4 National Qualifications Framework (NQF)

It is generally known that there is a lack of articulation in PSET (DHET, 2018a). For example, numerous universities do not currently take into consideration courses completed at other universities and, at times, courses within the same university are not accepted across departments and faculties (DHET, 2018a). In addition, the NQF is not comprehended by learners, organisations and many SDPs in its realm. It is also not appropriately comprehended by the workforce, specifically because employees do not essentially have access to this information (Van den Heever et al., 2021).

In mid-2013, the SAQA database had 11 615 unit standards, large numbers of which were never used and as a result, time and resources were wasted (DHET, 2018a). Furthermore, qualifications and part qualifications are replicated across the QCTO and SETAs (Van den Heever et al., 2021). Nevertheless, the NQF offers a chance to educate employees, businesses and SDPs, as the merits of the NQF offset the challenges. What is needed is to safeguard that there is accountability and to upskill providers and organisations to understand the system and use it to its entire capacity (Van den Heever et al., 2021).

2.4.7.5 Quality Council for Trades and Occupations (QCTO)

The intention for the establishment of the QCTO was that it would take on most of the quality assurance functions previously performed by the SETAs. Nevertheless, this function has continued mostly the same as previously, because it has been delegated to the SETAs by the QCTO, owing to funding limitations and problems in developing systems and processes in the QCTO (DHET, 2018a). In addition, the SDP accreditation process by the QCTO is sluggish and it can take two to three years for an SDP to get an accreditation letter that stipulates the qualifications that they can offer (Rajab et al., 2020).

According to Van den Heever et al. (2021), there is a lack of quality in education in some sectors and discrepancies in the quality of the training conducted across the

sectors; in addition, in numerous cases, the providers are not held accountable in terms of the quality. To make sure that the quality of the skills training offered by mushrooming SDPs is high, the accreditation process should be thorough and faster. Accordingly, the lack of resources by the QCTO is a serious restraint on removing previously accredited and low-quality non-accredited SDPs (Rajab et al., 2020).

2.4.7.6 Sector Education and Training Authorities (SETAs)

Findings show that although some improvements have been made in regard to the SETAs, difficulties with the day-to-day operations of the SETAs continue (DHET, 2015a). According to DHET (2015a), the challenges are as follows:

- Many SETAs do not achieve their annual goals specified in their service level agreements with the Director-General of Higher Education and Training and their minister-approved annual performance plans.
- Jointly, the SETAs have failed to distribute the levies collected; as a result, training that could have occurred has not taken place.
- The differences in application and disbursement procedures make it very difficult for organisations that are associated with several or all SETAs, especially public and private education and training providers and occupational bodies, such as professional bodies. The application and disbursement procedures of all SETAs vary on issues such as application forms, who may apply, what was funded, processing procedures, timing and methods of advertising application opportunities, the length of the process, corporate information required, payment of tranches, and monitoring and verification reporting requirements.
- Some SETAs with strategic prominence such as the Agriculture SETA have had a low income as a result of the low wages of those in the sector.
- Many organisations complain about delays in the allocation of grants.
- The governance of certain SETAs is a persistent challenge.
- The administrative costs of the system are high.

Marock (2010) identifies multiple objectives and responsibilities, complexities in terms of determining skills demand in national and sector labour markets, limitations concerning the grant system, governance and financial accountability, administration, provider support, and qualifications design and development as several concerns relating to how the SETAs fulfil their responsibilities. Van den Heever et al. (2021) found that organisations with turnovers of more than R50 million were the ones most able to maximise the SETA grant funding. Worryingly, smaller operations that can benefit immensely are not able to do, as they do not have the resources to cope with the bureaucracy and effort required to access the funds.

2.4.7.7 Community education and training (CET)

The Republic of South Africa (2020) highlights that the challenges with the CET sector include inappropriate CET college institutional infrastructure, lack of diversity of programme offerings, lack of responsiveness and inability to introduce new programmes, inadequate learning and teaching material, lack of standardisation of the conditions of service for lecturers, lack of HR capacity and lack of capacity to manage and administer CET examinations.

2.4.7.8 National Skills Development Strategy (NSDS) and the Human Resource Development Strategy for South Africa (HRDSA)

The three NSDSs have been lamented for being target focused on the wish list depicting national stakeholder requirements and balancing different interests, rather than providing a strategic focus on skills development structures and agencies (Marock, 2010). South Africa has had the HRDSA in place for years, but its relationship to the NSDS is not well articulated and departments are not held accountable for this strategy (Marock, 2010).

2.4.7.9 Challenges presented by the Covid-19 pandemic and their effect on post-school education and training (PSET)

The COVID-19 pandemic has without doubt resulted in a shake up to the world order, leading to “business unusual” in all aspects of life and livelihood (Patrick,

Abiolu & Abiolu, 2021). The PSET system in South Africa is no exception. The impact of the pandemic on education in the country, as elsewhere in the world, included learning losses resulting from the closing of education institutions, an increase in the pre-existing disparities in education and the wiping out of learning gains made over time (Soudien et al., 2022). The COVID-19 pandemic forced a shift in the traditional teaching and learning techniques to online methods (Munnik, Smith, Adams, Tucker & Human, 2021; Patrick et al., 2021). During the Level 5 lockdown that took place in March 2020, there were two conceivable platforms to continue with learning activities: online learning or self-learning (Soudien et al., 2022). About 40% of PSET students moved back home during the lockdown and 38% of TVET college students reported that their colleges offered virtual learning (DSI, 2021). The COVID-19 pandemic uncovered some of the stark inadequacies and inequalities in HEIs and the different capacities and capabilities in responding to the pandemic. The country is still confronted with the reality of the digital divide experienced by students in rural areas, who are disadvantaged when it comes to connectivity and experience other challenges of literacy, such as curriculum design and delivery structure, thus creating a certain level of inequality (Patrick et al., 2021).

Half the students reported struggling to communicate with their institutions during the lockdown, with more challenges stated by TVET students (DSI, 2021). Another challenge with online learning is that the psychological support required by human nature is eliminated in a virtual environment compared to a present and physical process of teaching and learning (Patrick et al., 2021). In addition, the traditional contact approach allows for a longer attention span for learners compared to the online method (Patrick et al., 2021).

Considering the COVID-19 pandemic, adaptations and accommodations of professional programmes, including clinical psychology, had to make educational logic and fulfil professional competency and statutory requirements (Munnik et al., 2021). In light of COVID-19 and 4IR, some of the challenges of using the Organising Framework for Occupations (OFO) (sub-framework of the NQF) within the context of the changing nature of work and the workplace are as follows (Van den Heever et al., 2021: 211):

- The OFO may not be the most suitable tool for planning skills priorities for the workplace, which is evolving profoundly and is predominantly influenced by the disruptive technologies of the 4IR. The OFO was not meant to incorporate the new types of jobs that are continuously changing, less permanent and less structured.
- The emerging jobs, especially those of employees in non-traditional, groundbreaking companies, often have fewer formal job titles; those that exist relate to innovation and creative disruption. New occupations surface, change and/or fade completely before HR departments have an opportunity to come up with job descriptions and the occupations can be listed on the OFO.
- The trouble that organisations are experiencing to match their job titles to the OFO occupations is expected to increase as occupations become more fluid. As a result, the current skills planning may be based on incomplete and inaccurate information, and the real scarce skills required for the 4IR economy may be excluded in national and sectoral skills strategies and plans.

The setting of this study, which is the South African public higher education context is discussed in the next section.

2.5 THE SOUTH AFRICAN PUBLIC HIGHER EDUCATION CONTEXT

In this section, the historical and current nature of the South African public higher education sector is deliberated, followed by training and development interventions that are provided to address the skills challenges in the sector.

2.5.1 Historic nature of the sector

During the apartheid era, the higher education system was impacted in numerous ways (Bozalek & Boughey, 2012). Public HEIs were established on the basis of race, language and ethnicity (Jansen, 2003). This resulted in distinct HEIs for whites and

blacks (Leibowitz, Bozalek, Van Schalkwyk & Winberg, 2015). Historically white institutions were research-intensive, better resourced and more autonomous, and were normally located in more well-off urban areas (Bozalek & Boughey, 2012). On the other hand, historically black institutions were less resourced, controlled by the government and were situated mostly in the former homelands (Jansen, 2003; Leibowitz et al., 2015). Not only were the isolated institutions for white and black population groups created, but the type of qualifications these discrete institutions could offer were also demarcated by apartheid views about the fields of work regarded as suitable for different social groups (Bozalek & Boughey, 2012). A historically black university was highly likely to provide public administration instead of political philosophy and nursing instead of medicine (Bozalek & Boughey, 2012).

According to Jansen (2003), participation rate estimation for the age group 20-24 revealed that African, Indian and white South African students were 12%, 39% and 47%, respectively. In addition, African students were mostly located in the education, arts and humanities, with little as 2% in accountancy, 3% of graduates in engineering and 12% in the natural sciences for the period between 1991 and 1998. In terms of employees' profile, approximately 87% of academic staff were white while Africans were only 2% in erstwhile technikons and 7% in universities in 1993 (Jansen, 2003). Therefore, there was a persistent lack of Black academic staff and, more importantly, the lingering underrepresentation of female scholars (Mabokela & Mawila, 2004). Furthermore, this inequality experienced by African students and staff in higher education persisted even beyond the dawn of the democratic government (Jansen, 2003).

2.5.2 Current settings

The current South African higher education context is relatively a complex one, still experiencing challenges such as lack of resources and personnel, and inequalities (Fomunyam & Teferra, 2017). The democratic government inherited an overabundance of post-school institutions comprising 21 universities, 15 technikons, 120 colleges of education and 150 technical colleges (Jansen, 2003). However, a lot has been accomplished with regard to addressing the inequalities resulting from the past apartheid regime (Moloi, Mkwanazi & Bojabotseha, 2014). After the first

democratic elections in 1994, a new era in policy development was initiated starting with the National Commission on Higher Education, which facilitated the enactment of the Education White Paper 3 of 1997 and the HEA of 1997 (Badat, 2009). The Education White Paper 3 of 1997 was the leading motivation for transformation in the post-apartheid era (Bozalek & Boughey, 2012; Du Preez, Simmonds & Verhoef, 2016).

The restructuring of HEIs in 2001 provided the opportunity to reconfigure the PSET system to ensure that it was appropriate for a developing democracy's needs (Moloi et al., 2014). Mergers in South African higher education continued despite extreme political resistance from various stakeholders (Jansen, 2003). The mergers of universities resulted in various categories of universities. The categories include research-intensive or traditional universities inhabiting the highest level, comprehensive universities concentrating on mass higher education, and universities of technology aiding in terms of the acquisition of technology-based qualifications (Leibowitz et al., 2015). However, the funding model adopted did not help under-resourced institutions as they still experiencing difficulties due to the inability of the poor black working class students they mainly attracted to pay tuition fees (Bozalek & Boughey, 2012). The funding formula implemented in 2004, did not favour historically black institutions as it focussed more on teaching and research output and the students these institutions were able to appeal to lacked research capacity (Bozalek & Boughey, 2012). In addition, enrolments at these institutions are mostly restricted to students from mostly poor black working-class, who are usually incapable to pay in full their tuition fees and who are often regarded as ill-prepared for higher education

According to Van Schalkwyk, Van Lill, Cloete and Bailey (2022), the rhetoric of transformation is still deep-rooted in South African higher education policy and discourse even after a quarter of a century the country changed to democracy. However, statistics demonstrate that the sector has transformed extensively. Enrolment statistics in South African public universities show that the number of black African students increased by an average rate of 3.8% from 2010 to 2019, contributing to over 80% of African students, while the number of whites and Indian or Asian students declined by 3.7% and 2.4%, respectively (DHET, 2021a). In terms

of staff complement, the White Paper on Science, Technology and Innovation of 2019 acknowledges that the involvement of black and female research academic staff has improved significantly, but their involvement at the highest levels is still insignificant (Van Schalkwyk et al., 2022).

As of March 2022, more than 1 093 300 students were enrolled at public universities across the country. This is a major increase compared to previous numbers. In 1994, there were 495,348 students enrolled which later increased to 1 036 984 enrolments in 2017 (Van Schalkwyk et al., 2022). The full-time student-to-staff ratio was fairly stable during the period 2010–2019 as it fluctuated between a low of 25.5 in 2016 and a high of 29.1 in 2019 (DHET, 2021a). Furthermore, during the same period, university academic staff with a doctoral degree increased by 12%, from 35.7% in 2010 to 47.7% in 2019. However, the fact that less than half of the university academic staff were doctoral graduates was a matter of concern (DHET, 2021a). Hence, there is a need to appoint more academics and provide enabling environment to reduce the student-to-staff ratio and increase the number of staff with doctoral degrees.

The abrupt increase in student numbers in South Africa shows a huge improvement in terms of access to higher education (Tjønneland, 2017). However, this presented various challenges as witnessed through unprecedented student revolts. Other historical challenges experienced in the South African higher education context included a varying student population with different kinds and levels of preparedness for tertiary education; innovative information and communication technologies; numerous national policies and structures as well as quality assurance requirements; the breakdown of disciplinary boundaries; and the entrance of inexperienced academic staff (Quinn, 2012). To add to this, South African rural-based HEIs encounter serious difficulties such as the inadequate use of technology assets, and students' low levels of reading, literacy, and reasoning and logic skills (Yende, 2021). More recently, challenges experienced include aspects such as continued uncertainty created by Covid-19, NSFAS funding, lack of plan for the "missing middle" students, unpaid student debts, insufficient affordable student accommodation, electrical power instability and loadshedding, social unrest and

gender-based violence and the impact of the faltering economy on higher education (Van der Merwe, 2021).

Local and global macroenvironmental factors have influenced many shifts in higher education, which have been motivated by the need for innovative change to ensure that education remains relevant and current (Bruwer, 2018). While the number of student enrolments has increased considerably in the South African higher education sector, the academic staff complement has not increased accordingly, to the extent that the student-to-staff ratio has increased over the past two decades (DHET, 2015c; Webbstock & Fisher, 2016; Webbstock & Sehoole, 2016). Furthermore, the reality is that many existing employees in the higher education sector may not be in accord with a swiftly changing student body, curriculum and context (DHET, 2015c; Quinn, 2012; Webbstock & Fisher, 2016; Webbstock & Sehoole, 2016). In addition to the highlighted challenges, the COVID-19 pandemic has certainly been one of the most devastating problems we have faced and will have a lasting impact on the higher education landscape (Teräs et al., 2020). The pandemic uncovered the inadequacies of the present higher education system and the necessity for more training of academic staff in digital technology to acclimatise them to the swiftly changing education environment (Rashid & Yadav, 2020).

The importance of upholding and enhancing quality in academic staffing, especially in a developing country where higher education is expected to contribute enormously to economic and social development to achieve national goals, cannot be over-emphasised (Webbstock & Sehoole, 2016). According to the ETDPSETA (2016), critical skills for the higher education sector are assessment, moderation, coaching, mentoring, curriculum development, statistics, facilitation, advanced research, supervision, publication curriculum development, fundraising, monitoring and evaluation, project management and records management. Interventions to assist in dealing with academic under-preparedness and to improve teaching and learning across the system have been funded since 2004 (Webbstock & Fisher, 2016). The NDP stipulates significant and measurable suggestions for the higher education sector, including the following (HRDC, 2017a: 6):

- The requisite to advance the qualifications of academic staff and to produce more than double the percentage of qualified doctoral staff in the higher education sector from 34% to over 75% by 2030.
- The necessity to intensify the participation rate at universities by at least 70% by 2030 to ensure that enrolments grow to around 1.62 million.
- The necessity to escalate the number of masters and doctoral degree candidates to ensure that by 2030 over 25% of university intakes should be at the postgraduate level.
- The necessity to develop over 100 doctoral graduates per million annually by 2030 (currently this figure stands at 34 doctoral graduates per million annually).

Since the commencement of the 4IR, technology has restructured and hugely dominated fundamental global teaching and learning methods through digital technology (Yende, 2021). The 4IR (also known as Industry 4.0) is remodelling the future of education, which enlightens our vision and makes us reflect on what knowledge and skills students should possess after completing their higher education courses, when to fast-track workforce reskilling and what are the building blocks and connections of the education supply chain (Li, 2020). More than ever, higher education in the 4IR age must develop the capacity of employees (Du Preez & Sinha, 2021; Penprase, 2018). In addition, the COVID-19 pandemic has obliged many institutions to accelerate their adoption of a new type of educational service delivery, including online courses, and interactive and remote learning (Du Preez & Sinha, 2021).

Thus, it is essential to provide more suitable and effective HRD interventions in the higher education sector to meet these numbers. The following section addresses the South African higher education context and provides a few examples of training interventions initiated by the government for skills development in the South African public higher education context. In Chapter 6, the findings regarding specific interventions that were funded by the government and provided by public universities are presented.

2.5.3 Interventions to address skills challenges in the South African public higher education context

According to Ogude, Nel and Oosthuizen (2005), the higher education sector needs to be restructured to address the needs of an increasingly technologically oriented economy, and its institutions must produce trained people, required research and knowledge to prepare a developing society to participate in a rapidly changing and competitive global context and address national needs. Universities and organisations may change an economy and the world if they are attentive, able to leverage research and development, and able to convert more meaningful haphazard occurrences into opportunities (Van Zyl, Amadi-Echendu & Bothma, 2007). Higher education plays a fundamental role in the socioeconomic advancement of any country and it is important to realise the need for knowledgeable and experienced employees capable of improving the progress rate of a society (DHET, 2017b; Uzoka & Akinyokun, 2005). Since the advent of democracy in South Africa, policies and strategies have been formulated by the government, recognising that the development of skills is a key strategic priority to meet the development needs of the country (HRDC, 2010; 2017b). This is in the realisation that the quality of the workforce in the country is a critical determinant of its capability to compete and win in the globalised economy (Tessema et al., 2015).

During the 2016/17 period, the DHET continued to reinforce its oversight of Teaching Development Grants and Research Development Grants, as well as demanding that universities develop clear targets for success and transformation obligations for undertakings supported by these two grants. The main purpose of allocating research development grants is to develop academic staff' research capacity at universities to ensure that they can contribute to postgraduate teaching and research output (DHET, 2015a). A teaching development grant is meant for enabling the carrying out of teaching and learning development interventions that will lead to an improvement in student success (DHET, 2015a). On 17 May 2018, the Minister of Higher Education, Science and Technology of South Africa announced that the DHET would increase the skills development budget for the higher education sector to R16,9 billion (Gerber, 2018). In addition, the skills levy system distributed R18,3 billion, of which a large portion was provided to the SETAs (R14,6 billion) while the

NSF received R3,7 billion during the 2019/20 financial year (DHET, 2021b). Of the R14,6 billion distributed to the SETAs, above R9 billion was used for discretionary grants, R3,7 billion for mandatory grants and R1,9 billion used to cover administration costs (DHET, 2021b).

Academic staff development in the South African higher education sector takes place on a continuum from more organised, formal activities including workshops, degree programmes and short courses, to less structured interventions established on naturally occurring apprenticeship and situated learning (Leibowitz et al., 2015). According to Boon and Fresen (2008), many academic staff training programmes offered in HEIs focus on learning and teaching, research methodology and assessment. The critical skills for the higher education sector are assessment, moderation, coaching, mentoring, curriculum development, statistics, facilitation, advanced research, supervision, curriculum development for article publication, fundraising, material development monitoring and evaluation, project management, and records management (ETDPSETA, 2016). Interventions to assist in dealing with academic under-preparedness and to improve teaching across the system have been funded since 2004 (Webbstock & Fisher, 2016). To address staff development challenges in the higher education sector, the government has enacted the University Capacity Development Programme (UCDP), which encompasses the NESP, nGAP, EACEP, SSEP and SSAU-DP (DHET, 2015c). The UCDP programme is meant to be transformative and operates at the nexus of quality, equity and success in universities (DHET, 2017c). These three aspects are viewed as non-competing necessities that all need to be taken care of simultaneously. The UCDP recommends an integrated approach to capacity development at universities and envisions empowered universities that are able to navigate the areas that divide student development, staff development and programme/curriculum development. Different funding mechanisms have been identified to ensure that the programme has an adequate budget, especially for addressing areas where there is a special need.

According to the DHET (2015c), the nGAP is envisioned to be the major programme within the Staffing South Africa's Universities Framework (SSAUF) and encompasses the employment of potential scholars as new academic staff, based on

prudently designed and balanced equity contemplations and considering the specialisation areas of greatest need. The dominant characteristics of the programme are that qualifying individuals are permanently employed, taking into consideration long-term staffing plans from the start, and contracts are in place that stipulate the obligations, responsibilities, expectations and roles of both the academic staff and the hosting university (DHET, 2015c).

Apart from the inevitable mobility of staff, this is a progressive development that represents an investment for the future and will benefit the higher education sector in South Africa in terms of capacity (CHE, 2022). The rationale behind staff development in the higher education sector is to further the interests of both the individual employee and the higher education institution concerned (Botha, 2009). This proves that the government is proactive in alleviating the skills development challenges experienced in the higher education sector. The next section provides a summary of the chapter.

2.6 CHAPTER SUMMARY

This chapter started by conceptualising the term “skills development”. This was followed by a discussion of skills development in the international context. The chapter then addressed the South African skills development legislative and policy framework. Skills development initiatives formulated and implemented to address skills challenges in the South African higher education context were also highlighted.

To ensure that training interventions are carried out and are successful, there is a need to implement evaluation strategies. Consequently, the following chapter (Chapter 3) discusses different models of training evaluation.

CHAPTER 3: MODELS OF HRD EVALUATION

3.1. INTRODUCTION

This chapter starts by defining training evaluation. Of importance in defining training evaluation is the difference between assessment and evaluation, training evaluation, training effectiveness, types of evaluation, and the purpose and principles of evaluation. This is followed by sections discussing the methods used for training evaluation. Various authors have proposed models of HRD evaluation that have been adopted in the training evaluation phase. These training evaluation models are discussed followed by the benefits of training evaluation and the factors hindering training evaluation. The chapter ends with a summary.

3.2. DEFINING TRAINING EVALUATION

Effective training is considered one of the vital factors in determining an organisation's efficiency (Lee et al., 2017; Sahoo & Mishra, 2017; Tessema et al., 2015). However, training, like any other activity in an organisation, requires time, energy and money (Perez-Soltero et al., 2019; Surbhi, 2015). This is exacerbated by the research findings, which show that regardless of the billions and employee hours dedicated to education and training programmes, there is inadequate proof that the knowledge and skills gained during these programmes are transferred to the work environment (Bai et al., 2018; Sadik, 2019). Hence, it is important to conduct a training evaluation in an organisation to know whether the investment is being spent effectively or not and whether individuals have benefited from training and development (Erasmus, Loedolff et al., 2019; Mehale, Govender & Mabaso, 2021; Tasca, Ensslin, Ensslin & Alves, 2010). Yet, the evaluation of training is arguably the most ambiguous stage in training practice (Mdhlalose, 2020).

Training evaluation has been deliberated in the academic literature since the 1950s, resulting in different training evaluation tools and models being developed (Kucherov & Manokhina, 2017). This phase completes the training and development cycle (Erasmus, Loedolff et al., 2019) and refers to all efforts taken to find feedback on the

impact of a training programme and to assess the value of the training using the collected information (Alsalmah & Callinan, 2021; Lee et al., 2017; Sadik, 2019). Training evaluation is a systematic process of gathering information aimed to establish the effectiveness and efficiency of training programmes and making decisions about training (Arora & Talwar, 2019; Ndimande, Chisoro & Karodia, 2016; Kunene, 2017; Rao & Kumar, 2017; Saks & Burke, 2012). Evaluation of training effectiveness measures the improvement in the knowledge, skills and behaviour of employees in the workplace resulting from a training programme (Farjad, 2012; Kunche, Puli, Guniganti & Puli, 2011; Mehale et al., 2021; Perez-Soltero et al., 2019). The measurement assists in comparing the cost sustained in the development and implementation of training with the related benefits (Sahoo & Mishra, 2017). Therefore, it specifies whether the programme has been able to meet its envisioned goals and objectives (Anh, 2018; Saad & Mat, 2013; Saks & Burke, 2012).

It is critical to improve the effectiveness of training in order to achieve the best use of training funds and receive maximum value from the investment in training (Bai et al., 2018). Evaluation of training programmes could assist to enhance training quality in terms of selecting the most efficient and rejecting the inefficient programmes (Kucherov & Manokhina, 2017; Sadik, 2019). Such decisions are especially important in the current economic conditions where companies are forced to cut their training budgets (Kucherov & Manokhina, 2017; Sadik, 2019). Owing to the seriousness of the skills shortage in Africa, combined with a plethora of training interventions, it is important to evaluate training programmes appropriately (Rosholm, Nielsen & Dabalen, 2007). The evaluation phase of the training cycle is the most problematic because organisations generally pay little attention to evaluating the effectiveness of the training programmes (Medina et al., 2015; Sahoo & Mishra, 2017). The following subsection differentiates between assessment and evaluation, evaluation and effectiveness, and types of evaluation, and concludes with the purposes of evaluation, as these are very important aspects of training evaluation.

3.2.1 Assessment versus evaluation

Assessment refers to measuring how well someone can perform an activity or demonstrate knowledge using different methods, usually against pre-set criteria (Erasmus, Loedolff et al., 2019). On the other hand, evaluation refers to the systematic gathering of descriptive assessment information required to reach the effective training and development decisions associated with the selection, implementation, significance and revision of various training activities (Erasmus, Loedolff et al., 2019).

3.2.2 Training evaluation versus training effectiveness

According to Alvarez, Salas and Garofano (2004), training evaluation and training effectiveness are commonly used interchangeably; yet, they are two different constructs. These two variables differ in the following manner (Alvarez et al., 2004: 388–389):

- Training evaluation is a methodological approach for assessing learning outcomes, while training effectiveness is a theoretical approach for understanding those outcomes.
- Training evaluation concentrates only on learning outcomes, thus offering a micro view of training results, whereas training effectiveness concentrates on the complete learning system, thus offering a macro view of training outcomes.
- Training evaluation aims to determine the benefits of training for individuals in terms of learning and improved workplace performance, while effectiveness aims to assist the organisation to understand why individuals learnt or did not learn.
- Lastly, evaluation results highlight the outcomes of the training intervention, while effectiveness findings provide information regarding why those results occurred in order to help experts with developing recommendations for refining training.

Training effectiveness can be affected by several factors such as the input into training activities, which includes the trainee's characteristics (motivation, valence,

learning style, skills, knowledge and abilities), training programme (instructor's effectiveness, training content and training methods) and organisational characteristics (organisational support and learning culture) (Siengthai, 2015). According to Tessema et al. (2015: 30–31), training effectiveness is critically influenced by the

- existence of well-written and operational training policies
- continuity of training needs assessment
- connection of HRD programmes with other HR programmes and policies, and the objectives and strategy of the organisation
- existence of written and acceptable trainee selection processes
- capacity to finance HRD programmes
- conduciveness of the working environment
- commitment of policymakers and top management to HRD
- continuity of the monitoring and evaluation of HRD programmes.

Therefore, training evaluations form part of training effectiveness, as these encompass the entire training system and environment where training takes place. The following section discusses different types of training evaluation.

3.2.3 Types of evaluation

There are various types of training evaluation that practitioners can implement to determine the effectiveness of the training interventions. Formative, summative, post-instruction and other types of training evaluation are discussed below.

3.2.3.1 Formative evaluation

Formative evaluation focuses on the decisions made during the design and development phase (Erasmus, Loedolff et al., 2019; McIntosh, Higgs, Mumford, Connelly & DuBois, 2018; Sadik, 2019). It evaluates the training activities while learning is happening and the procedures are ongoing (Iqbal, Maharvi, Malik & Khan, 2011). According to Erasmus, Loedolff et al. (2019), formative evaluation is

undertaken during the design of instruction to identify strengths and weaknesses. The process is continual in that the instruction is applied again after the prescribed revision and the assessments made, including those based on actual performance data collected from participants who have completed the instruction (Erasmus, Loedolff et al., 2019). Formative evaluation can be done using individual, small-group, field and expert-testing methods (Erasmus, Loedolff et al., 2019) and it assesses the learning materials, the trainee's learning, success and the trainer's competency (Iqbal et al., 2011).

3.2.3.2 Summative evaluation

Summative evaluation determines how trainees' knowledge ans skills have changed because of taking part in a training programme (McIntosh et al., 2018) and focuses mainly on searching for the impact and direct effects linked to knowledge transfer (Perez-Soltero et al., 2019; Sadik, 2019). It occurs immediately after training and development interventions have been presented and is structured formally to ensure that every trainee goes through an examination (Erasmus, Loedolff et al., 2019). The evaluation covers aspects such as training impact, learning, training results, cost-benefit ratio and the effectiveness of the resources used (Perez-Soltero et al., 2019).

3.2.3.3 Post-instruction evaluation

Post-instruction evaluation is conducted after the training and development programme has been delivered (Erasmus, Loedolff et al., 2019). According to Kunene (2017), the post-instruction evaluation of training offers valuable feedback to the training professional and management to assist them in making fitting and effective decisions regarding subsequent programmes.

3.2.3.4 Other types of training evaluation

According to Perez-Soltero et al. (2019: 12), other types of evaluation include the following:

- Confirmative – seeks to confirm the acquisition of knowledge, skills, or competence by the trainee and his or her implementation of them.
- Meta-evaluative – seeks answers about the methods, validity and acceptability of the evaluation.
- Goal-based – evaluates the ability of the programme to achieve established goals.
- Process-based – evaluates the training process and allows for understanding the operation of this process, especially if it has changed over time.
- Outcomes-based evaluation – evaluates the results of training and is used when sponsors need to decide whether to continue or not with the training programme.

The types of training evaluation can be classified in various ways including the purpose of evaluation, the timing of application and the methods used. The following section discusses the purpose of training evaluation.

3.2.4 Purpose of training evaluation

Training evaluation is conducted for various reasons. The five main purposes of training evaluation include the following:

- *Feedback.* Training evaluation assists in giving feedback to the trainees by defining the objectives and connecting them to their learning outcomes and performance (Erasmus, Loedolff et al., 2019; Kunche et al., 2011: Topno, 2012).
- *Research*. This assists in establishing the relationship between acquired knowledge, the transfer of knowledge in the workplace and training (Kunche et al., 2011: Topno, 2012). It provides conclusive proof that demonstrates that something has happened because of the training and development activities (Erasmus, Loedolff et al., 2019).
- *Control programme*. This assists in controlling the training programme, as it can be decided upfront whether the training is effective or not (Kunche

et al., 2011; Sadik, 2019; Topno, 2012). Training evaluation is used to assist and reinforce individual learning, as well as maximise the transfer of learning to behaviour and the consequent organisational results (Erasmus, Loedolff et al., 2019).

- *Power games*. Top management can use evaluative data for their own benefit (Kunche et al., 2011; Topno, 2012).
- *Intervention*. This assists in finding out whether the actual outcomes are similar to the expected outcomes (Kunche et al., 2011; Topno, 2012). This will help to ensure improvement in both current and future programmes and activities.

The three major reasons for evaluating training programmes are to advance the programme, maximise the transfer of learning to behaviour and consequent organisational results and show the value of training to the organisation (Kirkpatrick & Kirkpatrick, 2019).

3.2.5 Principles of training evaluation

The training evaluation process should be based on the following sound principles (Erasmus, Loedolff et al., 2019: 225):

- The evaluation of training is an ongoing process, and not something that happens only after the training has been completed.
- Training evaluation must be thoroughly planned and objectives must be stipulated clearly from the outset.
- Precise and relevant measuring instruments must be used to obtain information that can assist with decision-making.
- Training evaluation should be used as a form of quality control.
- Training evaluation focuses on the assessment of training attendees and the broader training and development system at the same time.

To accomplish the purpose of training evaluation, organisations should at all times strive to apply all these principles. The following section discusses the methods that are used to evaluate training programmes in different organisations.

3.3. METHODS USED FOR TRAINING EVALUATION

Specific data collection methods are required, depending on the chosen training evaluation model, the objectives, and the resources available (Kucherov & Manokhina, 2017). In this section, the methods for training evaluation, including surveys, questionnaires, tests, interviews, observation, oral presentations, simulation, action plans, indicators, focus groups and performance contracts are discussed.

3.3.1 Surveys

Surveys are administered to establish the extent to which participants are happy about the programme, have acquired skills and knowledge, and have applied different elements of the programme (Phillips, Phillips & Schell, 2015; Roulstone & Phillips, 2008). This is suitable for collecting data at Levels 1, 2, and 3 of the typical Kirkpatrick model (Roulstone & Phillips, 2008).

3.3.2 Questionnaires

According to Erasmus, Loedolff et al. (2019), questionnaires are easily constructed and administered to collect information on the reaction of trainees. A questionnaire is possibly the most popular tool in training evaluation and is used to collect information from trainees on their perspectives, self-beliefs and opinions (Perez-Soltero et al., 2019). Questionnaires are typically more detailed than surveys and can be applied to gather a wide range of data at Levels 1 to 4 (Roulstone & Phillips, 2008).

3.3.3 Tests

Tests or examinations are aimed at assessing an individual's level of knowledge and understanding, as well as their ability to interpret facts and analyse the relationship between them (Erasmus, Loedolff et al., 2019; Perez-Soltero et al., 2019; Phillips et al., 2015). Examples of tests include essays, short answers, structured answers, matching items, case studies and multiple-choice questions (Erasmus, Loedolff et al., 2019). Other examples include criterion-referenced tests, performance tests, simulations and skills practices (Roulstone & Phillips, 2008).

3.3.4 Interviews

Interviews refer to structured or semi-structured processes conducted to determine an individual's understanding and application of knowledge and skills (Erasmus, Leodolff et al., 2019; Roulstone & Phillips, 2008). They are used to obtain information in a more personal way (Perez-Soltero et al., 2019). According to Roulstone and Phillips (2008), interviews permit probing to uncover specific applications and are usually suitable for gathering data at Levels 1, 2 and 3.

3.3.5 Observation

Observation is a process that is undertaken to observe an individual while he or she performs a certain task (Erasmus, Loedolff et al., 2019; Phillips et al., 2015). Observation can be conducted by recording judgements of performance against checklists, logbooks, or a diary (Erasmus, Loedolff et al., 2019; Perez-Soltero et al., 2019). This tool is only appropriate for gathering data at Level 3 (Roulstone & Phillips, 2008).

3.3.6 Oral presentation

An oral presentation entails giving a candidate a topic and time to research and rehearse to report on a project (Erasmus, Loedolff et al., 2019).

3.3.7 Simulations

A simulation is a process undertaken to imitate a real-life situation that may include work-based projects, role-play and simulators (Erasmus, Loedolff et al., 2019).

3.3.8 Action plans and project assignments

When using this technique, individuals or a group normally completes a project. The method is unique in terms of its outcomes, parameters and criteria (Erasmus, Loedolff et al., 2019). Examples of a project include a report, portfolio, poster, computer programme, model and dissertation (Erasmus, Loedolff et al., 2019). Action plans may be used to collect Level 3 and 4 data (Roulstone & Phillips, 2008).

3.3.9 Comparison of indicators

A comparison of indicators involves identifying and comparing applicable indicators that can be used as evidence or proof of the impact of training (Perez-Soltero et al., 2019). This also applies to business performance monitoring, which is useful for examining different performance records and operational data (Roulstone & Phillips, 2008). Performance records, including business and individual indicators, are used for evaluating the level of behaviour and the level of results in Kirkpatrick's model, Tyler's objective approach and the other models concerning the outcome component (Kucherov & Manokhina, 2017).

3.3.10 Focus groups

Focus groups are traditionally organised as in-person discussions of a certain topic with 6 to 8 participants and led by an in-person moderator (Dos Santos Marques et al., 2020). Focus groups are undertaken to establish the extent to which participants have applied the knowledge and skills to their workplace. This method is only used to collect Level 3 data (Roulstone & Phillips, 2008).

3.3.11 Performance contracts

Performance contracts explain particular outcomes that are anticipated from the programme (Phillips et al., 2015). This is valuable when different performance

contracts and operational data are studied to determine improvement. They are used to collect Level 4 data (Roulstone & Phillips, 2008).

To conclude this section, according to Kucherov and Manokhina (2017), the common methods for evaluation that are used in most organisations include tests, interviews, questionnaires, focus group discussions, observations and performance records. Interviews, questionnaires and focus groups are used for measuring the level of reaction in Kirkpatrick, Context, Input, Reaction, Outcome (CIRO) models, as well as Brinkerhoff's Success Case Method (SCM) (Kucherov & Manokhina, 2017). In Kirkpatrick's model, pre- and post-training tests are applied to measure the level of learning, whereas, in the Context, Input, Process, Product (CIPP), CIRO models and SCM, observations are used for examining the context (Kucherov & Manokhina, 2017). The following section discusses various models of training evaluation.

3.4. MODELS OF TRAINING EVALUATION

Training evaluation models have been developed by several authors (Botek, 2018; DeSilets, 2009; Devarakonda, 2019; Pieters & Kapenda, 2017; Pineda-Herrero, Belvis, Moreno, Duran-Bellonch & Ucar, 2011; Sahoo & Mishra, 2017; Warju, 2016). These models provide a set of means to design evaluations and implement them in specific circumstances, consequently empowering the evaluators to conduct more meaningful evaluations (Joseph-Richard & McCray, 2022). Perez-Soltero et al. (2019) identified 35 methodologies for training evaluation, each one of them with its own purposes and set of techniques. According to Kucherov and Manokhina (2017), the models of training evaluation can be grouped into hierarchical and contextual approaches based on the philosophical approach adopted. Hierarchical models such as Kirkpatrick's model, Phillip's ROI model and Brinkerhoff's SCM are mainly focused on the training outcomes for the organisation, while contextual models such as the CIPP, CIRO models and Tyler's objective approach take into consideration a broader situational or environmental perspective (Kucherov & Manokhina, 2017; Mulhall, 2015).

The most frequently used model to evaluate training is the four-level model of Kirkpatrick (Bennington & Laffoley, 2012; Han & Boulay, 2013; Jasson & Govender, 2017; Payumo et al., 2019; Perez-Soltero et al., 2019; Siengthai, 2015). With all training evaluation models, specific data collection techniques are required depending on the objectives and the resources available. Some of the prominent training evaluation models are discussed below.

3.4.1 Tyler's objective model

Research traced back the idea of training evaluation to the work of Tyler in 1950, titled *Basic principles of curriculum and instruction*, for whom evaluation was an integral part of the educational process (Tasca et al., 2010; Wraga, 2017). However, Tyler's groundbreaking work on testing and evaluation started in 1929 while he was working for the Bureau of Educational Research and Service at Ohio State University (Madaus, 2004; Wraga, 2017). As cited in Tasca et al. (2010), Tyler (1950) suggested that the educational process should involve three key fundamentals, namely, objectives, learning experiences and evaluation (evaluation of procedures). This model is based on the idea that there is often a lack of a clearly defined objective in training programmes (Kucherov & Manokhina, 2017). Tyler held that constant course enhancement required the ongoing evaluation of student advancement regarding the achievement of the objectives of education (Madaus, 2004). In this context, the evaluation played a critical role in improving training and was regarded as the evaluation of trainees' performance in terms of the objectives of the programme (Tasca et al., 2010). The model comprises seven steps, including establishing goals and objectives, classifying them, defining objectives in behaviour terms, finding situations in which the achievement of objectives is shown, developing measurement techniques, collecting data and comparing it to the initial objective (Kucherov & Manokhina, 2017). Tyler's foundation has received extensive attention as an applied approach to curriculum development, not only in the US but universally, including having been converted into at least six languages over the decades (Wraga, 2017).

3.4.2 Kirkpatrick's four-level training evaluation model

Donald Kirkpatrick introduced the four-level training evaluation model in 1959 (Jasson & Govender, 2017; Kirkpatrick & Kirkpatrick, 2009; Olexová, 2018; Phillips & Phillips, 2008; Reio, Rocco, Smith & Chang, 2017). At first, HRD practitioners struggled with the concept of evaluation when the four levels of the evaluation were introduced, because there was no shared language or easy way to communicate the meaning of evaluation and how to accomplish it (Reio et al., 2017). The model has been widely criticised by reviewers, but its support has grown over the years to become one of the most extensively acknowledged and dominant models (Alvarez et al., 2004; Botek, 2018; Erasmus, Loedolff et al., 2019; Olexová, 2018; Reio et al., 2017; Sachdeva, 2014; Sahoo & Mishra, 2017; Topno, 2012). The main aim of the four levels of evaluation is to demonstrate the business value and worth of training (Kirkpatrick & Kirkpatrick, 2009). The strongest dimension of the Kirkpatrick evaluation approach is its emphasis on the behavioural results of the participants involved in the training (Topno, 2012).

3.4.2.1 Levels of evaluation

Kirkpatrick's model arranges the possible results of training in a four-level taxonomy, namely, reaction, learning, behaviour and results (Botek, 2018; Erasmus, Loedolff et al., 2019; DeSilets, 2009; Farjad, 2012; Kirkpatrick & Kirkpatrick, 2009; Opperman et al., 2016; Rao & Kumar, 2017; Reio et al., 2017). The four levels provide a classification or scale of complexity ranging from individual to organisational performance (Reio et al., 2017). Progressing from one level to the next, the evaluation process gradually becomes more demanding, but it also delivers additional valuable information (Reio et al., 2017). Figure 3.1 depicts the levels of training evaluation.

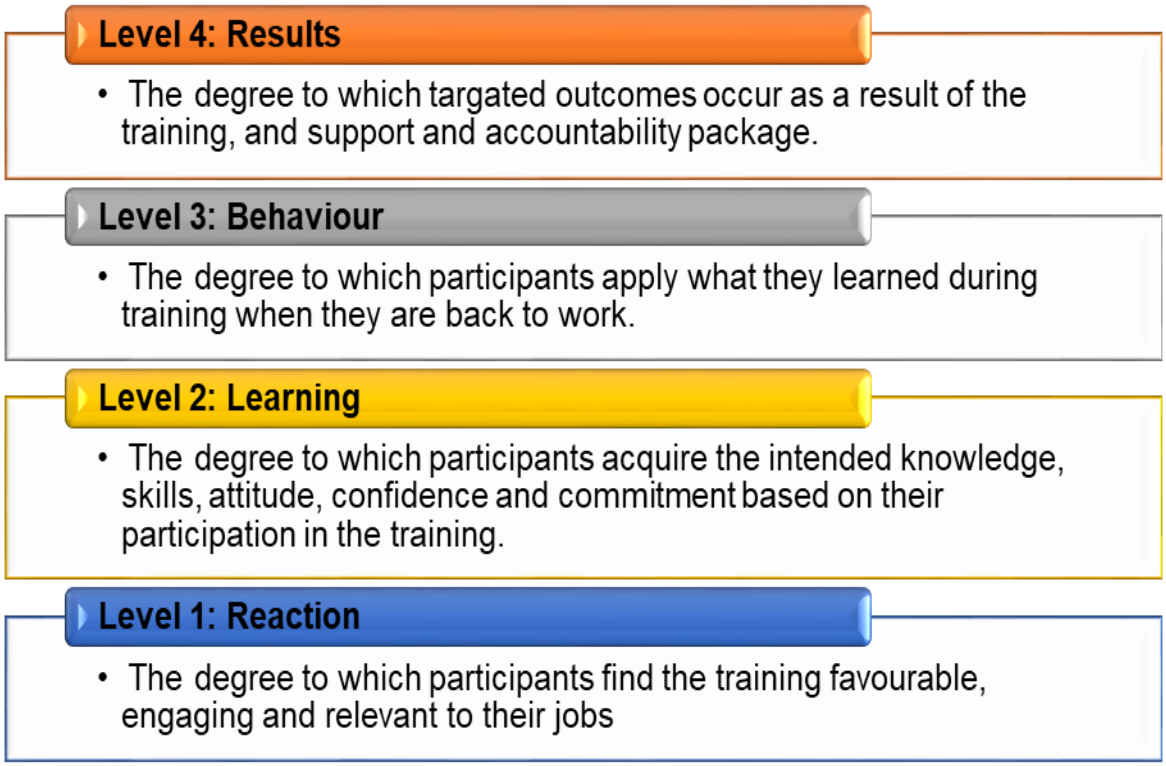

Figure 3.1: The Kirkpatrick model of evaluation

Source: Adapted from Kirkpatrick and Kirkpatrick (2019: 4)

In the previous version of the model depicted in Figure 3.1, the levels started at 1 and went up to 4. Kirkpatrick and Kirkpatrick (2019) proposed that these levels should start from 4, not 1, because successful training professionals should organise their work in terms of planning, implementing and evaluating training programmes. These levels are now discussed.

3.4.2.1.1 Level 1: Reaction

The most common level of evaluation is the reaction level (Giangreco, Sebastiano & Peccei, 2009; Iqbal et al., 2011; McIntosh et al., 2018; Sadik, 2019). This level evaluates the learner's perception of the training (Erasmus, Loedolff et al., 2019; Grant, 2012; Han & Boulay, 2013; Kirkpatrick & Kirkpatrick, 2009; 2019; Opperman et al., 2016; Payumo et al., 2019; Sahoo & Mishra, 2017), and focuses on the thoughts and feelings about the programme, the moderator, the content and the venue (Bennington & Laffoley, 2012). This is vital because positive reactions to a training programme may motivate employees to enrol for other programmes in the

future, while negative reactions may lead to a lack of motivation from trainees to attend and complete the programme (Reio et al., 2017). Reaction is measured immediately after the programme and involves two general approaches, i.e. formative (internal) and summative evaluation (external) evaluation (Topno, 2012). Formative evaluation uses findings to modify the training programme and redesign the course material, content and pedagogy (Giangreco et al., 2009). Summative data is used to establish the value, effectiveness, or efficiency of a training programme and to assist with decision-making regarding programme continuation, termination, expansion, modification or adoption (Topno, 2012).

Level 1 evaluation should include the measurement of reaction of participants or attitudes concerning particular components of the programme, for example, the topics, content, methodology and instructor, in addition to the reactions to the overall programme (Giangreco et al., 2009; Topno, 2012). Research shows that positive training experiences may well have an advantageous influence on various significant employee attitudes and behaviour such as improved organisational commitment, job motivation and perceived organisational support (Giangreco et al., 2009). The evaluation methods and methods proposed by scholars to measure reaction include:

- Surveys (Devarakonda, 2019; Roulstone & Phillips, 2008; Sadler & Van Jaarsveldt, 2012; Teixeira & Pereira, 2015)
- Open-ended questions (DeSilets, 2009; Devarakonda, 2019; Teixeira & Pereira, 2015)
- Debriefing exercises (DeSilets, 2009)
- Happy sheets (Sadik, 2019; Topno, 2012) or smiley sheets (Bennington & Laffoley, 2012)
- Verbal reaction, which can be noted and analysed (Topno, 2012)
- Feedback forms focused on subjective reactions related to the training experiences (Topno, 2012)
- Post-training questionnaires or surveys (DeSilets, 2009. Opperman et al., 2016; Topno, 2012; Roulstone & Phillips, 2008)
- Verbal or written reports to managers by delegates (Topno, 2012).

- Online evaluation or grading by delegates (Sadler & Van Jaarsveldt, 2012; Topno, 2012)

Reaction level evaluation is not without challenges. In the study conducted by Ndimande et al., (2016), it was found that the reaction technique that was used to evaluate training deprived trainees of the opportunity to express their feelings and management to effectively manage trainees. Participant feedback forms (also known as smiley sheets) administered immediately after a learning programme are no longer adequate, and HR professionals should be persuaded to find more concrete evidence to rationalise the investment in their programmes (Bennington & Laffoley, 2012). According to Sadik (2019), training will remain little more than entertainment if trainee satisfaction is the key element of evaluation. New accountability mechanisms need to be developed for training to contribute to organisational results (Sadik, 2019). After measuring the reactions, evaluators need to go a step further and measure whether learning has occurred. This brings us to the next level of evaluation.

3.4.2.1.2 Level 2: Learning

Learning can be described as both a process and an outcome that results in a noticeable and enduring modification of knowledge or behaviour (Botma, Van Rensburg, Heyns & Coetzee, 2013). The immediate anticipated outcome of training is that trainees are more proficient after training compared to before, meaning that they have acquired the knowledge, skills and attitudes needed to perform the job they were hired to do (Nemec, 2018). Evaluation at this level aims to distinguish between what participants knew before training and what they learnt during the training programme (DeSilets, 2009; Han & Boulay, 2013; Reio et al., 2017; Opperman et al., 2016; Payumo et al., 2019). The learning evaluation focuses on evaluating the content covered in the training and is linked to the learning outcomes (Sahoo & Mishra, 2017). Learning outcomes cover changes in knowledge, skills or attitudes: some training programmes focus on knowledge, some on skills or attitudes, while others focus more on multiple learning outcomes (Erasmus, Loedolff et al., 2019; Topno, 2012). The evaluation should include a pre-test to be conducted before and a post-test conducted after presenting the training. However, the process

is sometimes time consuming and can be inconsistent (Topno, 2012). Methods that are used in evaluating the learning level include:

- Assessments (Opperman et al., 2016; Teixeira & Pereira, 2015; Topno, 2012)
- Tests (DeSilets, 2009; Devarakonda, 2019; Opperman et al., 2016; Roulstone & Phillips, 2008; Sadler & Van Jaarsveldt, 2012; Teixeira & Pereira, 2015; Topno, 2012)
- Role-play (Teixeira & Pereira, 2015)
- Interviews (Roulstone & Phillips, 2008; Sadler & Van Jaarsveldt, 2012; Topno, 2012)
- Audience response systems (DeSilets, 2009)
- Case studies (DeSilets, 2009)
- Discussions (DeSilets, 2009)
- Skill assessments (DeSilets, 2009)
- Observations (Opperman et al., 2016; Roulstone & Phillips, 2008; Sadler & Van Jaarsveldt, 2012; Topno, 2012)

Training evaluators should choose the most appropriate and feasible tool or a combination of techniques to assess the level of learning. However, learning alone does not guarantee that the newly gained knowledge, skills and attitudes will be transferred to the workplace. Hence, it is important to go one step further and evaluate behaviour.

3.4.2.1.3 Level 3: Behaviour

According to DeSilets (2009), the link between learning and behaviour can be made with evaluation at this level. Tangible signs of actual learning are only visible when the performance of the learnt tasks or actions is transferred to new tasks and environments (Botma et al., 2013). Behaviour evaluation measures the extent to which the trainees apply the learning and change their behaviour (Erasmus, Loedolff et al., 2019; Grant, 2012; Han & Boulay, 2013; Kirkpatrick & Kirkpatrick, 2019; Opperman et al., 2016; Payumo et al., 2019; Rao & Kumar, 2017; Saks & Burke,

2012). The focus is on investigating the extent to which the knowledge transfer has taken place in the job behaviour or job performance of the trainees (Reio et al., 2017; Sahoo & Mishra, 2017). This can be evaluated instantly or a few months after the training subject to the circumstances (Topno, 2012). The focus should be on a few specific actions (critical behaviour), which, if performed steadily on the job, will result in more influence on the desired results (Kirkpatrick & Kirkpatrick, 2019). Kirkpatrick and Kirkpatrick (2019) further highlight that this level depends on the required drivers. These are processes and systems that strengthen, monitor, inspire and reward the performance of critical behaviour such as recognition, coaching, job aids, pay-for-performance systems and work review (Kirkpatrick & Kirkpatrick, 2019).

Effective transfer of learning to the workplace is a very serious concern for organisations, as training has no value until and unless the trainees apply the new knowledge, skills and attitudes to their job (Kirkpatrick & Kirkpatrick, 2019; Sahoo & Mishra, 2017). Transfer of training refers to actions taken by trainees to eliminate the gap between training and performance (Lee et al., 2017). It is the application of knowledge, skills and attitudes gained in the course of training to the work environment and the consequent maintenance of these over the long run (Bai et al., 2018; Botma et al., 2013; Eid & Quinn, 2017; Lee et al., 2017; Pineda-Herrero et al., 2011; Saks & Burke, 2012). According to Saks and Burke (2012), the transfer of learning is a big challenge for organisations as it means that employees are not improving their behaviour and performance after attending costly training programmes. If training investments are to benefit organisations, trainees must apply what they learn during training in the workplace (Bai et al., 2018; Saks & Burke, 2012). According to Pineda-Herrero et al. (2011), only 50% of what is learnt is transferred to the workplace. Another estimation suggests that employees transfer less than 10% of training and development costs back to their job (Bai et al., 2018; Jasson & Govender, 2017). This shows that training turns out to be somehow less significant than intended. Unfortunately, the transfer component does not receive as much attention during training evaluation because most organisations are found to be more concerned about the reaction component (Giangreco et al., 2009).

Studies have differentiated three groups of elements that have an impact on training transfer in the workplace: (1) trainee characteristics, (2) training programme-related

factors, and (3) organisational factors (Eid & Quinn, 2017). Transfer of training is conventionally regarded as a function of three factors: trainee characteristics (ability, motivation and personality); training design (principle of learning, training content and sequencing); and work environment (support and opportunity to apply knowledge) (Bai et al., 2018). Training and development is usually just one aspect influencing performance: education, changes in the physical environment, reminder systems, unit culture, and being held accountable by leadership can also influence performance (Opperman et al., 2016).

Pidd (2004) undertook to evaluate the transfer of training in a training programme and found that the personal characteristics of the trainees and the social support given in the workplace support the application of training. Motivation to transfer as one of the personal characteristics is a pre-condition for the actual transfer of training (Sahoo & Mishra, 2017). As cited in Pineda-Herrero et al. (2011: 327), motivation and self-efficacy and transfer opportunities on the job are key transfer factors that are present in the trainees' workplace and are more intense in those situations in which transfer is higher. Furthermore, the working conditions and the support for the process of application of the acquired learning play a key role in transfer training.

This level is more difficult than reaction and learning evaluation levels because measuring behavioural changes in the workplace is challenging, as people change differently at different times (Topno, 2012). The following methods are usually used to assess change in the behaviour of participants, specifically focusing on its relevance and sustainability:

- Observation (DeSilets, 2009; Opperman et al., 2016; Rao & Kumar, 2017; Roulstone & Phillips, 2008; Teixeira & Pereira, 2015; Topno, 2012)
- Interview (Opperman et al., 2016; Rao & Kumar, 2017; Teixeira & Pereira, 2015; Topno, 2012)
- Chart audits (DeSilets, 2009; Opperman et al., 2016; Topno, 2012)
- The trainees' opinion in the form of self-assessment (DeSilets 2009; Opperman et al., 2016; Sadler & Van Jaarsveldt, 2012; Topno, 2012)
- 360-degree feedback (Sadler & Van Jaarsveldt, 2012; Topno, 2012)

- Peer assessment (Devarakonda, 2019)
- Feedback from managers (Devarakonda, 2019; Rao & Kumar, 2017)

Generally, there is an assumption that when employees transfer their newly gained knowledge, skills and attitudes to the workplace, organisational performance will improve. However, this is not always the case; therefore, the results should be evaluated. This brings us to the next level of training evaluation.

3.4.2.1.4 Level 4: Results

Research has identified the fourth level as the most important and challenging level to assess (DeSilets, 2009; Giangreco et al., 2009; Kirkpatrick & Kirkpatrick, 2019; Reio et al., 2017). Result-level evaluation focuses on the impact that training programmes have on the organisation as a whole (DeSilets, 2009; Devarakonda, 2019; Erasmus, Loedolff et al., 2019; Grant, 2012; Han & Boulay, 2013; Olexová, 2018; Opperman et al., 2016; Payumo et al., 2019; Reio et al., 2017; Sahoo & Mishra, 2017; Teixeira & Pereira, 2015), and on outcomes that most people would regard as good for the business, either changes in financial results or factors that have a reliable direct effect on future financial outcomes (Topno, 2012). According to Topno (2012), the objective is to assess the cost and benefits of a training programme in the form of organisational impact such as higher productivity, reduced costs, improved quality of work, higher work morale, fewer accidents, improved human relations, reduction in turnover, increased sales, fewer grievances, lower absenteeism and greater job satisfaction.

The results may include cost savings, an assessment of productivity gains, error deductions, or increased customer satisfaction (Sadler & Van Jaarsveldt, 2012; Teixeira & Pereira, 2015). The metrics that can be used to evaluate the results of a training programme include the employee engagement survey scores, average change in performance appraisal ratings over time, customer satisfaction ratings, turnover rates, productivity rates over time, percentage of promotions and retention rates (Bennington & Laffoley; 2012). Kirkpatrick and Kirkpatrick (2019) highlight that mutual leading indicators include market share, customer satisfaction, cost

containment, sales volume, quality and employee engagement. Although leading indicators are significant measurements, they must be complemented by a focus on the highest-level result such as maintaining profitability, keeping employees reasonably happy and complying with laws and regulations (Kirkpatrick & Kirkpatrick, 2019).

According to Kirkpatrick and Kirkpatrick (2019), misuse of this level happens when functional departments or professionals limit the results to their small, individual areas of the organisation rather than to the entire organisation. This constructs silos and specialisations that are counterproductive to organisational effectiveness (Kirkpatrick & Kirkpatrick, 2019). The resulting misalignment causes layer upon layer of dysfunction and waste. The difficulty is encountered on this level when deciding the trainee's degree of accountability and relevance at the beginning of the training, as the trainee must understand what is to be evaluated (Sadler & Van Jaarsveldt, 2012). Furthermore, collecting, organising and analysing information at this level is very demanding, tedious and more costly compared to the other three levels; however, the results are relatively valuable to the organisation (Topno, 2012). It usually takes a while to notice real changes in outcomes resulting from training (Opperman et al., 2016).

Implementing Kirkpatrick's four-level evaluation model provides convincing evidence for the value relationship between the training and the financial bottom line of the organisation (DeSilets, 2009; Kirkpatrick & Kirkpatrick, 2007). However, studies show that most organisations do not achieve the four levels that the Kirkpatrick model refers to (Perez-Soltero et al., 2019). Kirkpatrick and Kirkpatrick (2019) recommend that HRD practitioners should set themselves apart from the mass by implementing the four levels upside down; begin every project by first bearing in mind the leading indicators to be influenced, and clarify how this will contribute to the results of the organisation (Level 4). Then, consider what needs to occur on the job to produce good results (Level 3), the training or other support required for workers to perform well on the job (Level 2) and the type of training that will be advantageous to convey the required skills successfully (Level 1) (Kirkpatrick & Kirkpatrick, 2019). Kirkpatrick and Kirkpatrick (2009) expanded the emphasis of the four levels model to also include collective efforts to identify the return on expectation (ROE) for

stakeholders. The ROE outcome indicators provide a holistic approach and focus on both the qualitative and quantitative dimensions of a variety of interventions (Opperman et al., 2016).

3.4.2.2 The foundational principles of Kirkpatrick's four-level model of evaluation

The founding principles of Kirkpatrick's four-level evaluation model underpin the model and emphasise the value of the training to organisations (Ayvazian et al., 2021). The principles include establishing outcomes before the beginning of a training programme, focusing on the ROE from stakeholders, relying on collaboration with leaders in a supervisory or managerial position to prepare before and after training, and focusing on the importance of planning activities before training and strengthening activities following formal training (Ayvazian et al., 2021; Ellis et al., 2020; Kirkpatrick & Kirkpatrick, 2019). These principles are discussed below.

3.4.2.2.1 The end is the beginning

Those working in professional development are conversant with a planning process that starts with the identification of a professional practice gap (Ellis et al., 2020). According to Kirkpatrick (1993, as cited in Kirkpatrick & Kirkpatrick, 2009; 2019), trainers must start with the desired results and then establish the behaviour needed to achieve the results. Subsequently, trainers must establish the knowledge, skills and attitudes that are required to cultivate the preferred behaviour (Ayvazian et al., 2021).

3.4.2.2.2 Return on expectations (ROE) is the ultimate indicator of value

Return on expectations (ROE) encompasses understanding what stakeholders expect from a training programme (Ellis et al., 2020). The focus of training and improvement efforts should be on the predetermined bottom-line anticipations of business partners, aiming to deliver the crucial outcomes or results they anticipate (Kirkpatrick & Kirkpatrick, 2009; Sadler & Van Jaarsveldt, 2012). Learning and development managers must have a dialogue with senior leaders to answer the question, "What will constitute success for this learning initiative?" (Bennington &

Laffoley, 2012: 6). These expectations give value to the training within an organisation, which result in resource provision (Ayvazian et al., 2021).

3.4.2.2.3 Business partnership is necessary to bring about positive ROE

Business partners need to help trainers to ensure that the required work occurs before and after formal training, as research shows that 70% of learning takes place in the workplace (Kirkpatrick & Kirkpatrick, 2009). Business partners should pledge to strengthen the acquired knowledge and skills of participants through support and accountability (Ayvazian et al., 2021; Ellis et al., 2020).

3.4.2.2.4 Value must be created before it can be demonstrated

When conducting training, the challenge is that most effort is directed at designing, developing and delivering training. Accordingly, only about one-quarter of the benefit is obtained, and almost none of the effort spent on the follow-up activities results in the positive behavioural change and subsequent results that training programmes are intended to deliver (Ellis et al., 2020; Kirkpatrick & Kirkpatrick, 2009). Therefore, this principle concentrates on the importance of planning exercises before training and highlighting activities following formal training, as a result signifying the value of the training (Ayvazian et al., 2021).

3.4.2.2.5 A compelling chain of evidence demonstrates bottom-line value

Using the Kirkpatrick model and the foundational principles, a chain of evidence can be generated proving the value of the learning experience (Ellis et al., 2020). A chain of evidence involves data and information that chronologically link the four levels and demonstrate the contribution of learning to the business. Reaction and learning evaluation outcomes show the time and resources invested in training (consumptive metrics), and the behaviour and results evaluation data show the value and tangible results that training has delivered (impact metrics) (Kirkpatrick & Kirkpatrick, 2009).

3.4.2.3 Critique of Kirkpatrick's evaluation model

The highly esteemed Kirkpatrick four-level evaluation model is inadequate because it does not include investigation that goes further than a “training alone” approach and pays no attention to the larger performance environment (Brinkerhoff, 2005; Lee et al., 2017; Russ-Eft & Preskill, 2005). Although prior studies have investigated relationships between Kirkpatrick’s evaluation criteria, the likely connection between training evaluation and training transfer has not been directly investigated (Han & Boulay, 2013; Saks & Burke, 2012) and the model fails to account for the complex system of influences on training outcomes that exists in organisations (Han & Boulay, 2013). The literature review conducted by Sahoo and Mishra (2017) revealed that gaps associated with the Kirkpatrick training evaluation include that evaluation does not show realistic results, organisations mainly use the first two levels, a lack of awareness of training evaluation in training communities and a lack of budget for the evaluation of training programmes.

According to Reio et al. (2017: 37), it was found that there are three major problematic assumptions with Kirkpatrick’s model:

- The first assumption is that the model is hierarchical and the levels are arranged in ascending order, making the lower levels less important and less valuable than the higher ones. This belief influences many HRD professionals to focus on the higher levels of evaluation and avoid the lower levels (Russ-Eft & Preskill, 2005; Reio et al., 2017). However, the model suggests that it is a grave mistake to sidestep Levels 1 and 2 and only focus on Level 3 and 4 evaluations, as this could certainly result in poor assumptions about the effectiveness of the intervention and the overall result of the training programme (Reio et al., 2017). Kirkpatrick contends that to evaluate a programme successfully, it is essential to evaluate the learning and development experience at each level (Bennington & Laffoley, 2012).
- The second assumption that research revealed is that the four levels of evaluation are causally linked (Reio et al., 2017; Sahoo & Mishra, 2017). Owing to this assumption, many researchers and HRD professionals have deduced that positive reactions are a prerequisite for learning to occur

(Reio et al., 2017). However, correlations do not always exist between the levels; therefore, the chain of influence can be broken at any point (Phillips & Phillips, 2008).

- The third assumption is derived from the second one, that is, that the four levels are positively intercorrelated. If assumption 2 were accurate, it would be sufficient to evaluate the attendees' reactions to the training programme, from which it could be assumed they had learnt from the training, they would ultimately improve their job performance and they would positively contribute to organisational results (Reio et al., 2017). Generally speaking, learning professionals find it difficult to assess beyond the first level to show long-term learning and organisational benefits (Bennington & Laffoley, 2012).

Kirkpatrick addressed these assumptions in numerous studies and stressed that a favourable reaction to a training programme does not guarantee that learning has occurred and that it will lead to positive behavioural change and organisational outputs (Reio et al., 2017; Sahoo & Mishra, 2017). Therefore, it is very important that training be evaluated on all four levels. The following section discusses the CIPP model.

3.4.3 The Context, Input, Process, Product (CIPP) model

Another model that is commonly used to evaluate training programmes is the CIPP model (Warju, 2016). According to Stufflebeam and Zhang (2017), the CIPP evaluation model was designed in the 1960s to guide the evaluation of the programmes in USA schools and colleges aligned to Lyndon Johnson's War on Poverty launch. The model was refined by Stufflebeam in 1983 (Topno, 2012) and Stufflebeam and Shinkfield in 1985 (Warju, 2016). The model has since been applied globally in almost every discipline and service area over the years (Stufflebeam & Zhang, 2017). The model is aimed at improving the functioning of the programme evaluated (Kucherov & Manokhina, 2017) and focuses on continuous improvement, programme outcomes, costs, accountability and programme needs (Stufflebeam & Zhang, 2017). The framework of the CIPP model incorporates (1) a context evaluation to help develop goals, (2) an input evaluation to help shape the proposal,

(3) a process evaluation to guide implementation and (4) a product evaluation to assist recycling decisions (Reio et al., 2017; Warju, 2016). Figure 3.2 depicts the CIPP model of evaluation.

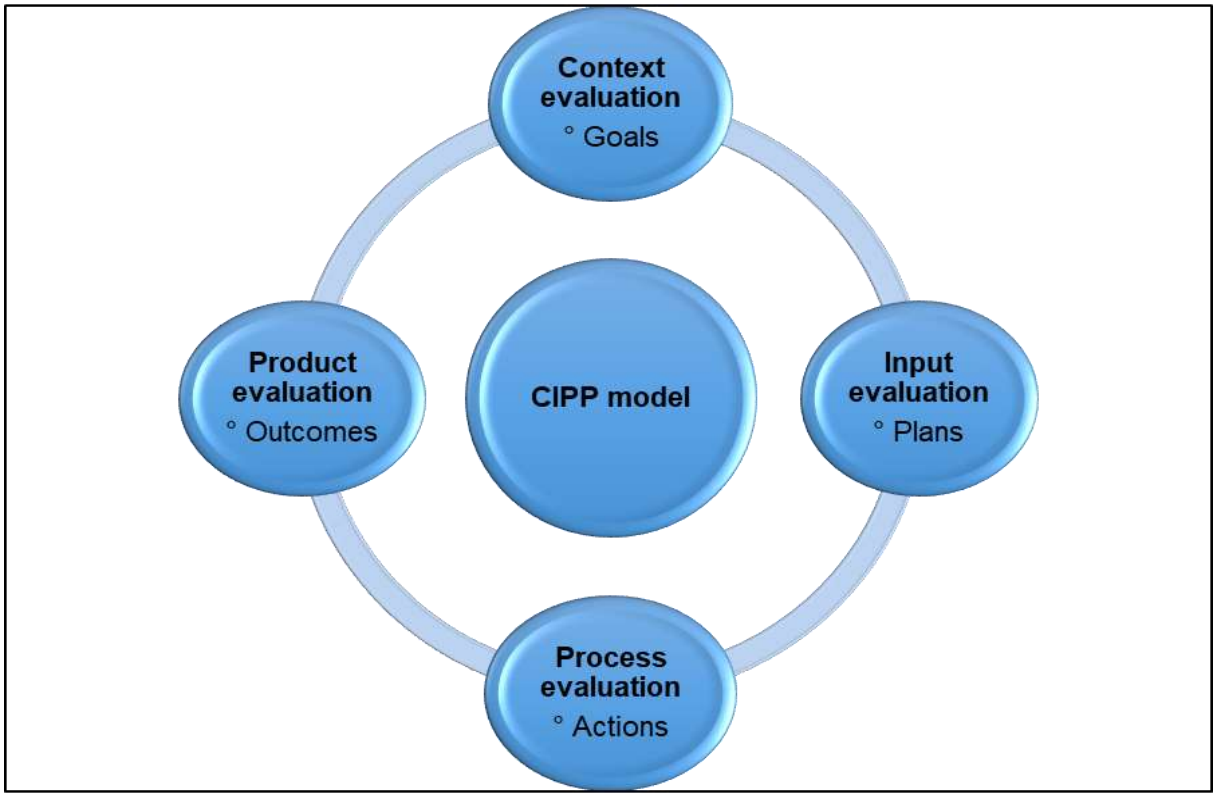

Figure 3.2: The CIPP model of evaluation
Source: Warju (2016: 38)

3.4.3.1 Context evaluation

A context evaluation aims to provide a rationale for a programme to be implemented and serves as a planning and decision-making mechanism (Warju, 2016). The evaluation at this stage addresses the relevant environment, a needs analysis, objectives, policies that support the vision and mission of the organisation, opportunities and the diagnosis of particular problems (Madon, Surif, Samah, Muhammad & Sulaiman, 2021; Warju, 2016). This assists in ascertaining areas for improvement to enable organisations to adjust their priorities, objectives and expected outcomes (Madon et al., 2021).

3.4.3.2 Input evaluation

An input evaluation includes an examination of the intended content of the programme (Topno, 2012) and offers relevant information concerning the methods that can be used to achieve the objectives of a programme. It is used to develop a strategy for, and plan and design, a programme (Warju, 2016). The outcomes of this level of evaluation are budgets, proposals, schedules and procedures (Warju, 2016).

3.4.3.3 Process evaluation

A process evaluation is an ongoing assessment of the implementation of the action plan that has been developed by the organisation (Topno, 2012). This dimension provides feedback to the employees involved to enable them to take responsibility for the programme activities (Warju, 2016). According to Topno (2012: 20), the objectives of the process evaluation include

- providing feedback to the organisation and employees on how the planned activities are being conducted and whether time and resources are used efficiently
- providing direction for modifying or clarifying the programme action plan where required, especially considering that not all aspects of the plan can be anticipated or planned
- occasionally assessing how the training personnel adhere to the rules and carry out their responsibilities
- providing a detailed record of the programmes regarding how they are implemented and how they compare to what was envisioned.

This level of evaluation requires data collection instruments such as observation sheets, assessment scales and field notes (Topno, 2012; Warju, 2016).

3.4.3.4 Product evaluation

The product evaluation dimension measures and assesses whether the programme has achieved its objectives (Warju, 2016). It also studies both the intended and

unintended consequences of improvement efforts (Topno, 2012). Four aspects of evaluation, namely, impact, effectiveness, sustainability, and transportability, are relevant at this stage. Following the implementation of the learning programme, instruments such as tests, interviews and observation sheets are used to observe behaviour change (Warju, 2016). The following section discussed the CIRO model.

3.4.4 The Context, Input, Reaction, Outcome (CIRO) model

The CIRO model for the evaluation of training was developed by Warr, Bird and Rackham in 1970 and is based on the evaluation of four aspects of training, namely, context, input, reaction and outcomes (Reio et al., 2017; Sahoo & Mishra, 2017). The model focuses on organisational level results (Kucherov & Manokhina, 2017).

3.4.4.1 Context evaluation

Context evaluation pays attention to factors such as the precise identification of training needs and the setting of objectives that are aligned with the organisational culture and climate (Sahoo & Mishra, 2017). Reio et al. (2017) indicate that context evaluation encompasses finding information regarding the existing situation to establish training needs and objectives.

3.4.4.2 Input evaluation

Input evaluation encompasses attaining information about potential training resources and is similar to the input phase of the CIPP model (Reio et al., 2017). This dimension focuses on the design and delivery of the training activity (Sahoo & Mishra, 2017).

3.4.4.3 Reaction evaluation

Reaction evaluation encompasses collecting information about the reactions of the trainees to improve the training process and is similar to Kirkpatrick's Level 1: reaction evaluation (Reio et al., 2017; Sahoo & Mishra, 2017). The focus is on

gaining and using information about the quality of the training experience (Topno, 2012).

3.4.4.4 Outcome evaluation

Outcome evaluation pays attention to the achievements obtained from the activity and is assessed on three levels, namely, immediate, intermediate and ultimate evaluation (Reio et al., 2017; Sahoo & Mishra, 2017).

The foremost strength of the CIRO model is that the objectives (context) and the training equipment (input) are well thought-out (Topno, 2012). This model has many similarities to the CIPP and Kirkpatrick's model. However, Warr et al. (1970, as cited in Reio et al., 2017) argue that an outcome evaluation is not always necessary. The CIRO model differs from Kirkpatrick's model in that it focuses on the activities that are undertaken before and after the training programme (Sahoo & Mishra, 2017). The main criticism of this model is that it does not consider the behaviour of trainees and it is more suitable for managerial-level interventions than for lower-level employees (Sahoo & Mishra, 2017). The following section discusses the CIPP model of evaluation.

3.4.5 Phillips's return on investment (ROI) model

The measuring of ROI was established by Jack Phillips, who used Kirkpatrick's four levels of evaluation and added a fifth level (Weninger, 2020). Prior to the advent of the ROI model, little consideration was given to the benefits resulting from programmes, projects or processes; rather, success was measured by things such as money spent, the number of people involved and days to complete (Phillips & Phillips, 2010). However, in the past decade training professionals have been challenged to deliver evidence of how training contributes financially to the business (Erasmus, Loedolff et al., 2019; Kunene, 2017; Pieters & Kapenda, 2017). The addition of a fifth level to Kirkpatrick's model is perhaps only relevant if the assessment of ROI is overlooked when referring to the "result" level.

According to Phillips and Phillips (2010), several people argue that there is too much focus solely on economic value in terms of the shift from process to results. However, it is important to take into consideration that economics, or money, enables organisations and individuals to contribute to the greater good (Phillips & Phillips, 2010). The need for information that meets the requirements of different stakeholders has resulted in the ROI methodology being the foremost technique for evaluating the success of training interventions (Phillips & Phillips, 2010). This framework provides trainers with a logical framework for measuring ROI from both a human performance and business outcomes perspective and goes further to compare the monetary benefit and costs of a training programme (Devarakonda, 2019; Erasmus, Loedolff et al., 2019; Phillips & Phillips, 2010; Topno, 2012). Measuring ROI facilitates the way in which decisions relating to resources such as people, supplies and time are used for professional development activities by presenting the financial impact of such activities (Opperman et al., 2016).

ROI is often presented as a percentage or cost-benefit ratio, although it can be expressed in several other ways (DeSilets & Dickerson, 2010; Erasmus, Loedolff et al., 2019; Phillips et al., 2015; Siengthai, 2015). Although most HRD organisations conduct evaluations to measure satisfaction, a very small number of them conduct ROI evaluations because they are often characterised as difficult and expensive (Topno, 2012).

Phillip's ROI model has been adopted as a theoretical framework for anchoring this study in order to address the research problem identified in Chapter 1. This model is discussed in detail in the next chapter (Chapter 4). The following section discusses the SCM model.

3.4.6 Success Case Method (SCM) evaluation model

Brinkerhoff developed the SCM in 2003 to address the frustrations with other more traditional evaluation approaches (Brinkerhoff, 2005; Lee et al., 2017). The respected Kirkpatrick model was perceived to not move beyond a "training alone" view and not focus on the larger performance environment, hence it was deemed not suitable (Brinkerhoff, 2005; Lee et al., 2017). The SCM model was constructed on

the premise that results originate from performance, not training alone; thus, an evaluation must investigate the performance setting (Brinkerhoff, 2005; Engholm, 2016; Lee et al., 2017) and attempt to ascertain the descriptive nature of the learning transfer mechanisms (Moon, Ryu & Jeon, 2019). The model encompasses case study and storytelling techniques intended to investigate the impact of training on the organisation (Coryn, Schröter & Hanssen, 2009; Engholm, 2016; Kucherov & Manokhina, 2017). SCM can be described as the "process to evaluate the effects of and factors that are associated with, the effective application of new skills by focusing on characteristics of the most successful cases" (Medina et al., 2015: 126). The subsections below discuss the foundation, structure and process of the SCM evaluation model.

3.4.6.1 Foundations of the SCM

This model integrates the olden-day craft of storytelling with the more contemporary evaluation methodologies of naturalistic inquiry and case study (Brinkerhoff, 2005). It uses simple survey methods permitting extrapolation of estimates of the breadth and effect of training transfer. In addition, a social inquiry process, involving key informants and approaches adopted from journalism and judicial inquiry, is used (Brinkerhoff, 2005). The underlying assumption is that we can learn more about both exceptionally successful trainees who applied their learning in the workplace and the less successful (Brinkerhoff, 2005). The cases evaluated as successful are used later as a benchmark for comparison in other related projects (Madon et al., 2021).

3.4.6.2 Structure of the SCM model

The SCM model consists of a two-part structure. The first part involves finding potential and likely success cases, i.e. individuals (or teams) who have seemingly been successful in implementing some new capability or method acquired in the course of a training initiative (Olson, Shershneva & Brownstein, 2011). This information is usually collected using a survey, interview, performance data, usage records and report reviews. The second part of an SCM study comprises interviews to find success cases and record the tangible nature of success (Brinkerhoff, 2005). The main aim is to establish whether the interviewed person characterises true and

verifiable success (Brinkerhoff, 2005). This interview part of the study assists with stories of use and results; hence, the interviews must concentrate on recording evidence that is verifiable and documentable (Brinkerhoff, 2005).

3.4.6.3 The SCM process

The SCM approach consists of two main steps (Lee et al., 2017). Firstly, a short survey is circulated to a wide representative sample of all trainees who attended a training programme (Botek, 2018; Brinkerhoff, 2005; Lee et al., 2017). The survey asks one fundamental question even though numerous sub-questions can be used to ask the question. From the survey, a small group of exceptionally successful and unsuccessful trainees is identified. The second step is all about probing in depth each of these small core samples through telephone interviews (Botek, 2018; Lee et al., 2017). Traditionally, SCM is conducted using the following five-step procedure (Coryn et al., 2009: 81; Medina et al., 2015: 4-5):

- Focus and plan the SCM.
- Create an impact model.
- Survey all programme beneficiaries to find success and non-success cases.
- Interview a random sample of success and non-success cases, and document their stories.
- Communicate findings, conclusions and recommendations.

Success case study produces two instant results: (1) credible and verifiable in-depth stories of the documented impact of training on business performance can be distributed to several audiences inside the organisation; and (2) factors that improve or obstruct the effect of training on business performance are understood (Brinkerhoff, 2005). According to Brinkerhoff (2005), other more complex evaluation methods centred on experimental design frameworks have been developed. However, in evaluating the training, these methods need to integrate control groups and other techniques for analysing variance and removing causal factors, which requires resources, time and expertise outside the normal professional setting. In

contrast, the SCM is comparatively simple and can be fully implemented in a very short space of time (Olson et al., 2011; Pieters & Kapenda, 2017).

The following section discusses the Integrated Model of Training Evaluation and Effectiveness (IMTEE).

3.4.7 Integrated Model of Training Evaluation and Effectiveness (IMTEE)

The IMTEE is one of the least referenced models in the literature but provides a holistic view of the measurement of training effectiveness. After conducting a literature search for empirical research published between 1993 and 2002, Alvarez et al. (2004) integrated literature on training evaluation and effectiveness. According to Alvarez et al. (2004), the IMTEE as presented in Figure 3.3 is the first model to highlight the relationships between post-training attitudes and training effectiveness variables and the relationships between post-training attitudes and the other targets of evaluation.

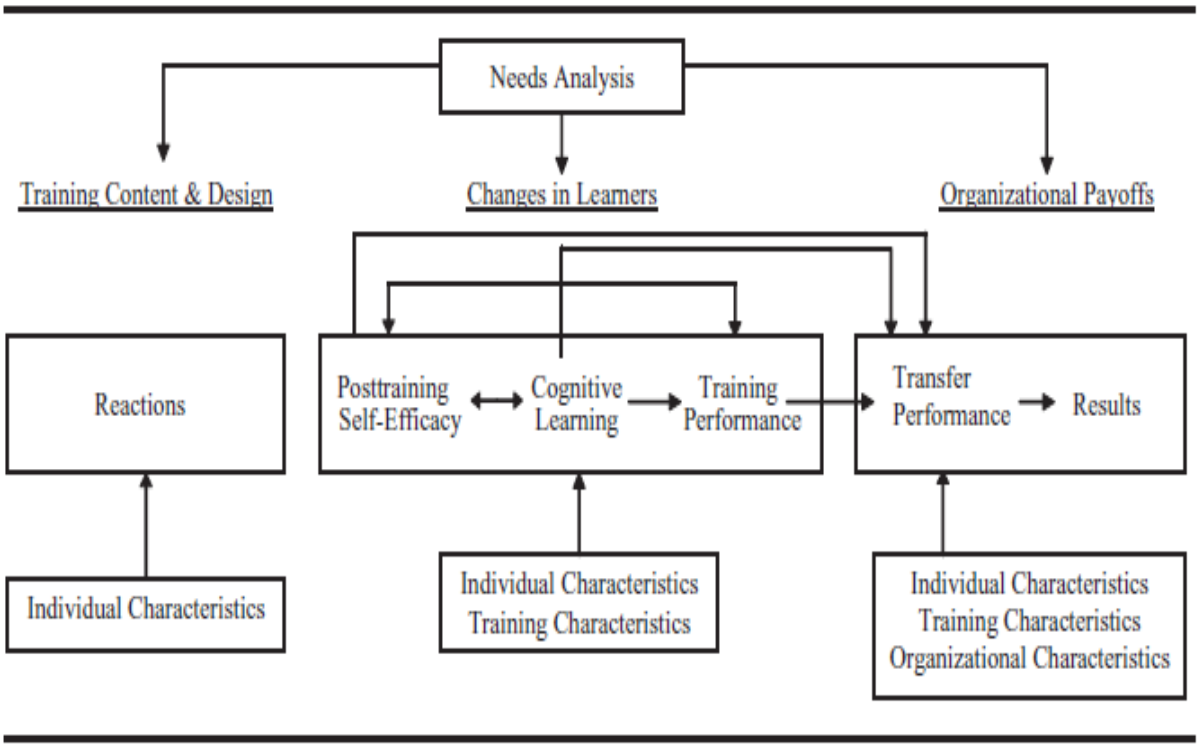

Figure 3.3: Integrated Model of Training Evaluation and Effectiveness
Source: Alvarez et al. (2004: 393)

As shown in Figure 3.3, a needs analysis process guides the content and design of training interventions, which improves participant and organisational payoffs. Consequently, the evaluation of an intervention should determine training content and design, changes in participants and organisational payoffs (Bodenmann et al., 2021). The subsections below describe individual, training and organisational characteristics, and how the IMTEE can be operationalised.

3.4.7.1 Individual characteristics

Training effectiveness can be influenced by several factors such as the input into training activities, which includes an individual's motivation, valence, learning style, skills, knowledge and abilities (Bai et al., 2018; Moon et al., 2019; Ndimande et al., 2016; Siengthai, 2015). Eid and Quinn (2017) found five trainee characteristics that influence training transfer, including attitude, interpersonal skills, motivation, change and mental processing skills, and six personality characteristics (conscientiousness, curiosity, wisdom, humility, resilience and positivity). According to Botma et al (2013), the antecedents of learning transfer in the clinical setting include learners' ability, experience, personality, beliefs, motivation, career goals, conscientiousness and perception of an opportunity to apply new skills.

The initial aim of the research by Alvarez et al. (2004) was to identify the specific variables within each category of characteristics that contribute to training effectiveness. However, comparatively, this was not complicated, except for one individual characteristic: motivation. The main reason for this is that numerous motivation types have been investigated by researchers, thus hampering a simple classification of results. In addition, other researchers have combined different characteristics of motivation into one inclusive motivational scale (Alvarez et al., 2004).

3.4.7.2 Training characteristics

Training effectiveness is influenced by training characteristics such as training content and methods, and the selection of trainers (Moon et al., 2019; Ndimande et al., 2016; Siengthai, 2015). The required project, the use of team-based learning and

the lectures delivered in the course of the training were also found to have an impact on training transfer (Bai et al., 2018; Eid & Quinn, 2017). Educational design such as the relevance of the curriculum, student-centredness, alignment between job, education and assessment, reflection, and a reliable and effective facilitator were the antecedents of the transfer of learning in the clinical setting (Botma et al., 2013).

According to Alvarez et al. (2004), research on training characteristics is advanced compared to individual and organisational characteristics. Researchers have moved beyond studying the effectiveness of particular instructional techniques (such as group exercises, lectures, role-plays, games and videos) and learning principles (such as practice, behaviour modelling, part- vs. whole-task training, use of identical elements and feedback) (Alvarez et al., 2004). Subsequently, experts are making an effort to find packages of these characteristics (such as practice, group exercises, identical elements and feedback) most effective for learning specific skills and investigating new instructional techniques such as error training (Alvarez et al., 2004). Iqbal et al. (2011) found that training elements such as training methods, training material, training management, training objectives, training environment and the trainer have a positive impact on reaction and learning.

3.4.7.3 Organisational characteristics

A supportive work environment plays an enormous role in increasing trainees' training transfer to their job (Moon et al., 2019; Ndimande et al., 2016; Siengthai, 2015). Accordingly, training effectiveness is influenced by organisational characteristics such as organisational support and learning culture (Siengthai, 2015). The work environment includes the work culture (including subthemes of a change-driven culture and work stress), work relationships (supervisors and peers), and resources (time and financial) (Eid & Quinn, 2017). Botma et al. (2013) identified elements of workplace environments such as organisational ethos, support by people, systems support, access to resources and rewards as antecedents to the transfer of learning in the clinical setting. In Alvarez et al.'s (2004) model, organisational characteristics as a whole were considered to be one characteristic, termed a "positive transfer environment".

3.4.7.4 Operationalisation of the IMTEE

The IMTEE has four levels as shown in Figure 3.3. Starting from the top, the needs analysis process can be identified. A needs analysis was included because it is widely associated with training. The arrows from needs analysis to the second level of the model proposed that needs analysis influences the three overall targets of evaluation (Alvarez et al., 2004). The second and third levels of the IMTEE efficiently combine the four models of training evaluation, while the six evaluation measures shown in Figure 3.3 are reflective of the measures commonly used in training research (Alvarez et al., 2004). The subsections below discuss the outcomes of training, including reactions, post-training attitudes, cognitive learning, transfer of performance and results.

3.4.7.4.1 Reactions

Navigating from left to right of the model in Figure 3.3, the first outcome is reactions to training. This is characteristically a multidimensional construct including elements such as affective reactions, utility and relevance. Reactions are used to evaluate the suitability of training content and design and, as a result, assess the precision and meticulousness of the needs analysis (Alvarez et al., 2004). Reaction evaluation encompasses collecting information about the reactions of the trainees to improve the training process. This is similar to Kirkpatrick's Level 1, reaction evaluation (Reio et al., 2017; Sahoo & Mishra, 2017).

3.4.7.4.2 Post-training attitudes

Post-training attitudes include constructs such as motivation, organisational commitment, attitude toward teamwork, self-efficacy, mastery orientation and attitude toward diversity, among others (Alvarez et al., 2004). The post-training attitudes are similar to the intangible benefits in the ROI methodology to be discussed in Chapter 4. The IMTEE proposes that the relationship between cognitive learning and post-training attitudes, along with training performance and post-training attitudes, is reciprocal (Alvarez et al., 2004).

3.4.7.4.3 Cognitive learning

Cognitive learning refers to the acquisition of cognitive knowledge and is usually measured through paper-and-pencil tests or tests of information taught in training administered electronically. Various researchers have found that there is a reciprocal relationship between post-training self-efficacy, training performance, cognitive learning and transfer performance (Alvarez et al., 2004).

3.4.7.4.4 Training performance

Training performance refers to an individual's ability to perform a newly learnt skill after attending training but before transfer. This is usually assessed by the means of an observable demonstration that a trainee can apply the knowledge acquired in training (Alvarez et al., 2004). Training performance is influenced by post-training attitudes and cognitive learning, as previously mentioned (Alvarez et al., 2004).

3.4.7.4.5 Transfer performance

Transfer performance refers to behavioural variations on the job resulting from training. These are usually assessed by means of supervisor evaluations in the workplace or post-training retests several months after training using the same or another type of training performance test. When measuring the transfer of learning, the focus is on the extent to which the trainees apply the learning and change their behaviour (Erasmus, Loedolff et al., 2019; Grant, 2012; Kirkpatrick & Kirkpatrick, 2019; Opperman et al., 2016; Payumo et al., 2019; Rao & Kumar, 2017). The IMTEE proposes that there is a positive relationship and a causal link between transfer performance and results. Various scholars are of the view that this relationship is moderated by the quality of the needs analysis, meaning that an increase in organisational effectiveness is likely to happen when training is linked to the objectives of the organisation as established by the needs analysis (Alvarez et al., 2004).

3.4.7.4.6 Results

The results are quantifiable improvements in performance outcomes resulting from trainees' behavioural changes (Devarakonda, 2019; Erasmus, Loedolff et al., 2019; Olexová, 2018; Payumo et al., 2019; Reio et al., 2017; Sahoo & Mishra, 2017). For example, the organisational benefits of transfer performance may include increased safety precautions, efficiency, morale, and quantity or quality of outputs. This is similar to Level 4 of Kirkpatrick's four-level evaluation model. The review of training evaluation that was conducted by Alvarez et al. (2004) did not find evidence to substantiate the presence of a hierarchical relationship between the evaluation measures.

Moving from left to right of the model in Figure 3.3, the results of the reviews conducted by Alvarez et al. (2004) revealed that individual characteristics are related to reactions; individual and training characteristics are related to all three measures of change in learners; and individual, training and organisational characteristics are related to transfer performance.

Table 3.1 summarises the models of training evaluation in terms of their main characteristics, authors, strengths and weaknesses.

Table 3.1: Models of training evaluation's authors, main characteristics, strengths and weaknesses

Evaluation models	Authors	Main characteristics	Strengths	Weaknesses
Tyler's objective model	Tyler (1950)	Proposed that the educational process should involve three key fundamentals, namely, objectives, learning experiences and evaluation (evaluation procedures). Evaluation is conceptualised by Tyler as a comparison of intended outcomes with actual outcomes (Anh, 2018).	• The model includes establishing goals and objectives, classifying them, defining objectives in behavioural terms, finding situations in which the achievement of objectives is shown, developing measurement techniques, collecting data and comparing it to the initial objective. • Does not require costly and disruptive comparisons between experimental and control groups (Anh, 2018).	• The model does not provide feedback systems to inform stakeholders and evaluators about how to deal with improvements (Huang & Yang, 2004). • Focusing on the objectives of a programme is inadequate because the objectives are not always stable and they can be altered to fit the programme implementation settings (Anh, 2018).
Kirkpatrick's four-level training model	Kirkpatrick (1959)	Kirkpatrick's model arranges the possible results of training in a four-level taxonomy, namely: reaction; learning; behaviour and results (Alsalmah & Callinan, 2021; Botek, 2018; Erasmus, Loedolff et al., 2019; Rao & Kumar, 2017; Reio et al., 2017). According to this model, it is essential to evaluate the learning and development experience at each level (Bennington & Laffoley, 2012).	• It emphasises the behavioural results of the participants involved in the training (Topno, 2012). • Delivers additional valuable information as one progresses from one level to the next (Reio et al., 2017).	• The evaluation process gradually becomes more demanding as one progresses from one level to the next (Reio et al., 2017). • Learning professionals find it difficult to evaluate beyond the first level to show long-term learning and organisational benefits (Bennington & Laffoley, 2012).
The Context, Input, Process, Product (CIPP) model	Stufflebeam and Shinkfield (1985)	The CIPP model has four different dimensions: context evaluation, input evaluation, process evaluation and product evaluation (Anh, 2018; Madon et al., 2021). The model is aimed at improving the functioning of the programme evaluated (Kucherov &	• The model can be easily applied to multiple evaluation situations as it is not aimed at any specific intervention (Anh, 2018). • The four dimensions of the model can be used as a whole to evaluate	• It is regarded by some to be similar to the needs assessment (Anh, 2018). • The implementation of the model takes much time if it is applied as a whole (Anh, 2018).

		Manokhina, 2017) and focuses on continuous improvement, programme outcomes, costs, accountability and programme needs (Stufflebeam & Zhang, 2017).	programmes or can be applied separately to suit the needs of the evaluation (Anh, 2018).	
The Context, Input, Reaction, Outcome (CIRO) model	Warr et al. (1970)	This model is based on the evaluation of four aspects of training, namely, context, input, reaction and outcomes (Reio et al., 2017; Sahoo & Mishra, 2017).	• The main strength of the CIRO model is that the objectives (context) and the training equipment (input) are considered (Topno, 2012).	• The outcome evaluation phase is not always necessary (Reio et al., 2017). • It does not consider the behaviour of trainees and it is more suitable for managerial-level interventions than for lower-level employees (Sahoo & Mishra, 2017).
Phillips's Return on Investment (ROI) model	Phillips (1996)	Added a fifth level to Kirkpatrick's four levels of evaluation (Weninger, 2020).	• Offers a logical framework to measure ROI from both human performance and business outcomes perspectives (Devarakonda, 2019). • Compare the monetary benefit and costs of a training programme (Erasmus, Loedolff, et al., 2019; Phillips & Phillips, 2010). • Facilitates how decisions relating to resources such as people, supplies and time are used for professional development activities by presenting the financial impact of such activities (Opperman et al., 2016).	• Very few organisations conduct ROI evaluations because they are regarded as difficult and expensive (Topno, 2012).
Success Case Method (SCM) evaluation model	Brinkerhoff (2003)	The SCM is based on the premise that results originate from performance, not training alone; thus, an evaluation must investigate the performance setting (Brinkerhoff, 2005; Lee et al., 2017). The	• Comparatively simple and can be implemented in its entirety in a very short space of time (Brinkerhoff, 2005; Engholm, 2016; Olson et al., 2011; Pieters & Kapenda, 2017).	• The model is mainly intended for use in formative evaluations (Engholm, 2016). • Although the model has been widely used to determine the

		model encompasses case study and storytelling techniques intended to investigate the impact of training on the organisation (Kucherov & Manokhina, 2017).		successes and failures on achieving the goals of for-profit organisations, it was found that the SCM is a valuable and useful tool for evaluating public health interventions (Medina et al., 2015).
Integrated Model of Training Evaluation and Effectiveness (IMTEE)	Alvarez et al. (2004)	The IMTEE suggests that training effectiveness results from the interaction between individual, training and organisational characteristics (Alvarez et al. 2004).	• Is the first model to consider the relationships between post-training attitudes and training effectiveness variables and the relationships between post-training attitudes and the other targets of evaluation (Alvarez et al., 2004).	It would appear that the IMTEE model proposed by Alvarez et al. (2004) has not yet been adopted or critiqued and the researcher could not find literature on the weaknesses of the model.

Source: Own compilation

This brings us to the end of the discussion about various models of training evaluation. Many other such models were not discussed in this chapter to limit the scope of this study. However, some of them are commendable and should be considered when conducting training evaluations. What should be considered when selecting a model suitable for their programmes is the needs and experiences of evaluators (Anh, 2018). The next section addresses the benefits that come with conducting training evaluations.

3.5 BENEFITS OF TRAINING EVALUATION

According to Kucherov and Manokhina (2017), the benefits of training evaluation include the establishment of the best training strategies and suitable content areas, the justification of specific training programmes and their budgets, the assessment of professional development, the analysis of satisfaction feedback and the clarification of training expectations. Strategically, the integrated approach to training evaluation allows organisations to link long-term HRD objectives and priorities with training results (Kucherov & Manokhina, 2017). It provides quantitative proof of training's effect on individual, business unit and organisational performance and demonstrates the relationship between training initiatives and HRD and business strategies (Kucherov & Manokhina, 2017). According to Warju (2016), four benefits can be gained from the training programme evaluation activities, namely, termination, revision, continuation and dissemination of the programme. Training evaluation in research and organisational settings is also important to assist in making informed decisions concerning the value of training (Ritzmann, Hagemann & Kluge, 2014). According to Arora and Talwar (2019: 138), potential benefits resulting from evaluating training programmes include the following:

- Cost-effectiveness and accountability for training initiatives are enhanced resulting in increased resources.
- Training of employees gains greater credibility.
- Knowledge and expertise on the development and implementation of training initiatives are improved.

- Organisations are assisted to establish a formal corrective feedback system for developing the strengths and weaknesses of training participants.
- The organisation is enabled to modify training programmes based on feedback gained through ongoing evaluation.

As much as evaluating training programmes results in tangible benefits for organisations, various factors hinder the process. This brings us to the next section which considers factors that hinder training evaluation.

3.6 FACTORS THAT HINDER TRAINING EVALUATION

The training evaluation literature shows that there are many models, frameworks and methods of training evaluation, which often creates panic among practitioners, and that the various procedures for assessing training seem complex and confusing (Sahoo & Mishra, 2017). According to Blanchard and Thacker (2007: 337), training managers provided a startling number of reasons for not evaluating the training such as: “there is nothing to evaluate (training is not expected to accomplish anything)”; “no one cares about it (formal evaluation procedures are too expensive and time-consuming)”; and “evaluation is a threat to my job”.

In the following section, some of the factors that hinder the evaluation of training programmes are discussed.

3.6.1 Resources

One of the limitations of training evaluation is the fact that the application of the techniques requires a lot of time and resources (Pineda, 2010). When it comes to the evaluation of training results in large groups organisations face the challenge of limited resources (Pineda-Herrero et al., 2011). Large organisations, which provide ongoing training for their employees, employ complex training evaluation practices, resulting in extensive resources being used (Asadullah, Peretti, Ali & Bourgain, 2015). Eventually, high costs lead some organisations to implement the easiest

forms of training evaluation or decide not to do it at all (Kucherov & Manokhina, 2017). This is contrary to Han and Boulay's (2013) view that organisations often have the resources to follow further in-depth evaluation approaches if prioritised, but they only focus on the reaction. If the post-programme evaluation process and measures are not prudently deliberated on during the programme development stage, budget and support scarcity may be experienced for such post-mortem evaluation (Bennington & Laffoley, 2012).

3.6.2 Complexity of training evaluation

Numerous complex factors negatively influence the process of training evaluation. Various empirical studies have found that the evaluation of training outcomes may be complex and multidimensional (Shenge, 2014; Siengthai, 2015). For example, the separation of training outcomes from the overall processes in organisations, the lack of preparation of training evaluation professionals and the lack of support from management bodies, the challenge of measuring numerous results, the lack of appropriate techniques and the struggle involved in retrieving relevant information in the organisation (Pineda, 2010). Kucherov and Manokhina (2017) found that the difficulty of isolating the training effect is one of the most significant factors. Evaluating the impact of training on business results is very informative, however, it does bring additional headaches for evaluators, as they need to isolate the training effect. To isolate the results, distinct techniques such as non-equivalent control groups, expert surveys, regression discontinuities, trend-line analyses and others should be used (Kucherov & Manokhina, 2017).

Training evaluation is also complex because it is generally difficult to develop relevant quantitative criteria that can be linked to the intangible benefits received from the results of a training programme (Medina et al., 2015; Kucherov & Manokhina, 2017). The performance of the organisation can be categorised into hard and soft results. While hard results are highly objective and easy to measure, soft ones are subjective and difficult to measure (DeSilets & Dickerson, 2010; Kucherov & Manokhina, 2017). It is also difficult to measure performance for certain jobs such as those referred to as jobs of specialists. In practice, the performance of most production workers can be easily measured by all four levels of evaluation, however,

the performance of employees working in the non-material domain is more difficult to measure (Kucherov & Manokhina, 2017).

3.6.3 Management and employees' perception of training evaluation

While the HRD department is generally interested in the results of formative evaluation meant for evaluating the training process, managers are interested in the summative evaluation, determining tangible training outcomes in terms of the performance improvements in the organisation (Kucherov & Manokhina, 2017; Michalski & Cousins, 2000). In most cases, HRD evaluation activities are treated as add-ons; surveys are hastily conducted to assess the reactions of participants and are piloted in isolation from other types of data gathered in organisations (Russ-Eft & Preskill, 2005). The research by Reio et al. (2017) found that there is a misconception by staff resulting in them thinking that evaluations beyond Level 1 are difficult and require further knowledge to collect complete research projects using control groups.

3.6.4 Unclear goals of training programmes

Frequently, employees do not understand the goal of a programme or the goal and contents do not match, resulting in the training programme not achieving the desired results (Kucherov & Manokhina, 2017). This obstacle can be eliminated by ensuring that training and development specialists embark on the process of training planning more thoroughly (Kucherov & Manokhina, 2017). Various models such as Phillips's (1996) evaluation planning phase and the CIPP context evaluation element (Stufflebeam & Shinkfield, 1985) have addressed the challenge of setting the programme objectives from the outset.

3.6.5 Lack of management involvement

If there is no managerial participation, even the best efforts may have no effect because they will not reflect the results that matter (Kucherov & Manokhina, 2017; Russ-Eft & Preskill, 2005). To ensure that managers are involved in training evaluation, it is recommended that the criteria be included in their job description as

one of their direct responsibilities and that they be updated about important aspects of training evaluation (Kucherov & Manokhina, 2017).

3.6.6 Time constraint

According to Bennington and Laffoley (2012), it is often difficult to find the time to make proper follow-up after a programme has taken place (a step that is imperative in establishing long-term impact and transfer of learning). This brings us to the end of this chapter. The following section provides a summary of the chapter.

3.7 CHAPTER SUMMARY

This chapter began by defining the term “training evaluation” and differentiating it from associated concepts such as assessments and training effectiveness. The purpose and different types of training evaluation were also discussed. This was followed by sections discussing the methods used for training evaluation, models of HRD evaluation, the benefits of training evaluation and the factors that hinder it.

The next chapter (Chapter 4) addresses the theoretical framework underpinning this study.

CHAPTER 4: THEORETICAL FRAMEWORK UNDERPINNING THIS STUDY

4.1 INTRODUCTION

This chapter begins with the conceptualisation of the measurement of ROI in training. The ROI model is discussed in detail, inclusive of aspects such as the evaluation framework, process and guiding principles of the ROI model. This is followed by a discussion focused on the strategic management approach to ROI measurement. Thereafter, answers to literature questions are provided followed by a discussion of the theoretical framework developed for measuring ROI for training and development interventions provided to academic staff in the South African higher education sector, as guided by the literature. The chapter ends with a summary.

4.2 CONCEPTUALISATION OF RETURN ON INVESTMENT (ROI)

The measurement of ROI has for a long time been a valuable tool within the management landscape and cannot be regarded as a recent trend (Philips & Phillips, 2008; Viljoen, 2012). Since the theory of human capital was developed in the 1960s, it has been widely accepted that education is more about investment than consumption and that human development raises the level of national labour productivity and economic growth (Tarabini, 2010). Old evaluation models and methods, with their focus on basically assessing the scope of the training effect, do little to assist in achieving superior performance and organisational effect from HRD and, in some instances, undermine this purpose (Brinkerhoff, 2005). The globally competitive changing market and rapid technological innovation dictate that training is necessary and attaining results from learning investments is compulsory, not a choice (Brinkerhoff, 2005).

Various researchers attribute approaches to ROI measurement in HRD to the accounting model developed by the DuPont Company in 1919 for decentralised

financial control (Wang et al., 2002). The focus is on standardisation to ensure that costs and benefits can be compared to all factors influencing quantifiable performance results (Abner, Valdez & Perry, 2021; Kim & Belzer, 2021; Nakash & Bouhnik, 2021; Opperman et al., 2016). However, it is not simple to implement the costs and benefits approach, as the processes involved in HRD intervention are much more complex than accounting. HRD interventions involve dynamic human behaviour and the benefits resulting from the interventions are usually mixed with the impact of other organisational variables (Nemec, 2018; Olexová, 2018; Sachdeva, 2014).

The ROI methodology is systematically used to measure the rate at which HRD provides a return on the cost of investment in training interventions (Abner et al., 2021; Nemec, 2018; Olexová, 2018; Smith, 2004). The ROI results show the relationship between the investment of resources and the earnings generated (Boon & Fresen, 2008; Mara, 2021; Nakash & Bouhnik, 2021). This is done by collecting all the costs (direct and direct) of a training intervention, gathering baseline data pertaining to the activity that is to be the focus of the intervention and analysing the impact of the intervention on the activity under investigation (Smith, 2004).

According to Phillips (1997), the ROI equation and its applications should not be taken as the fifth level of Kirkpatrick's four-level taxonomy. One of the key benefits of Phillips' work is that it has considerably raised top management and the HRD practitioner community's awareness of the significance of evaluation and ROI measurement (Wang et al., 2002). According to Smith (2004), although the task of measuring the ROI on HRD investment may be accepted in practice, the commitment is frequently not carried through, or if it is done this is often at a minimum level. The following section discusses the strategic approach to ROI measurement.

Practitioners are faced with the immense challenge of calculating the ROI of training to demonstrate its value (Mehale et al., 2021; Sadik, 2019). Prudent investment in scarce and critical skills development through training is expected to improve human capital; nevertheless, the difficulty lies with the ambiguity in whether the return on these investments is measured and how training risks are managed (Jasson &

Govender, 2017). Phillips's (1996) ROI framework based on Kirkpatrick's four-level evaluation model, with the inclusion of the fifth level of evaluation, suggests that organisations should calculate the ROI of training programmes (Kucherov & Manokhina, 2017; Mehale et al., 2021; Opperman et al., 2016). Phillip's research has resulted in many HRD practitioners regarding Phillips's ROI theory and model as an extension of Kirkpatrick's work (Reio et al., 2017).

The next section discusses the ROI framework.

4.3 THE RETURN ON INVESTMENT (ROI) FRAMEWORK

Figure 4.1 depicts the basic elements of a comprehensive system.

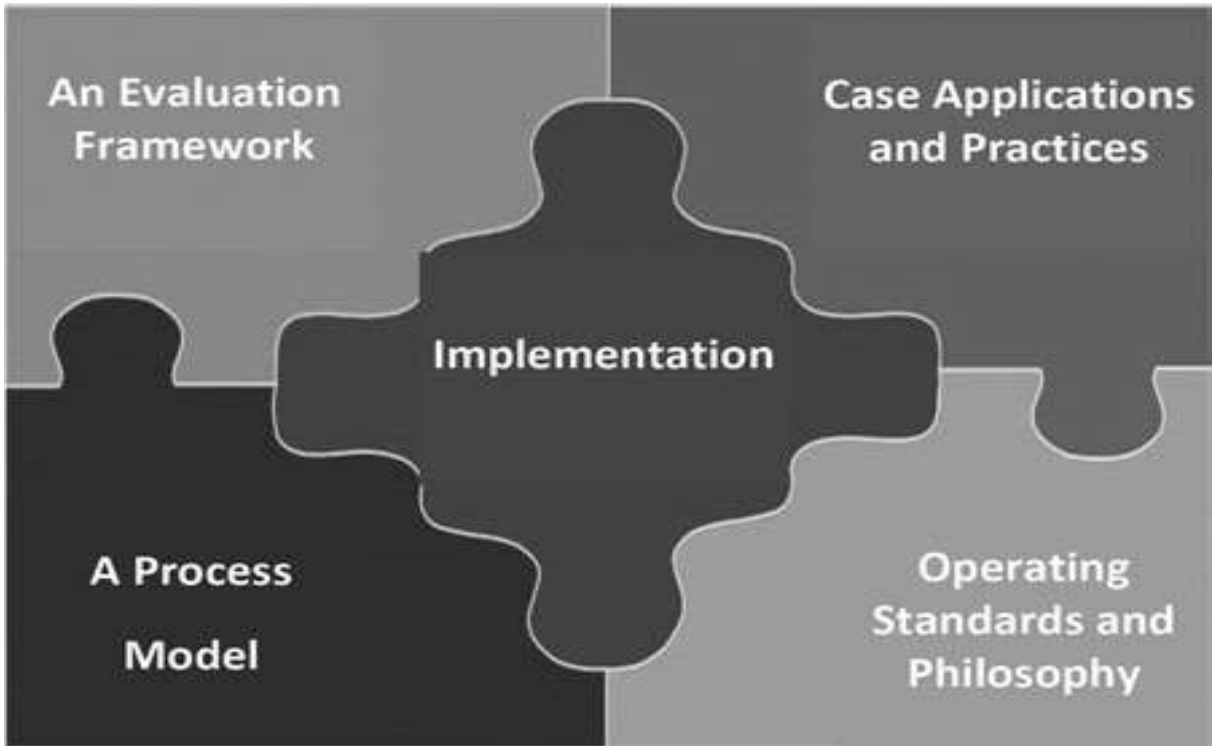

Figure 4.1: Basic elements of a comprehensive system
Source: Phillips et al. (2015: 20)

The first building block of the ROI methodology is the selection of an evaluation framework (Phillips et al., 2015; Roulstone & Phillips, 2008). This aspect is discussed in the next subsection.

4.3.1 Return on investment (ROI) evaluation levels

The different phases of Phillips' evaluation model include reaction and planned action/perceived value (Level 1), learning (Level 2), job application and implementation (Level 3), business results/impact (Level 4) and ROI (Level 5) (Jasson & Govender, 2017; Mara, 2021; Opperman et al., 2016; Phillips & Phillips, 2008; Sahoo & Mishra, 2017). Phillips et al. (2015) added another level called Inputs/Indicators (Level 0) which is yet to be adopted by most researchers and therefore omitted in Figure 4.2. The purpose of Level 0 is to measure the number of training interventions, participants, efficiencies and costs of training interventions (Phillips et al., 2015). The evaluation data should be arranged in a chain of impact from reaction through to the intangibles that must be present if the programme has to have an impact on the business, which ultimately drives ROI (Phillips & Phillips, 2008). These levels and their descriptions are depicted in Figure 4.2.

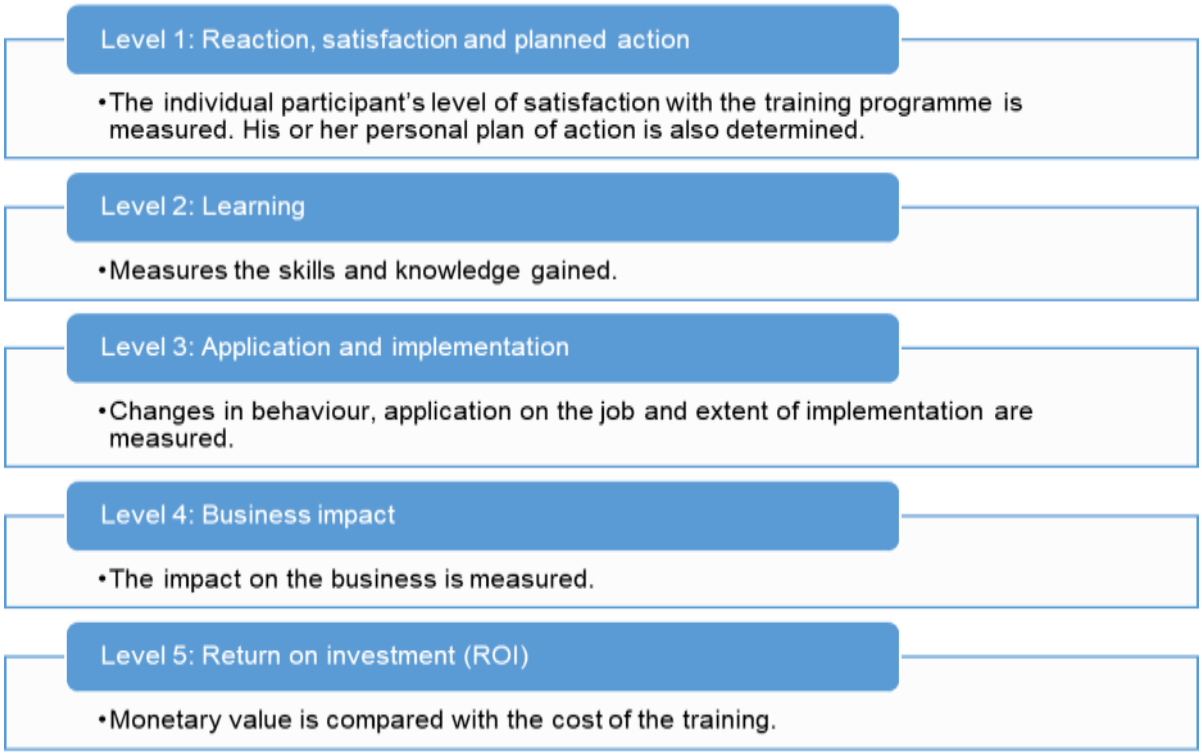

Figure 4.2: Phillips ROI framework

Sources: Adapted from Jasson and Govender (2017: 4)

Apart from Level 5, the levels explained below have been discussed in detail in Chapter 3 under Kirkpatrick's four levels of the training evaluation model. Hence, the first four levels are explained briefly.

4.3.1.1 Level 1: Reaction and planned action

Phillips's five-level model begins with reaction (satisfaction or planned action), which measures the learners' satisfaction and the plans to incorporate new learning into practice (Jasson & Govender, 2017; Opperman et al., 2016; Teixeira & Pereira, 2015). This is similar to Level 1 of Kirkpatrick's four-level training evaluation model.

4.3.1.2 Level 2: Learning

The second level involves assessing the amount of learning acquired during training (Jasson & Govender, 2017; Opperman et al., 2016), namely, skills, knowledge, and attitude changes (Teixeira & Pereira, 2015). This is similar to Level 2 of Kirkpatrick's four-level training evaluation model.

4.3.1.3 Level 3: Job application

The third level, also called behaviour and implementation, measures actual implementation into practice (Jasson & Govender, 2017; Opperman et al., 2016; Teixeira & Pereira, 2015). This is similar to Level 3 of Kirkpatrick's four-level training evaluation model.

4.3.1.4 Level 4: Business results/impact

The fourth level focuses on measuring the organisational impact by determining the output, quality, costs and time related to the benefit (Jasson & Govender, 2017; Olexová, 2018; Opperman et al., 2016; Teixeira & Pereira, 2015). According to Olexová (2018), the training can still be regarded as successful when the outcomes obtained pertain only to an increase in key performance indicators (KPIs). This level is similar to Level 4 of Kirkpatrick's four-level training evaluation model.

4.3.1.5 Level 5: Return on investment (ROI)

Literature shows that this last or top level is the level to go all-out for, even though it is the most difficult level to measure (Boon & Fresen, 2008; Olexová, 2018). The ROI level compares the programme's monetary benefits with the costs, presented as a percentage (Schueler & Phil, 2020; Teixeira & Pereira, 2015; Wang et al., 2002). Section 4.4.2.4 discusses how ROI is calculated. Phillips (1996) states that Level 4 comprises a cost-benefit analysis that is mandatory for calculating ROI, which in turn helps to calculate the monetary worth of the training programme (Jasson & Govender, 2017). However, some researchers contend that ROI is already included in Level 4 of Kirkpatrick's model; therefore, there is no need for the fifth level (Sahoo & Mishra, 2017). Researchers criticise Phillips's fifth level because the calculation of ROI depends on Level 4 (overall business and financial results) and states these results in monetary terms before comparing them to the cost of the training (Jasson & Govender, 2017). Therefore, if the results of Level 4 are flawed the ROI calculation will be flawed (Jasson & Govender, 2017). Furthermore, DeSilets and Dickerson (2010) suggest that calculating ROI is not suitable for interventions that are conducted once and never repeated. The next subsection focuses on the ROI process model.

4.3.2 Return on investment (ROI) process model

After selecting an evaluation framework, the next step is to adopt a major building block, the ROI process model (Roulstone & Phillips, 2008). According to Phillips et al. (2015), the ROI process model was established in the 1980s and has since been modified and refined to get to its current format. This process model ensures that suitable procedures and techniques are regularly implemented to address virtually any situation in order to demonstrate how data are collected, processed, analysed and reported to different stakeholders (Roulstone & Phillips, 2008). Figure 4.3 depicts the ROI process model.

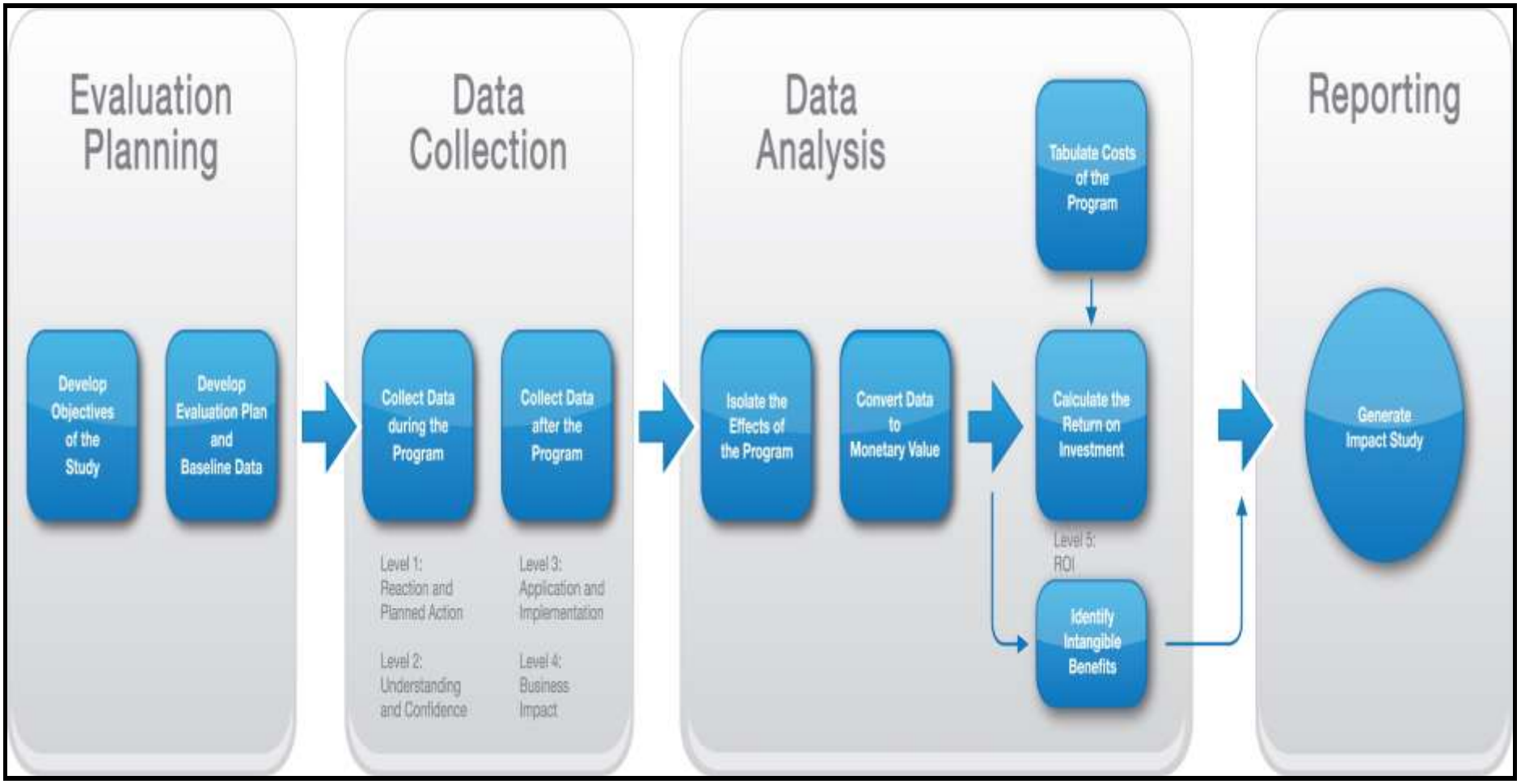

Figure 4.3: The ROI process model

Source: Creative Visions (n.d.)

The ROI process model shown in Figure 4.3 is comprehensive, as the data are developed at different periods and collected from various sources to develop the six types of outcome measure, namely five levels plus intangibles (Phillips et al., 2015). The discussion below explains the elements of Figure 4.3.

4.3.2.1 Evaluation planning

During the planning stage, the feasibility of conducting a Level 4 or 5 evaluation should be studied (Roulstone & Phillips, 2008). Evaluation planning is similar to what Russ-Eft and Preskill (2005) call “focusing evaluation”. Focusing on an evaluation includes understanding the background of the HRD intervention and the organisational setting, establishing the purpose of the evaluation, identifying the stakeholders of evaluation and formulating a list of evaluation questions that will lead and ground the evaluation process (Russ-Eft & Preskill, 2005). According to Roulstone and Phillips (2008: 35), the following critical question must be addressed:

- What specific measures have been influenced by this programme?
- Are the measures available at the moment?
- Can the impact of the programme on these measures be isolated?
- Are the costs of the project available at the moment?
- Will it be possible and viable to deliberate on the costs?
- Can the impact data be changed to monetary values?
- Is the actual ROI required?

These and other questions are significant during the planning process in order to be certain that the evaluation is suitable for the programme. After these questions have been answered, the next step as shown in Figure 4.3 is to develop appropriate objectives for the programme. The objectives of a programme cover all levels from Level 1 up to Level 5. The final plan can then be developed for the programme. According to Roulstone and Phillips (2008), a project plan contains a narrative of the project and short specifics regarding it, for example, project goals, complexity and scope, and the system users affected. It is also important to determine the expectations of all stakeholders before the training commences (Bennington &

Laffoley, 2012; Jasson & Govender, 2017). The various stakeholders in an organisation's training interventions include the managers, HR practitioners and participants, and their expectations about the purpose and expected outcomes of a training programme may vary (Jasson & Govender, 2017).

As shown in Figure 4.3, the next stage after planning for the evaluation is data collection.

4.3.2.2 Data collection

Data collection is the core of the ROI methodology (Phillips et al., 2015; Roulstone & Phillips, 2008). It is important to set the baseline before the training programme is conducted to establish and quantify the current situation, as improvements will be measured against this baseline (Smith, 2004). Hard data deal with objective, quantifiable factors whereas soft data deal with subjective, qualitative factors (Kumpikaitė, 2007). To be significant, reports on ROI also need to contain other performance or outcome measures that focus on soft data (DeSilets & Dickerson, 2010). Table 4.1 provides some of the hard and soft data as adopted by Kumpikaitė (2007).

Table 4.1: Types of hard and soft data

Hard data	Soft data
Output:	**Work habits:**
• Items assembled or sold	• Safety-rule violations
• Forms processed	• Tardiness
• Units produced	• Employee absenteeism
• Tasks completed	• Visits to the dispensary
Quality:	**Work climate:**
• Waste	• Employee grievances
• Scrap	• Employee turnover
• Product defects or rejects	• Job satisfaction
• Rework	• Discrimination charges
Time:	**Feeling/attitudes:**
• Equipment downtime	• Employee self-confidence
• Employee overtime	• Employee loyalty
• Training time	• Perceived changes in performance
• Time to complete projects	• Employees' perceptions of job responsibilities
Cost:	**New skills:**

• Variable costs • Overheads • Sales expenses • Accident costs • Programme costs	• Problems solved • Decisions made • Frequency of the use of new skills • Conflicts avoided
	Development and advancement: • Requests for transfer • Performance-appraisal ratings • Number of promotions or pay increases • Number of training programmes attended
	Initiative: • Implementation of the new ideas • Number of employee suggestions • Successful completion of projects

Source: Kumpikaitė (2007: 596)

Methods such as surveys, observation, questionnaires and focus group interviews involving the training participants and their line managers should be used to collect hard and soft data during and after the intervention (Jasson & Govender, 2017; Kucherov & Manokhina, 2017; Phillips et al., 2015). Roulstone and Phillips (2008) propose the use of various techniques such as tests, surveys, questionnaires, interviews, on-the-job observation, focus groups, action plans, project assignments, performance contracts and business performance monitoring to collect data. All of these techniques have been discussed in Chapter 3, section 3.3. Evaluation and feedback should be gathered from as many sources as viably possible, including the participants themselves, their supervisors, peers and senior leaders (Bennington & Laffoley, 2012). The most important thing is to choose techniques that are suitable for the environment and the project, and are affordable to the organisation.

4.3.2.3 Isolating the effects of the programme

The ROI calculation is based on converting hard and soft monetary values (Kumpikaitė, 2007). According to Phillips and Phillips (2008), it is possible to isolate the effects of one programme from other environmental factors. Isolation strategies find the number of improvements that can be directly linked to the programme, thereby safeguarding the credibility and accuracy of the ROI calculations (Roulstone & Phillips, 2008). The subsection below discusses the techniques used to isolate other variables including control groups, trend-line analysis, forecasting models,

participant estimation, participants' supervisor estimation, senior management estimation and customer input.

4.3.2.3.1 Control group

Using this technique, one group (Group 1) is provided with a specific intervention, while another similar group (Group 2) is not provided with any intervention (Phillips et al., 2015; Roulstone & Phillips, 2008). If Group 1 performs better than Group 2, the performance improvement can be attributed to the training intervention. This is the most effective technique to isolate the impact of a training and development programme (Sachdeva, 2014). However, the downside of this approach is that it cannot be used when a programme is implemented at the same time in all areas (Sachdeva, 2014).

4.3.2.3.2 Trend lines

Trends lines are adopted in a programme to project the value of specific output variables if the programme were not provided (Roulstone & Phillips, 2008). The projection is then compared with the actual data after the programme has been completed and the difference shows the estimate of the impact of the training programme (Phillips et al., 2015). Trend analysis cannot be used where other factors are contributing to performance improvement (Sachdeva, 2014).

4.3.2.3.3 Forecasting model

The forecasting model is useful when mathematical relationships between input and output factors are available (Phillips et al., 2015; Sachdeva, 2014). This approach predicts the output factor, assuming that no training intervention is embarked on. The actual performance of the variable after the training intervention is then compared with the forecasted value, resulting in an estimate of the impact of the training intervention (Roulstone & Phillips, 2008).

4.3.2.3.4 Participant estimation

This approach requests participants to estimate the amount of improvement related to the programme (Phillips et al., 2015; Sachdeva, 2014). The participants are provided with the total amount of improvement, on a pre- and post-programme basis, and requested to provide the percentage of improvement that is a genuine result of the training intervention (Roulstone & Phillips, 2008). The participants are usually in the best position to assess the programme's comparative impact because it is the participants who have received the training and are individually involved in transferring the new skills and knowledge to the work environment (Sachdeva, 2014).

4.3.2.3.5 Participants' supervisor estimation

This approach allows supervisors to estimate the impact of the training programme on the results (Phillips et al., 2015). Similar to the participant estimation approach, the participants' supervisors are given the total amount of improvement and requested to stipulate the percentage that can be directly linked to the training programme (Roulstone & Phillips, 2008).

4.3.2.3.6 Senior management estimation

This approach requires senior management to estimate the impact of the training programme on the performance of the organisation (Phillips, 2007; Roulstone & Phillips, 2008).

4.3.2.3.7 Customers' input

According to Phillips et al. (2015), customers assist with information regarding how the programme has influenced their decision to use a product or service.

Finally, for all these estimating techniques, the data should be adjusted for error. There is therefore a need to establish what correlations will be considered valid measures of ROI. When the learning programme cannot take all the credit, then it is important to establish what credit it will receive (Bennington & Laffoley, 2012). Once

the effects of other factors have been isolated, data should be converted to a monetary value.

4.3.2.4 Converting data to a monetary value

The first data that need to the converted are the costs associated with the programme. To calculate financial returns, there is a need to maintain careful records for all expenses, including the cost of providing the activity, the outlay for development, evaluation expenses, and indirect or administrative and office expenses (DeSilets & Dickerson, 2010). According to Phillips and Phillips (2008), costs are developed using guidelines and principles, and both direct and indirect costs should be taken into consideration (Kim & Belzer, 2021). The costs for a training intervention include space-related and equipment costs; preparation and instruction (consultants); the development or purchase of training materials; travel and/or food expenses; documenting attendance; administrative costs, notifying prospective trainees, and trainee costs (Nemec, 2018; Phillips et al., 2015). Trainee costs include any productivity loss or staff coverage costs and each trainee's hourly pay (Nemec, 2018).

The final data that need to be converted relate to the benefits achieved because of a training programme. Although the formula for calculating ROI seems simple and easy to use, it suffers the same problem of identifying the term of benefit for the numerator in the equations (Wang et al., 2002). Benefits such as decreased staff turnover, infection rates, incidents and injuries, need to be converted to a monetary value (DeSilets & Dickerson, 2010; Smith, 2004). Phillips (1997) used an approach where the programme participants or their supervisors were asked to assign monetary values to the results of a specific training programme. The next step was to request the rater's confidence level, ranging from 0 to 100%, in order to assign monetary value (Wang et al., 2002). Table 4.2 provides some of the strategies that are useful when converting monetary values using the ROI evaluation.

Table 4.2: Strategies to convert data to monetary values in a ROI evaluation

Unit of data	Type of conversion

Output data	Data are converted to a profit contribution or cost savings and output increases are converted to a monetary value based on their contribution to profit or cost reduction.
Quality data	The quality cost is calculated and quality improvements are directly converted to cost savings.
Time data	Wages and benefits are used for the value of time where employee time is saved. The value of time is important to consider since many programmes concentrate on improving the time essential to finish processes, projects, or daily activities.
Organisational cost data	Historical costs and current records are used when available for a specific variable and organisational cost data are used to determine the specific value of an improvement.
Estimate of value	Internal and external experts may be used to estimate a value for improvement and the credibility of the estimate depends on the individual's reputation and expertise.
Estimate of costs	External databases are sometimes available to estimate the value or cost of data items, for example, industry, government and research databases can be used to assess important information for these values.

Source: Kumpikaitė (2007: 597)

The next step after converting the data into monetary value is to calculate the actual ROI.

4.3.2.5 Calculating return on investment (ROI)

According to Phillips et al. (2015), ROI is used to determine the benefits and costs of a programme and is carried out by using the benefit-cost ratio (BCR) or the ROI percentage. BCR is another formula that is useful for measuring financial return or economic value and expressing it as a ratio (DeSilets & Dickerson, 2010). To calculate BCR, the benefits of the programmes are compared to the costs in monetary value (DeSilets & Dickerson, 2010; Kumpikaitė, 2007; Schueler & Phil, 2020; Smith, 2004). The formula of BCR is as follows (DeSilets & Dickerson, 2010; Roulstone & Phillips, 2008; Smith, 2004):

BCR = Benefits ÷ Cost

The calculation considers all revenues and expenditures, making it less complicated to establish if there is a positive monetary return (DeSilets & Dickerson, 2010). According to DeSilets and Dickerson (2010), a BCR of 2:1 indicates that for every $1

paid, there is a benefit of $2. The same can be said when using the South African rand – a BCR of 2:1 means that for every R1 spent, there is a benefit of R2. If the anticipated benefits of an intervention exceed its cost, then the intervention may be judged valuable (Kumpikaitė, 2007; Smith, 2004). The formula for measuring BCR may be enhanced by including the confidence percentage where line managers are asked to estimate the value of the performance improvements, efficiency and cost saving (Phillips et al., 2015; Smith, 2004). According to Smith (2004), the confidence percentage can be factored into the formula as follows:

Cost/benefit = cost/benefits X confidence rating %

The advantages of this model include its usefulness in an organisation where it is not simple to measure the benefits of HRD in direct monetary terms, its forward projection of potential benefit, and the fact that the approach directly involves line managers in predicting the results (Smith, 2004). In contrast, the main downside of the model is its overreliance on subjective judgement rather than ROI.

ROI differs from a cost-benefit analysis in that the latter is usually completed before the creation of the training (Weninger, 2020). The formula below is mainly used to calculate ROI in HRD (Alotaibi, 2018; DeSilets & Dickerson, 2010; Devarakonda, 2019; Grant, 2012; Kumpikaitė, 2007; Nemec, 2018; Phillips et al., 2015; Sachdeva, 2014; Sadik, 2019; Schueler & Phil, 2020; Wang et al., 2002):

ROI (%) = Net Benefit (Total Benefit – Total Cost) ÷ Total Cost x 100

Adopting this formula involves converting the highest level of evaluation or impact to a monetary value and comparing it to the costs of the programme (DeSilets & Dickerson, 2010; Nakash & Bouhnik, 2021; Perez-Soltero et al., 2019; Smith, 2004). When calculating the ROI, the net programme benefits, namely financial benefits minus the programme costs, are divided by the programme costs. The ROI is always reported as a percentage (Abner et al., 2021; DeSilets & Dickerson, 2010; Kim & Belzer, 2021; Phillips et al., 2015; Teixeira & Pereira, 2015). Like the BCR, when the expected benefits of an intervention surpass its cost, the intervention may be deemed valuable (Kumpikaitė, 2007; Smith, 2004; Nakash & Bouhnik, 2021).

Although a negative ROI does not always show that a training programme has failed, as highlighted by Phillips and Phillips (2002), implementing an ineffective training approach is a waste of limited resources (Nemec, 2018). However, some training programmes inherently produce intangible benefits, which are almost impossible to convert into monetary value. This necessitates the consideration of intangible benefits, as highlighted in the subsequent section.

4.3.2.6 Intangible benefits

It is important to note that some programmes have intangible, nonmonetary benefits (Phillips et al., 2015; Wang et al., 2002). The data can be reported as intangible benefits if the process of converting the benefits into a monetary value is inaccurate and subjective, which might cause the outcomes to lose credibility (Phillips et al., 2015; Roulstone & Phillips, 2008). Any other returns that have an economic impact on the business results, but may not be clearly articulated in monetary terms, are called intangible benefits (Bennington & Laffoley, 2012; Wang et al., 2002). Intangible benefits are often extremely valuable and carry as much influence as the hard data items (Kumpikaitė, 2007; Roulstone & Phillips, 2008). Intangible benefits include corporate social responsibility, job satisfaction, brand awareness, organisational commitment, reputation, technology leadership, employee engagement, teamwork, reduced stress, a good image and an effective organisational culture (Phillips et al., 2015). Smith (2004) stipulates that in a situation where it is not possible to measure ROI, measures such as increased workforce efficiency and flexibility, reduced workforce absenteeism and increased satisfaction could be considered.

4.3.2.7 Reporting the results

Reporting entails developing suitable information relating to the impact of the training programme on organisational performance, using various techniques to communicate to a wide variety of targeted audiences (Phillips et al., 2015; Roulstone & Phillips, 2008). According to Russ-Eft and Preskill (2005), the organisation's willingness and ability to make evaluation information available, in addition to effective methods for circulating evaluation findings, will strongly influence how

evaluation findings are reported, communicated and used for decision-making and action. Eventually, the evaluation of HRD interventions should assist decision-makers to understand why, where, when and how HRD contributes to the organisation's efforts to achieve its strategic goals and objectives (Russ-Eft & Preskill, 2005). Anecdotal information can be used to supplement the numbers when communicating the story behind the numbers (Bennington & Laffoley, 2012).

After reporting the results from the ROI measurement process, special attention should be paid to implementation issues such as the skills, communication, responsibilities, roles, plans and strategies involved (Roulstone & Phillips, 2008). Finally, the ROI process model recommends that successful practices and applications should be in place that defines the implementation of the process inside organisations, the benefit that a complete measurement and evaluation process offers to the organisation, and the impact on the organisation of a particular evaluated programme (Roulstone & Phillips, 2008). The next section discusses the principles that guide the ROI methodology.

4.3.3 Guiding principles for the return on investment (ROI) methodology

The third building block of the ROI methodology is the development of operating standards (also known as guiding principles). The process required to achieve the benefits follows a systematic sequence based on the 12 guiding principles of the ROI methodology (Phillips & Phillips, 2008). Figure 4.4 depicts the guiding principles of the ROI methodology.

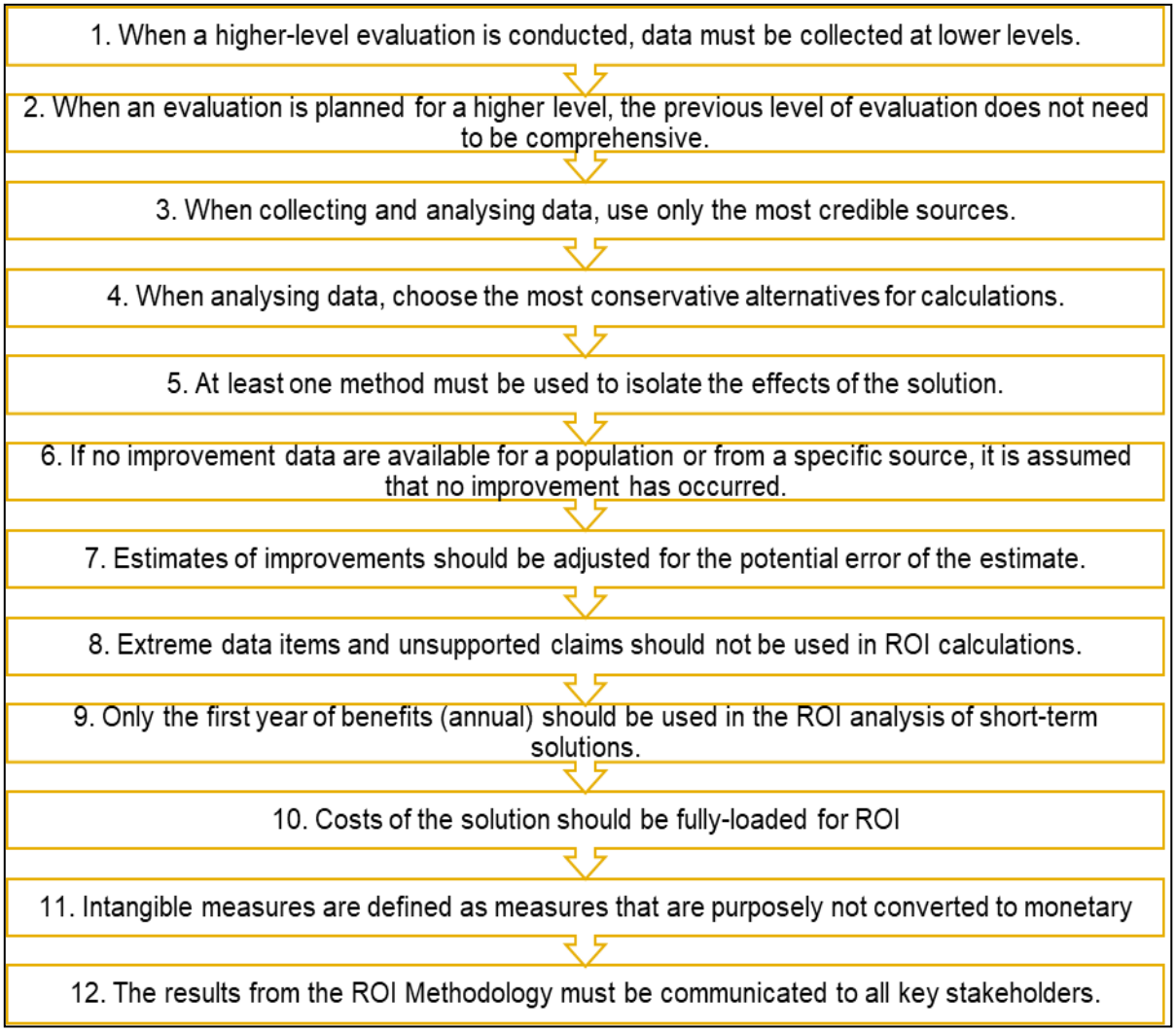

Figure 4.4: Guiding principles for the ROI methodology

Source: Adapted from Phillips et al. (2015: 25)

To ensure consistency and replication of evaluation studies, operating standards are applied in the evaluation process. The guiding principles assist to guarantee that the results of the investigation are consistent and not influenced by the person collecting the data (Roulstone & Phillips, 2008).

Bennington and Laffoley (2012: 4–5) suggest the following tips for measuring ROI:

- *Do not go overboard.* Establish what the funders of the programme recognise as success and focus on it: ROI needs only demonstrate value beyond a reasonable doubt.

- *Move from a quality to a results approach.* Delivering a quality experience that inspires learning should be considered when designing learning programmes. Pay less attention to the quality of the experience and more to the effect of learning when calculating ROI.
- *Calculate ROI on an ongoing basis.* Constantly know how the learning programme is executed so adjustments can be made to improve the programme and justify how money is being spent at any time.
- *Build a systematic case for ROI.* Analyse the needs of the organisation and develop strategic learning plans, prioritise them and carry them out with thorough justification based on the expected ROI.
- *Collect data beyond the programme delivery and use readily available data.* Evaluation and feedback should be gathered from as many sources as viably possible including the participants themselves, their supervisors, peers and senior leaders.
- *ROI is not just about money.* When analysing results it is important to consider such learning measurements as job impact, effectiveness, quality and business results.
- *Be conservative in ROI calculations*. To ensure that bias is compensated for, self-reported ROI should be factored down and additional evaluations should weigh more than evaluations reported immediately after the programme.
- *Represent the monetary expenditure as a per-participant ratio*. Show the per-participant cost contrasted with a total cost to make the investment more plausible.
- *Communicate the story behind the numbers*. Use circumstantial information to support the numbers.
- *Do not be discouraged if the ROI numbers are low*. ROI is aimed at assessing what is working and what should be abandoned or overhauled.

These tips are very useful and can be adopted by any organisation wishing to implement the ROI measurement. The discussion below is necessitated by the need to understand the strategic purpose of this process before planning for and conducting ROI in training.

4.4 STRATEGIC MANAGEMENT APPROACH TO RETURN ON INVESTMENT (ROI) MEASUREMENT

As a result of technological change, demographic transformation, political and social trends, and the advent of Japan and other new post-World War II economics, among other things, strategic management has progressed from the volatile environment of the 1960s and 70s (Erasmus, Rudansky-Kloppers & Strydom, 2019). Strategic management was branded as competition-focused, with the primary goal of organisations being profit maximisation (Venter, 2019). Organisations were forced to make big strategic management decisions to align their goals and objectives with the developments in the business setting (Erasmus, Rudansky-Kloppers et al., 2019). The strategic management process includes (1) developing a vision and mission statement for the organisation, (2) scanning the external and internal organisational environment, (3) setting strategic goals and (4) formulating a strategic plan to guide the course of action an organisation must embark on to achieve its goals (Erasmus, Rudansky-Kloppers et al., 2019; Venter, 2019).

Strategy refers to the long-term direction of the organisation, a pattern in a stream of decisions, how organisations accomplish their objectives and the thoughtful choice of a combination of activities to attain competitive advantage (Venter, 2019). According to Venter (2019: 41–42), the purpose of strategic management is to enable the organisation to apply the following crucial aspects:

- Consistent and clear long-term strategic direction regarding what the organisation aims to accomplish in the future.
- An insightful consideration of the external environment enables the organisation to align itself with opportunities and minimise threats successfully. An objective understanding of the key resources and capabilities the organisation possesses, including their value, assists the organisation to add on these and develop a distinct competitive advantage.

- The suitable alignment of organisational architecture such as organisational systems, structure, culture, and functional and operational management, enables the effective implementation of strategic plans, initiatives, portfolios, projects and programmes.

According to Erasmus, Rudansky-Kloppers et al. (2019) and Mara (2021), for the organisation to achieve its vision and mission there should be a link between organisational and HRD strategies to ensure that appropriate HRD practices and tools are implemented. Owing to its importance and the costs involved HRD should be managed strategically and effectively (Erasmus, Rudansky-Kloppers et al., 2019). The ROI concept in HRD has always been a highly relevant business topic, as every organisation desires to be financially profitable (Viljoen, 2012). According to Sadler and Van Jaarsveldt (2012), a strategic approach should be embraced by developing the capabilities of employees to improve organisational efficiency and competitiveness. The mission of HR is no longer limited to payroll, leave planning and firing procedures, but goes far beyond by playing a strategic role close to the board level (Teixeira & Pereira, 2015). The correct combination of strategic learning interventions that are fundamental to strategic management should be identified and prioritised (Sadler & Van Jaarsveldt, 2012).

If HR is to be regarded as a business partner in an organisation, evaluation plays a significant role in demonstrating accountability (Blaga, Gabor & Matis, 2021; Viljoen, 2012). However, training evaluation should not be overemphasised; the focus should be on the realignment of training to essential business results such as stakeholder value, employee retention and career progress (Mara, 2021). The focus on ROI has increased largely because of the needs of clients and funders of programmes, projects and solutions (Phillips & Phillips, 2008; Teixeira & Pereira, 2015). The evaluation of training takes place in an unstable, changing and complex setting and therefore needs to be implemented in a planned, purposeful and systematic way (Russ-Eft & Preskill, 2005). Accordingly, there is a need to align the evaluation process and the subsequent findings with the organisation’s vision, mission and strategic plan (Russ-Eft & Preskill, 2005).

In the present economic environment, in which the function of HR is becoming more of a strategic function and costs have become a priority in the setting of the strategies, evaluating the efficiency of HR investment is becoming significant (Blaga et al., 2021). Training and development consultants need to deliver convincing evidence that training brings bottom-line results and contributes to mission accomplishment (Kirkpatrick & Kirkpatrick, 2019; Sachdeva, 2014). The sustained failure to measure ROI for training investment could ultimately lead to organisational risks such as strategic, operational and legal compliance risks (Mara, 2021). Therefore, measuring ROI should be regarded as an effective strategic tool that an organisation can use to achieve its long-term goals. An ROI measurement can be used as a tool for strategic planning and for supporting business efficiency and improvement (Schueler & Phil, 2020). Furthermore, the measurement can be used to direct funding agreements or assist in making investment decisions (Schueler & Phil, 2020).

As stipulated by DeSilets and Dickerson (2010), calculating ROI is most suitable for programmes that are linked to the organisation's plans, are capital and resource-intensive, have a long life, entail a major time commitment, were developed for a large group of learners and are important to management. When designing a programme from scratch, some steps should be followed to ensure that a focus on ROI is directly connected to the strategic priorities of the organisation. As cited in Bennington and Laffoley (2012: 6), Palmer (2010) identified the five steps that HR professionals should take when designing successful learning and development programmes:

Step 1. Understand the organisation's strategic priorities.
Step 2. Understand how the HRD function can contribute to those priorities.
Step 3. Identify learning programmes that will support the strategic direction of the organisation.
Step 4. Create them with built-in metrics.
Step 5. Pitch them as if you were the chief financial officer.

According to Phillips and Phillips (2008), reactive methodologies are moving towards proactive approaches, with ROI measurement deliberated on early, thus getting

strong support from top management. HR professionals should work with senior leaders to ascertain ROI measures that are related to the key strategic objectives of the organisation (Bennington & Laffoley, 2012). Senior managers in organisations that apply best practices are investing more in measurement and evaluation, budgeting 3 to 5% of the departmental allocations on evaluation and measurement, including ROI (Phillips & Phillips, 2008).

ROI should preferably be targeted at programmes that have management attention in terms of accountability; are strategic, expensive, operationally focused, or highly visible; and involve large target audiences (Phillips & Phillips, 2008). An HRD evaluation system should be established in a way that supports, amplifies, or matches other process improvement measures being implemented in the organisation, such as the balanced scorecard (BSC), six sigma, or Baldridge (Russ-Eft & Preskill, 2005). Compared to the BSC, the six types of data collected when measuring ROI (reaction, learning, application, business impact, ROI and intangible benefits) serve as a micro-scorecard, while the BSC represents a macro-scorecard of the organisation or department (Phillips & Phillips 2008). Kaplan and Norton (1996), who developed the BSC process, suggest four categories of data: customer, financial accountability, internal process, and learning and growth (Phillips & Phillips, 2008). Data collected using the ROI methodology can be grouped into these categories. However, the ROI process also includes two significant capabilities not characteristically included in BSC methodology: it offers a technique to separate the impact of a programme and demonstrates the costs versus the benefits of the programme (Phillips & Phillips, 2008).

The next section provides answers that were made in terms of the literature review.

4.5 ANSWERS TO THE LITERATURE REVIEW QUESTIONS

Six questions were formulated to delimit the literature review for this study. The subsections below present answers to these questions:

4.5.1 Research question 1: How does the literature conceptualise skills development?

This research question was answered in Chapter 2 (Skills Development Landscape and the South Africa Higher Education Sector). Skills development refers to a lifelong undertaking, encompassing continuous learning, by employees to update their knowledge, skills and experiences for personal and overall development (Osiesi et al., 2022). Bridgford (2017) describes skills development as the wide range of formal and non-formal vocational, technical and skills-based education and training for employment and/or self-employment. A broad definition of skills development sums up all forms of PSET which take into consideration a range of dimensions of what a skill is, its uses and its purposes (Reddy et al., 2018). The term “skills development” is used interchangeably with the term “HRD”. According to the HRDC (2017b), HRD is an integral part of the HR function of an organisation and is responsible for the development of employees through training programmes and experiential learning. Therefore, this research question has been answered in the sense that literature conceptualises skills development as initiatives that are implemented to improve the knowledge, skills and experience of employees through various training and development interventions.

4.5.2 Research question 2: What is the nature of the theoretical relationship between investment in HRD and organisational performance according to the literature?

This research question was answered in Chapter 2 (Skills development landscape and the South Africa higher education sector). According to Boon et al. (2018), human capital as a strategic resource has gained attention in strategic management as part of the advancement of the resource-based view. In line with the resource-based view, the core business skills of the organisation’s competitive advantage are found in internal development within the organisation (Viljoen, 2012). Human capital theory is based on the belief that investment in education and training produces positive outcomes for the individual, organisation and community (Arthur-Mensah & Alagaraja, 2018; Yamauchi et al., 2009). Several studies have examined human resources as a source of sustained competitive advantage, specifying that high-

performance work systems shaped by certain HRD and HRM practices result in greater firm performance (Chapman et al., 2018). Hence, many organisations develop their employees, leading to improved performance and, as a result, gaining a competitive advantage. Therefore, this research question has been answered because a positive relationship has been established between investment in HRD interventions and organisational performance.

4.5.3 Research question 3: What is the nature of the South African skills development landscape?

This research question was answered in Chapter 2 (Skills development landscape and the South Africa higher education sector). Prior to 1994, South African skills development was characterised by fundamental racial imbalances for the historically disadvantaged population, especially black South Africans, as well as low-skilled, unemployed adults and the youth (Groener, 2014; Reddy et al., 2018). With the advent of democracy, led by the African National Congress government, skills development became a national priority, supported by a robust legislative framework to regulate skills development (DHET, 2013; Jarbandhan & Mothopeng, 2015). The SDA, SDLA and National Qualification Framework (NQF) Act are the prominent legislation regulating skills development in the country. The announcement of the SDA shaped the institutional and regulatory framework for intensifying strategic investment in education and training across all economic sectors (Jarbandhan & Mothopeng, 2015; Marock, 2017). The complementary SDLA formalised effective funding for training, as organisations are required to contribute to skills development through a skills development levy (HRDC, 2017b; Jarbandhan & Mothopeng, 2015). The NQF Act was also enacted as an overarching act governing all education and training in the country (DHET, 2013; Reddy et al., 2018) to create equal hierarchies of opportunity and movement, as well as open and clear learning and career pathways for all South Africans (Mummenthey, 2010). The DHET is the custodian of training in South Africa, striving to improve the capacity of the PSET system to align it with the skills and developmental needs of the country (DHET, 2018b). This research question has been answered because literature revealed that democratic South Africa ushered in a series of legislative instruments, policies strategies and

plans that sought to guide post-school skills development interventions across all economic sectors.

4.5.4 Research question 4: What is the nature of the South African public university context according to the literature?

This research question was answered in Chapter 2 (Skills development landscape and the South Africa higher education sector). Notwithstanding the undesirable outcomes of the apartheid legacy, the entire system is still the best developed in Africa, with extensive resources (Hay & Monnapula-Mapesela, 2009). However, some challenges persist. These challenges are multidimensional, having to do with the slow pace of change, transformation and regeneration, the aging workforce, comparatively less qualified academic staff, meagre postgraduate student numbers resulting in an inadequate supply of future academic staff, and global developments in higher education that demand ever advanced expertise from employees (DHET, 2015c). The critical skills for the higher education sector were identified as assessment, moderation, coaching, mentoring, curriculum development, statistics, facilitation, advanced research, supervision, curriculum development for article publication, fundraising, material development monitoring and evaluation, project management, and records management (ETDPSETA, 2016). To address staff development challenges, the government has introduced programmes such as the nGAP, EACEP and SSAU-DP (DHET, 2015c). This research question has been answered because the literature outlines the historic and current context of the South African higher education landscape.

4.5.5 Research question 5: What are the various HRD evaluation models that exist in the literature?

This research question was answered in Chapter 3 (Models of training evaluation). Over the years, numerous authors have developed various training evaluation models (Botek, 2018; Devarakonda, 2019; Pieters & Kapenda, 2017; Sahoo & Mishra, 2017; Warju, 2016). Training evaluation can be traced back to the work of Tyler, in his 1950 work *Basic principles of curriculum and instruction*, for whom evaluation was an integral part of the educational process (Tasca et al., 2010;

Wraga, 2017). However, the most commonly used model to evaluate training is the four-level model of Kirkpatrick (Jasson & Govender, 2017; Payumo et al., 2019; Perez-Soltero et al., 2019; Siengthai, 2015). Jack Phillips added a fifth level to the four levels of training evaluation proposed by Kirkpatrick and, as a result, the measuring of ROI was established (Weninger, 2020). Many other models have been developed over the years including, inter alia, the CIRO model (Warr et al., 1970), the CIPP model (Stufflebeam & Shinkfield, 1985), the SCM (Brinkerhoff, 2003), and the IMTEE (Alvarez et al., 2004). This research question has been answered because the main models of training evaluation were identified as Tyler's objective model, Kirkpatrick's four levels of training evaluation, the CIPP, the CIRO, the ROI, the SCM and the IMTEE.

4.5.6 Research question 6: What are the theoretical dimensions of an integrated ROI framework for HRD according to the literature?

This research question was answered in this chapter (Chapter 4). According to Phillips and Phillips (2010), before the ROI model was conceptualised, less consideration was given to the benefits resulting from programmes, projects or processes. Instead, success was measured by activities such as money spent, the number of people involved and the days taken to complete (Phillips & Phillips, 2010). With resources becoming scarce, every expense has to be assessed to establish its value (Phillips, Phillips & Ray, 2020). Thus, the measurement of ROI was established. ROI is the eventual measure of accountability, thus answering the question: Does the organisation add economic value by investing in interventions, programmes and performance improvement solutions (Phillips & Phillips, 2019). The different levels of Phillips's evaluation model include reaction and planned action/perceive value (Level 1), learning (Level 2), job application and implementation (Level 3), business results/impact (Level 4) and ROI (Level 5) (Jasson & Govender, 2017; Mara, 2021; Opperman et al., 2016; Phillips & Phillips, 2008; Sahoo & Mishra, 2017). This question has been answered because the theoretical dimensions of an integrated ROI framework for HRD have been established from the literature as depicted in Figure 4.5 below.

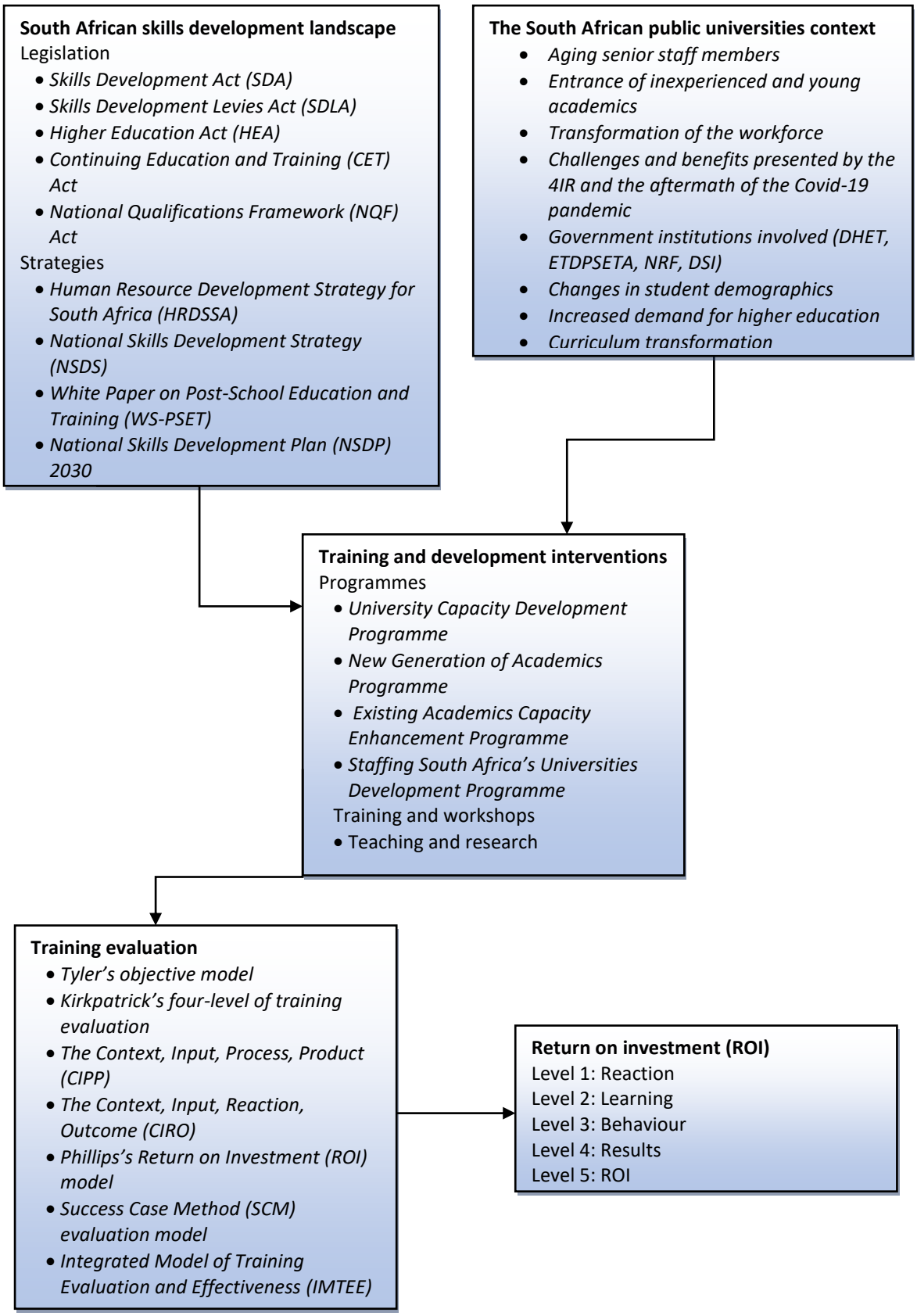

Figure 4.5: An integrated ROI framework for HRD and its associated theoretical dimensions

Source: Own compilation

The theoretical dimensions of an integrated ROI framework for HRD are discussed below.

4.5.6.1 South African skills development landscape

The first dimension is the skills development landscape in South Africa. This was discussed in Chapter 2. Since the start of the democratic era in the country, the government has enacted various legislation, strategies and plans pertaining to training and development. The key legislation includes the SDA, SDLA, HEA, CETA and NQF Act. Skills development strategies and plans include the HRDSSA, NSDS, WP-PSET, and National Skills Development Plan 2030.

4.5.6.2 The South African public university context

The second dimension is the South African higher education sector. This was discussed in Chapter 2. This sector is characterised by aging senior staff members, the entrance of inexperienced and young academics, the transformation of the workforce, challenges and benefits presented by the 4IR and the aftermath of the COVID-19 pandemic, government institutions involved, changes in student demographics, increased demand for higher education and curriculum transformation. To alleviate the skills challenges experienced in the sector and to implement the skills development legislation and strategy, various training and development interventions need to be provided by universities in the South African higher education context.

4.5.6.3 Training and development interventions

The third dimension is the training and development interventions. This was also discussed in Chapter 2. In light of the challenges and opportunities in the sector, training and development interventions provided should be guided by skills development legislation, strategies and plans. The programmes included the nGAP, EACEP, and SSAU-DP programmes. Training and workshops should focus on assessment, moderation, coaching, mentoring, curriculum development, statistics,

facilitation, advance research, supervision, curriculum development for article publication, fundraising, material development monitoring and evaluation, project management, and records management.

4.5.6.4 Training evaluation

The fourth dimension is training evaluation. This was discussed in Chapter 3. Once the interventions have been implemented through various mechanisms and support structures, they should be evaluated using relevant training models. The training evaluation models included Tyler's objective model, Kirkpatrick's four-level training evaluation, CIPP, CIRO, ROI, SCM, and IMTEE models.

4.5.6.5 Return on investment (ROI)

The last dimension is ROI. This was discussed in this chapter (Chapter 4). The measurement of ROI includes five different levels including the evaluation of trainees' reaction, learning and behaviour. The other two levels focus on the impact of training on organisational performance (results) and the ROI.

The following section presents a summary of this chapter.

4.6 CHAPTER SUMMARY

The chapter began with a conceptualisation of the measurement of ROI in training. Thereafter, the ROI model was discussed focusing on its evaluation framework, process and guiding principles. This discussion was followed by a discussion on the strategic management approach to ROI measurement. Answers to the research questions formulated to guide the literature review were presented.

Chapter 5, which follows, presents the research methodology adopted for this study.

CHAPTER 5: RESEARCH METHODOLOGY

5.1 INTRODUCTION

This chapter discusses the methodological framework adopted in this study. Included in the discussion is the research philosophy, methodological choice, types of research, research approach, research design, research choice, time horizon, research setting, population, sampling strategy, data collection methods and procedure, and data analysis. Aspects related to the trustworthiness of the study are then discussed. The chapter ends with a summary.

5.2 METHODOLOGICAL FRAMEWORK

Research methodology refers to the research approach adopted in a study, including the different types of activity undertaken, to systematically address the research challenge guided by assumptions and justification of the choices made (Wohlin & Runeson, 2021). The research methodology is the broad approach the researcher takes in carrying out a research project, which includes the particular tools the researcher chooses (Leedy & Ormrod, 2013). This is the general term used to refer to the research methods, design, approaches and procedures used in a well-planned study to resolve a particular research problem (Kivunja & Kuyin, 2017). According to Ullah and Rafiq (2021), research methodology is a core component for the execution of research ideas. The selection of a methodological framework is influenced by a combination of numerous factors – for instance, whether the researcher believes there is some sort of external truth out there that needs to be found, or whether the task of research is to explore and discover people's multiple perspectives in an ordinary environment (Gray, 2017). The methodological framework adopted in this study is summarised by the research onion in Figure 5.1, with the choices relevant to this study encircled. The research onion is a multi-layered diagram that indicates how data at the heart of the "onion" were collected and analysed (Bianchi, 2021). Additional sections are provided in the discussion where the researcher is of the view that the research onion does not adequately address certain methodological aspects of the study.

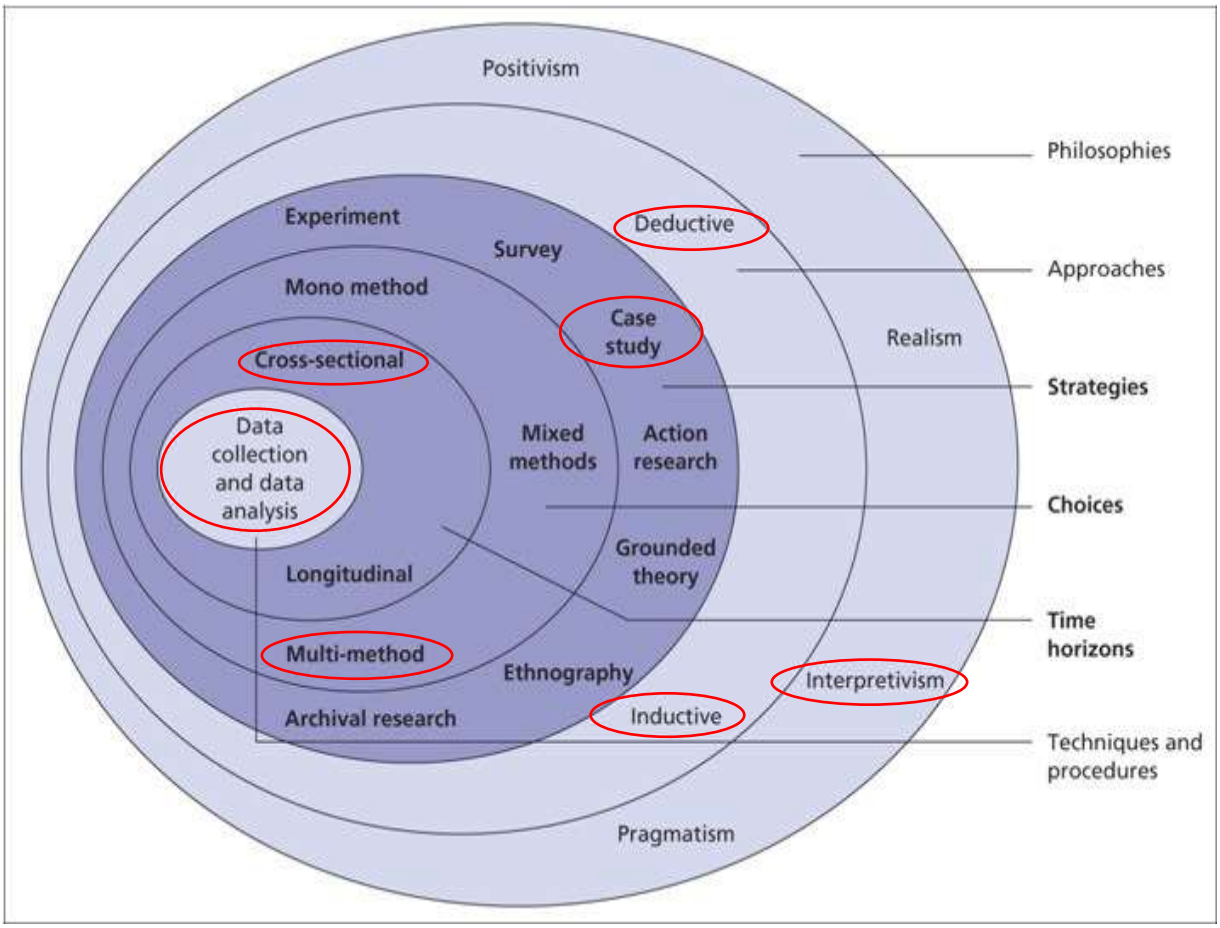

Figure 5.1: Research onion

Source: Saunders, Lewis and Thornhill (2007: 108)

5.2.1 Research philosophy

According to Wohlin and Runeson (2021), research methodologies are chosen in line with a specific research philosophy, which is an overarching concept regarding a set of common views and beliefs shared by scholars about how problems should be conceptualised and solved. A research philosophy contains important assumptions about how the world is viewed (Bianchi, 2021; Saunders et al., 2015). These assumptions are important because they reinforce the research strategy and methods to be used. The philosophy adopted by a researcher is influenced by a particular view on the relationship between knowledge and the process by which it is developed and practical considerations. To this end, this study was conducted from the interpretivist philosophical position.

Interpretivism advocates that the researcher must understand the differences between humans in their role as social actors (Saunders et al., 2015; Thanh & Thanh, 2015). The interpretive paradigm permits researchers to assess the world through the perceptions and experiences of the participants (Bhattacherjee, 2012; Bryman, 2015; Thanh & Thanh, 2015). As the researcher believes that the best way to conduct research is through the subjective interpretation of the participants involved, for example by interviewing different participants and integrating the differences among their responses using their subjective perspectives, the interpretivist paradigm is best suited for this study.

5.2.2 Methodological choice

The methodological choices that researchers should consider in order to support evidence gathering include deciding between the use of qualitative or quantitative methods (Bianchi, 2021). This study was qualitative. The study adopted a qualitative research approach because it was more focused on an in-depth understanding of the phenomena under investigation. It approached the research problem from the perspective of the insiders or participants to understand the phenomena in their normal environment. According to Salkind (2012), qualitative research is behavioural or social science research that discovers the processes that trigger human behaviour by means of exploratory techniques such as case studies, surveys, interviews and other relatively personal techniques. It can be defined as the examination of phenomena, comprehensively and holistically, through the collection of rich narrative materials using a flexible research design (Saunders et al., 2015).

Qualitative research differs from quantitative research, which entails the gathering of numerical data, which exhibits a view of the relationship between theory and research as inferential, reveals a preference for a natural science approach and positivism in general, and has an objectivist view of social reality (Bryman, 2015). In contrast, qualitative research utilises non-quantitative methods of data collection and analysis, aims at the exploration of social relations, and describes reality as experienced by the respondents (Adams, Khan, Raeside & White, 2007; Castleberry & Nolen, 2018).

The value of a qualitative methodological approach to empirical research is that it offers a deeper, richer understanding of the meanings that people assign to events, actions and relationships (Castleberry & Nolen, 2018). Qualitative research provides a robust, yet not easily comparable, depiction of cases in context (Gilad, 2021). According to Adams et al. (2007: 155), the aims of qualitative analysis are seven-fold as follows:

- To identify patterns in the data
- To detect deviants and oddities
- To contrast to theory – detection of conformance
- To detect groups – classification
- To contrast and compare groups
- To develop a model
- To validate the model – validation

The next subsection discusses the types of research related to this study.

5.2.3 Types of research

The following two types of research are discussed to establish their relevance in the current study, namely, exploratory and descriptive research.

5.2.3.1 Exploratory research

Exploratory research is usually conducted in new areas of investigation where the research objectives are as follows: (1) to establish the scope of a particular phenomenon, problem or behaviour; (2) to draft preliminary ideas about a phenomenon; or (3) to determine the practicality of conducting a more comprehensive study of the phenomenon (Bhattacherjee, 2012). Exploratory research is useful when there is little knowledge about the focus area and the research purpose is to explore the problem by collecting elementary data about the phenomenon (Gray, 2017; Grinnell & Unrau, 2011; Saunders, Lewis & Thornhill,

2012). This research was exploratory, in that it aimed to develop an integrated ROI framework for the HRD interventions provided for academic staff in South African public universities.

5.2.3.2 Descriptive research

Descriptive research provides a picture of a phenomenon as it naturally happens (Gray, 2017), defines the characteristics of a prevailing phenomenon and simplifies the general nature of the data which have been collected (Leedy & Ormrod, 2013; Salkind, 2018). The main objective of many social scientific endeavours, including business and management studies, is to describe a phenomenon (Marais, 2012). This is relevant because it assists in depicting an accurate profile of the problem, events, people and situations under study (Saunders et al., 2012). This research was descriptive because it provided the researcher with an opportunity to study the phenomenon under investigation in depth. This type of research is aimed at studying the full nature of the phenomenon, how it is expressed, and the other factors related to it.

The next subsection discusses the research approach adopted.

5.2.4 Research approach

According to Bianchi (2021), the research approach is influenced by whether the researcher seeks to theory test or theory build. This plays an important role in the manner in which researchers design the research, and select research techniques and tools (Bianchi, 2021). This study adopted both deductive and inductive approaches. According to Leedy and Ormrod (2013), a deductive approach starts with one or more premises. These premises are assumptions or statements that are initially taken to be true. A deductive method thus operates from the general to the specific (Woiceshyn & Daellenbach, 2018), and a conclusion is tested in reality (theory testing) (Bianchi, 2021). A deductive approach analyses qualitative data using a predetermined theory or theoretical framework to identify instances of constructs and confirm or refute the theory (Young, 2020). The universal laws stay the same until one or more of their predictions are found to be incorrect – in which

case the theoretical framework, which derived them, needs to be reconsidered (Adams et al., 2007). According to Saunders et al. (2015), when taking this approach in qualitative research, the researcher needs to develop a conceptual or analytical framework, using current theory, and then investigate the suitability of the framework as a means to explain the findings. If the pattern of data is similar to that which has been predicted through the conceptual framework, the researcher will have established an explanation (Saunders et al., 2015).

Consistent with the deductive approach, the researcher drew from the literature on the measurement of ROI, conducted interviews with the participants, reviewed documents, analysed the data and used the findings to develop an integrated ROI framework for HRD interventions provided to academics in South African public universities. The data analysis started with a theory or relevant research findings as guidance for the initial codes (Hsieh & Shannon, 2005). A theory-guided thematic analysis was applied as it tends to be driven by the theoretical or analytic interest of the researcher in the area of study and, as a result, it is more explicitly analyst-driven (Braun & Clarke, 2006). The researcher started with the analysis, using pre-existing categories (analysis matrix) deduced from the theory or previous research findings, which according to Armat, Assarroudi, Rad, Sharif and Heydari (2018), is undoubtedly an example of deductive research.

Induction, on the other hand, is about deriving conclusions from specific observations (theory building) (Bianchi, 2021). This encompasses moving from the specific to the general, by making empirical observations about certain phenomenon under investigation and developing concepts and theories based on them (Woiceshyn & Daellenbach, 2018). An inductive approach was adopted because, as Woiceshyn and Daellenbach (2018) highlight, inductive research does not begin with a theory to be confirmed or advanced but with questions that are unanswered about a specific phenomenon under investigation. To this end, the researcher was guided by the data that were collected in generating some of the themes and concepts in some instances. When adopting an inductive approach in qualitative research, the researcher acts as a blank slate, making sense of a phenomenon without biasing that interpretation (Young, 2020).

5.2.5 Research design

The study followed a multiple-case design. The decision on the design of the study and its appropriateness was informed by the research problem and the research aims. According to Gustafsson (2017), researchers have to decide whether it is sensible to select a single case study or a multiple-case study to investigate a phenomenon. A case study can be defined as a strategy for conducting research, which includes an empirical examination of a certain current phenomenon within its real-life setting using multiple sources of evidence (Adams et al., 2007; Bhattacherjee, 2012; Saunders et al., 2015). In contrast, a multiple-case design consists of case study research in which several significant confined cases are chosen to develop a more comprehensive understanding of the phenomenon than a single case can provide (Chmiliar, 2010).

A multiple-case study design was chosen because it is very useful when investigating an area where little is known or where research wants to have a holistic understanding of the phenomenon. A multiple-case study is also necessary to establish whether there are divergent or similar results among cases (Gustafsson, 2017). Consequently, this research studied the manner in which various South African public universities and government institutions measured the ROI of training and development interventions provided to academic staff. The advantage of a multiple-case study is that it generates strong and reliable evidence (Gustafsson, 2017).

5.2.6 Research choice

Two methods were used to collect the data, namely, interviews and documents. The use of multiple methods to collect data is an imperative part of a case study (Adams et al., 2007; Bhattacherjee, 2012; Kumar, 2011; Saunders et al., 2015). This study included several research questions; therefore, a research method appropriate for one question may be inappropriate for another. Hence, multiple methods were selected. The second reason for using multiple methods is that it allows triangulation to be applied. Triangulation is defined as the collection of data over time or from different sources and it can be implemented using a combination of methods such as

interviews, case studies and surveys (Gray, 2017; Saunders et al., 2015). In business and management research, there is a need for triangulation to confirm both the precision of the data and the different explanations (Adams et al., 2007). This viewpoint, which is held by most qualitative researchers, is the result of the belief that there are multiple perspectives or views of a case that need to be represented, and that there is no way to discover, beyond doubt, the best view or the truth (Adams et al., 2007). Hence, the need to use multiple methods.

5.2.7 Time horizons

This study used cross-sectional data. According to Bryman (2015), cross-sectional data on the variables of interest are collected more or less simultaneously. Cross-sectional studies are the most commonly used design in the social sciences and are best suited to studies aimed at discovering the predominance of a problem, situation, phenomenon, issue or attitude by taking a sample of the population (Kumar, 2011). Most research studies are cross-sectional, primarily because of time and resource pressures (Gray, 2017). This study used cross-sectional data because of the nature of the research problem under investigation, the time and resource constraints and the fact that the researcher has prior knowledge from the literature about the phenomenon.

5.2.8 Research setting

The research setting is the social, cultural, and physical location in which the researcher carries out the study (Bhattacharya, 2008). This study was conducted in South African public universities. In addition, data for this study were collected from government institutions such as the DHET, the DSI, the ETDPSETA and the NRF, which support the training and development of academic staff working in public universities.

5.2.9 Population

The population (also called the unit of analysis) can be defined as a person, collective, or object that is targeted by the researcher (Bhattacherjee, 2012). The

population consists of any well-defined set of elements (Adams et al., 2007). This is a larger pool from which the sampling elements are drawn. To this end, the population of this study was all managers responsible for managing the HRD interventions provided to academic staff in South African public universities and government institutions such as DHET, DST, ETDPSETA and NRF that are responsible for funding the interventions.

5.2.10 Sampling strategy

When a case study method is used, an attempt is made not to select a random sample but rather a unit of analysis that can provide as much information as possible to understand the case in its entirety (Kumar, 2011). The researcher tried to contact all 26 South African public universities and government institutions when applying for the gatekeeper's permission to conduct the study. However, not all universities had granted the researcher permission to conduct the study by the time data collection was concluded. As a result, not all universities participated.

Purposive and snowballing sampling techniques were used to select participants in the current study. The two sampling techniques were used to access more participants. Purposive sampling is a non-probability sampling technique that adheres to detailed criteria (Adams et al., 2007). This type of sampling assists the researcher to use his or her judgement in selecting a sample that will best answer the research questions and consequently achieve the research objectives (Bryman, 2015; Kumar, 2011; Saunders et al., 2015). To best understand the phenomenon under investigation, a qualitative researcher purposefully or intentionally selects individuals and sites (Creswell & Guetterman, 2018).

According to Parker, Scott and Geddes (2019), snowball sampling is one of the most common sampling methods in qualitative research, and is based on networking and referral. This method is commonly used when the researcher does not have direct access to participants but others assist him or her to connect with research participants (Leighton, Kardong-Edgren, Schneiderith & Foisy-Doll, 2021). Researchers typically begin with a small number of preliminary contacts who meet the inclusion criteria and are requested to participate in the study (Parker et al.,

2019). The participants are then requested to suggest other contacts who meet the inclusion criteria and who might be keen to take part, who consequently suggest other prospective participants (Berndt, 2020; Parker et al., 2019). Snowballing is mainly used for recruiting participants who are hard to find. In this study, this technique was used to obtain information about potential participants who were not included in the initial list and whose contact information was not readily available.

To collect the data for this study, HRM/HRD and research managers working in the South African public universities were purposefully included in the sample, and additional participants in the same environment were included once their contact information and knowledge about their expertise and experience became known after contact with participants on the first sample list. Managers responsible for HRD were suitable for this study as they coordinate and implement HRD interventions for the universities they work for. Research managers were also interviewed, as they possess significant knowledge that is relevant for this study, managing the bulk of the research funds. For sampling purposes, universities were categorised into three cases, namely, comprehensive universities, universities of technology and traditional universities. Managers working at the DHET, DST, ETDPSETA and NRF, which are responsible for the funding and oversight of HRD interventions in South African public universities, were contacted. These managers play a critical role as universities are expected to report to them in terms of the implementation of HRD interventions.

About 14 managers representing South African public universities and government institutions participated in this study. Of the 14 participants, three represented comprehensive universities, another three represented universities of technology, five represented traditional universities and the remaining three represented government institutions. The profiles of the institutions and managers that participated are presented in Chapter 6. One of the challenges that qualitative researchers experience is that it can be a daunting task to determine at the outset the number of participants to be interviewed if theoretical considerations guide selection (Bryman, 2015). In a qualitative survey, saturation is an empirical question, rather than a theoretical one (Jansen, 2010). The goal is not to detail concepts exhaustively for a theoretical domain but in an empirically defined population that

may comprise only a small number of units (Jansen, 2010). The researcher is of the view that data saturation was reached considering the plethora of data that were collected through interviews and from various documents. In addition, participants were providing similar responses when the researcher reached the 14th participant.

The next subsection discussed the data collection methods that were used.

5.2.11 Data collection methods

Data from cases may be collected through semi-structured interviews, observations, focus groups or narrative analysis of text (Gilad, 2021). This study used both primary and secondary data. Primary data were collected through interviews, whereas secondary data were collected from various documents.

5.2.11.1 Interviews

One-on-one semi-structured interviews were conducted to collect the primary data for this study. An interview refers to any person-to-person verbal communication, either face to face or otherwise, between two or more individuals to elicit information, beliefs, or opinions from another person (Kumar, 2011). Interviews are a more personalised data collection method than questionnaires and are usually conducted by trained interviewers (Bhattacherjee, 2012). A personal or face-to-face interview is a process where the researcher works directly with the interviewee to ask questions and record their replies (Bhattacherjee, 2012). This method allows participants to provide expanded responses to interview questions (Ullah and Rafiq, 2021).

There are different types of interviews. Table 5.1 contains the advantages and disadvantages of open and closed questions.

Table 5.1: Open and closed questions

Question type	Advantages	Disadvantages
Open	• Allows freedom of expression in conveying views	• Time consuming
	• Allows categories/cases to be	• Answers must be coded

	established by the respondent	
	• Allows meaning to be clarified by the respondent	• Greater effort required by respondents
	• Allows for more depth	• Misinterpretation
	• Allows for more exploration of the area	• Hard to read
Closed	• Easy to process answers	• Loss of spontaneity of respondent
	• Enhances comparability between cases	• Difficult to make forced-choice answers or mutually exclusive responses
	• Clarifies meaning to the respondent	• Difficult to make forced-choice answers or exhaustive responses
	• Completion is easier	• Wide variation by respondents in the interpretation of forced-choice answers
	• Reduces variability in the analyst's interpretation	• Can be irritating
		• Makes questionnaire long

(Sources: Adams et al., 2007: 132; Bryman, 2015: 246–247)

Taking into consideration the advantages and disadvantages of open and closed questions, the semi-structured approach to interviews enabled the researcher to best achieve the aims of the study. The interviews were semi-structured. A semi-structured interview is about the researcher having a list of themes and questions to be covered, even though these may differ from interview to interview (Bryman, 2015; Saunders et al. 2015). This means that the researcher may overlook some questions in certain interviews, given a specific organisational setting that is encountered regarding the research topic. The pattern of questions may also be changed depending on the flow of the interview. Alternatively, further questions may be essential to respond to the research question and objectives, given the environment within certain organisations (Bryman, 2015; Saunders et al*.,* 2015).

The main interview questions that were asked participants representing public universities were as follows:

Interview question 1: What training and development and/or research interventions do you have to build the capacity/competence of academic staff members in your institution?

Interview question 2: How do you manage these training and development interventions in this institution?

Interview question 3: How do you support or ensure the success of training and development interventions?

Interview question 4: Do you have mechanisms to measure the return on investment for training and development interventions, if so, what processes do you follow?

The main interview questions that were asked participants representing government institutions were as follows:

Interview question 1: What type(s) of support and for what specific programmes does your institution contribute to the South African public universities with respect to academic staff training and development interventions or capacity building?

Interview question 2: How do you make sure that the training and development interventions are managed effectively by universities?

Interview question 3: What support do you provide to universities to ensure that the training and development interventions that you have funded are successfully?

Interview question 4: Do you have mechanisms to measure the return on investment for training and development or capacity development interventions undertaken by universities you support? If so, what processes do you follow?

Unstructured probing questions were also asked during the interviews to get more information from participants where the researcher was not satisfied with the responses provided. Participants were further provided with an opportunity to provide information that they thought was useful for the study that was not asked about during the interview.

5.2.11.2 Documents

According to Saunders et al. (2015), most people automatically think of collecting new data when conducting research, but in some instances, secondary data can be a useful source to answer research questions. Secondary data were collected from documents and this data serves to confirm or contradict information gathered through other means (Olson, 2012; Salkind, 2018). Moreover, documents provide background and context, a means of tracking change and development, additional questions to be asked, supplementary data, and the authentication of results from other data sources (Bowen, 2009). The documents used included publicly accessible sources such as strategies, policies and other documents that are not available to the public such as internal planning and reporting documents.

5.2.11.3 Reflection on the researcher as an instrument

In semi-structured or unstructured qualitative interviews, the researcher can also be regarded as an instrument. Therefore, the researcher's distinctive qualities have the potential to have an impact on the empirical data collection process (Pezalla, Pettigrew & Miller-Day, 2012). According to Xu and Storr (2012), qualitative researchers need to develop as research instruments because they collaborate with participants in the creation of knowledge. A qualitative researcher is regarded as a research instrument when considering the researcher's capability to comprehend, define and interpret experiences and perceptions to reveal meaning in particular contexts and circumstances (Maguire & Delahunt, 2017). The following actions were taken into consideration during the conduct of this research to mitigate researcher-as-instrument effects:

- An interview guide (Annexures C and D) was developed to assist the researcher to manage the interviews. The guide was developed in line with the research questions formulated for the study. Participants were given the interview guide in advance to enable them to prepare for the interviews.
- The researcher's skills are crucial to avoiding likely bias during data collection. The researcher attended workshops to improve skills that focus

on active listening, building a participant–researcher relationship, recognising variations and circumventing inconsistency before conducting the actual interviews.

- The multiple-case study research design was carefully chosen taking into consideration the philosophical approach of the study, and the strengths and limitations of the multiple-case study given the target population and the research aims.

The next section explains the data collection procedure that was adopted.

5.2.12 Data collection procedure

Figure 5.2 illustrates the data collection procedure applied in this study.

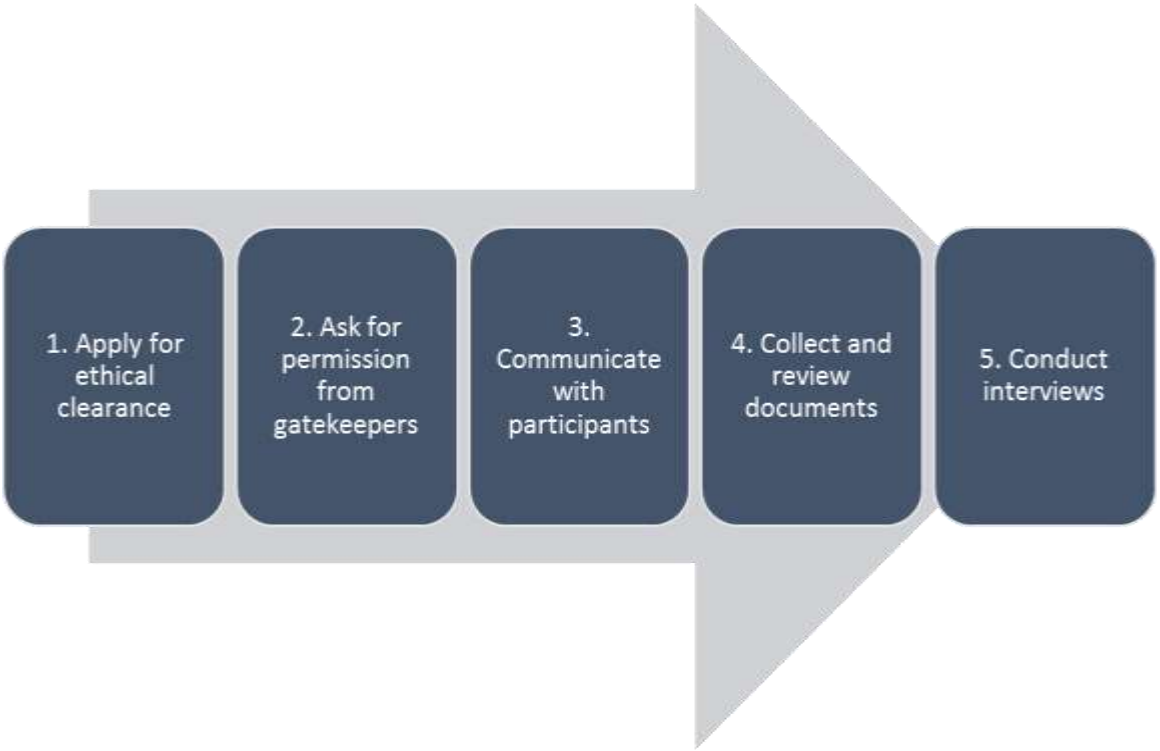

Figure 5.2: Data collection procedure
Source: Own compilation

5.2.12.1 Ethical clearance and permission to conduct the study

The researcher embarked on the following actions to ensure that all ethical research principles were adhered to throughout the study:

i. Ethical clearance

Before data collection commenced, the ethical clearance to conduct this study was issued by the HRM Department of Ethics Review Committee (ERC) at the University of South Africa (UNISA) (Reference number: 2019_HRM_007).

ii. Informed consent and coercion

No person was intimidated or tricked into participating in the study against their will. Prior to the interviews, participants were sent a participant information sheet on which the research purpose and objectives were explained. Participants were requested to sign a consent form indicating that they understood what the study was about and that they were giving their consent to participate.

iii. Maintenance of privacy and confidentiality

The consent form did not request the participants to provide personal details such as identity numbers, addresses and telephone or cellphone numbers. The participants remained anonymous and access to the paper-based records, recordings and computer files related to the study was limited to the researcher, supervisor, assessors and the HRM ERC. The privacy of the participants is guaranteed because no one can trace the results back to the participants.

iv. Protection from harm

The only foreseeable risk was the potential for inconvenience or discomfort to the participants. The research did not include minors or any vulnerable communities. Therefore, the likelihood of anticipated harm or inconvenience in the research was no greater than that experienced in daily life. The only inconvenience that participants experienced is the time they needed to leave their daily activities and take part in this study.

v. Honesty

The research was conducted under the guidance of an experienced supervisor within recognised academic limits. Experts in the field of training and development were consulted to ensure a scientific research process. Both recent and classical sources were used to analyse and describe the phenomena. The sources used were referenced according to the Harvard referencing technique as adopted by the College of Economic and Management Sciences, UNISA. Lastly, the researcher did not manipulate, interfere with, or fabricate any collected information.

5.2.12.2 Gatekeepers

After obtaining the ethical clearance, the researcher then contacted all South African universities and government institutions to request the gatekeeper's permission to conduct interviews with relevant staff members and request documents such as policies and reports that are unavailable online. Gatekeepers' permission was obtained from the institutions where interviews were conducted. Table 5.2 below shows the institutions that granted gatekeeper permission for the study and the reference numbers where applicable.

Table 5.2: Institutions that granted gatekeeper permission to conduct the study

	Institution	**Reference number**
1	University of the Witwatersrand (Wits)	Not provided
2	University of Pretoria (UP)	05122326 (HUM018/1220)
3	University of Johannesburg (UJ)	Not provided
4	Tshwane University of Technology (TUT)	REC/2019/07/003
5	Vaal University of Technology (VUT)	VUT – CREC25/03/2021-8.1
6	Department of Higher Education and Training (DHET)	Not provided
7	Department of Science and Innovation (DSI)	3/2/10/1
8	Education, Training and Development Practices Sector Education and Training Authority (ETDPSETA)	Not provided
9	National Research Fund (NRF)	8/4/3/1/2
10	University of Cape Town (UCT)	2021_08_013

11	Central University of Technology (CUT)	Not provided
12	University of Limpopo (UL)	TREC/292/2021: IR
13	University of the Free State (UFS)	UFS-HSD2021/1329/21
14	University of Venda (UNIVEN)	Not provided
15	Sol Plaatjie University (SPU)	Not provided
16	University of Mpumalanga (UMP)	Not provided
17	University of the Western Cape (UWC)	UWCRP105864
18	Rhodes University (RU)	Not provided
19	Cape Peninsula University of Technology (CPUT)	2021_FBMSREC 061
20	University of Zululand (UNIZULU)	Permit: 3/2022
21	Mangosuthu University of Technology (MUT)	RDO/12/2021
22	University of South Africa (UNISA) UREC	2019_RPSC_062
23	Durban University of Technology (DUT)	Not provided

Source: Own compilation

Other South African universities not on this list were also contacted to request permission to conduct the research, but owing to circumstances beyond the researcher's control such as stringent requirements and lack of access to the relevant personnel, permission was not obtained.

5.2.12.3 Communication with the participants

The researcher communicated with the participants once the ethical clearance and gatekeeper's permission to conduct this study had been granted. Relevant websites were consulted for contact details of the participants or the university contact person. The participants were contacted via email and telephone in order to request them to participate in this study and establish their preferred date and time to conduct the interview. The participants were requested to complete and sign a consent form to

confirm that they understood the purpose of the study, agreed to participate voluntarily and expected no reward for participation.

5.2.12.4 Interviews

More than 100 emails were sent to the identified participants between April 2021 and February 2022. During this time, about two follow-up emails per participant were sent to those who did not respond and telephonic follow-ups were made where possible. By the time data collection was concluded, 11 participants representing South African public universities and five representing government institutions that are involved in the training and development of academic staff in public universities were interviewed. Of the five participants representing government institutions, one responded via email to the questions that were posed, while another did not work with the training and development of academic staff, and as such, no applicable data were collected from the participant.

The researcher conducted all interviews online via Microsoft Teams. Microsoft Teams is a collaboration app built for hybrid work developed by Microsoft, as part of the Microsoft 365 family of products (Microsoft, 2022a). All interviews were recorded using the function available in the Microsoft Office Teams application. The researcher also kept a diary to record field notes, ideas and reflections, and to act as a summary of the researcher's intentions regarding the direction of the research.

5.2.12.5 Documents

The researcher collected secondary data from sources such as reports, policies, strategies and programmes documents regarding the training and development interventions for academic staff in South African public universities. The secondary data were sourced from the websites of the universities, as well as those of the DHET, DST, ETDPSETA and NRF. Furthermore, the participants were requested to provide the researcher with any other relevant documents that were unavailable online.

5.2.13 Data analysis

When conducting qualitative data analysis, a researcher will use a variety of techniques to translate the information gathered into an explanation, understanding, or interpretation of the subjects and circumstances under study. Thematic analysis was conducted to analyse data that were collected through interviews and document analysis was conducted to analyse the secondary data. The two data analysis techniques are discussed below.

5.2.13.1 Thematic analysis

Thematic analysis is a method for identifying, analysing and reporting themes or patterns within data (Bowen, 2009; Braun & Clarke, 2006; Castleberry & Nolen, 2018; Maguire & Delahunt, 2017). The fundamental goal of thematic analysis is to find themes in the data, which are significant patterns, and then use these themes to answer research questions and draw conclusions (Maguire & Delahunt, 2017). This goes beyond merely summarising the data; a good thematic analysis interprets and presents a logical conclusion. Castleberry and Nolen's (2018) conceptual framework for the thematic analysis of interview data was adopted. It was chosen because of its rigour and because it can produce an insightful analysis that answers the research questions. In line with Castleberry and Nolen's (2018) general steps for analysing qualitative data through thematic analysis, the following steps were taken:

5.2.13.1.1 Compiling

Compiling is about transcribing data into a useable form (Castleberry & Nolen, 2018). During this step, the researcher normally transcribes the interview and tries to achieve a sense of the whole by reading the transcripts numerous times (Vaismoradi, Turunen & Bondas, 2013). In this study, the researcher used Microsoft Word to initially transcribe the recordings. Microsoft Word, developed by Microsoft, is the best word processing and document creation app (Microsoft, 2022b). Furthermore, the researcher personally ensured that transcribed interview data were accurate by listening to the recordings multiple times and revising the transcripts. Although this process is time-consuming compared to hiring a specialist to provide

this service, the familiarity with the data that the researcher achieved during this process was critical to the other steps in the data analysis process.

5.2.13.1.2 Disassembling

Disassembling the data involves categorising data and generating meaningful groupings (Castleberry & Nolen, 2018). The data were disassembled by means of coding, which is defined as the process of identifying similarities and differences in the data and progressively transforming the data into usable information by identifying concepts, themes, or ideas and fitting the data to them. Coding reduces large amounts of data into manageable chunks of meaning (Maguire & Delahunt, 2017). According to Castleberry and Nolen (2018), if there is an earlier coding scheme in other studies similar to the current study, the researcher may choose to use this as the starting point for providing the schema. This is in line with the deductive approach that was adopted in this study; the theoretical framework proposed in Chapter 4 was a starting point for coding some of the schemas. Where the schema did not fit the data well, the researcher made modifications. ATLAS.ti for Windows, version 9 was used to code the data. This assisted the researcher to look for patterns of codes and links between codes across large fields of data.

5.2.13.1.3 Reassembling

After the codes or categories to which each concept was mapped are identified, they are put into context with each other to create themes. A theme provides the necessary features of the data relative to the research question and symbolises some level of patterned response or meaning within the data set (Castleberry & Nolen, 2018; Maguire & Delahunt, 2017). During the reassembling step, the researcher started by collecting all applicable data into each potential theme and constantly reviewing each theme to establish whether it was robust in terms of the coded extracts and data set.

5.2.13.1.4 Interpreting

The interpreting step encompasses drawing analytical conclusions from the data presented as codes and then themes (Castleberry & Nolen, 2018). This is presented in Chapter 6.

5.2.13.1.5 Concluding

In this step, the researcher draws conclusions based on the findings and how these answer the research questions of the study. This is presented in Chapter 7.

The next subsection discusses document analysis that was conducted to analyse the secondary data.

5.2.13.2 Document analysis

According to Olson (2012), document analysis commences as documents are identified and carefully chosen in terms of their worth and significance as data for the study. Document analysis is an orderly technique for evaluating or reviewing documents, including electronic (computer-based and internet-transmitted) and printed material (Bowen, 2009). Similar to other qualitative analytical methods, document analysis necessitates that data be scrutinised and interpreted to provide meaning, advance understanding and develop empirical knowledge (Corbin & Strauss, 2008). Document analysis encompasses scanning (superficial examination), thorough examination (reading) and interpretation (Bowen, 2009). The researcher started by scanning through the documents to identify relevant sections, then thoroughly examining the content of the relevant sections to identify themes and interpret the findings. The codes used in the interview transcripts were applied to demarcate the content of documents. The purpose of the codes and themes that were generated from the documents was to integrate data gathered from the interviews.

The following section discusses the trustworthiness of the study.

5.3 TRUSTWORTHINESS OF THE STUDY

According to Marais (2012), there is a core set of criteria that all research, whether quantitative or qualitative, must adhere to in order to qualify as scientific and trustworthy. Evaluating the quality of research is crucial if research results are to be implemented in practice (Noble & Smith, 2015). Trustworthiness refers in a comprehensive sense to the entire study (Graneheim, Lindgrena & Lundman, 2017). According to Bryman (2015), the trustworthiness of a qualitative study is made up of four criteria, including dependability, credibility, transferability, and confirmability. The four main epistemic criteria for this study are explained below:

5.3.1. Dependability

Dependability is about showing that the findings are consistent and could be repeated (Erlingsson & Brysiewicz, 2012; Marais, 2012). According to Bhattacherjee (2012), if two researchers use the same data to investigate the same phenomenon and autonomously make similar conclusions or the same researcher investigating the same phenomenon at different times makes similar conclusions, then interpretive research can be regarded as dependable. Dependability can be achieved by ensuring that the processes within the research have been reported in detail to minimise inconsistencies and achieve clear and logical documentation (Erlingsson & Brysiewicz, 2012). In this study, the researcher ensured that complete records of all stages of the research process, including problem formulation, selection of research participants, interview transcripts and data analysis decisions, were well kept and accessible.

5.3.2. Credibility

This relates to the confidence in the “truth” of the findings, which is the compatibility between the respondents and the reported perceptions (Bryman, 2015; Erlingsson & Brysiewicz, 2012; Marais, 2012). The researcher took the following steps to ensure the credibility of the study and its findings:

- Maintain prolonged engagement (building up a relationship with the participants, developing familiarity with them).

- Triangulate the data (documents and interviews were used to collect the data).
- The entire study was conducted under the supervision of an experienced professor specialising in training and development.
- The proposal, ethics application and study were evaluated by seasoned academic staff from the HRM Department at UNISA as well as external reviewers.

The following section focuses on the transferability of the findings of this study.

5.3.3. Transferability

This relates to showing that the findings have applicability in other contexts (Bryman, 2015; Erlingsson & Brysiewicz, 2012; Marais, 2012). Non-standardised research methods are not essentially anticipated to be repeatable or transferable since they reflect reality at the time the data were collected, in a situation that may be subject to change (Bryman, 2015; Saunders et al., 2015). However, it is suggested that the researcher should prepare and retain notes relating to the research design, the reasons underpinning the choice of strategy and methods, and the data obtained when using the semi- and unstructured questions (Saunders et al., 2015). To ensure the transferability of the findings of this study, concise descriptions of the phenomenon under study, the methodology adopted and the profile of sampled participants and documents were provided to assist other scholars to be able to repeat the study in a similar context.

5.3.4. Confirmability

Confirmability refers to the degree of neutrality or the degree to which the findings of a study are formed by the participants and not researcher bias, interest or motivation (Bryman, 2015; Erlingsson & Brysiewicz, 2012; Marais, 2012). The following factors guarantee the confirmability of this study:

- An audit trail is provided (systematic course of the research).

- Trust and rapport were maintained with participants.
- The researcher endeavoured to achieve intersubjectivity between participants.
- Triangulation of data from interviews and documents was conducted.
- The initial data analysis was conducted by the researcher, while a qualified and experienced qualitative data analyst was appointed to analyse the data again to validate the findings. The outcomes of the two stages of analysis were integrated to guide the formulation of the findings of this study.

Thus, this study can be deemed trustworthy as it meets the requirement of sound qualitative research. The following section presents a summary of this chapter.

5.4 CHAPTER SUMMARY

This chapter presented the research methodology of the study. The methodological framework section discussed the research philosophy, methodological choice, types of research, research approach, research design, research choice, time horizons, research setting, population, sampling strategy, data collection methods and procedure, and data analysis. Lastly, trustworthiness, focusing on the dependability, credibility, transferability and confirmability of the study, was discussed.

The next chapter (Chapter 5) presents the findings of the study.

CHAPTER 6: RESEARCH FINDINGS

6.1 INTRODUCTION

This chapter begins with an overview of the profile of the participants, followed by the profile of the secondary sources that were analysed in this study. Thereafter, data collected from the interviews and secondary sources are presented and analysed. This is followed by the integration of findings emanating from the primary and secondary data collected from universities and government institutions. From the integrated findings, the empirical framework for this study is developed. The chapter ends with a summary.

6.2 PROFILE OF THE INSTITUTIONS AND PARTICIPANTS

This section presents the profile of the institutions that participated and the participants who were interviewed. Table 6.1 below presents the information on the cases and institutions that participated in this study.

Table 6.1: Profile of the cases and institutions participated in interviews

Cases	Participating universities	Number of participants	Total
Comprehensive universities (Case 1)	University of South Africa (UNISA)	2	3
	University of Venda (UNIVEN)	1	
Universities of technology (Case 2)	Tshwane University of Technology (TUT)	1	3
	Cape Peninsula University of Technology (CPUT)	2	
Traditional universities (Case 3)	University of the Witwatersrand (WITS)	1	5
	University of Cape Town (UCT)	2	
	University of Limpopo (UL)	1	
	University of Mpumalanga (UMP)	1	
Government institutions	Department of Higher Education and Training (DHET)	1	3
	Department of Science and Innovation (DSI)	1	

	Education, Training and Development Practices Sector Education and Training Authority (ETDPSETA)	1

Source: Own compilation

As Table 6.1 shows, 14 interviews were conducted with representatives of various institutions. The profile of the participants is provided in Table 6.2. A minimalistic approach was adopted in this regard, as only information that was pertinent for this study was collected from the participants. Participants were requested to give their job titles and years of experience in the field of training and development. This information was necessary to ensure that participants were knowledgeable and had relevant experience regarding the phenomenon under investigation. Table 6.2 provides the participants' job titles and years of experience.

Table 6.2: Profile of the participants

Job title	**Number of years in training and development**
Senior Director: Human Resources	27 years
Research Developer	4 years
Manager: Leadership and Management Development	20 years
Senior Manager: Research	15 years
Manager: Staff Learning and Development	Not stated
Head: Organisational Development and Training	8 years
Manager: Research	Not stated
Manager: Research Development	13 years
Practitioner: Human Resource Development	12 years
Manager: Research Management	17 years
Director: Human Resource Development	20 years
Programme Manager: Planning, Monitoring, Evaluation and Reporting.	Not stated
Deputy Director	5 years
Manager: Skills Planning and Research	12 years

Source: Own compilation

The participants held managerial positions and had relevant work experience ranging from four to 27 years. The following section presents the profile of the secondary sources that were assessed.

6.3 PROFILE OF SECONDARY SOURCES

In addition to the interviews that were conducted, the researcher collected secondary data from sources such as reports, policies, strategies and programmes regarding training and development interventions for academic staff in South African public universities. These documents were reviewed and data were analysed to identify the training and development interventions offered, the management of the interventions and the support provided, as well as to establish how South African public universities ensure and measure the ROI.

6.3.1 Secondary sources from universities

Documents obtained from the universities that were analysed included institutional strategies, policies and reports. These documents were either provided by the participants or accessed from university websites. When reporting on the documents, codes are used as depicted in Table 6.3 below.

Table 6.3: Secondary sources from universities

Title of document	Year	Code
Case 1: Comprehensive Universities		
Directorate: Human Resource Development: Management and Leadership Measures for Return On Investment	2021	CU-D1
Research and Innovation Policy	2018	CU-D2
Human Resources Training Policy	2014	CU-D3
Academic-Development-And-Support	2022	CU-D4
Young Academics Programme: Developing Future Leaders	2017	CU-D5
Case 2: Universities of Technology		
Training Schedule (Research Directorate)	2022	UT-D1
Workshops and Programmes	2022	UT-D2

Case 3: Traditional Universities		
Report On Research To Senate And Council	2019	TU-D1
(The University) eResearch Accelerating Research: eResearch Report 2020-2021	2021	TU-D2
Emerging Researcher Programme Webinar	2022	TU-D3
(The University) Researcher Development Academy	2022	TU-D4
(The University): The Realisation of its Research Potential 2015 – 2025	2015	TU-D5
Operational Plan - Research Developer	2022	TU-D6
Framework for Continuous Professional Learning of Academics as University Teachers	2019	TU-D7

Source: Own compilation

The following subsection presents the secondary sources accessed from government institutions.

6.3.2 Secondary sources from government institutions

Documents such as reports, policies, strategies and programmes regarding training and development interventions for academic staff in South African public universities were also collected. Table 6.4 depicts documents from government institutions that are easily accessible online.

Table 6.4: Secondary sources from government institutions

Title of the document	Year	Code
DHET		
Annual Report 2020/21	2021	GI-D1
Ministerial Statement on the Implementation of the University Capacity Development Programme through Effective Management and Utilisation of the University Capacity Development Grant 2018 – 2020	2017	GI-D2
The New Generation of Academics Programme (nGAP) "Revitalising and Transforming the Academic Profession"	2019	GI-D3
Staffing South Africa's Universities Framework (SSAUF): A Comprehensive, Transformative Approach to Developing Future Generations of Academics and Building Staff Capacity	2015	GI-D4
Strengthening the Pathway for the Development of Academics through the SSAUF	2015	GI-D5
DSI		
Strategy 2020 – 2025	2020	GI-D6

Annual Report 2020/2021	2021	GI-D7
White Paper on Science, Technology and Innovation	2019	GI-D8
The NRF Register of Grants provides information to all NRF stakeholders on grants.	2022	GI-D9
ETDPSETA		
Annual Report 2019-20	2020	GI-D9
ETD Sector Skills Plan 2022-2023	2020	GI-D10
ETD Sectoral Priority Occupations and interventions 2022 -2023	2022	GI-D11

Source: Own compilation

The next section presents and analyses data collected through interviews from different cases.

6.4 DATA FROM INTERVIEWS

In this section, interview data collected from universities and government institutions are presented and analysed. Participants were asked to reflect on their knowledge and experiences regarding the training and development interventions provided to academic staff in South African public universities. This was followed by questions on how the interventions were managed and the nature of support that was provided to ensure that the interventions succeed. Lastly, the participants were asked about how ROI for the training and development interventions was measured. Table 6.5 depicts the coding system used to present the data from transcribed interviews.

Table 6.5: Coding system used to present data from interviews

Names used	Meaning
CU-HR	Comprehensive university – Human Resources
CU-R	Comprehensive university - Research
UT-HR	University of technology – Human Resources
UT-R	University of technology - Research
TU-HR	Traditional university – Human Resources
TU-R	Traditional university - Research
GI	Government institutions

Source: Own compilation

The following subsection presents and analyses data collected from the interviews with participants from universities.

6.4.1 Data from interviews (universities)

The themes identified from the interviews conducted with representatives from universities included training and development interventions (Theme 1), management of training and development interventions (Theme 2), support for training and development interventions (Theme 3), and measurement of ROI (Theme 4). During the interviews, an enormous amount of rich data was captured. Therefore, the researcher saw it fit to use tables to capture quotes that best described each theme and sub-themes to compress and shorten the presentation of the data.

6.4.1.1 Theme 1: Training and development interventions

The data presented in this subsection is linked to Interview Question 1*: What training and development and/or research interventions do you have to build the capacity/competence of academic staff members in your institution?*

Table 6.6 presents Theme 1 and its sub-themes, as well as verbatim quotes from participants representing comprehensive universities (Case 1), universities of technology (Case 2) and traditional universities (Case 3).

Table 6.6: Theme 1 – Training and development interventions

Sub-themes	Case 1	Case 2	Case 3
Sub-theme 1.1 Programmes			
1.1.1 New Generation of Academics Programme (nGAP)	CU-HR3: *"We take new academics into the field. The people who are duly qualified, who want to be academics, and usually it is people who have masters' degrees. We put them on a 6-year programme so that they can complete their PhDs and then we provide the mentors, and we provide the support, the finances and all those things."*		TU-HR1: *"Within the academic side of things, they are managing a project such as the next generation of academics."*
1.1.2 University Capacity Development Programme (UCDP)	CU-HR1: *"We have the lecturers' development programme. So, for that one, we are partnering with the DHET as well with USAF. There is a specific focus again on our lecturers and trying to increase the professoriate."*		TU-R1: *"So, we get money from the University Capacity Development Programme from the DHET."* TU-R3: *"…funding whereby all the staff who are doing PhDs are funded by a University Capacity Development Programme. We pay for their fees. We pay for their editing, for their data collection and everything that has to do with their doctoral studies is paid from there..."*
1.1.3 Young Academics Programme (YAP)	CU-HR1: *"We're focusing on research where a large part of the academic of the Young Academics Programme comprises of the research component where we are working very closely with the research department, and they make resources available to us where we're getting all the experts in, and it goes right up from writing your research proposal."*		
Sub-theme 1.2 Training and workshops			
1.2.1 Teaching and learning	CU-HR1: *"We have your teaching and learning, which is a big one, where all the experts come in and they get a lot of help in terms of how to make*	UT-HR1: *"The training partner provides mainly the how to teach and the curriculum*	TU-R1: *"So, the blended course was on public speaking and assisting people to develop the presentation, whether it's online or in-person as a*

workshops	*their learning materials more interactive to the students and more interesting"* CU-HR3: *"There is a unit that deals with the specific core academic development issues … They deal specifically with core issues of teaching and learning for academics."*	*development."* UT-HR2: *"It could be a whole range of programmes around how to deal with large classes, how to deal with diversity."*	*physical person."*
1.2.2 Research and postgraduate workshops	CU-HR1: *"We're focusing on research where a large part of the academic of the Young Academics Programme comprises of the research component where we are working very closely with the Research Department, and they make resources available to us where we are getting all the experts in, and it goes right up from writing your research proposal."* CU-HR3: *"We also have another wing, which is research and postgraduate studies. That's a division that deals with the development of the academics and staff members, as far as research and development and postgraduate studies is concerned."*	UT-R1: *"Firstly, is to do research writing. This is more for publications, you know, writing manuscripts. And part of the training that we run, like your research training where we assist them with writing a thesis for PhD or masters."* UT-HR2: *"The programmes would be your research writing. Assisting with preparing a journal or an article."*	TU-R1: *"It is everything from innovation and technology transfer, ethics, grant writing, how to apply for funding, how to consider and select a journal and then how to write their articles for journals. Others were offered as a series, for example, how to supervise postgraduate students."* TU-R2: *"When people are applying and specifically for the Thuthuka programme … they would have a workshop on grant proposal writing. And then our team or one or two of our people will go through the NRF application."* TU-R3: *"The last one is mostly about data collection and analysis whereby, which we call statisticians and the people who know more about qualitative and quantitative and also mixed-method research."* TU-R4: *"We have a research methodology and data analysis workshop. We also have postgraduate supervision workshops, whereby we train everyone eligible to supervise so that they know how to supervise their postgraduate students."*
1.2.3 Generic training	CU-HR1: *"We are focusing on personal mastery, where the academic first really go into the depth of getting to know themselves."* CU-HR3: *"I deal with their leadership development as well as other core competencies or skills that are necessary, which are more generic, like leadership development, management development, supervisory and as well as other behavioural*	*UT-HR1: "… it will be like your computer training, other skills like leadership and conflict management." "There will be other needs, not mainly academic training, other skills they are done by myself and others."*	*TU-HR1: "On the HRD Unit side, we do look at mainly support staff training and leadership development. Ad hoc training as we may identify, for the good of the university using discretionary SETA funds."*

	aspects like emotional intelligence, mentoring and coaching."
1.2.4 Community Engagement workshops	CU-HR1: *"And then there's the last component will be community engagement, where we're also getting the Community Engagement department to come and discuss all the things from managing your budget to how to get the community actively engaged etcetera, etcetera."*

Source: Own compilation from interviews

Table 6.6 revealed that there were three programmes, as well as workshops and training focused on teaching and learning, research, generic and community engagement.

6.4.1.1.1 Sub-theme 1.1: Programmes

The programmes that were implemented by South African public universities included the nGAP, UCDP and YAP. The data revealed that the nGAP and UCDP were implemented in Cases 1 and 3, while the YAP was only implemented in Case 1.

6.4.1.1.2 Sub-theme 1.2: Workshops and training

The common workshops and training that were implemented in various institutions included teaching and learning, research and postgraduate, generic and community engagement training and workshops. Teaching and learning workshops were implemented in all three cases. These workshops aimed to address the core of what most academics do frequently in terms of teaching and learning, including study material development, teaching and assessment. Research and postgraduate workshops were also implemented in all three cases. These workshops focused on providing academic staff and postgraduate students with the necessary knowledge and skills to enable them to conduct ethical research. The workshops focused on writing for publication, grant proposal writing, research methodology and research ethics. As highlighted by the CHE (2022), some institutions, particularly the traditional universities, have deep-rooted programmes for skills development and support for the continuing development of research skills. In recently established universities, programmes were also being developed, in some cases in collaboration with partner universities.

Generic training interventions were also implemented in all three cases. The types of generic training included personal mastery, leadership development, management development, supervisor, conflict management, ad hoc training, as well as other behavioural such as emotional intelligence, mentoring and coaching. The last type of

training to be implemented in Case 1 focused on community engagement. Trainees were trained on how to manage their budgets and engage with communities.

The second theme to be identified is the *management of training and development interventions*, which will be presented next.

6.4.1.2 Theme 2: Management of training and development interventions

The data presented and analysed in this subsection is linked to Interview Question 2: *How do you manage these training and development interventions in this institution?*

Table 6.7 presents Theme 2 and its sub-themes, as well as verbatim quotes from participants from the three cases, namely comprehensive universities (Case 1), universities of technology (Case 2) and traditional universities (Case 3).

Table 6.7: Theme 2 – Management of training and development interventions

Sub-theme	Case 1	Case 2	Case 3
Sub-theme 2.1: Departments/units responsible for providing training and development interventions			
2.1.1 Human resource development	CU-HR1: *"We have a human resource development section at the organisation. But in that section, there are three different divisions. If you can call them that. So, the one is specifically on skills development where they are focusing on all kinds of soft skills"*	UT-HR1: *"So HRD is the custodian of training. Everybody who does the training right is supposed to bring all the information to HRD because we have training taking place in other spheres as well."* UT-HR2: *"I am the staff learning and development manager and I oversee most of the institutional generic programmes for the university."*	TU-HR1: *"Then there's a human resource development unit that looks at holistic training and development, including bursaries and study support for dependents."*
2.1.3 Teaching and learning development	CU-HR1: *"… we have your teaching and learning, which is a big one, where all the experts come in and they get a lot of help in terms of how to make their learning materials more interactive to the students and more interesting …"* CU-HR3: *"For academics, we are fragmented into two areas and there is a unit that deals with the specific core academic development issues. Which is the Centre for Higher Education Teaching and Learning."*	UT-HR1: *"They train mainly academics and it's something to do with teaching and learning."* *"The training partner provides mainly the how to teach and the curriculum development."* UT-HR2: *"Then we have another section which is called Fhundani Section. They also assist staff and students with some academic skills such as curriculum design, and how to deal with large classes."*	TU-HR1: *"The academic part of it is managed by the Centre for Teaching Centre for Learning, Teaching and Development. It reports to the academic DVC through the director, who is a professor."* TU-R1: *"For example, some people will say, they really need training on a specific methodology for them, for their discipline. And then we say we are generalists, so you need to go and seek support from your department or your faculty."*
2.1.2 Research development	CU-HR1: *"We are working very closely with the Research Department, and they make resources available to us..."* CU-HR3: *"We also have another wing, which is research and postgraduate studies, and that's a division that deals*	UT-HR1: *"We also have another training partner, which is research. They do training mainly on research."* UT-HR2: *"We do have a specific department or departments that deals with very much technical skills for academics such as our*	TU-HR1: *"There's a third wing that is housed within the research unit, focusing only on research skills development for young researchers, for mentors and the likes."* TU-R2: *"[The university] is quite a large institution and it's quite compartmentalised, so*

	with the development of the academics and staff members, as far as research and development and postgraduate studies is concerned."	*research directorate. Our research directorate will focus on specific research training for academics or for those who are busy with formal studies and research."*	*the researcher development, they do all the capacity development and training and all those things"* TU-R4: *"It is under the research portfolio, but under the research portfolio, there is a research capacity development, specifically a section that is dealing with that under research management."*
Sub-theme 2.2: Appointment of managers	CU-HR1: *"To come back on how we are managing it. As I have mentioned, I am the manager then I have a specialist reporting to me." "At the moment, I'm the only manager in all three of the sections, but we do have an acting manager for skills development."* CU-HR3: *"I have indicated that we're responsible for the management. And we also have the nGAP manager."*	UT-HR2: *"There is a research manager for training capacity development."*	
Sub-theme 2.3 Training need analysis (TNA)	CU-HR1: *"We determine the needs first for our academics and I think we have reached a point now where we've really fine-tuned it."* CU-HR2: *"… we actually try and conduct an assessment to bridge the development gap identified during their personal talent plans, their personal development plans, etc."* CU-HR3: *"We make an assessment before we could send anyone to any specific training that they have indicated."*	UT-R1: *"As you know, with training, you do not just train people. I start with training needs analyses."*	TU-R1: *"They are also coming to us to make requests. For example, when there have been things around POPIA. They asked us, can we please get more information. So, we organise seminars around that?" "Sometimes people approached us and said, well they wanted to know more about what it is to be a mentee, what are the roles of mentors and how we can advise them and support them." "But we also are responsive to requests that are sent to us by our academics."* TU-R3: *"Time and again there will be other workshops depending also on the needs of the staff and students."*
Sub-theme	CU-HR3: *"On the annual training plan,*	UT-HR1: *"We compile the WSP after receiving*	TU-R1: *"We have just finished preparing the*

2.4: Workplace Skills Plan (WSP)	*we do the training needs analysis and do the grouping of those that are looking for similar developmental programmes and all those things so that we can at least get the bulk and therefore, schedule them for one training and all those that are individualised and specialised."*	*the information of the needs analysis of the university and then after the compilation, we send the WSP to the ETDPSETA."* UT-HR2: *"I am responsible for ensuring that all the levies and grants processes are adhered to, the Workplace Skills Plan is put together ..."*	*programmes for 2022."*
Sub-theme 2.5: Line manager's involvement	CU-HR1: *"We would have sort of meeting or interviews with the CODs of our young academics, preparing them for when the young academics come back into the workplace."* CU-HR2: *"After training, we try and do interviews with line managers and the delegates about three months after the person has attended the programme just to identify whether the gap still exists or if it was closed or bridged through the relevant measures and evidence."*	UT-HR1: *"I think the heads of the departments are the ones that are checking whether everything goes according to plan."* UT-HR2: *"On a larger scale, we have the departments of line managers that would discuss the performance of the staff at management meetings. But basically, just more an overall discussion." "So, if each manager does that for their staff members, it would give a very good idea to get a conductive picture of where the learning opportunities that we offer are making a difference and if it is valuable."*	
Sub-theme 2.6: Performance management	CU-HR3: *"We run this training and development in a very structured way because we are also responsible for performance management." "We have decided to build the aspects of training and development on the platform of performance management …"*	UT-HR2: *"And that is obviously in line with their performance agreement where they put together a performance development plan that indicates the KPAs for the year and what their developmental areas are."*	
Sub-theme 2.7: Programme evaluation	CU-HR1: *"But every year we are taking the inputs and asking them how we can improve the programme, what we can add, what we can take away from the programme." "And we sort of fine-tune it*		TU-R1: *"… every year we reconsider what it is that we are offering them. We obviously update the content, but we have a core number of training [interventions] that we offer and then we add, or we remove as it's appropriate."*

	to the needs expressed by the CODs themselves."		
Sub-theme 2.8: Annual Training Report (ATR)		UT-HR1: *"They will fill in a form, the attendance register and then send it back to me so that I can report in the future about the training that took place in that particular year at the university."* UT-HR2: *"I am responsible for ensuring that all the levies and grants processes are adhered to … and the Annual Training Report is done."*	TU-R1: *"We report on our activities on attendance to both funders."* TU-R2: *"We sent out a request last year for the mid-year report." "There are quite a number of other reports there and there is the research report. There is a report on research to the Council and then there is the e-research report."*

Source: Own compilation from interviews

Table 6.7 revealed the eight sub-themes explaining how training and development were managed. These sub-themes are analysed below.

6.4.1.2.1 Sub-theme 2.1: Departments/units responsible for training and development interventions

The data revealed that the departments/units that were involved in the training and development of academic staff in South African public universities included the HRD, teaching and learning development and research development department/unit. The data in all three cases revealed that the HRD department/unit was the custodian of training and development. Other departments/units that also provide training and development for academic staff in universities collaborate with this department/unit. The HRD department/unit mainly provides generic training and relied on other training partners to provide specific training for academic staff. To assist academic staff, the HRD also administers study support initiatives such as bursaries, leave days and reimbursement.

Another unit reported in all three cases that was responsible for managing training and development interventions is the teaching and learning development unit. This unit was responsible for providing teaching and learning-related training and workshops such as curriculum development, the use of technology in teaching, assessment and teaching pedagogies, among others. Faculties in universities also assist with teaching and learning training and development interventions. Lastly, the data in all three cases revealed that universities have instituted specific unit within the research portfolio that dealt specifically with research development matters. The main role of such a unit is to provide training and development to both emerging and established researchers focusing specifically on research.

6.4.1.2.2 Sub-theme 2.2: Appointment of managers

The data in Cases 1 and 2 revealed that dedicated managers were appointed to lead key programmes. This is important, as such programmes require careful planning and implementation to be executed successfully.

6.4.1.2.3 Sub-theme 2.3: Training need analysis (TNA)

The data revealed that South African public universities in all three cases conducted TNA to determine any problems, gaps or shortcomings that could be mitigated by training and development interventions. The TNA process was done mainly based on the self-reported training needs of academic staff and line managers.

6.4.1.2.4 Sub-theme 2.4: Workplace skills plan (WSP)

The data revealed that South African public universities in all three cases compiled WSP yearly and it was expected that they submit their WSP to the ETDPSETA.

6.4.1.2.5 Sub-theme 2.5: Line manager's involvement

The data revealed that line managers were involved in terms of managing training and development interventions in Cases 1 and 2. Line managers played a critical role in ensuring the success of training and development interventions, especially after the training.

6.4.1.2.6 Sub-theme 2.6: Performance management

The data in Cases 1 and 2 revealed that performance management was an integral part of how training and development interventions were managed. Academic staff were expected to state their training needs at the beginning of the year. This served as the baseline information when academic staff performance was reviewed at the end of the year.

6.4.1.2.7 Sub-theme 2.7: Programme evaluation

The data revealed that some South African public universities in Cases 1 and 2 engaged in programme evaluation to establish whether the intended outcomes of their training and development interventions had been accomplished and to fine-tune the programmes.

6.4.1.2.8 Sub-theme 2.8: Annual training report (ATR)

The data revealed that ATRs were compiled yearly as reported in Cases 2 and 3. In addition, certain annual reports were published for internal use highlighting the success stories and academic achievements of individuals, teams and research units in Case 3.

6.4.1.3 Theme 3: Support for training and development interventions

The data presented and analysed in this subsection relate to Interview Question 3: *How do you support or ensure the success of training and development interventions?*

Table 6.8 presents Theme 3 and its sub-themes, as well as verbatim quotes from the participants representing the three cases.

Table 6.8: Theme 3 – Support for training and development interventions

Sub-themes	Case 1	Case 2	Case 3
Sub-theme 3.1: Courses presented online	CU-HR1: *"What brought on a bit of a challenge for us last year was obviously the Covid-19 and that we had to move everything online in a very short space of time, but we successfully managed to do so."* CU-HR2: *"So the training takes place via either a platform such as MS teams or Zoom."*	UT-HR2: *"So, all the staff learning, and development programmes will be online 24 hours as well as the induction and a lot of interesting information that can be self-taught."*	
Sub-theme 3.2: Financial support	CU-HR1: *"We are way ahead of other institutions in terms of the money that we make available for training our academics."* CU-HR2: *"So, we're lucky we get money to train staff, you know a lot of other companies don't have this."*	UT-HR1: *"If a person is a lecturer and then he has to get a masters or a PhD, then we pay for that person."* UT-R1: *"And the other support for them is funding if they want to do fieldwork if they have got a shortage of money."*	TU-R3: *"We pay for their fees. We pay for their editing, for their data collection and everything that has to do with their doctoral studies is paid from there as long as they are registered."*
Sub-theme 3.3: Study support	CU-HR3: *"Where people are overwhelmed, we even go to the wavelength of negotiating with their line managers for reduced workloads so that at least they can be able to attain their qualifications with ease."*	UT-HR1: *"The University supports them through sabbatical leave …"*	TU-R2: *"We have a specific intervention that is there to support academics that are working towards higher degrees like a masters or a PhD because not everyone has all their qualifications when they get employed."*
Sub-theme 3.4: Outsourcing	CU-HR2: *"And so they'll send a lot of people outside to get training and that kind of thing."* CU-HR3: *"We outsource these programmes to other service providers that are accredited or are duly accredited."*	UT-HR2: *"Most of these we make use of external providers to come in and offer the training programme."*	TU-R3: *"This is done by an outside person like the one that includes funding and all that."*

Sub-theme 3.5: Recruitment of participants	CU-HR1: *"So, what we did then was to also instead of contacting only the deans for nominations, we also started contacting the directors of schools." "So, then we started contacting our CODs for nominations as well."*	UT-R1: *"We try to reach out as much as we can to support the programmes." "We have one central point where all start training across the university is communicated to staff to avoid confusion and misunderstanding."*	TU-R1: *"We advertise through newsletters and invitations because we want to be able to introduce the interventions." "We circulate the programmes to our members."*
Sub-theme 3.6: Support team	CU-HR1: *"I have a specialist reporting to me and one practitioner and one administrator. So, between us, we are managing all these different programmes."* CU-HR3: *"I have staff that administers these programmes."*	UT-HR2: *"My department is myself as the learning manager as well as the SDF [Skills Development Facilitator] and I have a learning coordinator."* UT-R1: *"We have got administration staff support in terms of the general administration."*	TU-HR1: *"We have a team that does the supporting of programmes, a team of three people. The team does the follow-up."* TU-R2: *"I am tasked with managing a team of nine staff members."*
Sub-theme 3.7: Collaboration with training partners	CU-HR2: *"We rely on service providers that actually give us some of that information back."*	UT-HR1: *"I do have training partners like as I mentioned; department heads is one of my training partners." "The training partner provides mainly the how to teach, the curriculum development, and we also have another training partner, which is research."*	TU-R1: *"For example, some people will say, they really need training on a specific methodology for them, for their discipline. And then we say we are generalists, so you need to go and seek support from your department or your faculty."*
Sub-theme 3.8: Mentorship	CU-HR1: *"We sensitise them to the fact that we want for the learning to continue, and we don't want for all the money to be lost that we've spent on the yuppies. So, we are requesting them to appoint mentors for when the yuppies go back into the workplace. We also make available training for both the mentor and the mentee."*		
Sub-theme 3.9: Internal staff assisting with presentations		UT-HR2: *"Some of our staff if they do have the time, would also offer a presentation or a workshop on some of the programmes"*	TU-R3: *"… whereby our internal research professors from different faculties come and show them how they should do their proposals in their own faculties." "And then they will be talking to the participants about how to do it in their faculty. Meaning that it is*

		faculty-specific."
Sub-theme 3.10: Logistical arrangements	UT-HR2: *"And the department that offers the programme would ensure that they also assist around the logistics of the programmes."*	TU-R3: *"What I do is negotiate and source the facilitators. From there, if everything is all right with them, we agreed on the dates and everything. Then I hand it over to my research assistants and then they will run with it; from sending the purchase requests, sending to finance, following up to find if the facilitator has been paid and hotel arrangements or venue arrangements, they do that." "So, they communicate with the people in the facility to find out that everything is in order; the tea is ready, the lunch is ready and to book them in if they are sleeping over."*
Sub-theme 3.11: Incentives	UT-HR1: *"So, if you complete within a certain period, of course, then we know that this person has completed and then, we will also give them some money just to say thank you for completing."* UT-R1: *"We also have got different incentives that are focusing on research activities."*	
Sub-theme 3.12: CPD points	UT-HR1: *"And then we also have CPD points. Some environments in academia, mainly engineering and psychology require their members to accumulate CPD points."*	
Sub-theme 3.13 Collaboration with academic staff		TU-R1: *"We have members with whom we work very closely. We don't just offer them webinars, but we offer them meetings where we assist them with their career, their career trajectory and how to set goals for the next few years, as well as sometimes some funding."*
Sub-theme		TU-R3: *"I will help the first facilitator to check*

3.14: Presence of managers during workshops	*and arrange that, OK, this one has gone this far. Then we put them into groups and say OK, this group is for those who just have a concept note and this group is there for those that have a draft article and worked with them." "And what happens is when we offer the publication workshops, usually; I do the monitoring because I am more knowledgeable than them. I have to see that the people that come in there need to have at least a draft or a concept note of some sort."*
Sub-theme 3.15: Providing on-the-job training	TU-HR1: *"The programmes that we are offering are actually very pragmatic, and they are using action learning. So, they do a theoretical aspect of it, and then the trainees would go and do some project which is aimed at assisting the university and the functions where they are involved in improving themselves."*
Sub-theme 3.16: Flexibility	TU-R1: *"Our programmes are there to be flexible and to also fit within the academics' very busy diaries."*

Source: Own compilation from interviews

The sub-themes under Theme 3 as presented in Table 6.8 are analysed below.

6.4.1.3.1 Sub-theme 3.1: Courses presented online

The data in Cases 1 and 2 revealed that presenting the interventions online was the first mechanism by which programmes were supported to ensure their success. During the pandemic, most institutions were unable to provide face-to-face interactions, as a result, there was a need to ensure that the programmes already planned still succeeded.

6.4.1.3.2 Sub-theme 3.2: Financial support

The data in all three cases revealed that financial support was another way in which training and development interventions were supported. Such support assisted the trainees to complete their programmes.

6.4.1.3.3 Sub-theme 3.3: Study support

The data revealed that in all three cases, universities used various measures to provide study support including psychological support and providing staff members with time to work on their studies.

6.4.1.3.4 Sub-theme 3.4: Outsourcing

The data in all three cases revealed that outsourcing was implemented to support training and development interventions, as these institutions sometimes do not have the internal capacity. External experts were contracted to facilitate workshops as they came with wealth of knowledge and experience.

6.4.1.3.5 Sub-theme 3.5: Recruitment of participants

The data in all three cases revealed that the recruitment of a wide audience was conducted as an effective support mechanism for training and development interventions. Various techniques such as recruiting trainees through their line

managers, publishing the workshops online and using mail lists to send invitations to staff members were implemented.

6.4.1.3.6 Sub-theme 3.6: Support team

The data in all three cases revealed that for the training and development interventions to be delivered successfully, there was a need to appoint adequate support staff in the units that provide the interventions. Managers who were responsible for the training and development interventions worked with support team members to ensure the success of the programmes. However, a few of the participants highlighted that the number of support staff that they work with was inadequate considering the workload their units were responsible for. This will be further discussed in Theme 4.

6.4.1.3.7 Sub-theme 3.7: Collaboration between training partners

The data in all three cases revealed that the participants engaged in networking with their peers and were able to reduce costs by not duplicating certain services. The departments/units that provided training and development interventions worked in collaboration with other key stakeholders such as the DHET, Universities South Africa (USAF), departments in different faculties and external training partners.

6.4.1.3.8 Sub-theme 3.8: Mentorship

The data in Case 1 revealed that mentorship was integrated into some of the training and development interventions that were provided. Mentors and mentees were also trained to ensure a smooth relationship between them.

6.4.1.3.9 Sub-theme 3.9: Internal staff assisting with presentations

The data showed that in Cases 2 and 3, internal staff members were requested to come on board in terms of passing on their knowledge and experience to novice academic staff. Involving internal staff members in providing training and

development interventions was of benefit to trainees as they gained faculty-specific knowledge.

6.4.1.3.10 Sub-theme 3.10: Logistical arrangements

To support the training and development interventions, the data in Cases 2 and 3 revealed that making the necessary logistical arrangements was important. Proper logistical arrangements were made before and during the workshop to ensure that training is conducted in a conducive environment.

6.4.1.3.11 Sub-theme 3.11: Incentives

The data in Case 2 revealed that providing financial incentives for completing a qualification such as a masters or a doctoral degree was one of the initiates used to motivate academic staff to complete certain programmes.

6.4.1.3.12 Sub-theme 3.12: Continuing professional development (CPD) points

In Case 2, data revealed that CPD points were provided to attendees, where applicable. Providing academic staff who were required by their professional bodies to accumulate a certain number of CPD points most like motivated them to attend the programmes.

The following last four support mechanisms were found in Case 3 only.

6.4.1.3.13 Sub-theme 3.13: Collaboration with academic staff

The data revealed that the departments/units that were responsible for providing training and development interventions to academic staff closely worked with academic staff to identify the kinds of training to be provided and to provide feedback. Such collaboration is very important because training participants are able to identify the interventions they need and providing feedback to those who provide the interventions is easy.

6.4.1.3.14 Sub-theme 3.14: Presence of managers during workshops

It was also revealed that managers of the programmes sometimes had to be present during the presentation to ensure that everything ran smoothly. The superiority, knowledge and experience that managers had were of importance in this regard.

6.4.1.3.15 Sub-theme 3.15: Providing on-the-job training

The data revealed that on-the-job training was adopted to enhance knowledge and skills gained by trainees through various interventions.

6.4.1.3.16 Sub-theme 3.16: Flexibility

The last support mechanism to ensure that training and development were successful was allowing flexibility when it comes to attending the interventions.

The next subsection presents and analyses the data regarding the mechanisms to measure ROI implemented by South African public universities.

6.4.1.4 Theme 4: Measuring return on investment (ROI)

The data presented and analysed in this subsection relates to Interview Question 4: *Do you have mechanisms to measure the return on investment for training and development interventions? If so, what processes do you follow?*

The sub-themes in this section include reaction, learning, behaviour, results, ROI, barriers to measuring ROI, enablers of the ROI process and ROE. Table 6.9 shows Theme 4, its sub-themes and verbatim quotes from the participants from the three cases, namely comprehensive universities (Case 1), universities of technology (Case 2) and traditional universities (Case 3).

Table 6.9: Theme 4 – Measuring return on investment (ROI)

	Case 1	Case 2	Case 3
Sub-theme 4.1: Reaction			
4.1.1 Questionnaire	CU-HR1: *"We still measuring satisfaction, obviously. But as you can imagine these people receive so many, they have to participate in so many surveys that you know, they become adverse almost to surveys."* CU-HR2: *"Our first form is obviously reaction, so which is our normal course feedback that is consolidated into reports and it simply addresses quality of facilitation, quality of content and obviously it asks for suggestions of improvements."*	UT-HR2: *"And then track and monitor those developmental programmes or interventions that you are participating in and provide feedback as to the value of it and what difference did it make."*	TU-R1: *"They do attend the webinars or some seminar conference that we would have staged and then they evaluate obviously at the end of the module." "We give them our internal forms to provide feedback on the quality of the training that they have achieved."*
4.1.2 Attendance register	CU-HR2: *"In terms of participation, you can see from the platforms who are in the meeting, and who is not in the meeting. Obviously, we generate participation reports to say who was actually attending."*	UT-HR2: *"When a member of staff applies for a programme, we ensure attendance and we do keep a record of all the attendees for the particular programme."*	TU-R3: *"They request the people to sign two registers during the day; one in the morning and one in the afternoon."*
Sub-theme 4.2: Learning	CU-HR1: *"…we also measure, in certain instances; there are components of assessments attached."* CU-HR2: *"I also do practical assignments during these programmes where we get the practical assignments."* CU-HR3: *"At the end of the day, we'll be able to go and make a follow-up to say what this training helped you with, what is it that you got from this training?"*	UT-HR2: *"In some cases, there is a portfolio of evidence or some kind of assessment that is conducted."* UT-HR1: *"But if it's something that we're doing within the university, then we know we'll get the certificate, the PhD, masters, whatever at the end of the day."*	
Sub-theme 4.3: Behaviour	CU-HR2: *"We try and look at the third level, which is behaviour ..." "After training, we try and do interviews with line managers and the delegates*		TU-R1: *"What we try and tell our participants is that once they have attended the events, they need to also adapt the*

	about three months after the person has attended the programme ..."		*learning to their specific environment and the specific disciplines."*
Sub-theme 4.4: Results	CU-HR3: *"… at this stage maybe six months down the line, how has this said intervention assisted you to become better at what you are doing, to improve in your performance, and to be a better person in your role, that's what we want to continue to emphasise." "After a period of time, we try and look at whether there are any improvements in the KPI score of the individuals because obviously the better the KPI score, it means that they are improving hopefully."*		TU-HR1: *"So, managers do write to us and say they found the impact in terms of how employees perform.*
Sub-theme 4.5:	**Return on investment**		
4.5.1 The measurement of Return on Investment (ROI)	CU-HR1: *"For our other programmes we use the Kirkpatrick's level the four levels, but we hardly ever get to the ROI level."* CU-HR2: *"This is probably the most difficult part in training. Especially because we come from an environment where it is not per se like people selling an item. So you can't say someone actually did so many sales this month."* CU-HR3: *"Look, as I said, we are very structured in the way that we run training. Although the return on investment, the emphasis on return on investment is a very critical one, and I think I'm going to be a beneficiary of your research."*	UT-HR1: *"I don't think we do much of that. And people are just being trained and then they come back."* UT-HR2: *"At the moment, it is a challenge for us. It is something that we would like to do, but we are not there yet. To say, you know what we have invested in is the real value to it and what is the productivity success rate and the real return on investment. So, for us is currently a gap within the institution."*	TU-R1: *"You see what is really difficult when you track the impact of that one training session or training session on someone's career, we know that we contribute, but we can't say that we change everything for someone's practice."* TU-R2: *"… we're also going to use old metrics. So, old metrics do not give you financial investment, but it does give you visibility."* TU-R4: *"That is a very difficult question, as I am saying to you that the university is still new. Let me just say, no, at the moment"*
4.5.2 Non-financial benefits			
4.5.2.1 Talent pool	CU-HR1: *"There is a specific focus again on our lecturers and trying to increase the professoriate."* CU-HR2: *"So, we try and also look at how many people are in the talent pools in one year or*	UT-HR1: *"Remember it was technikons, it was not universities. So, it [PhDs] was not really something very important. So, now*	TU-R1: *"We have members with whom we work very closely. We don't just offer them webinars, but we offer them meetings where we assist them with their career,*

	compared to the amount in the previous year. So, we try to see if there is an increase or decrease in the number of people in talent pools that are going on these programmes."	*somewhere staff were told you must have a PhD in order to remain in your position and some did manage to get their PhDs."*	*their career trajectory and how to set goals for the next few years."*
4.5.2.2 Employees attaining higher qualifications	CU-HR 1: *"We have had successes, where academics, young academics come back and they are so grateful for the opportunity and, I think this directly speaks to the return on investment, where some of them completed their masters and their doctorates. A lot of them felt that it was due to the help and the guidance that they got on the young academics' programme that they managed to complete their studies…"*		TU-R1: *"The only thing that we try and track is when our members are graduating with higher degrees, we try to figure out whether they are successful after securing grants."*
4.5.2.3 Promotion and career progression of employees	CU-HR1: *"We are also looking at promotions, those that got promoted into different positions from where they started."* CU-HR2: *"So, there are some people that actually have been promoted. You can't always just say through the programme, but definitely, the skills and knowledge gained through the programme have helped them better prepare to go for interviews."*		TU-R1: *"But what we have realised, though, is that when we look at people that go for promotion, a large number of those that are successful in getting promoted, they have interacted with the programmes. They have attended one or more sessions and you can see how our programmes are particularly important at the start of one's career ..."*
4.5.2.4 Employee retention	CU-HR1: *"We do find that we do have a very high retention rate in terms of the young academics that we trained on the programme. It is very few that actually left the employee of the university."* CU-HR3: *"Those are the measures of saying if we have sent you on intensive training, we want you to come and work back the years which is more of a generic standard even in the public service and so on."*		
4.5.2.5 Networking	CU-HR1: "*So many of them actually indicated that they got involved in multidisciplinary research with the networks that they built while being on the young academics' programme."*		

4.5.2.6 Advancement of technology	UT-R1: *"Even the advancement of technology, those are the things that we look at."*	TU-R3: *"Examples of impact include innovations (products, services, processes, etc.), environmental security, and impact on policy development and technological advancements."*
4.5.2.7 Community development	UT-R1: *"And community participation. So that is how we look at the impact in that line of research."*	TU-R4: *"So, we want to align our research. Our research should be useful to the community."*
4.5.2.8 Transformation		TU-HR1: *"They also manage accelerated programme which accelerates academics to enable them to meet their criteria for promotion from lectureship to senior lectureship, to associate professor to professorship by targeting South African black and female staff members."*
4.5.2.9 Scientific impact of research		TU-R2: *"Some of our metrics would be the social impact of the research, the citations, social media exposure, science communication and those kinds of things."*
4.5.2.10 Awards		TU-R1: *"We also have got research excellence awards. Every year, there are research festivals and awards."* TU-R2: *"The research measures would be research output, postgraduate graduated students, prizes that people have won, citations, awards."*
4.5.3 Financial benefits		
4.5.3.1 Publication revenue	UT-R1: *"And because the research is also in engaging communities and other industries, we also look at the success of research revenue that has been generated. You know; how much money the university has*	TU-R2: *"The research measures would be research output, postgraduate graduated students, prizes that people have won, citations, awards and that's how we're going to measure it." "As you know, for each research output, there is a monetary*

		acquired."	*value attached to it."*
4.5.3.2 Subsidy for postgraduate student supervision			*TU-R1: "… we measure the impact of our success in terms of research revenues as related to the projects, the students, how many students graduated, who has received more money and who has produced more students* TU-R2: *"So, if they graduate the student within the minimum requirement of two years for a masters, I think the component of the subsidy is about R300 000."*
4.5.4 Training costs	CU-HR2: *"…we have got some measures that we try and look at like the cost of training per delegate..."* CU-HR3: *"The return on investment is not only in terms of the money that we are spending on the cost but is also on the time out that we are giving you to go and attend, the transport, the absentees and everything, the accommodation and all those things that we are giving so that we can really calculate the real return on investment on training."*		
4.5.5 Barriers to measuring return on investment			
4.5.5.1 Complexity of the process	CU-HR1: *"Those are the kind of measures that we look at, you know, to see whether the university is in fact getting a return on their investment. It is, however, very difficult to."* CU-HR2: *"This is probably the most difficult part in training."* CU-HR3: *"I really think this is a very complex area."*		TU-HR1: *"It is very difficult for universities, therefore, to measure return on investment because they are themselves centres of training."*
4.5.5.2 Lack of capacity	CU-HR1: *"We, unfortunately, due to capacity constraints at the moment don't have a system where we do a follow-up."* CU-HR2: *"You know you have to interview every*	UT-HR1: *"There are many people at the university; there are 3 000 and something. There's no way I'll be able to check everybody."*	TU-R4: *"The University is still new. We do not have the capacity. I think as the university grows, then that is when they will see a need to say now, we need an*

	person that goes through training and we do hundreds of people so it becomes very time-consuming for such a small cohort of individuals to do this while still trying to do training and development for every other staff member."	UT-HR2: *"And as much as we have the know-how and the skills to do it within my team, our capacity is constrained."*	*administrator that will help in this portfolio. But at the moment, I am still alone. But according to the structure, there are people that will be coming."*
4.5.5.3 Lag between training and improved performance	CU-HR2: *"Training takes a long time for behaviour to change."* CU-HR3: *"I know that in the market, it is currently very difficult to really quantify the return on investment on training because the results are not imminent. The yield does not necessarily come immediately." "You cannot go for training today and already tomorrow you want to see the return on investment."*		
4.5.5.4 Lack of will	CU-HR1: *"We use the Kirkpatrick's level the four levels, but we hardly ever get to the ROI level."*	UT-HR1: "That is the challenge. I do not think we do much of that [measuring ROI]. And people are just being trained and then they come back."	
4.5.5.5 Financial constraints		UT-HR2: *"The portfolio is quite loaded due to obviously the financial constraints and capacity or resources constraints within the university."*	
4.5.5.6 Lack of processes		UT-HR2: *"There's no real instrument other than the performance leadership engagement process that we want to implement where we can measure the real return on investment." "So for us is currently a gap within the institution."*	TU-HR1: *"…there is no formal tool that we use to assess a general investment. I doubt if we do have formal programmes."* TU-R3: *"The impact and how we measure, we do not really have a tool specific to measure that.."*
4.5.5.7 Fragmentation of training and development			TU-R1: *"We know that we contribute, but we can't say that we change everything for someone's practice. So, we are very cautious in not making broad statements*

interventions			*that would be overselling." "Return on the money is very difficult because it's a lot of punctual interventions."*
4.5.5.8 Interventions yielding non-financial benefits		CU-HR2: *"… we come from an environment where it is not per se like people selling an item. So you cannot say someone actually, they did so many sales this month. After training, they did so many sales which would increase revenue ..."*	TU-R1: *"You cannot measure it with money, but you can measure it by impact and visibility."* TU-R4: *"Other training for research ethics committee members, that one there is nothing to measure. How would you measure that one? We still do not know."*
4.5.5.9 Lack of data			TU-R1: *"The expectation is that in the future, we will be able to look at all the data at [the institution] and say, okay, that person is an ERP, which is the emerging researcher programme member. They have managed to secure that funding and have participated in this training. But at this stage, the database doesn't talk to each other." "But because my team doesn't have the necessary access to all the grant data, it's not something that we are able to cross-track at this stage."*
4.5.6 Enablers of the Return on Investment (ROI) process			
4.5.6.1 Accountability	CU-HR3: *"We go out on teaching people in terms of how it works and holding people accountable for their training."*	UT-HR1: *"But we know that the money we use, we use it for the following." "I have to make sure that my finances are in order." "We know we can keep and say we have spent so much money and these are the people that utilise the money. That information you can get."*	TU-R1: *"We report on our activities on attendance to both funders."*
4.5.6.2 Holistic	CU-HR3: *"You cannot go for training today and*	UT-HR2: *".So, all the staff learning,*	

approach	*already tomorrow you want to see the return on investment. But we can quantify this return on investment if we can start talking about it from one point to another." "… we want to come or to arrive at a point wherein we will teach or develop methodologies of calculating this return on investment, right from the start, when a person is applying for a course or is applying for training."*	*and development programmes will be online 24 hours as well as the induction and a lot of interesting information that can be self-taught."*	
4.5.6.3 Institutional systems	CU-HR1: *"We, unfortunately, due to capacity constraints at the moment don't have a system where we do a follow-up."* CU-HR2: *"I think the only thing that can help is an integrated learning management system because you can build in a lot of metrics into the system." "I think one of the things that are crucial for the organisation to improve on its ROI is the fact that we need an integrated learning management system. To do it paper-based is extremely difficult and time-consuming."*	UT-HR2: *"I am now moving towards putting together or establishing an online staff academy for staff development." "I would advertise on the staff development academy. We have one central point where all start training across the university is communicated to staff to avoid confusion and misunderstanding."*	TU-R1: *"The expectation is that in the future, we will be able to look at all the data at [the institution] and say, okay, that person is an ERP, which is the emerging researcher programme member. They have managed to secure that funding and have participated in this training. But at this stage, the database doesn't talk to each other."*
4.5.6.4 Willingness to implement return on investment	CU-HR1: *"So, we are really looking forward to your study that can assist us in that regard."* CU-HR3: *"I think I'll be comfortable to say that there are serious inroads that we are making towards this aspect so that at the end of the day, even future scholars will have the base in terms of understanding what this return on investment on staff development is all about."*	UT-HR2: *"So, at the moment, it is a challenge for us. It is something that we would like to do, but we are not there yet."*	TU-R4: *"We still have to benchmark how other institutions are measuring the impact. So, your study will be a good one as it will assist us."*

4.5.6.5 Return on investment policy	CU-HR2: *"We actually have a document, basically with the management and leadership measures for return on investment. It is not a policy; it is just a document that we wrote up." "So it's more of a guideline that we use. But obviously, there is a policy on training and development, and there are also guidelines to training and development that we have at [the institution]."* CU-HR3: *"I am busy with the review of the learning and development policy and I have decided that I'm going to incorporate the aspects of return on investment on staff development or training."*	UT-HR1: *"I can't say we have a policy on return on investments. We just don't have a policy for return on investment."* *UT-HR2: "Due to a number of policies and policy requirements not in place yet around our performance, leadership and engagement."* *"Around return on investment, we do not have anything, but I could possibly make available just some kind of documents on how we conduct learning and development."*	TU-R2: *"I don't know if we have any of those documents because this is just a pilot that we are running to see how it will work. We don't have a document per se."*
4.5.7 Return on Expectation (ROE)	CU-HR1: *"What we did we instead of saying return on investment we are talking in our environment about return on expectation."* CU-HR2: *"We actually sometimes rather try and call it return on expectations." "What is the expectation of a delegate attending a programme and what we can give them in terms of bridging those gaps that they have?" "And whereas we look at rather what is the expectation, what is the expectation from management on these development programmes that they can see a benefit from it?"*	UT-HR1: *"We know that at least we were looking for a PhD in that particular environment and now we have the PhD. So, in short, I can just say that, but our return on investment is something like that where we need this particular expertise." "So, when the person sends the formal qualification, obviously you know there was a success at the end of the day."*	TU-HR1: *"They register this programme and then that programme because it's all for free, then before we know it, they come to us and say I've got so many degrees but I'm doing this kind of work that doesn't add value to my qualifications. So, it becomes a bargaining chip. Rather than focusing on what it is that the university wants to aim for. And how do we achieve that objective through staff development."*

Source: Own compilation from interviews

The Theme 4 sub-themes highlighted in Table 6.9 are discussed below.

6.4.1.4.1 Sub-theme 4.1: Reaction

The first level to be evaluated when measuring the ROI of training and development interventions was the reaction of trainees. In all three cases, the data revealed that a questionnaire was used to determine trainees' reactions. Attendance registers were also used to capture the number of participants taking part in programmes.

6.4.1.4.2 Sub-theme 4.2: Learning

The data in Cases 1 and 2 revealed that universities in all three cases assessed learning to establish whether trainees' knowledge had indeed improved. Techniques such as questionnaires, practical assignments and portfolios of evidence were used to assess learning. Since some of the training and development interventions were provided by external and other internal training partners, institutions didn't have to assess the trainees once they had completed their training or courses; however, the institution did require them to submit a certificate or proof of course completion to demonstrate that they had undergone the learning process.

6.4.1.4.3 Sub-theme 4.3: Behaviour

The data revealed that in Cases 1 and 3, an evaluation to determine if a change of behaviour had occurred after attending training was conducted. The evaluation of behaviour was mostly done after three to six months. Interviews were conducted with both trainees and line managers to measure the extent to which trainees had applied the learning and changed their behaviour in performing their duties.

6.4.1.4.4 Sub-theme 4.4: Results

The data in Case 1 revealed that performance was evaluated to determine whether any improvement in terms of trainees' KPIs had taken place as a result of the training and development interventions. This was done about six months after training. Other organisational performance indicators were reported in all three cases

to establish the impact of training and development interventions on organisational results. However, these aspects are presented in the next section under the benefits resulting from training and development interventions.

6.4.1.4.5 Sub-theme 4.5: Return on Investment (ROI)

The data in all three cases revealed that universities did not measure ROI. Nonetheless, non-financial and financial benefits as presented below were used to establish the impact of training and development interventions.

a. Non-financial benefits

The data regarding non-financial benefits are analysed below.

- *Talent pool*

The data in all three cases demonstrated that having an adequate talent pool was the first non-financial benefit that universities derived from providing training and development for academic staff.

- *Employees attaining higher qualifications*

The data revealed that universities in Cases 1 and 2 provided certain training and development interventions for academic staff, which resulted in them attaining higher qualifications.

- *Promotion and career progression of employees*

Data revealed that promotion and career progression of employees were non-financial benefits in Cases 1 and 3. However, in Case 1, it was reported that attending training and development does not guarantee that one will be promoted immediately.

- *Employee retention*

The data in Case 1 revealed that the retention of academic staff was one of the non-financial benefits that universities gained from providing training and development interventions.

- *Networking*

The data revealed that trainees in Case 1 benefited by interacting with others during training and ended up forging networks that benefited them after training.

- *Advancement of technology*

In Cases 2 and 3, the data revealed that after attending training and development interventions, academic staff were expected to contribute in terms of technology advancement and innovation.

- *Community development*

Another non-financial benefit gained from providing training and development interventions to academic staff in Cases 2 and 3 was community development. The data revealed that after being supported through various training and development interventions, academic staff were expected to embark on research that contributes to community development.

- *Transformation*

The data revealed that one of the non-financial benefits that were identified in Case 3 was the transformation of the academic profile.

- *Scientific impact of research*

The data in Case 3 revealed that the impact and visibility of research published by academic staff after attending a training and development intervention was one of the non-financial benefits.

- *Awards*

The data revealed that several research awards received by trainees in Case 3 were also used to determine the impact of training and development interventions.

In addition to non-financial benefits, some of the training and development interventions provided to academic staff in South African public universities resulted in direct financial benefits. This is presented below.

b. Financial benefits

The financial benefits derived by South African public universities from providing training and development interventions to academic staff included publication revenue and subsidy for postgraduate student supervision. The data revealed that publication revenue in Cases 2 and 3 was used to measure the financial benefit of providing certain training and development interventions to academic staff. In terms of the subsidy for postgraduate student supervision, data in Case 3 revealed that a subsidy was received by universities for the number of postgraduate students registered.

The following section analyses the data regarding the costs associated with providing training and development interventions for academic staff members in South African public universities.

c. Training costs

Determining the costs and corresponding benefits of training and development interventions is important when carrying out an ROI measurement. The costs of training revealed in Case 1 included cost per delegate, transport, accommodation and the money lost when someone is away for training.

The following section analyses the data regarding the barriers to measuring ROI for training and development interventions for academic staff.

d. Barriers to measuring return on investment (ROI)

The data revealed the following barriers to measuring the ROI for training and development interventions provided to academic staff in South African public universities.

- *Complexity of the process*

The data revealed that universities in Cases 1 and 3 were unable to measure the ROI owing to the complexity of the process. The participants were of the view that the ROI process is complex and not easy to implement.

- *Lack of capacity*

The data revealed that there was a general lack of capacity to measure the ROI for training and development interventions in all three cases.

- *Lag between training and improved performance*

The data demonstrated that the lag between training and performance was one of the barriers that universities in Case 1 faced when it comes to measuring ROI.

- *Lack of will*

In Cases 1 and 2, the data revealed that there was a lack of will to engage in the ROI measuring process.

- *Financial constraints*

To be able to measure ROI, adequate resources should be dedicated to this process. The data revealed that in Case 2, ROI was not measured due to financial constraints.

- *Lack of processes*

The data revealed that there was a lack of adequate processes that can be used to measure the ROI for the training and development interventions provided to academic staff in Cases 2 and 3.

- *Fragmentation of training and development interventions*

Data revealed that in Case 3, there was a fragmentation of training and development interventions that were provided. Academic staff often attended several training and development interventions provided by various units in universities simultaneously. This fragmentation of training data resulted in those who were supposed to measure the ROI of programmes not being able to do so.

- *Interventions yielding non-financial benefits*

To measure ROI, the financial benefits associated with a training and development intervention need to be established. However, this is not always possible. The data revealed that universities in Cases 2 and 3 were unable to measure ROI because some of the training and development interventions result in strictly non-financial benefits.

- *Lack of adequate data*

The data revealed that in Case 3, there was a need for access to the required data from the institution. However, some institutions were systemically poor at recording HRD and other operational data, or are hesitant to make their numbers available to internal or external groups.

Notwithstanding the challenges and barriers experienced with the ROI methodology, this process is significant and organisations should adopt certain enablers to ensure its success. To mitigate the barriers discussed above, various mechanisms can be implemented to ensure that ROI is measured effectively.

e. Enablers of the return on investment (ROI) process

The data revealed that the enablers for measuring the ROI for training and development interventions provided to academic staff included having accountability, a holistic approach, institutional systems, willingness to conduct ROI and ROI policy. The data revealed that those who were responsible for managing training and development interventions in all three cases were accountable for the budget allocated. In terms of adopting a holistic approach, the data revealed that for ROI to be measured successfully in Cases 1 and 2, the process needed to be conducted throughout the programme, from start to finish. In addition, since academic staff attend various training and development interventions simultaneously, there must be cohesion between them in order to achieve an integrated ROI. This will assist in alleviating the challenge of fragmenting training and development interventions identified earlier. Furthermore, the data revealed that there was a need to implement institutional systems in all three cases to enable the measuring of ROI. The data further revealed that universities in all three cases were willing to measure the ROI of the training and development interventions that they provide for academic staff. Without the willingness to measure ROI, as highlighted earlier, it will not be done satisfactorily, if at all. Lastly, the data revealed that South African public universities sampled did not have policies that address the measurement of ROI for training and development interventions provided to their academic staff members.

f. Return on expectations (ROE)

The data revealed that in all three cases, universities in some instances focused on measuring the ROE as an alternative for ROI.

The next subsection presents and analyses data collected through interviews conducted at government institutions.

6.4.2 Data from interviews (government institutions)

The themes that emerged from the data collected from interviews with participants representing government institutions included training and development interventions (Theme 1), management of training and development interventions (Theme 2), support for training and development interventions (Theme 3), and measurement of ROI (Theme 4).

The data obtained from interviews with representatives of government institutions are presented and analysed next.

6.4.2.1 Theme 1: Training and development interventions

The data presented and analysed in this subsection is linked to Interview Question 1*: What type(s) of support and for what specific programmes does your institution contribute to the South African public universities with respect to academic staff training and development interventions or capacity building?*

No specific training and development interventions were reported by the three government institutions. However, it was highlighted that the institutions provided funding for universities to be used for three to five years. This is represented by the following quotes:

DSI: *"What we do is we give the funds to the NRF, and then NRF implements these programmes."*

“We might find a programme for three years or over the MTF [Medium Term Framework] or even five years.”

In addition to funding provided for training programmes, universities receive mandatory and discretional grants from the ETDPSETA to implement their WSP. This is represented by the quote below”

ETDPSETA: *“They get two portions of funding. They get what you call mandatory grants, which the organisation will pay them on the submission of a WSP, the Workplace Skills Plan. Now that document entitles them to about 20% of their levies. They then get back over and above that. The SETA will give them about another 25%. And that one we call discretionary funding”.*

In terms of providing training and workshops to academic staff, participants mentioned that various interventions were provided as highlighted below:

ETDPSETA: “We offer a number of what you can call skills that we offer academics. One of them is on the content that they are offering. For example, if it is a law academic, they will go into a law kind of a short programme for them to capacitate themselves on that law programme you know. So, it's a number of them, is a number of those skills programmes that we have been offering to academics in universities.”

The second theme to be identified is the management of training and development interventions as presented below.

6.4.2.2 Theme 2: Management of training and development interventions

The data presented and analysed in this subsection are linked to Interview Question 2: *How do you make sure that the training and development interventions are managed effectively by universities?*

Table 6.10 presents Theme 2, its sub-themes and verbatim quotes from participants representing the three government institutions.

Table 6.10: Theme 2 – Management of training and development interventions

	DHET	DSI	ETDPSETA
Sub-theme 2.1 Policy direction and strategy	*"On the fifth year which was 2015, we did the evaluation and the evaluation recommended that we must revise our strategy." "On the strategy, we've got 5 programmes. Programme 3 talks about higher education, research and innovation."*	*"As the department, we are responsible for the oversight of these programmes in terms of policy direction, what we want, and where we want these projects to go. What we want this project to achieve."*	*"The conceptualisation and the determination of funding is done at our head office"*
Sub-theme 2.2 Business plan		*"We'll negotiate a business plan with the organisation that we are funding. So they have a business plan and then the business plan will inform the deliverables in a contract that we sign."*	
Sub-theme 2.3 Contractual agreements		*"The programmes are managed through a contract and the contract will stipulate, so the contract is based on a business plan."*	*"So our provincial office will be working with universities to implement the programmes, to trash out things like contracts."*
Sub-theme 2.4 Setting of targets and indicators	*"There are targets there, there are indicators. I think we've got something like 59 indicators based on those programmes. These indicators, when they were formulated, when they were busy revising the strategy, we went to those departments to say; Here is programme three, what kind of indicators are you having from your site? And then they gave us. We crafted some indicators, but those indicators we agreed with them"*		*"In terms of discretionary grants, there are terms and conditions. One of them is that the university must implement its WSP using the discretionary fund. Meaning that once they have submitted their WSP to us, they must make sure that they implemented it."*
Sub-theme 2.5 Steering committees		*"We also serve in the steering committees of some of the committees that are running these programmes and then we sit in the steering committee as the organisation."*	

Sub-theme 2.6 Monitoring, evaluation and oversight	*"What we do on a 5-year basis, we do the evaluations." "Currently, we are busy with the mid-term evaluation."*	*"Our monitoring and evaluation, and oversight are done through these contracts, reporting and managing things through participation in the steering committees and all that." "We'll then have a quarterly meeting with the entities to monitor progress; to see where things are going, any difficulties, challenges …"*

Source: Own compilation from interviews

Under the management of training and development intervention theme, various sub-themes were identified as analysed below.

As highlighted in Table 6.10, the data revealed that government institutions managed training and development interventions through various measures such as providing policy direction and strategy (all government institutions), requiring business plans from universities (DSI), signing contractual agreements (DSI and ETDPSETA), setting targets and indicators (DHET and ETDPSETA), participating in steering committees (DSI) and conducting monitoring, evaluation and oversight (DSI and ETDPSETA).

The next theme focuses on the support provided by government institutions to ensure that training and development interventions that have received funding are successful.

6.4.2.3 Theme 3: Support for training and development interventions

The data presented analysed in this subsection relate to Interview Question 3: *What support do you provide to universities to ensure that the training and development interventions that you have funded are successfully?*

Table 6.11 presents Theme 3, its sub-themes and verbatim quotes from participants representing the three government institutions.

Table 6.11: Theme 3 – Support for training and development interventions

	DHET	DSI	ETDPSETA
Sub-theme 3.1 Collaboration with universities		*"We collaborate with universities, negotiating with them in terms of what is it that we want to do."*	*"So even the universities have got a structure at a national level and then after things were discussed there, each university will take what has been agreed upon there, and go and implemented it in their institution, in consultation with our provincial office."*
Sub-theme 3.2 Conduct research regarding skills challenges	*"We conduct research to identify the blockages on the skills pipeline…"*		
Sub-theme 3.3 Remove bottlenecks		*"If there are any difficulties, bottlenecks and then we'll see how we unlock those bottlenecks."*	
Sub-theme 3.4 Presentations			*"…universities have got their structures of skills developing facilitators, they're called SDFs. So, they have a forum. And in that forum, that is where I will go to do a presentation to explain the funding model and the kind of programmes"*
Sub-theme 3.5 Decentralisation of functions			*"When it comes to implementation, we give this function to our provincial offices that will then be working with the universities directly because these universities are based in provinces." "So, that function is done by our provincial offices once a conceptualisation and the agreements in terms of their areas of focus would have been agreed at head office."*
Sub-theme 3.6	*"Previously in 2010, between 2010 and 2016, we did*		

Task Teams	*have a technical task team. There were two technical task teams that were talking about the production of academics and then the other one was talking about the production of professionals"*

Source: Own compilation from interviews

Data presented in Table 6.11 revealed that government institutions used various mechanisms to support the training and development interventions they have funded, including collaborating with universities (DSI and ETDPSETA), conducting research on skills challenges (DHET), removing bottlenecks (DSI), presentations (ETDPSETA), decentralisation of functions (ETDPSETA) and enacting task teams (DHET).

The next theme focuses on how the ROI was measured by government institutions for training and development interventions that have received funding.

6.4.2.4 Theme 4: Measuring return on investment (ROI)

The data presented and analysed in this subsection relate to Interview Question 4: *Do you have mechanisms to measure the return on investment for training and development or capacity development interventions undertaken by universities you support? If so, what processes do you follow?*

Table 6.12 presents Theme 4, its sub-themes and verbatim quotes from participants representing the three government institutions.

Table 6.12: Theme 4 – Measuring return on investment (ROI)

	DHET	DSI	ETDPSETA
Sub-theme 4.1 Measuring ROI		*"We crafted some indicators, but those indicators we agreed with them. They said this is what we are planning to achieve in terms of your program. So, we don't monitor anything which is outside our strategies."*	*"To be honest, we have not conducted the return-on-investment evaluation to check whether those programs have been effective." "We have not done it and we do it for other institutions, but we have not done this specifically for universities to check the impact of those funding and the programmes that we have rolled out in the universities. However, the universities themselves do from time to time evaluate some of the interventions that they do with the organisation and the success thereof, and then they will recommend to us for example that no, we no longer require this particular programme, and the organisation must change the programme or the funding, or something like that."* "*Once we paid it over to the universities. They will then sort of use it to their discretion of what they want to do with it."*
Sub-theme 4.2 Non-financial benefits			
4.2.1 Transformation	*"Because in some of the studies what they found, they found out that most of the people who are there teaching, who are having the PhD, they are in the exit off the door to go out because they are already going to pension and there are few women and most of them are white."*	*"Most of our targets are transformation-related. Like for instance, we want to see a certain number of black females emerging out of these programmes."*	

4.2.2 Talent pool	*"Where they were talking about to produce the teachers, to produce the PhD students like what we are doing now."*	*"So, we are funding that programme and it is doing well in terms of training young stars into all these science-related fields."*	*"You will probably find it in your literature review that universities have got an aging workforce, especially academics. Some universities take a shortcut, instead of training young academics and put them into the system."*
4.2.3 Number of Students funded	*"We look at the funding as to how many PhD students were funded? How many masters students were funded? How many honours and postgraduate diploma students have been funded?"*		
4.2.4 Number of graduates	*"We also look as to how many graduates from the natural sciences, teaching, and research have been produced in that particular year."*		
4.2.5 Appointment of graduates	*"We look as to how many PhDs have been appointed on that particular reporting period."*		
4.2.6 Community development		*"The focus of these observatories is not only to train students in the universities but also because what we insist on is that once we fund this project, it should establish an observatory that is linked to the community." "So our preference is that the site itself should be situated in the community, but of course, it should be managed and run by the university, so that community members also have access to that site."*	

Source: Own compilation from interview data

In terms of government institutions measuring the ROI for the training and development they have funded, the data in Table 6.12 revealed that this was not something that was done. Universities were funded and supported, but the responsibility for measuring the impact of the training and development interventions rests with universities. The focus was rather on establishing targets and plans at the beginning and ensuring that there was monitoring, evaluation and oversight as highlighted under Theme 2. The targets that were set focused on non-financial benefits such as transformation (DHET and DSI), having talent pools in place (all three government institutions), the number of students funded (DHET), graduated and appointed after completing their programmes (DHET), and community development (DSI).

Figure 6.1 shows a word cloud containing the main words used by the participants representing government institutions regarding their role in the training and development of academic staff in South African public universities.

Figure 6.1: Word cloud of main words used by government institutions' representatives

The most common words that summarised the role of government institutions in the development of academic staff at public universities included funding, contract, evaluation, reporting, monitor, strategy, planning and grants.

The next section presents and analyses the secondary data.

6.5 SECONDARY DATA

In this section, secondary data collected are presented and analysed. The reason for collecting secondary data was to support, supplement or refute the data collected through interviews. As a result, the same structure used to present the primary data (interviews) has been adopted. However, only secondary data that relates to the themes generated from interviews were collected. The first subsection presents and analyses the secondary data from universities while the second focuses on secondary data from government institutions.

6.5.1 Data from documents (universities)

The documents that were analysed from South African public universities included reports, policies, strategies and programmes for training and development interventions provided to academic staff.

6.5.1.1 Theme 1: Training and development interventions

The sub-themes in this section include programmes, and workshops and training.

6.5.1.1.1 Sub-theme 1.1: Programmes

Presented and analysed below are programmes provided by South African public universities as identified from secondary sources.

a. New Generation of Academics Programme (nGAP)

The first training and development programme that was identified in the secondary data in Case 3 was the nGAP. The following statements were found relating to this programme.

TU-D5: "The next generation of academics' involves training and retaining people for academia in and for Africa."

TU-D8: *"Under the auspices of the New Generation of Academics Programme (nGAP) funded by the Department of Higher Education and Training (DHET) the … is seeking to appoint a Lecturer for a full-time permanent position. This appointment will be made in terms of the purposes outlined in the Staffing South African Universities Framework (SSAUF). The nGAP appointment covers a six-year development period during which time a reduced teaching load is given to allow the appointee to acquire research and teaching skills and to develop a portfolio of published material."*

The second training and development programme provided for academic staff in South African public universities was the Professional Development Programme (PDP).

b. Professional Development Programme (PDP)

The quote below highlights the existence of the fellowship programme in Case 3.

TU-D9: *"The University will award a fellowship programme for a period of ONE year. The applicant will be expected to contribute to the production of a number of good-quality research outputs. The research will be conducted in collaboration with a research mentor who is a member of the academic staff."*

The programmes presented above cut across different universities and were spearheaded by the DHET and/or the NRF. The two programmes discussed below are institution-specific programmes that are found at one of the universities.

c. Young Academics Programme (YAP)

Data revealed that the YAP was implemented in Case 1. This is a three-month full-time programme that addresses the development of tuition, research skills and academic leadership. The following statement regarding the YAP was extracted from the secondary source in Case 1:

CU-D5: "*The programme is part of HRD's capacity-building initiatives, addressing the need to shape a visible vital pool of high-quality academics*."

As highlighted in CU-D5, the YAP was piloted in 2008 and has become one of the most successful initiatives. The YAP was a three-month full-time programme developed to address the development of tuition, research skills and academic leadership. The YAP was piloted in 2008 and has become one of the university's most successful initiatives. The programme forms part of the HRD capacity-building initiatives, addressing the need to shape a visible vital pool of high-quality academic staff.

The last training and development programme to be identified in Case 3 was the Emerging Researcher Programme (ERP) discussed below.

d. Emerging Researcher Programme (ERP)

Data in Case 3, revealed the following regarding the ERP:

TU-D3: "The ERP includes webinar series such as grant writing, research landscape analysis, supervision, writing for a scholarly journal, research integrity, time management, budgeting and working in multidisciplinary teams."

The next section presents and analyses some of the training and workshops provided to academic staff. Some of these interventions emanate from the programmes highlighted above.

6.5.1.1.2 Sub-theme 1.2: Workshops and training

Data revealed the following workshops and training interventions provided to academic staff in South African public universities as identified from the secondary data.

a. Teaching and learning workshops

Secondary data (TU-D7), revealed the following regarding teaching and learning activities that were implemented in Case 3:

- Designing and continually renewing course and programme curricula, as well as initiating new academic offerings
- Designing and implementing methods for assessing student learning that are appropriate for measuring the learning outcomes of courses and programmes and for the students enrolled in them
- Engaging in continuous reflection on their practice and their students' learning
- Participating in activities that foster continuous professional growth and learning
- Informing themselves of key principles underpinning good teaching that promote effective student learning, as well as discipline-specific aspects of student learning and university teaching.

Therefore, the data revealed that academic staff in Case 3 attended teaching and learning workshops to address skills challenges relating to the activities highlighted above.

b. Research and postgraduate workshops

Data presented in Table 6.13 revealed various research and postgraduate-related training and workshops provided in Case 2.

Table 6.13: Research and postgraduate interventions

WORKSHOP/PROGRAMMES	PURPOSE
Developing a conceptual framework for postgraduate studies	To provide a background to systems overview, mind mapping and linking the objectives to the questionnaire
Strengthening doctoral supervision	To help the new supervisor with the practice and process of doctoral supervision
Data production plan and process	To provide an introduction to research methodology
How to write a literature review	To deal with the practical aspects of writing a literature review
Preparing a research proposal	To deal with preparing a research proposal
Writing up a research proposal	To deal with writing up a research proposal
Research reading skills	To focus on how to find and organise literature and other sources
Supervisor workshop	To facilitate the changing face of university research, also focuses on the difference between the PhD and Master's degree and the roles and responsibilities of the supervisor and supervisory styles.
EndNote	To provide a hands-on introduction workshop on using EndNote, and saving and sharing EndNote libraries
SPSS workshop	To provide a structure to introduce the software package SPSS and then a follow-up workshop to work with research data already obtained
Using citation and referencing conventions	This workshop will build on the technical skills learned in using EndNote and skills learned in previous sessions to deal with citation and referencing conventions
Paradigms	An overview was given of different research paradigms, and the different demands/criteria or various orientations
Writing a thesis	This workshop will look at the thesis writing process, ways of stimulating creativity on getting initial drafts down, and some traditional (and alternative) ways of structuring a thesis

Source: UT-D2

The following section presents and analyses secondary data about the management of training and development interventions.

6.5.1.2 Theme 2: Management of training and development interventions

The data from secondary sources revealed various mechanisms that were adopted to manage training and development interventions. These mechanisms included the departments/units responsible for training and development, TNA, WSP, ATR and programme evaluation as presented and analysed below.

6.5.1.2.1 Sub-theme 2.1: Departments/units responsible for training and development

Departments/units that were found to be responsible for providing training and development interventions included teaching and learning, and research development. The data presented in Table 6.14 below revealed examples of the teaching and learning units that have been incorporated by universities in Cases 1, 2 and 3, as well as their mandate.

Table 6.14: Teaching and learning units

Unit	Mandate
Centre for Learning and Teaching Development (CLTD)	Offers several services to support academics in their professional growth. Workshops are offered throughout the year on a range of topics.
Curriculum Development and Transformation (DCDT)	Helps lecturers develop educationally sound learning experiences and environments for students suited to the open and distance learning (ODL) context. Expertise includes curriculum development, instructional design and learning development.
Centre for Innovation in Learning and Teaching	Key focus areas include staff development, course and curriculum design, and educational technologies.

Source: Own compilation

In terms of research, the data in Case 3 revealed that the research development unit focussed on research-related interventions, as highlighted below:

TU-D2: "Capacity building provided by the Research Development Academy includes training on topics such as research planning, applying for funding, student supervision, career and time planning and research-output publishing."

The next section presents and analyses the data regarding the second mechanism by which training and development interventions were managed.

6.5.1.2.2 Sub-theme 2.2: Training needs analysis

The data in Case 2 highlighted the following regarding TNA:

CU-D3: *"All training and development interventions are based on an assessment of individual employees, of the team and the strategic objectives of the university."*

"The establishment of the need for training and development will be the first step in the training cycle. The needs analysis is done once a year by all line managers/supervisors in consultation with subordinates and according to subordinates' personal development plans inclusive of the career discussion outcomes for that specific year."

The statements revealed that TNA was conducted before training and development interventions were designed and implemented.

6.5.1.2.3 Sub-theme 2.3: Workplace skills plan (WSP)

The data in Case 2 revealed that a WSP has to be compiled every year and includes the training and development interventions to be provided. The following was indicated:

CU-D3: *"Human Resources Development on an annual basis develops a workplace skills plan which is submitted to the Education, Training and Development Practices SETA."*

The statement above indicates that WSP was compiled annually and submitted to the ETDPSETA.

6.5.1.2.4 Sub-theme 2.4: Annual training report (ATR)

Data revealed that in Case 1, an ATR was compiled at the end of each yearly cycle and submitted to the SETA. The following was stated in one of the documents regarding the ATR.

CU-D3: *"The workplace skills plan implementation report/annual training report is a summary of training implemented for the year which is submitted to the SETA."*

The next sub-theme focuses on evaluating training programmes.

6.5.1.2.5 Sub-theme 2.5: Programme evaluation

The data in Case 1 revealed that programme evaluation was conducted as highlighted in the statement below:

CU-D3: *"Regular evaluations of training and development initiatives and interventions are done to assess the impact and results thereof."*

The data presented in this subsection revealed how training and development interventions were managed, as explained during the interviews. The next subsection presents and analyses data of the support provided to ensure that training and development interventions were successful.

6.5.1.3 Theme 3: Support for training and development interventions

Under this theme, the financial support, study support and outsourcing sub-themes emerged from documents.

6.5.1.3.1 Sub-theme 3.1: Financial support

The first sub-theme to be identified from the secondary data in this subsection was the financial support provided in Case 1 to ensure that the programmes are successful. In terms of learning costs, CU-D3 stated that *"[The University] will, where possible, provide support to employees with training and development."*

The second support mechanism focuses on study support as presented below.

6.5.1.3.2 Sub-theme 3.2: Study support

Besides financial support, academic staff required study support to enable them to complete their postgraduate studies. The following was extracted from the secondary data in Case 1 regarding the study support provided to academic staff:

CU-D2: "[The University] grants research and development leave to permanent employees in accordance with the Policy on Research Development Leave for Academic Employees and the Policy on Research Development Leave for Professional Employees specifically to encourage research and the completion of research masters and doctoral qualifications."

The last way in which training and development interventions were supported included the outsourcing of certain interventions.

6.5.1.3.3 Sub-theme 3.3: Outsourcing

The following was extracted from the secondary data in Case 1 about the outsourcing of training and development interventions:

CU-D3: *"In cases where needs have been identified, whether generic or functional and [the University] is unable to render the programmes internally, outsourcing will be considered."*

The following subsection presents and analyses data regarding the last theme to be identified from secondary data from universities, namely the measuring of ROI.

6.5.1.4 Theme 4: Measuring return on investment (ROI)

The sub-themes that emerged from secondary sources are discussed below.

6.5.1.4.1 Sub-theme 4.1: The measurement of return on investment (ROI)

Participants were asked whether they have policies that addressed the measurement of ROI for the training and development interventions provided to academic staff at their universities. In Cases 1, 2 and 3, data revealed that no ROI policy was available apart from one university in Case 1 where there was a working document detailing the way the ROI for management and leadership development programmes was measured. Accordingly, no ROI policy was analysed. However, other documents highlighted various non-financial benefits that universities gained from providing academic staff with training and development interventions. These are presented in the next subsection.

6.5.1.4.2 Sub-theme 4.2: Non-financial benefits

Various non-financial benefits that emerged from documents are presented and analysed below.

a. Transformation

The empowerment of previously disadvantaged individuals was the first non-financial benefit to be identified. In Case 2, the following was highlighted in this regard:

TU-D1: "To advance our transformative agenda, we need to challenge and support our existing scholars while nurturing the growth of the next generation." "Representation of black South Africans in the ERP is 56.5% (as opposed to 29.7% on the academic staff), and female ERP members comprise 58.3% (compared to the overall 45.8% female academic representation at [the institution])."

This shows that the transformation of the workforce was one of the non-financial benefits that universities achieved by providing the ERP. The second non-financial

benefit derived from training and development interventions was the promotion and career progression of employees.

b. Promotion and career progression of employees

The secondary data in Case 2 revealed that academic staff obtaining promotions and progressing with their careers was one of the non-financial benefits gained from providing certain training and development interventions. The following statement was extracted from the secondary data:

TU-D1: Of the 87 academics who received promotions in 2019, 41 were ERP members at some stage in their career."

Another non-financial benefit was found to be a scientific impact, as highlighted below.

c. Scientific impact of research

The impact of research on the global community was also highlighted as one of the non-financial benefits that could be gained from providing academic staff with training and development interventions. In Case 2, the following statement was extracted from the secondary data:

TU-D5: "The more visible our research becomes, the greater its impact will be."

The above statement indicates that the scientific impact of research was one of the goals that universities aimed to achieve. Therefore, to achieve this goal, there was a need to provide academic staff with various training and development interventions that will enable them to conduct research to will be impactful.

d. University ranking

Although university ranking was not identified as one of the non-financial benefits resulting from training and development interventions during the interviews, the following was extracted from the secondary data in Case 2:

TU-D6: "Improved national reputation as an institution involved in research and as a contributor of knowledge for national development."

This shows that by providing relevant training and development interventions to academic staff, universities stand a better chance of improving their rankings.

e. Number of NRF-rated researchers

Another non-financial benefit that was not identified during the interviews, but rather from secondary data was NRF ratings. The following statement was extracted in Case 2:

TU-D1: "The National Research Foundation allocates ratings based on a researcher's recent research outputs and impact, as perceived by international peer reviewers."

The last non-financial benefit identified in the documents that were analysed was the improvement in student pass and throughput rate.

f. Pass and throughput rate

In Case 1, the following was stipulated about the pass and throughput rates:

CU-D4: "Our focus is on contributing substantially to the reduction of dropouts, and to improve the module pass rate and the degree throughput rate."

The data demonstrated that training and development could assist universities to improve their pass and throughput rates and thus reduce the level of dropout.

The following subsection presents and analyses data about one financial benefit that was derived from providing academic staff with training and development interventions.

6.5.1.4.3 Sub-theme 4.3: Financial benefit

The data in Case 2 revealed that revenue from research contracts was one of the financial benefits that universities can benefit from. The statement was extracted from secondary data in Case regarding research contract revenue:

TU-D1: "Research income refers to revenue actually received, and is, therefore, the actual realisation of the monies agreed to per the research contracts."

No further information was gathered from secondary sources regarding the other sub-themes identified during the interviews with university participants. The following subsection presents data gathered from the documents collected from government institutions.

6.5.2 Data from documents in government institutions

Below are the sub-themes that were identified regarding the training and development of academic staff in South African public universities as per the data collected from secondary sources obtained from government institutions.

6.5.2.1 Theme 1: Training and development interventions

The following training and development interventions funded by government institutions were revealed from secondary data obtained from various documents:

6.5.2.1.1 University Capacity Development Programme (UCDP)

The following quote was extracted regarding the UCDP:

GI-D2: "The University Capacity Development Programme (UCDP) provided by the DHET represents both a consolidation and extension of the functions that were served by the Teaching Development Grant (TDG) and the Research Development Grant (RDG), two previous earmarked grants that have been part of the State's university funding framework for several years"

Under the UCDG, four core programmes were linked to the academic and professional staff development pathway, as discussed below.

a. The Nurturing Emerging Scholars Programme (NESP)

Data from government institutions revealed the NESP as the first programme under UCDP. The programme was explained as follows:

GI-D2: *"The NESP is a core programme that must identify students who demonstrate academic ability at senior undergraduate or early postgraduate levels who show some interest in an academic career, and who might be lost to the system unless structured, attractive prospects and opportunities are available and active recruitment efforts undertaken."*

The NESP was managed at an institutional level and focused mainly on students who were yet to be academic staff. These students must be actively recruited for positions as tutors, mentors, supplemental instructors, and such student-focused development activities supported by the UCDG.

b. New Generation of Academics Programme (NGAP)

The second programme under the UCDP was the nGAP. The following quotes were extracted to explain the programme:

GI-D3: *"The nGAP aims to assist with staffing transformation and capacity needs at universities, and involves the establishment of permanent academic posts."*

GI-D7*: "Enable and facilitate appropriate applications for nGAP, effectively increasing the number of successful applicants. Such intervention should assist them to develop strong research grant applications that can successfully compete for the Thuthuka and other research grants."*

According to GI-D3, the posts under the nGAP were made available at 24 South African public universities in 2019.

c. Existing Academics Capacity Enhancement Programme (EACEP)

The third programme under the UCDP was the EACEP, which focused on employed academic staff. The following quote about the programme was extracted:

GI-D5: *"The EACEP will support the development of existing academics, for example through support to complete their doctoral studies or through addressing specific gaps with respect to teaching development, research development, social engagement and academic leadership."*

The EACEP activities focused on teaching, research, social engagement and academic leadership development and the beneficiaries must be staff members at the university.

d. Higher Education Leadership and Management Programme (HELMP)

The last programme under the UCDP was the Higher Education Leadership and Management Programme (HELMP). The following explanation of the programme was extracted from the secondary data:

GI-D2: *"The Higher Education Leadership and Management Programme (HELMP) is a core programme that focuses on the development of university staff who are in leadership and management positions at universities, or who show potential and interest to pursue a career in university leadership and management. This includes leadership in professional areas such as teaching and learning, research management, student support, intuitional research, student counselling, etc. The*

HELMP could also include a student leadership component. The HELMP is a national programme that will be implemented by Universities South Africa Framework (USAF) as part of the UCDP, in partnership with all the public universities and with DHET."

The above interventions provided by the DHET were expected to equip and transform the workforce in PSET. To support these interventions, GI-D8 indicated that *"the DST will continue its support for the DHET's SSAUF, which aims to change the number and composition of university staff"*. Through the NRF, various interventions such as the Thuthuka bursary grant, Fulbright – Visiting Student Research, Support for Rated and Unrated Researchers, Black Academics Advancement Programme (BAAP) and the South African Research Chairs Initiative (SARChI) are available.

The secondary data revealed that two grants were provided by the ETDPSETA to fund training and development interventions.

6.5.2.1.2 Mandatory grants

The first grant provided was the mandatory grant and the following quote was extracted about the grant:

GI-D10: *"A registered organisation may recover a maximum of 20% of its total levy payment as a Mandatory Grant (excluding penalties and interest) by complying with the criteria in accordance with the Skills Development Regulations issued in terms of the Skills Development Levies Act No. 9 of 1999."*

The second grant provided by the ETDPSETA to support training and development interventions for academic staff was the discretionary grant.

6.5.2.1.3 Discretionary grants

The following quote was extracted about the grant:

GI-D9: *"Discretionary grants relate to the 49.5% of levies paid to SARS [South African Revenue Services] by member organisations and remitted to ETDPSETA by the DHET plus surplus from administration budget, interest earned from the banks and forfeited mandatory grants. This grant is used to fund training and skills enhancing programmes in the sector."*

According to GI-D11, the skills programmes that were implemented by the ETDPSETA to address the skills challenges of the academic staff include advanced postgraduate programmes, teaching and pedagogy, ICT skills, and change management.

The next subsection presents and analyses data regarding Theme 2.

6.5.2.2 Theme 2: Management of training and development interventions

This subsection presents and analyses data regarding how government institutions ensure that training and development interventions are managed effectively.

6.5.2.2.1 Provide policy direction and strategy

The first sub-theme to be identified regarding how government institutions ensure that interventions are managed effectively by universities was to provide policy direction and strategy. The following were extracted from secondary sources about government institutions' role in providing policy direction and strategy:

GI-D11: *"The DHET provides policy development and provision of infrastructure and subsidies, and overseer of implementation."*

GI-D4: *"The DHET enacted the Staffing South Africa's Universities Framework (SSAUF) as a national and sector response to alleviate skills challenges."*

GI-D1*: "The purpose of programme two is to provide strategic direction in the development, implementation and monitoring of departmental policies and the human resource development strategy for South Africa."*

The data revealed that the DHET was responsible for the PSET system and provides applicable strategies, plans and guidelines for all subsectors.

6.5.2.2.2 Coordination

The second sub-theme regarding how government institutions ensured that interventions are managed effectively by universities was coordination. The following was extracted from the secondary data:

GI-D2: *"Whilst most of the activities must be driven by universities, some will be coordinated at the national level."*

Centralising some of the training and development interventions enabled government institutions to coordinate the interventions and provide oversight.

6.5.2.2.3 Monitoring

The third sub-theme regarding how government institutions ensure that the interventions were managed effectively by universities was monitoring. The following quote relates to how monitoring was conducted:

GI-D11: *"The monitoring process involves the tracking of programme performance indicators and targets linked to the outcomes and outputs of each programme area; and … a plan in place for the life-cycle evaluation of the programmes with baselines, implementation outcomes and impact. SETA monitoring focuses on the implementation of both APPs and AOPs. Managers are required to develop project plans and monitoring plans to monitor progress on implementation and achievement of targets. On a monthly and/or quarterly basis, project owners conduct project site visits, prepare reports with corrective measures and present to senior management and broad management that sit fortnightly and quarterly."*

Data revealed that government institutions should monitor the implementation of the interventions regularly.

6.5.2.2.4 Evaluation

The last way that was found to be used to ensure that the interventions are managed effectively was the evaluation of the interventions. The following was extracted regarding evaluation:

GI-D11: *"Evaluation studies are systematic, once-off and objective assessments designed to develop or contribute to a generalised knowledge on the significance of ongoing or completed programmes and projects, to determine their efficacy, effectiveness, impact and sustainability. To maintain objectiveness in conducting such assessment, the SETA out-sources evaluations to qualified evaluation providers (private or public). The SETA has established an internal M&E/Evaluation Task Team comprised of programme/projects stakeholders, research staff and the M&E staff to provide oversight on all evaluations conducted on behalf of the SETA."*

Data revealed that there were mechanisms in place to evaluate the interventions. The evaluation process was outsourced to qualified providers and an internal task team was instituted to provide oversight.

The following subsection presents and analyses the data regarding Theme 3.

6.5.2.3 Theme 3: Support for training and development interventions

Data revealed that government institutions provided financial support for developing academic staff in South African public universities. The following was extracted from one of the secondary sources:

GI-D9: *"The NRF distributes a large portion of its funding budgets to researchers via, amongst others, research grants, infrastructure grants, travel grants, and scholarships and fellowships on an annual basis. Grants include funding initiatives that are awarded by the organisation as well as those that are administered by the NRF on behalf of the Department of Science and Innovation (DSI), and other entities. This contributes to the Government's objectives of meeting sustainable*

human capital development and promotion of greater investment in innovation and research development."

No secondary source was found regarding the way government institutions measured the ROI for academic training and development interventions at South African public universities. However, the documents analysed highlighted that various objectives and targets funded institutions should achieve. These include equipping the workforce, transformation and the advancement of technology and community development.

The next section integrates the data and presents the findings.

6.6 INTEGRATION OF FINDINGS

In this section, the data from the interviews and secondary sources collected from universities and government institutions are integrated and presented as findings for this study.

This study found that there were four themes in this study. The themes were training and development interventions (Theme 1), management of training and development interventions (Theme 2), support for training and development interventions (Theme 3), and measurement of ROI (Theme 4).

6.6.1 Theme 1: Training and development interventions

The first finding under this theme is that various programmes, as well as workshops and training, were provided to academic staff in South African public universities. Programmes included the nGAP, UCDP, PDP, YAP and ERP. Training and workshops covered areas such as teaching and learning, research and postgraduate studies, generic and community engagement. This is supported by Anho's (2019) viewpoint that all categories of lecturers require pedagogical knowledge through staff training and development to prevent them from becoming redundant, as well as to meet the ever-changing world of knowledge. Brown and Atkins's (1986) findings that

most training for academic staff continues to be focused on teaching skills but there is increasing recognition of the significance of training for all staff in research also support the findings in this study. The second finding under this theme is that the DHET, DSI, ETDPSETA and NRF provided funding for South African public universities to implement the training and development interventions. In addition to funding provided, universities receive mandatory and discretional grants to implement their WSP.

6.6.2 Theme 2: Management of training and development interventions

The first finding under this theme is that training and development interventions provided to academic staff in South African public universities were managed through departments/units, which included HRD, teaching and learning, and research development departments/units. This is supported by McComb, Eather and Imig's (2020) viewpoint that academic staff development initiatives have been a mix of institution-wide, centralised programmes offered by teaching and learning units, and at the faculty and discipline level. Both the teaching and learning, and the research development units collaborated with the HRD department/unit, although the structures for doing so differ from one institution to the next. For example, most established South African universities have a large and organised HRD unit, which falls under their HRM department, while relatively new and smaller universities employed a few staff members to manage HRD interventions. These people reported to the HRM manager.

The second finding under this theme is that TNA was conducted before the interventions can be developed and implemented. This finding is supported by Visser's (2020) statement that organisations registered with their respective SETAs identify the training needs of their employees (Visser, 2020). The results of the TNA of the organisation, groups within the organisation, and individual employees are used as input to compile a WSP (Erasmus, Loedolff et al., 2019).

The third finding is that South African public universities compiled their WSP yearly and it was expected that they submit their WSP to the ETDPSETA. Every

organisation is required to compile a WSP on an annual basis and submit it to their relevant SETA (Bell, 2019; Van den Heever et al., 2021).

The fourth finding is that line managers played an important role in managing the training and development interventions to ensure the success of interventions, especially after the training. They needed to work together with trainees to ensure that the knowledge gained from training was transferred to the workplace. The finding of a study by Park, Kang and Kim (2018) revealed that the level of support by a supervisor is not only associated with learning motivation but also has an impact on training readiness and job performance.

The fifth finding is that performance management was integrated into how training and development interventions were managed. As recommended by Bennington and Laffoley (2012), programmes should be integrated into organisations' performance management systems and all stakeholders should be held accountable. This can be done by ensuring that performance appraisal goals reflect the outcomes targeted for participants and their supervisors, to increase the probability that the targeted outcomes of a programme remain a focus area for trainees. Through performance appraisals, which are conducted regularly, supervisors are able to identify any lack of skills and capacity, and underperformance, as well as good performance (Munzhedzi, 2017).

The sixth finding is that programme evaluation was conducted to establish whether the intended outcomes of their training and development interventions had been accomplished and to fine-tune the programmes. The last manner in which interventions were managed included the compilation and submission of ATR.

The seventh finding is that ATRs were compiled yearly. In South Africa, organisations are required to submit an actual training report for the previous year, containing a summary of what training actually took place. This should then be compared to the previous year's WSP (Visser, 2020). In addition, universities also compiled certain annual reports that were published for internal use which highlight the success stories and academic achievements of individuals, teams and research units.

The last finding under this theme is that government institutions managed training and development interventions through various measures such as providing policy direction and strategy, requiring business plans from universities, signing contractual agreements, setting targets and indicators, participating in steering committees and conducting monitoring, evaluation and oversight. As highlighted by Rosenberg and Ward (2021), there is a need to review monitoring data in order to identify successes and contradictions related to the grants. Evaluations need to identify what has or has not worked and also investigate why certain aspects of the grant system have (not) worked and for whom (Rosenberg & Ward, 2021).

6.6.3 Theme 3: Support for training and development interventions

Under this theme, training and development interventions provided to academic staff in South African public universities were supported using different ways as discussed below.

This study found that presenting the interventions online was the first way in which training and development interventions were supported to ensure their success. During the pandemic, most institutions were unable to provide face-to-face interactions, as a result, there was a need to ensure that the programmes already planned still succeeded. This is consistent with Mallinson and Krull's (2018) suggestion that professional development opportunities for academic staff can be delivered via online methods. Nguyen and Chung (2020) found that information technology has become more important, especially in the field of education and training, and not just during the Covid-19 pandemic.

This study found that financial support was another way in which training and development interventions were supported to ensure their success. Such support assisted the trainees to complete their programmes. This is supported by Yeung, Mooney, English and O'Donoghue's (2019) findings that the beneficiaries of scholarships have a sense of accountability for the award, which also motivates them to complete their papers or study. The CHE (2022) identified the costs of providing adequate supervision and research support as including the increased

costs of library resources, technical support for research facilities, and additional administration of postgraduate programmes.

Furthermore, this study found that universities used various measures to provide study support including psychological support and providing staff members with time to work on their studies. Many academic staff are already well into their careers before they are able to achieve a doctoral degree (DHET, 2015c). Resource shortages and the demands associated with teaching are the foremost challenges that hinder the completion of doctoral degrees by academic staff. These challenges also prevent them from engaging in research beyond the doctoral level in order to become established researchers (NRF, 2022). Hence, providing staff members with time off work to focus on research and postgraduate studies is vital.

Another finding of this study is that outsourcing was another way in which universities supported training and development interventions, as these institutions sometimes do not have the internal capacity. External experts bring a wealth of knowledge and experience, as they are specialists in their fields. In addition, outsourcing allowed institutions to have accredited programmes they would not be able to provide internally. In Anderson and McKenzie (2022), it was found that the insourcing and outsourcing of interventions undoubtedly lead to training, as it assists organisations to advance their business practices and growth.

This study found that another way in which universities supported training and development interventions was the manner in which participants were recruited. This is supported by Moriña, Perera and Carballo's (2020) stance that in addition to training, universities should design strategies for the dissemination of information to university staff. An imperative feature when constructing a favourable learning environment is to inform trainees about the training (Erasmus, Loedolff et al., 2019). Without effective recruitment strategies for participants, the programmes are likely to have minimal outcomes. Universities used various techniques to let prospective trainees know about the training and development interventions available. The techniques included recruiting trainees through their line managers, publishing the workshops online and using mail lists to send invitations to staff members.

Therefore, to encourage people to learn, there is a need to do a better job of promoting the benefits of learning (Morgan, 2018).

Moreover, this study found that support staff were appointed in the departments/units that provide the interventions. However, a few of the participants highlighted that the number of support staff that they worked with was inadequate considering the workload their units were responsible for. This study further found that the participants engaged in networking with their peers and were able to reduce costs by not duplicating certain services. The benefits of a robust network are so evident that professional networking is often regarded as the main activity for those who wish to realise greater professional results (Medha, Nathanael & Oliver, 2017). The units that provide training and development interventions collaborated with other key stakeholders such as the DHET, Universities South Africa (USAF), departments in different faculties and external training partners.

This study also found that mentorship was integrated into some of the training and development interventions provided. Mentors and mentees were given training to ensure a smooth relationship between them. In the studies by Hund et al. (2018) and Marino (2020), mentorship was found to be one of the aspects that were critical in the workplace to ensure that emerging academic staff learn from seasoned staff members. Mentors are often the ones who shield their mentees and support them when they are facing the most difficult experiences (Marino, 2020). Nonetheless, academic institutions do not implement a vigorous mentorship programme and, in most cases, getting exceptional mentorship is something left to chance: some trainees are fortunate enough to have incredible mentors, whereas others never experience the true value of mentorship (Marino, 2020). Hence, there is a need to provide training for both mentors and mentees.

The study found that internal staff members were requested to come on board in terms of passing on their knowledge and experience to novice academic staff. Involving internal staff members in providing training and development interventions was of benefit to trainees as they gained faculty-specific knowledge.

To support the training and development interventions, this study found that making the necessary logistical arrangements was important. In a study by Arghode and Wong (2016), it was revealed that if trainees are not happy with logistics, it might adversely influence their willingness to take part in the training programme. Aspects such as the facilities, furnishing and any media required should be checked before any training to ensure that they are available and in proper working conditions (Erasmus, Loedolff et al., 2019). The findings in this study revealed that proper logistical arrangements were made before and during the workshop to ensure that training is conducted in a conducive environment.

The study further found that providing financial incentives for completing a qualification such as a masters or doctorate was one of the initiates used to motivate academic staff to complete certain programmes. Using financial incentives and bonuses can be effective when properly managed (Landry et al., 2017) and financial incentives have a positive effect on employee motivation (Novianty & Evita, 2018). CPD points were also provided to attendees, where applicable. CPD is a lifelong learning process for employees to expand knowledge, skills and experience beyond what they already know (Suliman, Kruger & Pienaar, 2020). In some work environments, the CPD system is mandatory and is usually monitored by a professional body (Suliman et al., 2020). It can thus be established that providing those academic staff who are required by their professional bodies to accumulate a certain number of CPD points, most like motivated them to attend the programmes.

Under this theme, another finding is that the departments that were responsible for providing training and development interventions to academic staff closely worked with academic staff to identify the kinds of training to be provided and to provide feedback. Such collaboration was very important because training participants were able to identify the interventions they needed and providing feedback to those who provide the interventions was made possible. Furthermore, managers of the programmes sometimes had to be present during the presentation to ensure that everything ran smoothly. The superiority, knowledge and experience that managers had were of importance in this regard.

Another finding was that on-the-job training was adopted to enhance knowledge and skills gained through various interventions. Very often, institutional workshops are unable to stay abreast of the latest equipment available. Hence, it is always valuable to boost workshop training with practice in a real work environment where real-life experiences such as dealing with customers, working under pressure and working as part of a team may be more easily learnt (DHET, 2013).

The last way that this study found to be implemented by South African public universities to support training and development interventions provided to academic staff was allowing flexibility when it comes to attending the interventions. Substantial teaching workloads and other competing stresses are difficulties early career academic staff experience in coping with the demands of academic work at the departmental level (Owusu-Agyeman, 2021). Such stress reduces their chances of attending training programmes, especially if they are not given time off work. Therefore, by providing flexible programmes, the chance of a high rate of attendance and success for training programmes is improved.

Lastly, this study found that government institutions' role to support the training and development interventions they have funded, included collaborating with universities, conducting research on skills challenges, removing bottlenecks, presentations, decentralisation of functions and enacting task teams.

6.6.4 Theme 4: Measuring return on investment (ROI)

Under this theme, this study found that the first level to be evaluated when measuring the ROI of training and development interventions was the reaction of trainees. The main technique that was used to evaluate trainees' reactions was a questionnaire. The use of a questionnaire is aligned with the standpoint of Erasmus, Loedolff et al. (2019) and Perez-Soltero et al. (2019) that in most training programmes, questionnaires are constructed and administered to collect information regarding trainees' reactions. Attendance registers were also used to capture the number of participants taking part in programmes. It can thus be inferred that the higher the programme attendance, the more positive the impact. Likewise, programmes that were poorly attended were most likely to have a low impact, if any.

Furthermore, sometimes even though trainees were not required to complete a survey or questionnaire after attending a training programme, they provide feedback to the coordinators to thank them for the knowledge that they have acquired. In some cases, trainees were required to provide written feedback; this ensured that trainees really participated and were aware of what was happening during training, and not just attend for the sake of attending.

The second finding under this theme is that universities assessed learning to establish whether trainees' knowledge had indeed improved. Methods such as questionnaires, practical assignments and portfolios of evidence were used to assess learning. Since some of the training and development interventions were provided by external and other internal training partners, institutions did not have to assess the trainees once they had completed their training or courses; however, the institution did require them to submit a certificate or proof of course completion to demonstrate that they had undergone the learning process.

The third finding under this theme is that universities conducted an evaluation to determine if trainees changed their behaviour after attending training and development interventions. This can be done immediately or several months after the training, depending on the situation (Topno, 2012). In this context, the evaluation of behaviour was mostly done after three to six months. Interviews were conducted with both trainees and line managers to measure the extent to which trainees had applied the learning and changed their behaviour in performing their duties.

The fourth finding under this theme is that the evaluation of results emanating from training and development interventions provided to academic staff in South African public universities was challenging. This is consistent with Kirkpatrick and Kirkpatrick's (2019) and Reio et al.'s (2017) viewpoint that the fourth level of evaluation was the most challenging. However, in this study, the finding is that performance was evaluated about six months after training to determine whether any improvement in terms of trainees' KPIs had taken place as a result of the training and development interventions provided. Other organisational performance indicators were found to be used in all three cases to establish the impact of training and development interventions on organisational results. These aspects will be

discussed in the next section under the benefits resulting from training and development interventions.

The fifth finding is that South African public universities did not measure ROI. This is supported by Topno's (2012) and Meyer and Opperman's (2016) perspective that although most organisations conduct evaluations to measure satisfaction, a very small number of them conduct ROI evaluations because it was often regarded as a difficult and expensive process. Although, ROI was not directly measured, South African public universities used non-financial and financial benefits to establish the impact of training and development interventions. These are the cornerstone of the measurement of ROI. Furthermore, this study found that South African public universities gained more non-financial benefits from providing training and development interventions to academic staff. Non-financial benefits included talent pool, employees attaining higher qualifications, promotion and career progression of employees, employee retention, networking, advancement of technology, community development, transformation, scientific impact of research, awards, and pass and throughput rate.

Having an adequate talent pool was the first non-financial benefit that universities in all three cases derived from providing training and development for academic staff. Considering that universities struggle to fill certain academic positions as well as retain their staff, an adequate talent pool must be created. The findings of this study are supported by Azman, Sirat and Pang's (2016) views that universities must develop and nurture an effective and talented HR pool, which constitutes an emerging source of competitive advantage in the advancement of science, technology, innovation and talent. Aman et al. (2017) also maintained the notion that the current global market requires institutions to nurture quality and capable talent pool.

Another non-financial benefit was that providing certain training and development interventions to academic staff, resulted in them attaining higher qualifications. According to the NRF (2022), the fact that only a small fraction of academic staff holds qualifications that are appropriate for steering postgraduate research and advancing knowledge creation is the main hurdle for advancing postgraduate studies

and research at South African universities. Moreover, recently, there has been a drop in the number of doctoral degree graduates who are full-time university academic staff working at the universities and universities of technology (NRF, 2022). Hence, providing certain training and development interventions brings much-needed relief to this challenge in South African public universities.

The promotion and career progression of employees was closely linked to the above non-financial benefit, as when academic staff obtain a higher qualification they are more likely to progress in their careers. However, attending training and development does not guarantee that one will be promoted immediately. For academic staff to be promoted and progress in their careers is beneficial for South African public universities, as such academic staff were able to fill higher positions in academia including associate and full professorships and were more likely to attain NRF rating.

The retention of academic staff was one of the non-financial benefits that universities gained from providing training and development interventions. According to Simmons (2020), employee retention is vital for an organisation to realise its strategic objectives and financial stability. In addition, retention in an organisation assists in HR planning and results in reduced recruitment costs and training and development costs (Kamalaveni & Vetrivel, 2019; Komal & Samina, 2018; Shibiti, 2019). In a study by Alotaibi (2018), the cost of recruitment and induction, other training and the warm-up period, as well as the impact on staff turnover as a proportion of all benefits were taken into consideration when calculating the value of reduced staff turnover. Therefore, if providing academic staff with training and development interventions improves their retention rate, this will benefit their universities.

Networking was also one of the non-financial benefits as trainees interacted with others during training and ended up forging networks that benefited them after training. Davis, Wolff, Forret and Sullivan (2020) highlight that various studies have found networking to be positively linked with various career outcomes such as job search success, number of promotions, job performance and rate of salary growth over time. The benefits of a vigorous network are so apparent that professional

networking is often considered one of the actions that can be taken to achieve favourable professional outcomes (Medha et al., 2017).

After attending training and development interventions, academic staff were expected to contribute in terms of technology advancement and innovation. This is supported by Subrahmanyam and Hamadamin's (2020) findings that providing training to employees is the greatest weapon in a knowledge-based economy and the key driver of creativity and innovation. Another non-financial benefit gained from providing training and development interventions to academic staff was community development. Academic staff were expected to embark on research that contributes to community development after being supported through various training and development interventions. The social impact of research is at the centre of some of the deliberations prompting how researchers conceptualise their studies and the manner in which the results are useful for citizens and societies (Pulido, Redondo-Sama, Sordé-Martí & Flecha 2018). Furthermore, the authors highlight that the assessment of social impact is a requisite and is more challenging to determine than the level of scientific impact. In South Africa, the NRF as the main enabler of research in the country encourages researchers to conduct research that has a societal impact (NRF, 2020).

Another non-financial benefit was the transformation of the academic profile in South African public universities. Transformation continues to remain a critical imperative in South Africa, particularly considering the ethnic and gender composition of key sectors of society such as universities (NRF, 2022). Hence, in academia, there is a need to train people from previously disadvantaged background. The impact and visibility of research published by academic staff after attending a training and development intervention were also non-financial benefits. The scientific impact of research plays a critical role in research funding (Gao et al., 2021). It is important for research to have an impact, as the absolute objective of all scientific research must be the circulation of research findings through their publication in indexed journals (Rodríguez-Padial et al., 2019). Advanced research and scientific knowledge are regarded as some of the most effective ways for realising national development objectives and a better quality of life for everyone (NRF, 2021).

Research awards received by trainees was also a non-financial benefit resulting from providing training and development interventions. It can be inferred that the more awards trainees receive, the more the interventions are perceived as having a positive ROI. According to Gallus and Frey (2015), awards are a valuable strategic resource because they can have a significant effect on employee motivation and corporate performance, as alluded to by motivation theory and the emerging body of empirical literature. The last three non-financial benefits included improved university ranking, number of NRF-rated researchers, and pass and throughput rate. This shows that by providing relevant training and development interventions to academic staff, universities had a better chance of improving their rankings, the number of NRF-rated researchers, and pass and throughput rates and thus reducing the level of students' dropout. This is supported by Rwothumio, Mbirithi and Itolondo's (2021) finding that providing academic staff with training improves outcomes such as teaching and research output.

The main reason why most of the participants indicated that they did not measure ROI was that many of the benefits that can be derived from providing training and development interventions to academic staff could not be quantified financially. However, some of the interventions resulted in direct financial benefits including publication revenue, subsidy for postgraduate student supervision and contract revenue. Publication revenue was used to measure the financial benefit of providing certain training and development interventions to academic staff. For every research article published, universities receive an incentive from the government. This government incentive system is coordinated by the DHET, which provides universities with incentives for articles published by their employees or affiliates in accredited journals or other accepted publication channels such as books (Lee & Simon, 2018; Matthews, 2013; Muller, 2017; Tomaselli, 2018). In some institutions, a large portion of the publication incentive was paid directly to the authors while other institutions use the subsidy to create and maintain a research fund that all researchers can apply for when they need funds for further research (Soudien, 2021). Therefore, South African public universities are able to establish how much they have benefited from certain training and development interventions through the amount that they receive after staff members have attended them.

The second direct financial benefit that can be linked to certain training and development interventions was the subsidy that universities receive for the number of postgraduate students registered. In addition, the South African Research Funding Framework of 2003 introduced a direct reward in a form of a research output subsidy to universities for the number of doctoral graduates produced (Mouton, Boshoff & James, 2015). This has a monetary value equivalent to three articles in an accredited journal (Matthews, 2013; Mouton et al., 2015). Thus, South African public universities were able to establish how much they had benefited from certain training and development interventions through the amount of money for postgraduate supervision received after staff members have attended research-related interventions. According to the CHE (2022), the average time for doctoral students to graduate in a particular year is a determining factor in the calculation of the subsidy formula for the size of the annual Teaching Input Sub-Block grant allocated to an institution. However, the CHE (2022) highlighted that financial incentives should not be the only motive for enrolling postgraduate students as the income from subsidies is unlikely to cover the resources required for doctoral programmes.

The last financial benefit derived from providing certain training and development interventions was research contract revenue. This is consistent with Kamanzi and Neema-Abooki's (2018) and Rahman et al.'s (2015) standpoints that universities across the world are expected to generate income from other streams besides government funding. Likewise, Gebreyes (2015) found that there is a common effort by the universities in Sub-Saharan Africa to move away from dependence on funding institutions and engage in non-government sources of revenue. Income from industry signifies a comparatively small but possibly significant source of research grants and contracts (Huggins et al., 2015). Hence, there is a need to provide training and development interventions that will lead to securing and successfully executing research contracts.

Besides establishing the benefits of training and development interventions, the cost of training is very important when measuring the ROI. The costs of training include cost per delegate, transport, accommodation and the money lost when someone is away for training. However, as highlighted by Schueler and Phil (2020), the costs vary according to the types of stakeholders and the characteristics of the specific

training programme. In DeSilets and Dickerson (2010), it was highlighted that training costs cover aspects such as expenditure related to needs assessment, programme development and design, programme materials and supplies, office supplies and expenses, marketing, facility charges, speakers, food, equipment rental, and evaluation, as well as a percentage for overhead and administrative costs.

Under this theme, the study found that there are various barriers when it comes to measuring the ROI for training and development interventions for academic staff in South African public universities including, the complexity of the process, lack of capacity, lag between training and improved performance, lack of will, financial constraints, lack of processes, fragmentation of training and development interventions, interventions yielding non-financial benefits, and lack of adequate data. Mostly, universities were unable to measure the ROI owing to the complexity of the process. Curado and Bernardino (2018) support this, highlighting that it is difficult to measure the return on training investment. This is consistent with Meyer and Opperman's (2016) view that HRD managers do not measure ROI because they perceive the process to be complex. With advancement through the levels of evaluation, measurement tends to be trickier as the relationship between an activity and impact becomes more tempered (Kucherov & Manokhina, 2017; McCulloch & Loeser, 2016; Sachdeva, 2014).

With regard to the lack of capacity, there was a general lack of capacity to measure the ROI for training and development interventions. This is supported by Sachdeva's (2014) view that those who are motivated to measure ROI are overburdened with other activities, leaving no time to conduct ROI measurement. The lag between training and performance was one of the barriers that universities faced when it comes to measuring ROI. Costs associated with training can be identified before the training programme takes place, whereas the benefits might accrue gradually after a certain time (Curado & Bernardino, 2018). Lack of willingness to measure ROI was also one of the barriers to measuring ROI. This is consistent with Sachdeva's (2014) findings that HRD practitioners are inclined to avoid introducing and dealing with complications in, the ROI measurement process. Furthermore, they generally have the attitude that it is insufficient to focus on Level 2 or 3 programme evaluation if so

required by management. Many practitioners believe that there is no need to defend their existence and it is not their job to measure ROI (Sachdeva, 2014).

Financial constraint was also one of the barriers to measuring ROI. To be able to measure ROI, adequate resources should be dedicated to this process. One of the main considerations for measuring ROI is the resources and commitment required to embark on this activity (Schueler & Phil, 2020). However, Philips (2007) is of the view that measuring ROI is not too expensive as the total cost of all evaluations, excluding selected ROI studies, lies within the range of 3 to 5% of the total learning and development budget. There was a lack of adequate processes that can be used to measure the ROI for the training and development interventions provided to academic staff. This study aimed, in part, to eliminate this challenge by proposing a framework that can be used to measure the ROI for such training and development interventions.

Regarding the fragmentation of training and development interventions, academic staff often attend several training and development interventions provided by various units in universities simultaneously. This fragmentation of training results in those who are supposed to measure the ROI of programmes not being able to do so. In addition, the financial benefits associated with a training and development intervention need to be established. However, this is not always possible. Furthermore, universities were unable to measure ROI because some of the training and development interventions result in strictly non-financial benefits. This is supported by Meyer and Opperman's (2016) view that establishing ROI for other types of training, for example, interventions aimed at developing soft skills is problematic. The last barrier to measuring ROI was the lack of adequate data. Alotaibi (2018) identified the availability of information on pertinent changes in performance as one of the criteria that should be met before computing the ROI from a learning programme. Therefore, in the current environment in which access to adequate data was found, it was difficult to measure ROI. According to the CHE (2022), reports from universities indicate that academic development programmes are not monitored and records of attendance are not kept. This is exacerbated by the fact that some organisations are systemically poor at recording HRD and other

operational data, or are hesitant to make their numbers available to internal or external groups (Wang et al., 2002).

Notwithstanding the challenges and barriers experienced with the ROI methodology, this process is significant and organisations should adopt certain enablers to ensure its success. To mitigate the barriers discussed above, various mechanisms can be implemented to ensure that ROI is measured effectively including accountability, adopting a holistic approach, institutional system, having the will to measure ROI and formulating ROI policy. In terms of accountability, this study found that those who were responsible for managing training and development interventions were accountable for the budget allocated. It can be inferred that if there is no accountability, it will be difficult to measure the ROI for the training and development interventions provided. As highlighted by Schueler and Phil (2020), accountability for public spending on education is more imperative than ever before.

This study further found that for ROI to be measured successfully, a holistic approach should be adopted; the process needed to be conducted throughout the programme, from start to finish. In addition, since academic staff attended various training and development interventions simultaneously, there must be cohesion between them in order to achieve an integrated ROI. This will assist in alleviating the challenge of fragmenting training and development interventions identified earlier. Nguyen and Chung (2020) highlight that the development of a digitised and connected capacity management system for academic staff in particular and a teaching and learning support system, in general, is inevitable. In addition to adopting a holistic approach, there is a need to implement institutional systems that will enable the measuring of ROI. As found by Bingwa and Ngide (2021), universities lack a proper system for evaluating and measuring the impact of academic training programmes offered to academic staff. Without the required systems, those who work with training and development interventions are unlikely to succeed when it comes to measuring the ROI. Accordingly, institutions must discuss their current system capabilities and the improvements their data systems need to correctly measure ROI.

Willingness to measure ROI was also an enabler of measuring ROI. Without the willingness to measure ROI, as highlighted earlier, it will not be done satisfactorily, if at all. Lastly, this study found that South African public universities did not have policies that addressed the measurement of ROI for training and development interventions provided to academic staff. Sachdeva (2014) suggests that the absence of an ROI policy is one of the factors that restrict the use of ROI methodology. Hence, there is a need for South African public universities to have policies in place that will guide those who are responsible for managing training and development interventions on how they should measure the ROI for the interventions. As highlighted earlier, it is generally accepted that the ROI for training programmes is very difficult to measure accurately. Nevertheless, there is broad agreement on the need for and effectiveness of its estimation and the knowledge that it produces: this agreement results in a debate in the organisation and influences better resource allocation (Curado & Bernardino, 2018).

Considering the barriers and challenges to measuring the ROI of training and development interventions, an alternative that will be effective is needed. This study found that South African public universities in some instances focused on measuring the ROE instead of ROI. This is supported by Bennington and Laffoley's (2012) findings that binding ROI to a monetary amount may not always be the best metric and that calculating the ROE may be a better alternative. The ROE focuses on what the main stakeholders envisage the training will accomplish (Schueler & Phil, 2020; Weninger, 2020). The focus of training and improvement efforts should be on the predetermined bottom-line expectations of business partners, aiming to deliver the crucial outcomes or results they anticipate (Kirkpatrick & Kirkpatrick, 2009; Sadler & Van Jaarsveldt, 2012). Therefore, HRD managers must have a serious conversation with senior leaders to answer the question, "What will constitute success for this learning initiative?" (Bennington & Laffoley, 2012: 6). Cumbersome monitoring can be avoided if the programme aims and expectations are clearly outlined by deciding on structured monitoring indicators (Hachigonta et al., 2021). If the envisaged impact of a training programme is established from the start, it becomes easy at the end to evaluate the programme.

In terms of government institutions measuring the ROI for the training and development they have funded, this study found that this was not something that was done. Universities were funded and supported, but the responsibility for measuring the impact of the training and development interventions rested with universities. The focus was rather on establishing targets and plans at the beginning and ensuring that there was monitoring, evaluation and oversight. The targets that were set focused on non-financial benefits such as transformation, having talent pools in place, the number of students funded, graduated and appointed after completing their programmes, and community development.

The next section provides the key findings of this study.

6.7 KEY FINDINGS OF THIS STUDY

In this section, the key findings of this study are presented in terms of how they align with the achievement of the empirical research aims:

6.7.1 Research aim 1: To examine the typical HRD interventions provided to academics in South African public universities.

This study found that the typical HRD interventions that were provided to academic staff in South African public universities included two broad classifications, namely programmes, and training and workshops. The typical programmes were the UCDP, nGAP, PDP, YAP and ERP. Training and workshops focused on teaching and learning, research, generic topics and community engagement.

The findings show that this research aim has been achieved.

6.7.2 Research aim 2: To assess how South African public universities manage the HRD interventions provided to academic staff.

This study found that the HRD interventions provided to academic staff in South African public universities are managed through different mechanisms, namely, the

establishment of departments/units that are responsible for providing training and development to academic staff (which include HRD, teaching and learning, and research development directorates); appointment of managers for certain interventions; conducting of TNA; compiling of WSP; line managers playing a significant role; incorporating training and development criteria in the performance management systems; and compiling ATR.

The findings show that this research aim has been achieved.

6.7.3 Research aim 3: To establish how South African public universities support the HRD interventions provided to academic staff.

This study found that HRD interventions were supported through presenting courses online, financial support, study support, recruitment of participants, outsourcing, the appointment of a support team, collaboration with training providers, mentorship, internal staff assisting with presentations, logistical arrangements, incentives, CPD points, collaboration with academic staff, presence of managers during workshops, providing on the job training and flexibility.

The findings show that this research aim has been achieved.

6.7.4 Research aim 4: To investigate the role of government institutions regarding the training and development of academic staff in public universities.

The finding of this study is that government institutions, as the main funders of training and development interventions provided to academic staff in South African public universities, played a critical role. The DHET, DSI, ETDPSETA and NRF were responsible for funding the training and development of academic staff through the following interventions:

- The DHET has established the UCDP (which includes the NESP, nGAP, EACEP and HELMP).

- The DSI provided funding through the NRF, including interventions such as the Thuthuka bursary grant, Fulbright – Visiting Student Research, Support for Rated and Unrated Researchers, BAAP and the SARChI.
- The ETDPSETA provided mandatory and discretionary grants.

To ensure that training and development interventions funded by government institutions were managed effectively, the government institutions provided policy direction and strategy, requested universities to submit their business plans when they apply for funding, signed contractual agreements, set targets and indicators from the start, participated in steering committees and conducted monitoring, evaluation and oversight. In addition, they provided support mechanisms such as funding, collaborating with universities, removing bottlenecks, presenting the interventions, decentralising some of the functions, and setting-up task teams.

Furthermore, this study found that government institutions did not measure ROI for training and development interventions provided to academic staff in South African public universities as the universities were expected to study the impact of such interventions. However, universities were required to achieve various objectives and targets. The targets included equipping the workforce, transformation, advancement of technology and community development.

The findings show that this research aim has been achieved.

6.7.5 Research aim 5: To explore how South African public universities measure ROI for the HRD interventions provided to academic staff.

The finding of this study is that ROI was measured at three different levels, namely reaction, learning and behaviour. The manner in which trainees received the training and development interventions was assessed using questionnaires and attendance registers and allowing them to provide their feedback. Following some of the interventions, trainees were assessed for learning, with those that had attended external interventions being requested to submit their certificates to demonstrate that they had achieved the learning outcomes of the interventions. The evaluation of

behaviour was done by conducting interviews after three to six months with both the trainees and the line managers to measure the extent to which the trainees applied the learning and changed their behaviour in performing their duties.

In terms of the measurement of the results, this study found that South African public universities hardly evaluated the impact of training and development interventions at this level. However, performance improvement was evaluated after about six months to determine whether there was an improvement in trainees' KPIs as a result of the training and development interventions provided. Furthermore, South African public universities did not adopt the ROI methodology to measure the impact of training and development interventions. However, there was evidence that certain aspects of the ROI methodology were measured such as establishing the training costs, financial benefits and non-financial benefits associated with training and development interventions. The main reason why universities did not measure the ROI was that they encountered various barriers. To eliminate the barriers, this study found that institutions should adopt certain enablers for measuring ROI. The study further found that in some instances, South African public universities measured ROE instead of ROI.

The findings show that this research aim has been achieved.

The following subsection addresses research aim 6 regarding the integrated ROI for HRD interventions provided to academics in South African public universities.

6.7.6 Research aim 6: To develop an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities.

Based on the empirical data collected and analysed for this study, an integrated framework for the HRD interventions provided to academic staff in South African public universities was developed. Figure 6.2 depicts the dimensions of this framework and each dimension and associated elements are briefly described.

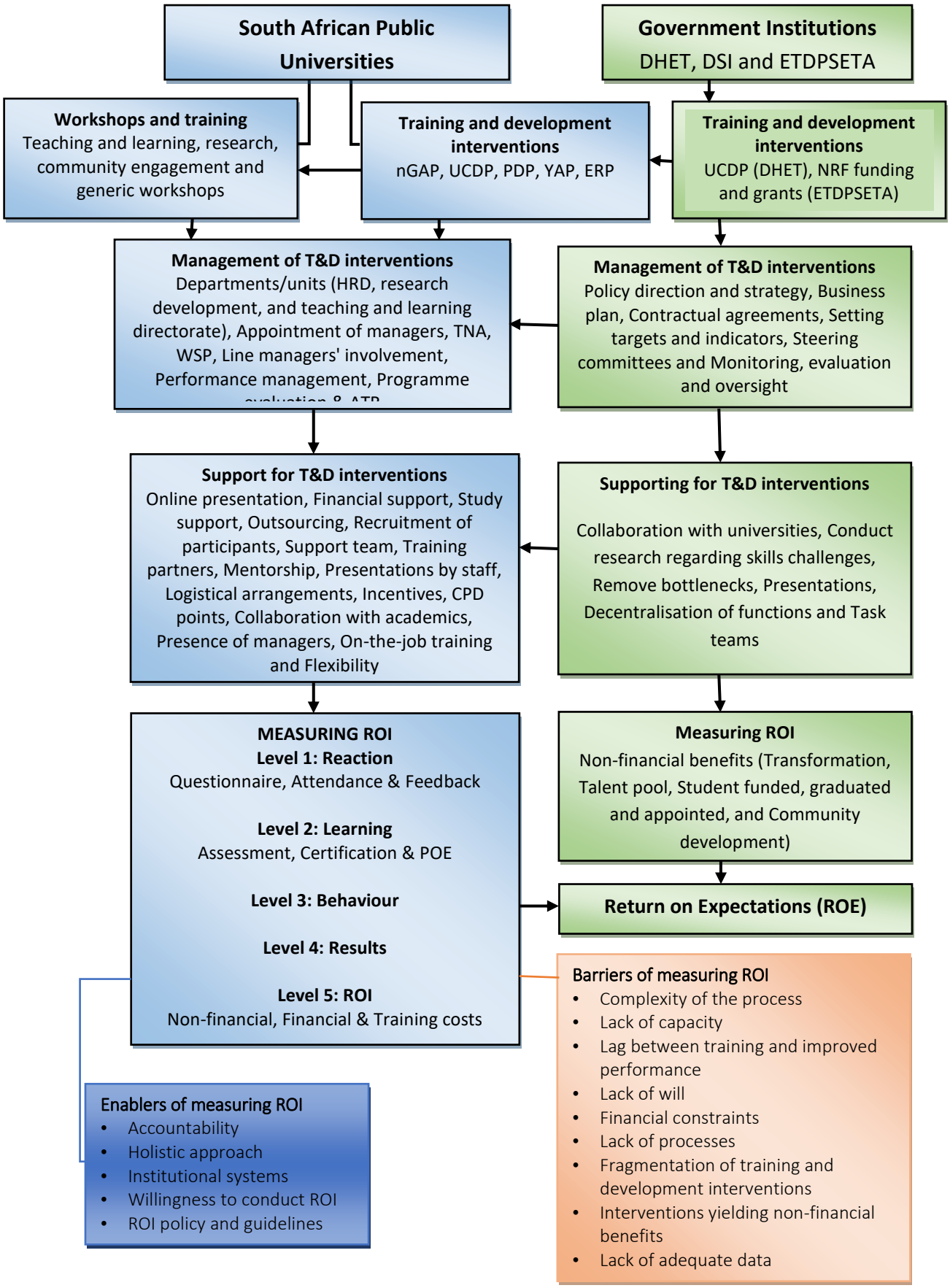

Figure 6.2: An integrated ROI framework for the HRD interventions provided to academic staff in South African public universities

The empirical framework in Figure 6.2 includes the public universities as the implementing institutions on the left-hand side and government institutions as the funding institutions on the right-hand side.

6.7.6.1 Public universities

Under the public universities, the following were included:

6.7.6.1.1 Training and development interventions

The first dimension to be included in the framework was the training and development interventions that are provided to academic staff in South African public universities. The purpose of including this dimension in the framework was to give an overview of the types of interventions that were provided.

6.7.6.1.2 Management of training and development interventions

The second dimension to be included was the management of training and development interventions. This was included in the framework because, for training and development interventions to be successful, there is a need to manage them effectively.

6.7.6.1.3 Support for training and development interventions

The third dimension to be included was the support provided for training and development interventions. For these interventions to result in a positive ROI, institutions should provide support mechanisms; hence, this dimension was also included in the framework.

6.7.6.1.4 Measuring return on investment (ROI)

The fourth dimension to be included was the measuring of ROI. This is the core of this study, and all dimensions that were included in the framework revolve around

the measuring of ROI. To measure ROI, institutions should use the five levels of evaluation to assess their training and development interventions. Level 1 focuses on the reaction of trainees. At level 2, various assessment techniques should be used to evaluate learning. Regarding the measurement of behaviour change (Level 3) in trainees after attending training and development interventions, feedback from trainees and line managers should be used. To measure the results (Level 4), an effort should be made to measure the impact of training and development interventions on the performance of an institution. The last level to be measured was ROI (Level 5), at which level non-financial, financial and training costs should be captured.

6.7.6.1.5 Barriers to measuring return on investment (ROI)

The fifth dimension to be included was the barriers encountered when measuring ROI. Most institutions highlighted that they were unable to measure ROI owing to various factors; hence, the dimension pertaining to barriers to measuring ROI was also included in the framework. The barriers prevent those who work with the interventions from measuring the ROI.

6.7.6.1.6 Enablers of measuring return on investment (ROI)

The sixth dimension to be included was the enablers of the ROI process. To mitigate the barriers alluded to above, institutions should implement various factors to enable those who work with training and development interventions to measure ROI.

6.7.6.1.7 Return on expectation (ROE)

The seventh dimension to be included was the establishment of ROE. In some cases, a focus on achieving the ROE instead of measuring the impact of training and development interventions on organisational performance and ROI was preferred. Hence, this dimension was included in the framework.

6.7.6.2 Government institutions

Under the public universities, the following were included:

6.7.6.2.1 Training and development interventions

The funding of training and development for academic staff included the UCDP (which includes the NESP, nGAP, EACEP and HELMP), the NRF interventions (such as Thuthuka bursary grant, Fulbright – Visiting Student Research, Support for Rated and Unrated Researchers, BAAP and the SARChI), and the mandatory and discretionary grants. The training and development interventions in place at public universities emanated from these interventions and, in turn, training and workshops were provided to academic staff.

6.7.6.2.2 Management of training and development interventions

Government institutions ensured that interventions were managed effectively by adopting measures such as providing policy direction and strategy, requesting universities to submit their business plans when applying for funding, making contractual agreements, setting targets and indicators from the start, participating in steering committees and conducting monitoring, evaluation and oversight.

6.7.6.2.3 Support for training and development interventions

The support mechanisms provided by government institutions included providing funding, collaborating with universities, removing bottlenecks, presenting the interventions, decentralising some of the functions, and setting-up task teams.

6.7.6.2.4 Return on Expectation (ROE)

Government institutions did not measure ROI for training and development interventions provided to academic staff in South African public universities as universities were expected to study the impact of their interventions. Instead, universities were expected to achieve certain expectations that were agreed upon before implementation.

The findings show that this research aim has been achieved.

Table 6.15 shows the six research aims that were formulated for this study and an indication of whether each research aim has been achieved or not.

Table 6.15: Cross-checking the research aims against the research findings

Research aims	Achieved/Not achieved
Research aim 1: To examine the typical HRD interventions provided to academic staff in South African public universities.	Achieved
Research aim 2: To assess how South African public universities manage the HRD interventions provided to academic staff.	Achieved
Research aim 3: To establish how South African public universities support the HRD interventions provided to academic staff.	Achieved
Research aim 4: To investigate the role of government institutions regarding the training and development of academic staff in public universities.	Achieved
Research aim 5: To explore how South African public universities measure ROI for the HRD interventions provided to academic staff.	Achieved
Research aim 6: To develop an integrated ROI framework for the HRD interventions provided to academic staff in South African public universities.	Achieved

Source: Own compilation

Therefore, the six research aims that were formulated for this study have been achieved.

The next section provides a summary of this chapter.

6.8 CHAPTER SUMMARY

Firstly, the profiles of the participants and secondary sources were outlined. The participants represented South African public universities and government institutions that support training and development for academic staff. The training and development interventions that were provided to academic staff in South African

public universities were presented. The management and support mechanisms to sure that the training and development interventions were successful were also discussed. Thereafter, measuring ROI for training and development for academic staff in South African public universities was discussed. The findings from both primary and secondary data were then integrated and presented. This was followed by the presentation of the key findings of the study in line with the empirical research aims.

The following chapter (Chapter 7) presents the conclusions, limitations and recommendations for this study.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

The focus of this chapter is on the conclusions, limitations and recommendations for this study. The first section provides the conclusions drawn in this study for each empirical research question and the central research question. This is followed by the limitations, and recommendations for both practise and future research. Thereafter, a personal reflection of the researcher's journey is presented. The last section provides an outline of the thesis.

7.2 CONCLUSIONS BASED ON RESEARCH QUESTIONS

In this section, conclusions are drawn for each of the empirical research questions and central research question.

7.2.1 Research questions

The empirical study had six empirical research questions. The following conclusions regarding each of the empirical research questions were drawn.

7.2.1.1 Research question 1: What are the typical HRD interventions provided to academic staff within South African public universities?

A conclusion drawn for Research Question 1 is that the typical HRD interventions that were provided to academic staff in South African public universities included two broad classifications, namely programmes, and training and workshops. Programmes consisted of extended projects that take a few months or years to be completed and the following five programmes were found to be common amongst universities: nGAP, UCDP, PDP, YAP and ERP. Within the programmes presented above, universities conducted training and workshops that usually took a few hours or days to complete. The most common training and workshops provided by

universities were teaching and learning, research, generic and community engagement workshops and training. Research workshops included grant proposal-writing workshops, postgraduate supervision workshops, proposal-writing workshops, research ethics training, research methodology workshop, writing for publication workshops, and writing dissertation and thesis workshops. Therefore, Research Question 1 has been answered.

7.2.1.2 Research question 2: How do South African public universities manage HRD interventions provided to academic staff?

It is necessary to ensure that training and development interventions are managed effectively. The conclusion regarding Research Question 2 is that the HRD interventions in universities are managed through different mechanisms, namely, the establishment of departments/units that are responsible for providing training and development to academic staff (which include HRD, teaching and learning, and research development directorates); appointment of managers for certain interventions; conducting of TNA; compiling of WSP; involvement of line managers; incorporating training and development criteria in the performance management systems; and compiling ATR. Therefore, Research Question 2 has been answered.

7.2.1.3 Research question 3: How do South African public universities support HRD interventions provided to academic staff?

The conclusion regarding Research Question 3 is that HRD interventions were supported through presenting courses online, financial support, study support, recruitment of participants, outsourcing, the appointment of a support team, collaboration with training providers, mentorship, internal staff assisting with presentations, logistical arrangements, incentives, CPD points, collaboration with academic staff, presence of managers during workshops, providing on the job training and flexibility.

Therefore, Research Question 3 has been answered.

7.2.1.4 Research question 4: What is the role of government institutions regarding the training and development of academic staff in public universities?

The conclusion regarding Research Question 4 is that the main role of government institutions was to provide funding for various training and development interventions provided to academic staff in South African public universities. Furthermore, government institutions were responsible for ensuring the funded training and development interventions were managed effectively by adopting various mechanisms. In addition, support mechanisms such as providing funding, collaborating with universities, removing bottlenecks, presenting the interventions, decentralising some of the functions, and setting-up task teams were provided. Government institutions did not measure ROI for training and development interventions provided to academic staff in South African public universities as universities were expected to evaluate the impact of their interventions. However, universities were required to achieve various objectives and targets.

Therefore, Research Question 4 has been answered.

7.2.1.5 Research question 5: How do South African public universities measure ROI for HRD interventions provided to academic staff?

The conclusion regarding Research Question 5 is that ROI for training and development interventions was measured at three different levels, namely reaction, learning and behaviour. The reaction was measured using questionnaires, attendance registers, learning was assessed through portfolios, submission of certificates for external interventions, and behaviour was measured by conducting interviews. South African public universities hardly measure the fourth and fifth levels. Furthermore, in some instances, South African public universities measured ROE instead of ROI.

Therefore, research question 5 has been answered.

7.2.1.6 Research question 6: What are the dimensions of an integrated ROI framework for HRD interventions provided to academic staff in South African public universities?

An integrated ROI framework for HRD interventions provided to academic staff in South African public universities was developed in Chapter 6. The conclusion regarding Research Question 6 is that the dimensions of an integrated ROI framework for training and development interventions provided to academic staff in South African public universities include training and development interventions, management of the interventions, support for interventions and measurement of ROI, focusing on the five levels of evaluation, namely, reaction, learning, behaviour, results and ROI. The ROE was also included as an alternative to ROI. Barriers to measuring ROI and enablers of the ROI process were the last two dimensions of the empirical framework. Both public universities and government institutions have important roles to play throughout the process. Therefore, research question 6 has been answered.

7.2.2 Central research questions

The central question for this study was *"What empirical dimensions should inform an integrated ROI framework for HRD interventions provided to academic staff in South African public universities?*" The conclusion related to the central research question is that the empirical framework comprises training and development interventions, management of the interventions, support for interventions and measurement of ROI. The ROE was also included as an alternative to ROI. Barriers to measuring ROI and enablers of the ROI process were the last two dimensions of the empirical framework. Therefore, the central research question has been answered.

The following section discusses the limitations encountered in conducting this study.

7.3 LIMITATIONS OF THE RESEARCH

The following limitations were encountered when conducting this study:

- The interview questions were open-ended and participants provided a wide range of responses from their lived experiences. During the interviews, some participants might have omitted some of the things that they were doing in their institutions because they were not strictly guided in answering the questions such as when a questionnaire with closed-ended questions is used. However, the interpretivist paradigm adopted was best suited for this study as the researcher was of the view that the best way to conduct research is through the subjective interpretation of the participants involved, by for instance interviewing different participants and integrating the differences among their responses using their subjective perspectives.

- Most participants stated that they do not measure the ROI for training and development interventions provided to academic staff. Hence, no findings were made regarding some elements of the ROI process model, namely how public universities in South Africa isolated the effects of interventions and converted data to a monetary value.

- No policies and/or procedures for measuring the ROI of training and development interventions for academic staff in the South African public higher education context were found. Therefore, no ROI policies and/or guidelines were analysed as initially envisioned.

- The other limitation of this study was that a deductive approach was used. According to Saunders et al*.* (2015), there is a debate about the relevance of this approach in qualitative analysis. The argument against this approach states that the prior description of a theory is inappropriate as there is a possibility of making a hasty conclusion about the phenomenon to be investigated, in addition to the possibility of the theoretical constructs deviating from the views of participants in a social setting (Bryman, 1988). However, a deductive approach was suitable for this study in light of Phillips' ROI methodology, which could not be disregarded. A deductive

approach was advantageous in that it linked this study to the existing body of knowledge in the subject area, assisted in getting started and provided an initial analytical framework (Saunders et al., 2015). In addition, an inductive approach was also incorporated into the study. This enabled the researcher to be guided by the data that were collected in generating some of the sub-themes and concepts.

- The researcher was a novice in qualitative research, conducting interviews, and analysing and presenting qualitative findings. To minimise this limitation, the researcher gained relevant knowledge through workshops and seminars aimed at improving qualitative research skills before conducting the actual interviews and analysing the data. Furthermore, the researcher worked with an experienced qualitative data analyst to analyse the data, although both the researcher and data analyst conducted the first phase of data analysis separately. The research was supervised by an experienced professor who had previously supervised a qualitative doctoral student to completion. In addition, the researcher consulted other qualitative researchers whenever he encountered challenges.

- Some qualitative research specialists might regard the use of tables to present qualitative data as inappropriate. In this study, the researcher used this style of presentation to limit the number of pages covered when the verbatim quotes were included in the text, to display the rich data that the researcher felt should be included to illuminate the themes identified, and to make it easy to compare the responses of participants from different cases.

- The findings are based on the lived experience of the 14 participants at a specific point in time, which may differ at another point in time.

Considering the limitations of this study, the following can be recommended.

7.4 RECOMMENDATIONS FOR PRACTICE

This study sought to contribute to the field of HRD and in particular to training evaluation in the South African higher education context. Accordingly, recommendations are formulated for how ROI for training and development interventions should be measured in the public higher education context and are outlined below.

7.4.1 Recommendations for universities

The following recommendations apply to public universities, especially in the South African context:

- Training and development interventions to address the skills challenges experienced in the sector should be accelerated, especially today in the 4IR and post-Covid-19 era.

- The role and function of HRD as the custodian of training in universities should be reinforced so that it achieves the potential benefits of providing various training and development interventions. However, specialist training and development interventions, involving teaching and learning, and research, for example, should be decentralised to their respective units.

- To ensure the success of current training and development interventions, they should be managed effectively and the necessary support mechanisms should be in place.

- The ROI for strategic and costly interventions should be measured to justify the costs associated with the interventions and the benefits achieved.

- Universities should establish and address the barriers that obstruct the measurement of ROI in their institutions.

- Factors that will improve the measurement of ROI should be enacted, including cultivating a culture of accountability, adopting a holistic approach, implementing institutional systems, motivating managers to conduct the ROI process and having ROI policies and guidelines in place.

- Universities should also work with various stakeholders to establish their expectations from the outset, as this will enable managers at the end of the interventions to measure whether ROE was achieved or not.

The following section makes several recommendations to the government institutions involved in funding training and development interventions for academic staff.

7.4.2 Recommendations for government institutions

The following recommendations apply to government institutions that are involved in the training and development of academic staff in public universities, especially in the South African context:

- Government institutions responsible for funding training and development interventions in South African public universities should play an active role to ensure the success of such interventions. The interventions should be based on research findings regarding the skills challenges in the sector.

- Based on research conducted and consultation in the sector, robust and credible policy and strategic direction should be provided.

- Government institutions and universities should sign bilateral contractual agreements. In some instances, for example with strategic programmes

such as the nGAP and PDP, representatives should be involved from conceptualisation to the implementation of programmes.

- Monitoring and oversight mechanisms should be in place, including participating in steering committee meetings, requesting universities to submit annual reports and conducting studies to establish the ROI over an extended period.

The following section addresses the recommendations for HRD practice.

7.4.3 Recommendations regarding human resource development (HRD) practice

The following recommendations apply to HRD practice:

- There should be a link between organisational and HRD strategies to ensure that appropriate HRD practices and tools are implemented in order for the organisation to achieve its vision and mission.

- The role and function of HRD in organisations should be reinforced in order for it to achieve the potential benefits of providing various training and development interventions.

- HRD policies must include aspects that relate to the measurement of ROI.

- Various management and support mechanisms should be enacted to ensure the success of training and development interventions.

- Organisations should identify and eliminate the barriers to measuring ROI for training and development interventions.

- Various enabling factors should be implemented to smoothen the process of measuring ROI for training and development interventions.

- Measuring ROI for training and development interventions is not always the best approach to evaluate the impact on organisational performance. Therefore, organisations should in some cases measure the ROE, especially for interventions that result in more non-financial benefits.

The following section presents a number of recommendations for future research.

7.5 RECOMMENDATIONS FOR FUTURE RESEARCH

The following recommendations apply to future research in this field:

- The findings of this research and the proposed integrated ROI framework point toward the need for the framework to be tested empirically through a quantitative study to validate its dimensions. A quantitative study would also ensure that more participants are included which would result in the findings being generalisable to other universities and contexts.

- A further study could be conducted in another industry or sector to reveal other underlying issues regarding the measurement of ROI for training and development interventions in South Africa and elsewhere.

- Since the participants in this study represented HRM, HRD and research units, an effort should be made to include those who deal with interventions pertaining to teaching and learning in universities to establish how they measure ROI.

The next section provides a personal reflection on the researcher's experiences during the research journey.

7.6 PERSONAL EXPERIENCE

I hope that this study has paved the way for prospective research that will assist significantly in addressing certain management challenges faced in South Africa.

This study has challenged me greatly and I never imagined that one day I would be writing this reflection. At the time of writing the research proposal, I did not experience major issues although the first peer review by the Proposal Review Committee suggested a few minor changes before the proposal was accepted. The challenges started when I had to obtain the gatekeeper's permission from each of the institutions. When I conceptualised this study, I was not aware that I would be expected to apply for ethics approval from all the universities involved. I was under the impression that the gatekeeper permission process worked similarly to requesting permission from corporates. Initially, the plan was to include two universities from each classification. However, as too few people participated I had to include all universities in the sample. Having to undergo various ethics application processes at each of the many universities felt like a study on its own, as a plethora of different forms had to be completed and varied recommendations were made by various Ethics Review Committees.

Another challenge was getting enough people to participate in order to reach data saturation. Numerous emails were sent and in some cases, calls were made, but in the end, I managed to include 14 participants, a number that took months to obtain, as the first participant was interviewed on 16 April 2021 and the last one on 20 January 2022.

The opportunity that I was given by the university to take research and development leave between 1 January 2022 and 30 June 2022 assisted a great deal in ensuring that I finalised the data collection and analysis process, as well as the presentation of the findings. Without the time off work, I would have struggled to cope with the demands of work, family and study. At some point, I thought about giving up. However, fortunately for me, I had a supportive supervisor who always motivated me to continue with my studies.

As a boy from humble beginnings, getting to this point is a huge achievement. I hope that my journey will motivate other people who are planning to embark on this challenging, yet fulfilling exercise.

The following section concludes the chapter with an outline of the thesis.

7.7 OUTLINE OF THE THESIS

Chapter 1 outlined the background and motivation for the study. The problem statement, research objectives, research questions, significance of the research, research assumptions, paradigmatic perspectives and theoretical framework of the study were briefly discussed. The methodology and data analysis techniques that were used and ethical considerations of the study were also highlighted. Finally, an outline of chapters was provided.

Chapter 2 began by conceptualising the term “skills development”. This was followed by a discussion of skills development in the international context. The chapter then addressed the South African skills development legislative and policy framework. Skills development initiatives formulated and implemented to address skills challenges in the South African higher education context were also highlighted.

Chapter 3 began by defining the term “training evaluation” and differentiating it from associated concepts such as assessments and training effectiveness. The purpose and different types of training evaluation were also discussed. This was followed by sections discussing the methods used for training evaluation, models of HRD evaluation, benefits of training evaluation and factors that hinder training evaluation. The main models of training evaluation discussed included Tyler’s objective, Kirkpatrick’s four levels of evaluation, CIRO, Phillip’s ROI, SCM and IMTE models.

Chapter 4 began with the conceptualisation of the measurement of ROI in training. This was followed by a discussion of the strategic management approach to ROI measurement. The ROI model was discussed focusing on its evaluation framework,

process and guiding principles. Lastly, the theoretical framework for the study was presented.

Chapter 5 addressed the research methodology of the study. The methodological framework section discussed the research philosophy, methodological choice, types of research, research approach, research design, research choice, time horizons, research setting, population, sampling strategy, data collection methods and procedures, as well as data analysis. Finally, the trustworthiness of the study was discussed, focusing on dependability, credibility, transferability and confirmability.

Chapter 6 began by outlining the profiles of the participants and presenting the secondary sources. The participants represented South African public universities and government institutions that support training and development for academic staff. Data from both primary and secondary data were subsequently presented and interpreted, and this was followed by an integration of the findings. The last section focused on developing the integrated framework for this study.

This chapter (Chapter 7) presented the conclusions, limitations and recommendations of the study. Firstly, the conclusions regarding the empirical study and central research questions were presented. This was followed by a discussion on the limitations of the empirical study. Thereafter, recommendations for practice were made, focusing on universities, government institutions and HRD practice. Recommendations for future research were also outlined. In conclusion, the researcher reflected on his personal experiences during the research journey.

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ANNEXURE A: ETHICS APPROVAL

UNISA university of south africa

UNISA HRM ETHICS REVIEW COMMITTEE

Date: 22 October 2019

Dear Mr Ronny Shibiti

NHREC Registration #: (if applicable)

ERC Reference #: 2019 HRM_037

Name: Mr R Shibiti

Student: #43434517

Decision: Ethics Approval from October 2019 to December 2024

Researcher(s): Name: Mr Ronny Shibiti
E-mail address, telephone # shibir@unisa.ac.za, 081 587 0331

Supervisor (s): Name: Prof MC Mulaudzi
E-mail address, telephone # tshilmc@unisa.ac.za, 012 429 3724

Working title of research:

An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector

Qualification: PhD

Thank you for the application for research ethics clearance by the Unisa HRM Ethics Review Committee for the above mentioned research. Ethics approval is granted for Mr R Shibiti for 5 years.

The **low risk application** was **reviewed** by the HRM Ethics Review Committee on 24 June 2019 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the HRM Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.

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4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future or condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No field work activities may continue after the expiry date December 2024 Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 2019_HRM 007 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Signature
Chair of DREC: Prof M Coetzee
E-mail: coetzm@unisa.ac.za
Tel: (012) 429-3008

Signature
Executive Dean: Prof MT Mogale
E-mail: mogalmt@unisa.ac.za
Tel: (012) 429-4805

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ANNEXURE B: PARTICIPANT INFORMATION SHEET

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PARTICIPANT INFORMATION SHEET

Dear Participant

My name is Ronny Shibiti. I am currently in the process of completing the degree of Doctor of Philosophy in Management Studies at the University of South Africa. As part of my degree, I am conducting the research in the field of Human Resource Management. The study is titled "An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector".

WHAT IS THE AIM/PURPOSE OF THE STUDY?

The purpose of this study is to develop an integrated ROI framework for HRD interventions in the South African higher education context.

WHAT IS THE NATURE OF YOUR PARTICIPATION IN THIS STUDY / WHAT DOES THE RESEARCH INVOLVE?

You are kindly requested to participate in an online interview. See the attached interview guide for the questions to be asked. The interview will take less than 45 minutes of your time.

CAN I WITHDRAW FROM THIS STUDY?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be asked to sign a written consent form. You are free to withdraw at any time.

WHAT ARE THE POTENTIAL BENEFITS OF THIS STUDY?

You will not benefit from your participation as an individual, however, it is envisioned that the ROI information for HRD in the South African higher education sector will be useful at the line management, university and government level. The thesis will provide the officials responsible for managing and overseeing HRD interventions in the higher education sector with an understanding of how ROI can be measured. Furthermore, providing information on ROI for HRD in the South African higher education sector is important as this will provide government

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and other funders with valuable evidence of success and/or failure and further provide justification for the expenditure and future investment in the sector.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

The study will not include any personal or sensitive information. Anonymity will be protected at all times and no single participant will ever be identified. Therefore, it is not foreseen that participation will have any negative consequences. The inconvenience that will be experienced by the participants is the time that they will have to sacrifice in order to be interviewed. There are no possible or reasonably foreseeable risks of harm or side effects to the participants.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

All information provided will be kept confidential. No one will be able to link you to the answers you give. Your responses will be given a fictitious name or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your responses may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, supervisor and members of the Research Ethics Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

HOW WILL INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The researcher will store hard copies of your answers for a period of five years in a locked cupboard/filing cabinet for future research or academic purposes; electronic information will be stored on a password-protected file in a computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Upon expiry of the 5 years storage period, hard copies of your answers will be shredded and electronic information will be permanently removed (deleted) from any electronic storage.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

Participants will not receive any compensation, gifts or services for participating in this research. Furthermore, it is anticipated that participants will not incur any costs by taking part in this research. Therefore, there will be no reimbursement.

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HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study has received written approval from the Research Ethics Committee of the Department of Human Resource Management, which falls under the College of Economic and Management Sciences, Unisa. A copy of the approval letter can be obtained from the researcher upon request.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS?

If you would like to be informed of the final research findings, require any further information or want to contact the researcher about any aspect of this study, or should you have concerns about how the research has been conducted, you may contact the following individuals:

PhD candidate
Mr R. Shibiti
E-mail: shibir@unisa.ac.za
Phone: 081 587 0331 / 012 429 6237

Supervisor
Prof MC. Mulaudzi
E-mail: tshilmc@unisa.ac.za
Phone: 012 429 3724

Research Ethics Administrator/chairperson
University of South Africa Ethics Review Committee (ERC)
E-mail: SocEthics@unisa.ac.za
Phone: 011 471 2130 or

Alternatively, you can report any serious unethical behaviour at the University's Toll Free Hotline 0800 86 96 93.

Thank you for taking the time to read this information sheet.

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ANNEXURE C: INTERVIEW GUIDE (UNIVERSITIES)

INTERVIEW GUIDE

Student: Mr R. Shibiti

Student number: 43434517

Degree: Doctor of Philosophy in Management Studies

Title of the study: An integrated return on investment framework for human resource development in the South African higher education sector

Supervisor: Prof MC. Mulaudzi

1. Orientate the interviewee to the nature of the study and the objectives of the interview, stressing the confidentiality of the information discussed during the interview session (see the participant information sheet).

2. Background

- Briefly describe your job description.
- Years of experience in managing training and development and or research interventions in the higher education sector?

3. Interview Questions

Interview question 1: What training and development and/or research interventions do you have to build the capacity/competence of academic staff members in your institution?

Interview question 2: How do you manage these training and development interventions in this institution?

Interview question 3: How do you support or ensure the success of training and development interventions?

Interview question 4: Do you have mechanisms to measure the return on investment for training and development interventions, if so, what processes do you follow?

4. In closing

- Are there any other questions I should ask?
- Are there any other people I should contact or interview?
- Are there any other documents, information, reports, or artefacts that I should take into consideration?

ANNEXURE D: INTERVIEW GUIDE (GOVERNMENT INSTITUTIONS)

INTERVIEW GUIDE

Student: Mr R. Shibiti

Student number: 43434517

Degree: Doctor of Philosophy in Management Studies

Title of the study: An integrated return on investment framework for human resource development in the South African higher education sector

Supervisor: Prof MC. Mulaudzi

5. Orientate the interviewee to the nature of the study and the objectives of the interview, stressing the confidentiality of the information discussed during the interview session (see the participant information sheet).

6. Background

- Briefly describe your job description.
- Years of experience in managing training and development and or research interventions in the higher education sector?

7. Interview Questions

Interview question 1: What type(s) of support and for what specific programmes does your institution contribute to the South African public universities with respect to academic staff training and development interventions or capacity building?

Interview question 2: How do you make sure that the training and development interventions are managed effectively by universities?

Interview question 3: What support do you provide to universities to ensure that the training and development interventions that you have funded are successfully?

Interview question 4: Do you have mechanisms to measure the return on investment for training and development or capacity development interventions undertaken by universities you support? If so, what processes do you follow?

8. In closing

- Are there any other questions I should ask?
- Are there any other people I should contact or interview?
- Are there any other documents, information, reports, or artefacts that I should take into consideration?

ANNEXURE E: CONSENT TO PARTICIPATE

UNISA university of south africa

CONSENT FORM

Informed consent for participation in an academic research study

Department of Human Resource Management

TITLE OF THE STUDY: AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

Dear Participant

You are invited to participate in an academic research study conducted by Mr R Shibiti, a doctoral candidate in the Department of Human Resource Management at the University of South Africa (see the attached participant information sheet for more details about the study).

The purpose of the study is to develop an integrated return on investment (ROI) framework for Human Resource Development (HRD) interventions in the South African higher education context.

Please note the following:

This study involves interviews that will be recorded. Your name will not appear in the research and the answers you supply will be treated as strictly confidential. You cannot be identified as an individual based on your answers.

- Your participation in this study is of vital importance to me. You may, however, choose not to participate and you may stop participating at any time without any negative consequences.
- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

Please sign the form to indicate that you

- have read and understand the information provided above
- give your consent to participate in the study on a voluntary basis

Respondent's name_____

Date_____ Signature_____

ANNEXURE F: GATEKEEPER PERMISSIONS

Cape Peninsula University of Technology

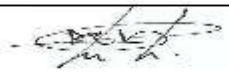
P.O. Box 1906 | Bellville 7535
Symphony Road Bellville 7535
South Africa
Tel: +27 21 4603291
Email: fbmsethics@cput.ac.za

Office of the Chairperson Research Ethics Committee	FACULTY: BUSINESS AND MANAGEMENT SCIENCES

The Faculty's Research Ethics Committee (FREC) on **14 September 2021**, ethics APPROVAL was granted to **Ronny Shibiti (43434517)** for a research activity for **PhD: Business Management (UNISA)** at Cape Peninsula University of Technology.

Title of dissertation / thesis / project:	AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR Lead Supervisor (s): Prof M.C. Mulaudzi

Decision: APPROVED

	14 September 2021
Signed: Chairperson: Research Ethics Committee	**Date**

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003 and/or other legislations that is relevant.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after two (2) years for Masters and Doctorate research project from the date of issue of the Ethics Certificate. Submission of a completed research ethics progress report (REC 6) will constitute an application for renewal of Ethics Research Committee approval.

Clearance Certificate No | 2021 FBMSREC 061

Central University of Technology, Free State

INSTITUTIONAL PLANNING AND QUALITY ENHANCEMENT

MR R. SHIBITI

PERMISSION FOR MR R SHIBITI TO CONDUCT HIS PHD RESEARCH AT CUT ENTITLED "AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR"

Dear Mr R. Shibiti

This is to confirm that you have been granted permission to conduct research project at the Central University of Technology for your research project entitled "an integrated return on investment framework for human resource development in the South African higher education sector"

The conditions of the conditional permission are:

- The research project will not interrupt any of the official activities at The Central University of Technology;
- You will supply us with the copy of your report;
- The cost of all related activities will be covered by yourself;
- Recruitment of participants is the sole responsibility of yourself;
- Voluntary nature of the potential participants decision to consent to participate should be strictly observed;
- You should not disclose a potential participant's decision to participate or otherwise to any other party;
- Permission does not compel, in any sense, participation of staff members or students in your research project;

Senior Director: Institutional Planning and Quality Enhancement

Mr I.Mokhele

03/09/2021

higher education
& training
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Private Bag X174, PRETORIA, 0001, 123 Francis Baard Street, PRETORIA, 0002, South Africa
Tel: (012) 312 5911 Fax: (012) 321 6770
Private Bag X9192, CAPE TOWN, 8000, 103 Plein Street, CAPE TOWN, 8001, South Africa
Tel: (021) 469 5175. Fax: (021) 461 4761

Enquiries: Nompumelelo Hlatshwayo Email: Hlatshwayo.N@dhet.gov.za Telephone: 012 312 5337

Mr Ronny Shibiti
P. O. Box 776
HAMMANSKRAAL
0100

By e-mail shibir@unisa.ac.za

Dear Mr Shibiti

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE DEPARTMENT OF HIGHER EDUCATION AND TRAINING: AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

I acknowledge receipt of your request for permission to conduct research in the Department of Higher Education and Training (the Department) on the topic: *"An Integrated Return on Investment Framework for Human Resource Development in the South African higher education sector"*.

The Department has evaluated your request and it is my pleasure to inform you that your request for permission to undertake the above research has been granted. As part of your research, it is noted that you will collect data by having one-on-one interviews with the Chief Director and Director or Deputy Director responsible for Human Resource Development in the South African higher education sector.

You are advised to obtain further permission from the participants before commencing with your study.

science
& technology
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

Private Bag X894, PRETORIA, 0001, RSA. DST Building 53, CSIR Scientia Campus, Meiring Naude Road, Brummeria, PRETORIA, 0184. Tel: +27 12 843 6300, Fax: +27 12 345 1030

Ref 3/2/10/1 Enq: Ms Dina Gwamba Tel: (012) 843 6686 Fax: 086 550 8443

Mr Ronny Shibiti
PhD Candidate
Department of Human Resource Management
University of South Africa
Student no. 43434517

Dear Mr Shibiti

ETHICAL CLEARANCE TO CONDUCT A RESEARCH STUDY

Your request to conduct research study at the Department of Science and Innovation (DSI) is hereby acknowledged. The research study topic is noted as follows: "An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector."

Kindly note that your request to conduct a research study in the Department is approved. The approval is granted subject to your compliance with the Protection of Information Act, 1982 (Act No. 84 of 1982) section 4. "Prohibition of disclosure of certain information." The Department therefore, requires that the researcher shares the report of the academic research study prior submission for a thesis at the university.

Yours sincerely,

Add comment here

MS NOMBUYISELO MOKOENA
DDG: CORPORATE SERVICES

Directorate for Research and Postgraduate Support
Durban University of Technology
Tromso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732948

12th November 2021
Mr Ronny Shibiti
c/o Department of Human Resource Management
College of Economic and management Sciences
University of South Africa

Dear Mr Shibiti

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted **Full Permission** for you to conduct your research "An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings would be submitted to the IRIC on completion of your studies.

Kindest regards.
Yours sincerely

DR LINDA ZIKHONA LINGANISO
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

HEAD OFFICE
ETDP SETA House
2 - 6 New Street
Quin-ti Square
South Marshalltown
Johannesburg CBD
Private Bag X35
Marville, 2107
Tel: (011) 372 3500

EASTERN CAPE
Wavecrest Office Park
3 - 11 Phillip Frame Road
Chiselhurst
East London, 5201
Tel: (043) 726 9417
Fax: (043) 726 6302

FREE STATE
Sanlam Building
151 Nelson Mandela Dr
Bloemfontein, 9301
Tel: (051) 430 5271
Fax: (051) 430 5698

GAUTENG
Brickmark Office Park
191 Solan Street
Faerie 3, 2nd Floor
Braamfontein
Johannesburg, 2017
Tel: (011) 403 1301/2/3/7
Fax: (086) 514 6751

KWAZULU-NATAL
Durban Bay House
333 Anton Lembede Street
12th Floor, Suite 1203
Durban, 4001
Tel: (031) 304 3930
Fax: (031) 301 5515

LIMPOPO
Kevin Chambers
29 Landdrost Hendrina Str
Office No. 03
Polokwane, 0700
Tel: (015) 295 6303
Fax: (015) 295 9801

MPUMALANGA
Sunwil Office Park
6 Stanic Street
Block B, 1st Floor
Nelspruit, 1201
Tel: (087) 290 9115
Fax: (013) 752 2017

NORTHERN CAPE
Bobby's Mall Building
69 Long Street
Kimberley, 8301
Tel: (053) 832 0047
Fax: (053) 832 0047

NORTH WEST
Sterkling Office Park
79 Beidel Cnr Feier
Nicholas Street
Potchefstroom, 2531
Tel: (018) 294 5320
Fax: (018) 294 5719

WESTERN CAPE
Sanbel Building
2 Old Paarl Road
Office 401, 2nd Floor
Belville, 7530
Tel: (021) 946 4222
Fax: (021) 946 4013

ETDP·SETA

Education, Training and Development Practices Sector Education and Training Authority

To: Whom it may concern

RE: CONFIRMATION OF PERMISSION TO CONDUCT RESEARCH IN RESPECT OF MR RONNY SHIBITI (STUDENT#: 43434517) ON THE TOPIC "AN INTERGRATED ROI FRAMEWORK FOR HRD IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR".

This letter serves to confirm that the Education, Training and Development Practices Sector Education and Training Authority (ETDP SETA) Skills Planning and Research unit hereby grants the permission for the candidate to conduct the research study. The ETDPSETA will make the accessible information available to the candidate for the purpose of their research study. The organisation will need to have a copy of the report once the data is analysed available to the ETDPSETA.

Yours sincerely,

Mr Thokozani Mlambo
ETDP SETA Senior Research Specialist
Date: 10 December 2020
thokozanim@etdpseta.org.za

higher education & training

The information in this communication is confidential and may be legally privileged.
It is intended for the sole use of the individual/s or entity to whom this has been addressed or copied. If you are not the intended recipient you are hereby notified that any disclosure, copying, distribution or taking action in reliance of the contents of this communication and/or its attachments, is strictly prohibited and will be unlawful

MUT
MANGOSUTHU
UNIVERSITY OF TECHNOLOGY

Research Directorate

UMLAZI KWAZULU-NATAL
PO Box 12363 Jacobs 4026 Durban
Tel: 031 907 7450

04 October 2021

REF: RDO/12/2021

Mr Ronny Shibiri
University of South Africa

Dear Mr Shibiri

PROTOCOL: 'An integrated return on investment Framework for human resource development in the South African Higher Education Sector.'

The MUT Research Ethics Committee considered your application at their meeting held on 13 September 2021. It is my pleasure to inform you that permission to conduct the research project above was granted.

The approval is valid for two years from 13 September 2021. Any changes to the project must immediately be brought to the attention of the MUT Research Ethics Committee.

Your acceptance of this approval denotes your compliance with South African National Research Ethics guidelines (2004) and the MUT Research Ethics Policy, Procedures and Guidelines

Good luck with your research.

Yours sincerely,

Dr A Mienie
Director: Research

File: 8/4/3/1/2

MEMORANDUM OF AGREEMENT

Entered into by and between -

The National Research Foundation
(from now on referred to as the NRF)

and

Mr R. Shibiti
(from now on referred to as the Researcher)

The Parties agree that:

1. The Researcher will treat all information received from the NRF in the strictest of confidence. He will not reveal private and confidential information to any third party without the prior written consent of the NRF. The NRF will not permit the Researcher to disclose the names and personal details of the interviewees within the organisation.

2. The Researcher will not use the information provided by the NRF for any purpose other than the completion of the Degree of Doctor of Philosophy in Management Studies in the Department of Human Resource Management at the University of South Africa (UNISA) indicated in the attached communications dated 16 March 2021 and 16 April 2021. Any departure from the original proposal must be approved by the NRF before implementation.

3. The Researcher will not publish any findings that result from the use of the NRF information and data without the endorsement/approval of the NRF.

4. The Researcher will acknowledge the assistance of the NRF in all publications which flow from the information/data.

5. The Researcher will submit the final theses/dissertation to the NRF by the date of publication for NRF's records.

SIGNED at Pretoria on this 19 day of April 2021

FOR THE RESEARCHER

AS WITNESSES
1.
2.

SIGNED at **Pretoria** on this **19th** day of **April 2021**

FOR THE NRF

AS WITNESSES
1.
2.

RHODES UNIVERSITY
Where leaders learn

Rhodes University Human Research Ethics Committee
PO Box 94, Makhanda, 6149 South Africa
Email: ethics-committee@ru.ac.za

www.ru.ac.za/research/research/ethics
NHREC Registration No. REC-241114-045

20th September 2021

Mr. Ronny Shibiti
Department of Human Resource Management
University of South Africa
Pretoria

Dear Mr. R. Shibiti

UNISA Ethics Approval Reference: 2019-MRM-007

Re: "An integrated return on investment framework for human resource development in the South African higher education sector".

This letter confirms that the above research proposal has been reviewed and **APPROVED** by the Rhodes University Human Research Ethics Committee.

Kindly send this letter to Ms. Zim Dyibishe Z.Dyibishe@ru.ac.za from Human Resources Director to get access to staff members at Rhodes university.

Please ensure that the RUHREC is notified should any substantive change(s) be made, for whatever reason, during the research process.

Sincerely,

Prof Arthur Webb
Chair: Rhodes University Human Research Ethics Committee

OFFICE OF THE DEPUTY VICE-CHANCELLOR: ACADEMIC
SOL PLAATJE UNIVERSITY
Luka Jantjie House
Private Bag X5008, KIMBERLEY, 8300
Chapel Street, KIMBERLEY, 8301
Tel: +27 (0)53 491 0360
e-mail: mary-jean.baxen@spu.ac.za
Website: www.spu.ac.za

30 September 2021

Feedback on a research proposal submitted:

AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR – S Shibiti

Dear S Shibiti

The letter serves to inform you of the outcome of your research project which was submitted to Sol Plaatje University for ethics clearance.

Outcome: Approved – ethics clearance was granted.

Comment:

a) Some clarification is needed as to whether the interviews will be face-to-face or online. In the participant information sheet, it is indicated that the interviews will be online, but proposal indicated that it will be face-to-face.

Prof M J Baxen
Chairperson: Senate Research Ethics Committee (SREC)

Tshwane University of Technology
We empower people

Office of the Executive Director
Human Resources and Transformation

16 March 2021

To Whom it May Concern

I, Ms Mokuele, Executive Director of Human Resources and Transformation hereby give Mr Ronny Shibiti permission to conduct a study survey amongst TUT support/professional and instructional/research staff members at TUT, who is a registered student for the qualification: Degree of Doctor of Philosophy in Management Studies at the University of South Africa.

The student is researching on the following title "An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector". An ethical clearance approval has been granted to the student by the TUT Research Ethics Committee.

Regards

Ms MR Mokuele
Executive Director
Human Resources and Transformation

Faculty of Commerce

Private Bag X3, Rondebosch, 7701
2.26 Leslie Commerce Building, Upper Campus
Tel: +27 (0) 21 650 4375/ 5748 Fax: +27 (0) 21 650 4369
E-mail: jacques.rousseau@uct.ac.za
Internet: **www.uct.ac.za**
@Commerce UCT **UCT Commerce Faculty Office**

We are pleased to inform you that your ethics application has been approved. Unless otherwise specified this ethical clearance is valid until .

Your clearance may be renewed upon application.

Please be aware that you need to notify the Ethics Committee immediately should any aspect of your study regarding the engagement with participants as approved in this application, change. This may include aspects such as changes to the research design, questionnaires, or choice of participants.

The ongoing ethical conduct throughout the duration of the study remains the responsibility of the principal investigator.

We wish you well for your research.

Commerce Research Ethics Chair
University of Cape Town
Commerce Faculty Office
Room 2.26 | Leslie Commerce Building

Office Telephone: +27 (0)21 650 2695 / 4375
Office Fax: +27 (0)21 650 4369
E-mail: jacques.rousseau@uct.ac.za
Website: http://www.commerce.uct.ac.za/com/Ethics-in-Research

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS UV

GENERAL/HUMAN RESEARCH ETHICS COMMITTEE (GHREC)

13-Oct-2021

Dear Mr Ronny Shibiti

Application Approved

Research Project Title:
An integrated return on investment framework for human resource development in the South African higher education sector

Ethical Clearance number:
UFS-HSD2021/1329/21

We are pleased to inform you that your application for ethical clearance has been approved. Your ethical clearance is valid for twelve (12) months from the date of issue. We request that any changes that may take place during the course of your study/research project be submitted to the ethics office to ensure ethical transparency. furthermore, you are requested to submit the final report of your study/research project to the ethics office. Should you require more time to complete this research, please apply for an extension. Thank you for submitting your proposal for ethical clearance; we wish you the best of luck and success with your research.

Yours sincerely

Dr Adri Du Plessis
Chairperson: General/Human Research Ethics Committee

205 Nelson Mandela Drive
Park West
Bloemfontein 9301
South Africa

P.O. Box 339
Bloemfontein 9300
Tel: +27 (0)51 401 9337
duplessis4@ufs.ac.za
www.ufs.ac.za

16 November 2020

Mr Ronny Shibiti (43434517)
University of South Africa

Dear Mr Shibiti

PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF JOHANNESBURG (UJ)

The request with regard to the project titled *An integrated return on investment (ROI) framework for human resource development in the South African higher education sector* refers. Institutional permission is granted to conduct this study at the University of Johannesburg.

Sincerely

Dr Carol Nonkwelo
Executive Director: Research and Innovation
Email: cnonkwelo@uj.ac.za

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 09 November 2021

PROJECT NUMBER: TREC/292/2021: IR

PROJECT:

Title:	An Integrated Return on Investment Framework For Human Resource Development in The South African Higher Education Sector
Researcher:	R Shibiti
Supervisor:	Prof MC Mulaudzi
Co-Supervisor/s:	N/A
Institution:	University of South Africa
Degree:	PhD in Business Management

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

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Creating opportunities

Private Bag X11283, Mbombela, 1200
Cnr R40 White River Road & D725, 013 002 0001, www.ump.ac.za

19 January 2022

LETTER OF CLEARANCE FROM UNIVERSITY OF MPUMALANGA RESEARCH DIRECTORATE

This letter is to confirm that the Doctoral student, Mr Ronny Shibiti, studying at UNISA, is granted permission to conduct research at UMP titled:

"AN INTEGRATED RETURN ON INVESTMENT FRAMEWORK FOR HUMAN RESOURCE DEVELOPMENT IN THE SOUTH AFRICAN HIGHER EDUCATION SECTOR".

I hereby confirm that I am aware the study involves conducting interviews with the following:

- ✓ HRD Managers
- ✓ Research Managers

Mr R Shibiti is granted permission to carry out this study under the following conditions.

1. **Sensitive information be shared with UMP Management.**
2. **Ethical principles be upheld.**

Yours faithfully,

Prof Phindile Lukhele- Olorunju
Director Research Management

UNISA university of south africa

RESEARCH PERMISSION SUB-COMMITTEE (RPSC) OF THE SENATE RESEARCH, INNOVATION, POSTGRADUATE DEGREES AND COMMERCIALISATION COMMITTEE (SRIPCC)

02 December 2019

Decision: Research Permission Approval from 2 December 2019 until 31 December 2021 (Data collection period).

Ref #: 2019_RPSC_062
Mr. Ronald Shibiti
Student #: 43434517
Staff #: N/A

Principal Investigator:
Mr. Ronald Shibiti
Department of Business Management
School of Management Sciences
College of Economic and Management Sciences
shibir@unisa.ac.za; 012 429 6237, 0815870331

Supervisor: Prof Maelekanyo Christopher Mulaudzi, tshilmc@unisa.ac.za; 012 429 3724

An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector.

Your application regarding permission to conduct research involving UNISA employees, students and data in respect of the above study has been received and was considered by the Research Permission Subcommittee (RPSC) of the UNISA Senate, Research, Innovation, Postgraduate Degrees and Commercialisation Committee (SRIPCC) on 15 November 2019.

It is my pleasure to inform you that permission has been granted for your study. You may:

1. Interview 1 HRD manager and 1 Research Manager at Unisa.
2. Gain access to the requested institutional data, including de-identified annual reports on human resource training.

You are requested to submit a report of the study to the Research Permission Subcommittee (RPSC@unisa.ac.za) within 3 months of completion of the study.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

Date: 26th August 2021

Mr R Sibiti

School Management Sciences

Department of Business Management

University of South Africa

Dear **Mr R Sibiti**

Permission to conduct Research at the University of Venda

You are hereby granted permission to conduct research at the University of Venda.

The research will be based on your Doctoral research titled: ***"An integrated return on investment framework for human resource development in the South African higher education sector"*** registered at the **University of South Africa.**

The conditions are that all the data pertaining to University of Venda will be treated in accordance with the Ethical Principles and that will be shared with the University upon completion of the project. In addition, consent should be sought by you as a researcher from participants.

Attached is our policy on ethics.

Thank you

.....

Prof VO Netshandama

Chairperson: UREC

UNIVERSITY OF VENDA
OFFICE OF THE DIRECTOR
RESEARCH AND INNOVATION
2021 -09- 01
Private Bag X5050
Thohoyandou 0950

Cc: Prof N Feza (DVC Research and Postgraduate Studies)

Cc: Senior Prof GE Ekosse (Director Research and Innovation)

Cc: Prof TS Mashau (Chairperson RESSC)

UNIVERSITY OF
ZULULAND

University of Zululand, Private Bag X1001, KwaDlangezwa, 3886
W: www.unizulu.ac.za

T: +27 35 902 6434
E: MothilallD@unizulu.ac.za
Office of the Registrar

Our ref: Permit :3/2022
Your ref :R Shibiti

PERMIT TO COLLECT DATA

The University of Zululand hereby permits **Mr R Shibiti** to conduct research and collect data in accordance with his Ethics Clearance Certificate **2019/HRM007** issued by the **UNISA dated 22 October 2019**, and the signed UNIZULU's POPI Declaration and Indemnity form signed and dated **20 January 2022**.

The Researcher may commence with data collection from the date of this Permit.
This permit is valid for 12 months from date of issue.

UNIZULU retains the right to withdraw or amend this permit if:

- Any unethical conduct is revealed or suspected;
- Relevant information has been withheld or misrepresented;
- Regulatory changes of whatsoever nature so require;
- The conditions contained in the Declaration has not been adhered to.

D MOTHILALL
REGISTRAR

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Office of the Registrar

2020-12-14

Mr R Shibiti
Department of Human Resource Management
College of Economic and Management Sciences
University of South Africa

Email: shibir@unisa.ac.za

Dear Mr Shibiti

APPROVAL OF RESEARCH STUDY

The UP Survey Coordinating Committee has granted provisional approval for the research study titled "An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector".

The proposed research study has to strictly adhere to the associated study protocol, as well as the UP Survey Policy and the Ethics Committee of the Faculty of Humanities (UP) instructions.

It is important to note that the University cannot commit to provide any documentation. Any requests related to UP documentation will be assessed on a case by case basis. If approval is given by the Registrar, the documents will only be released where the appropriate non-disclosure agreement has been signed with the University.

Please liaise with the Market Research Office in the Department of Institutional Planning (carlien.nell@up.ac.za) to officially register the study and to finalise the survey regulations, procedures and the fieldwork dates. In order to register the study, the Market Research Office has to receive the formal ethical approval letter from the Faculty of Humanities (UP).

A final electronic copy of the research outcomes must be submitted to the Survey Coordinating Committee as soon as possible after the completion of the study.

UNIVERSITY OF THE WESTERN CAPE
PERMISSION TO CONDUCT RESEARCH

DEAR **Ronny Shibiti**

This serves as acknowledgement that you have obtained and presented the necessary ethical clearance and your institutional permission required to proceed with the project referenced below:

RESEARCH TOPIC

An integrated return on investment framework for human resource development in the South African higher education sector

Name of researcher	:	Ronny Shibiti
Permission valid till	:	31 December 2024
Institution	:	University of South Africa
Ethics reference	:	2019_HRM_007
Permission reference	:	UWCRP105864

You are required to engage this office (researchperm@uwc.ac.za) in advance if there is a need to continue with research outside of the stipulated period. The manner in which you conduct your research must be guided by the conditions set out in the annexed agreement: Conditions to guide research conducted at the University of the Western Cape.

Please be at liberty to contact this office should you require any assistance to conduct your research or require access to either staff or student contact information.

Regards
Dr Ahmed Shaikjee
Deputy Registrar Academic Administration

Approval status: **APPROVED** 18 January 2022

To verify or confirm the authenticity of this document please contact the University at researchperm@uwc.ac.za.

UNIVERSITY OF THE WESTERN CAPE
Robert Sobukwe Road, Bellville, 7535 Republic of South Africa

Vaal University of Technology

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VAAL UNIVERSITY OF TECHNOLOGY

LETTER FROM THE CENTRAL RESEARCH ETHICS COMMITTEE

Private Bag X021
Vanderbijlpark
1900

28 May 2021

DECISION: **FINAL APPROVAL**	**CREC REFERENCE NUMBER:** **VUT: CREC – 25/03/2021-8.1**

Dear Mr Ronny Shibiti,

PROJECT TITLE: *An integrated return on investment (ROI) framework for human resource development (HRD) in the South African higher education sector.*

RESEARCHER/PRINCIPLE INVESTIGATOR: Mr R Shibiti
SUPERVISOR: Prof MC Mulaudzi
APPLYING INSTITUTION: University of South Africa
FACULTY / DIVISION: College of Economics & Management Sciences

Thank you for submitting the above project for research ethical approval. Your application was discussed in the Central Research Ethics Committee meeting held on the 27th May 2021, and, was granted final approval.

The terms and conditions presented in the box below are binding:

As the primary researcher you undertake:

1. *To follow only those procedures for which the approval has been given;*
2. *To inform the committee should there be significant deviations from that which has been approved;*

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

OFFICE OF THE DEPUTY REGISTRAR

26 April 2021

Ronny Shibiti
University of South Africa (UNISA)
PhD in Management Studies

TO WHOM IT MAY CONCERN

"An Integrated Return on Investment (ROI) framework for Human Resource Development (HRD) in the South African higher education sector"

This letter serves to confirm that the above project has received permission to be conducted on University premises, and/or involving staff and/or students of the University as research participants. In undertaking this research, you agree to abide by all University regulations for conducting research on campus and to respect participants' rights to withdraw from participation at any time.

If you are conducting research on certain student cohorts, year groups or courses within specific Schools and within the teaching term, permission must be sought from Heads of School or individual academics.

Ethical clearance has been obtained. Protocol number: (**2019_HRM_007**)

Research commencement: (As per consent obtained from Dr. Kasonkola and Dr. Drennan)

Potgieter

Nicoleen Potgieter
University Deputy Registrar