Learnerships and Employability: A Case Study of a private provider's delivery of a learnership in the Information Technology sector.

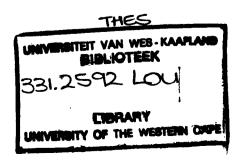
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A research paper submitted in partial fulfillment of the requirements for the degree of Master of Philosophy, University of the Western Cape.







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# **CONTENTS**

Title Page	I
Key Words	III
Abstract	IV
Declaration	VI
Acknowledgements	VII
List of Abbreviations	VIII
Section 1 – Introduction	1
Section 2 – Literature Review	8
Section 3 - Research Design and Methodology	
Section 4 - Data Analysis: Presentation and Discussion	
Section 5 - Conclusions and Recommendations	
Section 6 – References	
Appendix 1	
Increasing income through Skills Development	
Appendix 2	71
Zoomerang Research Questionnaire Appendix 3 Quantitative Research Results Appendix 4	71
Appendix 3	72
Ouantitative Research Results	72
Appendix 4	73
Qualitative Research Results	73 73
Appendix 5	7.4
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# Learnerships and Employability: A Case Study of a private provider's delivery of a learnership in the Information Technology sector.

#### Louis Nel Louw

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# **KEYWORDS**

Learnerships

Apprenticeships

Employability

Redress inequalities

Empowerment

**Human Capital Theory** 

Neo-Liberalism

Humanism

Integrated skills development (theory and practice)

Workplace Learning

#### **ABSTRACT**

Learnerships and Employability: A Case Study of a private provider's delivery of a learnership in the Information Technology sector.

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M.Phil Research Paper, Department of Philosophy of Education, University of the Western Cape.

In this research paper, I explore the relationship between learnerships and employability.

Will I get a job after completing a learnership? This question is posed by many if not most learners participating in learnerships. Learnerships have been promoted as improving the skills level of the population as integral part of economic growth in South Africa. This is still in process as the impact of completed learnerships still has to be felt and seen in industry, especially in increased employment or improving the possibility of employment. In this paper I investigate the relationship between a learnership and employment.

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I argue that although the Human Capital Theory can be seen as closest to learnerships, the value of increasing employability is unknown. It is still academic and has not been researched in the South African context. I also argue that employment is a crucial factor that is currently not addressed as part of the Human Capital Theory. Better productivity and increased earnings, the main objectives of Human Capital Theory, will not become a reality, if employment is not a reality yet. This research will concentrate on employment and employability as an important success factor before the cycle of the Human Capital Theory can be completed.

Learnerships in general are discussed shortly in this paper, and the Information Technology: Technical Support NQF Level 4 learnership researched to determine any correlation between completing a learnership and the subsequent employment of the learners. An accompanying literature study indeed reveals a theoretical correlation

between skills development, workplace learning and employment. A discussion of the Human Capital Theory as background to the research again indicates a correlation between skills, workplace experience and employment. This could only be taken further by following up learners who have already completed a learnership.

Thus, a structured questionnaire was used with learners who had just completed a learnership and who entered the job market, and the results correlated. Methodological Triangulation was used as research methodology. In keeping with the information technology nature of the learnership, the questionnaire was launched via a website and the findings processed on internet.

The findings confirmed the hypothesis that the workplace experience which learners acquire during a learnership increased the possibility of employment, which is the crucial success factor to allow for better productivity and increased earnings for the learners. However, these findings are only applicable on the learnership presented by this specific Private Provider, and cannot be used as an indicator for all learnerships.

It is recommended that further research be done on this group of learners, to determine sustainability of employment after at least a year after completion of the learnership. It is also recommended that similar studies be done on other learnerships presented by other companies, to determine if similar findings can be made.

9 May 2006

# **DECLARATION**

I declare that "Learnerships and Employability: A Case Study of a private provider's delivery of a learnership in the Information Technology sector." is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.



# **ACKNOWLEDGEMENTS**

I want to acknowledge the CEO of the Private Provider, Archie Meyer, for allowing me time and support to conduct this research, my wife Trynie, and daughters Elma and Alrezè, for supporting me during my studies, Rachel Bock for assisting with the initial editing of the paper, and Professor Zelda Groener, my supervisor, who advised me during this project and my studies. I also want to thank all learners who took part in this research project. May this learnership be the beginning of many opportunities in the world of employment.



# **LIST OF ABBREVIATIONS**

CCFO's Critical Cross Field Outcomes

CEO Chief Executive Officer

COO Chief Operational Officer

DoL Department of Labour

ESECT Enhancing Student Employability Skills Co-ordination Team

FET Further Education and Training

HET Higher Education and Training

ISETT Information Systems, Electronics and Telecommunications Technology

IT Information Technology

NQF National Qualification Framework

NSDS National Skills Development Strategy

OECD Organisation for Economic Co-operation and Development

SA South Africa

SAQA South African Qualifications Authority

SSP Sector Skills Plans VESTERN CAPE

SETA Sector Education and Training Authority

Seta's Sector Education and Training Authorities

WSP Workplace Skills Plans

#### Section 1 – Introduction

"Will I get a job after completing a learnership?" This is a very relevant question in South Africa for most unemployed people. The current answer to this question is given in a booklet, "A Learnership Guide for Unemployed People", compiled by the South African Department of Labour:

"If you are unemployed when a learnership begins, there is no guarantee of a job at the end. The employer who provides you with training does not have to offer you a job. But with a qualification and work experience you will be in a better position to get a job than before" (Department of Labour, undated: 3).

The Private Provider¹ under discussion in this case study is an accredited training provider in South Africa, and is currently involved in several learnerships. As Chief Operating Officer of this training company, I would like to determine if the learnerships we present, do contribute to better employability. The South African government specifically created an environment where skills development for the previously disadvantaged can be boosted. However, I believe that all these efforts will not be merited if it does not contribute to employability. If it does not lead to employability as intended, the government should possibly consider allocating these funds to other employment initiatives.

The Skills Development Act (No 97 of 1998) was legislated in 1998, introducing a new approach to the promotion and development of work-related skills in South Africa. The overall vision of the Act is to establish an integrated skills development system, which promotes growth in employment, social development and the economy, through focusing on integrated education, training and employment opportunities.

<sup>&</sup>lt;sup>1</sup> The Private Provider in this research paper refers to the accredited Training Provider which is responsible for the Institutional Learning Component of a Learnership. See also the referral to the Institutional Learning Provider later in this paper.

Government makes available grants for learnerships, which allow learners to study at no cost, while unemployed learners also receive an allowance from Government.

Workplace Providers<sup>2</sup> who allow learners to gain practical experience in the workplace also receive tax rebates to compensate, for the possible loss in productivity, and also as incentive for participating in learnerships. Learnerships are still a new concept in SA, therefore the field of study is currently still in the developing phase. The first learnerships presented by this Private Provider were completed at the end of 2004.

Although the field of study is still new, this investigation will attempt to determine if learnerships in South Africa contribute to employability as intended to, or not. Employability, and subsequent employment, will not only be to the financial advantage of the individual, but also to the advantage of the country. It is a well known fact that unemployment has a negative effect on a country's economic growth.

The Human Capital Theory as developed by Schultz (1961:14) is seen to be applicable on this study. According to the Human Capital Theory point of view, the economy of the country is seen as a factor that also complements individual economic prosperity (Shultz, 1961:16).

According to Scott, R. Sweetland (1996), Human Capital Theory suggests that individuals and society gain benefits out of the development of people. The development of people skills will, according to the theory increase people productivity, which in turn lead to increased earnings.

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There is, however, criticism against this theory as seen in discussions by Brown (2001:30) and others where there is an indication that the Human Capital approach may even lead to more unemployment, therefore a negative impact on society, while there may be a positive effect on the economy of the country, as well as restricting the number of people who gain economically from it.

<sup>&</sup>lt;sup>2</sup> The Workplace Provider is responsible for the Structured Workplace Component of a Learnership, and is in most cases not the same body or institution as the Private Provider.

How does this relate to the South African context? If we look at the purpose of the Skills Development Act (Act 97 of 1998), it is clear that the act came to existence in order to develop the South African Workforce. This includes issues such as to improve productivity in the workplace, to improve workers prospects of work and labour mobility, therefore employability, as well as to promote self-employment. The act further also intends to increase the levels of investment in education and training in the labour market, and to improve the return on investment.

One of the ways that the South African Government intends to achieve this is by means of learnerships. Learnerships address issues included in the Skills Development Act (Act 97 of 1998), such as the use of workplaces as an active learning environment, to provide employees with opportunities to acquire new skills, to provide opportunities for new entrants to the labour market, and to employ persons who find it difficult to be employed.

Skills development, productivity, and bettering the lives of the people through employment and better earnings, are all issues that are addressed by the Act. The Human Capital Theory addresses also most of these issues. I therefore believe that the Human Capital Theory is closely related to learnerships in the South African context. However, one major issue that is very prominent in the Act, which does not feature that clearly in the Human Capital Theory, is employability, and subsequently employment.

In the literature review, I will look at how the Human Capital Theory relates to learnerships, and how it is addressed through the learnership concept, in order to better productivity and to increase earnings. As part of the literature review, I will also discuss related issues such as the integrated skills development approach, workplace learning as part of the integrated process, and what is meant by employability.

My argument concerning the Human Capital Theory is that although closely related to learnerships, the theory neglects a very important aspect, and that is employment. Employment forms the platform on which better productivity and increased earnings can be established. The steps towards the platform can be seen as the education and training to prepare a person to take his/her place on such a platform.

In relation to the theory, this study will address the importance of employment, or employability, as success factor for the Human Capital Theory.

## **Hypothesis**

The IT Technical Support Learnerships presented in South Africa by a Private Provider between August 2003 and December 2004, in specific, contributed to employability in the IT Technical Support sector.

#### **Research Questions**

#### Main Question

Did the IT Technical Support Learnership presented in South Africa by a Private Provider between August 2003 and December 2004, in particular, contribute to employability?

A Learnership consists of a minimum of 120 credits that is presented normally over a period of about twelve months, and leads to a National Qualification as registered on the National Qualification Framework. It also serves as building blocks towards further learning. The learnership concept is based on the apprenticeship model where theoretical learning and practical experience in the workplace are combined during the learning process. In the case of a learnership, the Structured Institutional Learning component (theory) covers about 30% of the time allocated for the learnership, and the Structured Workplace Learning component covers the other 70%.

Learnerships are applicable to most occupational fields where a need for skills development exists. The learners can be unemployed, employed or previously employed.

A legal contract is entered into between the learner, the Workplace Provider, as well as the Institutional Learning Provider<sup>3</sup>. During the duration of the learnership, allowances are paid to unemployed and previously employed learners to assist with their monthly expenses such as transport to and from the Training Provider and/or Workplace. Employed learners continue to get their monthly salaries.

In order to address the main components of learnerships during this case study, the main question is subdivided into the following sub-questions.

#### Sub-question 1

Did the learners feel that the Structured Workplace Learning component was essential to improve employability?

# Sub-question 2

Did the Structured Workplace Learning component in fact improve employability?

# Sub-question 3

Did the Structured Workplace Learning component improve learner's confidence in getting employment?

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#### Sub-question 4

Did the learners find employment since completing the learnership?

# Sub-question 5

Did the learnership improve employability in more occupations besides the learnership direction?

<sup>&</sup>lt;sup>3</sup> The Institutional Learning Provider is the same body or institution as the accredited Private Provider referred to earlier in this paper.

# **Methodological Framework**

From a scan of the available literature, most researchers in this field are using qualitative research methods which give rich insights into the aspects applicable particularly to people involved. In most cases, these have only local applicability, and cannot be generalised.

The different SETAs mostly make use of quantitative research methods by using statistical data. However, most of the SETAs research reports only relate to numbers of learners involved in learnerships, how many completed the learnerships, etc. There are almost no conclusions on employment related successes.

For this study the researcher will make use of an in depth quantitative study that will allow for a more generalised view on the issues related to learnerships, the successes of learnerships, and if learnerships really contribute to employability as intended by Government. The research questionnaire also includes some open-ended questions that will address the more qualitative issues which cannot be addressed through the normal quantitative methods.

# **Brief Outline of Sections**

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The following will be discussed during the next sections of this paper.

**Section 2:** An in depth discussion on related literature will take place to determine the views of different authors, and to explain different concepts applicable on learnerships.

**Section 3:** The research design and methodology will be discussed in this section. It will include aspects such as the research instruments, the data collection techniques, problems, limitations and gaps identified during the research process.

**Section 4:** The analysis of the data will be discussed in this section. It will include characteristics of the sample group, a summary of the main results, and a discussion of main trends, patterns and connections that may have emerged.

**Section 5:** Conclusions and recommendations will be made in this section. The research findings will be drawn into the related literature reviewed. Possible implications of the study on either policy or practice will also be discussed.



#### Section 2 - Literature Review

#### Introduction

How does the Human Capital Theory relate to the South African context, and specifically learnerships? Based on the literature review, I will argue that there is a strong relationship between the Human Capital Theory and Learnerships as defined in the South African National Skills Development Strategy (NSDS: 2002). However, with great respect towards Human Capital Theorists such as Schultz and Becker, I believe that the theory as developed does not acknowledge the importance of employment. Schultz (1961:20) says that the low rate, at which developing countries can absorb additional capital, was specifically caused by the fact that "human capabilities did not stay abreast of physical capital", and it became a limiting factor on economic growth. I therefore make the assumption that the theory was developed and debated only with people already employed in mind, or with a sense of security that the availability of employment was not a limiting factor.

I believe that in South Africa today, we have a reversed situation in respect to the 1960's. Funds are available through the Skills Development Levies Act (Act 9 of 1999) for the development of our Human Capital. However, if there is a scarcity in employment, it may mean the downfall of the Human Capital approach in developing countries. I am of the opinion that there should therefore be a balance between what is invested in our Human Capital, and what is invested in infrastructure. The President of the World Bank, Mr Paul Wolfowitz, announced that South Africa will be able to get more financial assistance from the World Bank, in developing infrastructure (Van Tonder, 2005:10). In the same article, it is also mentioned that the South African Government announced investments in infrastructure of R165 milliard over the next 5 years. This will subsequently lead to more employment.

#### Learnerships

The lack of skills in South Africa is one of the key obstacles to the economic growth and social equity required in this country. South Africa needs at the high end of the skills continuum, management, technical, financial and other professional skills to build globally competitive organisations. However, development of skills in these fields is necessary from an early stage to ensure that these skills are available for the higher end of the continuum. One of the strengths of many of our international competitors is the availability of skills at the middle level of the economy.

To develop skills at the entry and middle level of the economy, South Africa embarked on a process of introducing learnerships. Learnerships, according to the Skills Development Act (Act 97 of 1998), are developed to address the skills shortages in the labour market. Skills shortages are determined through Workplace Skills Plans (WSP) compiled by employers. WSP's are consolidated into Sector Skills Plans for each specific industry. Real industry needs can therefore be addressed through learnerships, which allows for economic growth through the availability of better skilled labour in that specific industry.

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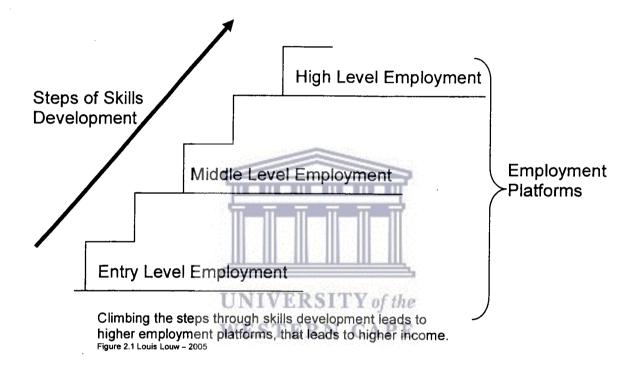
Learnerships in the South African context are specifically developed to advance knowledge of our human resources (Services SETA: 2005). It is measured by the "platforms" (employment opportunities) that are reached by means of "steps" (skills development), specifically developed to reach such "platforms". I am convinced that the development of Human Capital in these areas will therefore contribute to economic growth, not only for individuals, but also for organizations and the country itself.

According to the Services SETA (2005), the purpose of a learnership is therefore to promote access to employment, as well as further education and training opportunities. This is done by means of an integrated approach where theory and practice are vital. As seen in Figure 2.1, the steps (skills development) and the platform (employment) are therefore, in conjunction with each other, seen as a complete picture. Within the learnership context, this is referred to as an Integrated Skills Development process that

includes climbing the steps (theory) and operating on the platform (practical employment).

The Model in Figure 2.1 is developed by the author of this study to assist with the explanation of increased income through skills development.

#### Increasing income through Skills Development



I agree that these two parts should be integrated, to ensure that the learner has the chance to apply the theory in the workplace. It is my argument that practicing on a platform, as part of the Structured Workplace Learning component will ensure that candidates will have the chance to proof themselves in the working environment. The practicing on the platform forms part of the integrated skills development model, and is of crucial importance to ensure competence in the real world of work. This is referred to as Workplace learning.

The integrated skills development approach caused businesses to realize that there is a change in the focus where learning takes place. Educational institutions are also engaging

in the workplace more and more, to ensure that the education they present is more in line and applicable.

#### Learnerships and workplace learning

Learning in the workplace starts when stepping off the steps, onto the platform (employment). This is referred to as Workplace learning. The Services SETA (2004) says the following about workplace learning:

"Structured Workplace Learning is the basis on which learning about an occupation is premised. It structures the skills, knowledge, appropriate general education, and values around that particular occupation. While this kind of learning depends on a combination of instructional tools, mentoring also plays a significant role.

Mentoring and giving assistance in the workplace requires mentors/trainers with specialised skills. The learner requires monitoring and assistance, which is intensive at first and gradually "fades" as s/he becomes more independent and responsible."

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The integrated skills development approach caused businesses to realize that there is a change in the focus where learning takes place. Educational institutions are also engaging in the workplace more and more, to ensure that the education they present is more in line and applicable. Boud and Garrick (1999:2) confirm this statement.

"This development is accompanied by a swift away from viewing educational institutions as the principal places of 'valid' learning towards recognition of the power and importance of workplaces as sites of learning. The nature of work is changing with 'knowledge' being regarded increasingly as the primary resource, thus giving rise to unprecedented demands for learning – delivered flexibly and in authentic work settings."

As seen in Appendix 1, learnerships in the South African context try to address the complete picture that is necessary to achieve the outcome of the Human Capital Theory. It not only includes the steps (skills development), but also an opportunity for candidates to experience the platforms (employment) through the Structured Workplace Learning that form part of a learnership.

It is my assertion that employers who employ learners have the responsibility to ensure that while the learners are working, they are learning on the job. This is done with the help of coaches/mentors, and trainers who visit the learners in the workplaces.

Boud and Garrick (1999:6) mention the following in this regard:

"The workplace has become a site of learning associated with two quite different purposes...

The first is the development of the enterprise through contributing to production, effectiveness and innovation; the second is the development of individuals through contributing to knowledge, skills and the capacity to further their own learning both as employees and citizens in wider society."

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I mentioned earlier that the shortcoming of the Human Capital Theory, according to me, is the almost acceptance that employment is an automatic factor that will always be available, just because a person has better education. Employment (the platform) is of crucial importance before better productivity and increased earnings can become a reality.

I therefore want to, within our context as developing country, refer to a South African Human Capital Theory which has the following cycle:

Skills Development + Employment = Increased Productivity and Earnings

But, when can we say that a person is ready for employment? When can a person step off the steps (skills development), onto a platform of employment? When can we say that people are employable?

# Learnerships, workplace learning and employability

The National Skills Development Strategy of South Africa for the period 1 April 2005 to 31 March 2010 (NSDS, 2005:15) states the following as one of its objectives:

#### Objective 4

"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."

Three success indicators had been formulated to determine when this objective has been reached. They are the following:

# **Success Indicator 4.1**

"By March 2010 at least 125 000 unemployed people assisted to enter and at least 50% successfully completed programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured."

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# **Success Indicator 4.2**

"100% of learners in critical skills programmes covered by sector agreements from Further Education and Training (FET) and Higher Education and Training (HET) institutions assisted to gain work experience locally or abroad, of whom at least 70% find placement in employment or self-employment."

#### **Success Indicator 4.3**

"By March 2010, at least 10 000 young people trained and mentored to form sustainable new ventures and at least 70% of new ventures in operation 12 months after completion of programme."

All initiatives of the National Skills Development Strategy will be mostly funded out of the National Skills Development Fund, either directly from the fund as managed by the South African (SA) Department of Labour, or via the different Sector Education Training Authorities.

If I look at the success indicators as mentioned above, it is clear that the SA Government has its goal to firstly successfully train unemployed learners through several programmes, which includes learnerships such as the learnership under discussion.

The second objective is to allow these learners to gain workplace experience during this learning cycle, and thirdly, government has the objective to get these learners into employment or self-employment.

It is therefore clear that government wants to increase the number of people in employment by means of investments in learning programmes such as learnerships. However, learnerships do not automatically ensure employment, which in turn will ensure increased earnings. Successful learnerships will ensure better employability, which in turn may ensure employment.

There should be a clear understanding on the differentiation of the two concepts "employment" and "employable".

"Being employed means having a job; being employable means having the qualities needed to maintain employment and progress in the workplace" (Lees, 2002:2).

There are many definitions of what it is to be 'employable' and views on the processes that develop this attribute. A definition of employability that underpins the work of the

Higher Education Academy (2005) and the Enhancing Student Employability Skills Coordination Team (ESECT) is:

"A set of skills, knowledge and personal attributes that make an individual more likely to secure and be successful in their chosen occupation(s) to the benefit of themselves, the workforce, the community and the economy."

According to Lees (2002:1) employability is a difficult concept to define –

"it is a multi-dimensional concept, much more complex than the relatively restrictive key skills agenda, focused on by Dearing (1997), which has obscured a greater understanding of employability". In Lees (2002:1), Knight (2001) and Yorke (2001) consider "the concept of employability to be a 'synergic combination of personal qualities, skills of various kinds and subject understanding'. Yorke (2001) believes that traditionally, little emphasis has been placed upon a student's personal qualities, but that these could have considerable bearing on a particular student's success" (Lees, 2002:1).

According to Lees (2002:2) employability can be viewed from three different perspectives:

- 1. "From the employer's perspective, employability is about someone having basic skills and experience.
- 2. From the student's point of view, employability is about being attractive to employers, in terms of skills, knowledge and experience, and the articulation of these, so that they get recruited.
- 3. From the institution's perspective, employability is about trying to develop students, through a variety of means to enhance their academic learning, broaden their perspectives and experience and enable them to actively enter the workforce".

The third perspective is applicable on the learnership concept, either during the Structured Institutional Learning component, or Structured Workplace Learning component and on-the-job training. I am of the opinion that any educational program should promote the development of skills, knowledge and personal attributes that will make the individual more likely to get employment. Generic employability skills such as personal management and teamwork skills, workplace specific skills, and judgment should be incorporated into such programmes.

Workplace specific skills include the knowledge, skills, and judgment that allow the trainee to function and progress successfully in the job's scope of practice. This is reflected in the thinking, reading, and writing skills that are inherent in any job.

Personal management skills include positive attitudes and behaviors, responsibilities, and adaptability. The new employee should show self-esteem and confidence when dealing with other people. Honesty, integrity, and personal ethics are important for developing trust between clients and business representatives.

Teamwork involves focusing on organisational goals, and understanding and fitting into the workplace's culture. The ability to contribute in group decisions, and support group decisions, is important. Respect must be shown for others' opinions, and people must know when it is appropriate to lead, and when it is best to play a supportive role.

To achieve this, learnerships in the South African context are designed around Critical Cross Field Outcomes (CCFO's) (SAQA: 2004). CCFO's are generic outcomes necessary for almost any situation in society.

The following Critical Cross-Field Outcomes are covered in the Unit Standard: "Develop oneself for a career" (SAQA: 2004)

- "• Identify and solve problems using critical and creative thinking.
- Work effectively in a team using critical and creative thinking activities.

- Organise and manage oneself and one's activities responsibly and effectively.
- Collect, analyse, organise and critically evaluate information.
- Communicate effectively, using visual, mathematical and language skills.
- Use science and technology effectively and critically.
- Demonstrate an understanding of the world as a set of related systems."

CCFO's are, therefore, applicable to all occupational levels and positions. As mentioned, they are generic in nature, and the mastery of CCFO's makes a learner employable for a range of different occupations. It may, therefore, happen that although learners completed a learnership in a specific direction, they may still be employable in other directions.

All students will, therefore, have to integrate employability skills into behaviors which prepare one for obtaining, maintaining, advancing, and changing employment.

Can employability be enhanced by simulating work related activities? Some might argue that such activities can be just as valid for developing work-related skills, knowledge, and dispositions as direct experiences of work. However, a recent report concerning young people, their employability, and the processes of induction into the workplace, concludes that:

"... many of the employability skills that employers are seeking can only be learned in 'real life' situations, even on a temporary basis such as work placements of two or three weeks ... there is a limit to the extent to which educational establishments can 'teach' the necessary skills and attributes, even where extensive efforts are made to simulate the work situation" (Johnson and Burden, 2003:39).

The Structured Workplace Learning component during a learnership can therefore be seen as a tool to prepare a learner for employment, thus making a learner more employable. It is my opinion that within the Human Capital Theory concept, employment

as part of the learning process can also be seen as a tool to develop skills and knowledge, which will lead to better productivity and increased earnings.

According to Vorwerk (2000:60) the Structured Workplace Learning component allows trainees to break through the barrier of no workplace experience.

"I can't get a job because I have no experience. I can't get experience because I have no job".

In addition, learnership must be demand led. It is my argument that there will be no need in developing employability skills if there is no need in the labour market (no employment platform) for the individual where higher productivity and increased earnings can be achieved.

# Learnerships, human capital investment and employability

"In The Wealth of Nations (1776) Adam Smith formulated the basis of what was later to become the science of human capital" (Fitzsimmons, 1999:1).

Theodore W. Shultz (1961: 3), a professor of economics at the University of Chicago, also refers to Adam Smith as one of the distinguished names who included all the skills and abilities of a country's citizens as part of capital.

Schultz (1961:2) states that the development of skills and knowledge, either by funds spent by governments, or individuals themselves, plays a major role in economic growth. Schultz (1961:2) also states that economists realized that people had an important role to play in the wealth of nations, but they did not realize the real impact it has on an economy of a country.

While people invested in themselves, and governments invested in the development of people, economists never tried to calculate the return on such investment, hence, the

ignorance on what impact it has on an economy. Return on investment was normally calculated in terms of goods, and not humans (Schultz, 1961:2). Shultz (1961:9) further states that humans have quantitative and qualitative dimensions. Quantitative dimensions refer to more hands in labour, therefore more hours worked. The qualitative dimension specifically refers to knowledge and skills of the individual, which, if further developed, can enhance the individual's productivity. The conclusion can therefore be made that better productivity in turn will cause increased earnings for the individual.

We can ask ourselves the question, if better productivity of an individual can cause increased earnings for such individual, what effect will it have on a country's economy? Foray & Lundvall (1996:21) state that the overall economic performance of the OECD countries is increasingly more directly based upon their knowledge stock and their learning capabilities. It is seen as a way to reduce unemployment and income inequality. I believe that it can also be seen as a method to improve a person's ability to achieve "higher platforms" where more productivity, due to better education and training, causes better economic growth.

The development of people through education and training can therefore be seen as a means to increase physical capital.

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According to Becker (1964:1), most people see capital as money in the bank, or shares held in stocks, or even assembly lines in steel plants. However, the capital related to machines within a production plant can be seen to be similar to Human Capital. More investment in better and faster machines on the production line will increase the production rate. The same can be said concerning people. The possibility that the workforce will become more productive will increase if there is more investment in the knowledge and skills of the workforce. I therefore agree with these theorists that one invests in human capital through skills development. The more human capital a person owns, the more productive that person can become, which in turn will lead to more income.

The investment in machines involves funding allocated to buy such better machines. Funds spend on Education and Training, therefore the development of skills, knowledge and attitudes, is seen as the investment in Human Capital. Human Capital therefore refers specifically to the investment in human beings, their knowledge, skills and attitudes.

Becker (1964:1) states that Education and Training are the most important form of investment in Human Capital. The income received by educated people versus uneducated people is a clear indication that the improvement of your knowledge and skills can be seen as the improvement of a persons own human capital.

It is therefore my assertion that Human Capital can be defined as the skills, knowledge and abilities of people when used within a working environment where it contributes to the economy.

Baptiste (2001:185) states the following about Human Capital:

"The term human capital refers to knowledge, attitudes, and skills that are developed and valued primarily for their economically productive potential. It "refers to the productive capacities of human beings as income-producing agents in an economy" (Hornbeck & Salamon, 1991, p. 3) and to "the present value of past investments in the skills of people" (Blaug, 1970, p. 19). Human capital formation is the name given to the process by which such capital is deliberately developed, and the expenditure (in time, money, etc.) is called human capital investment (Becker, 1962, p.9)."

To ensure the development of our workforce through education and training, much funds and time need to be spent in the process. Becker (1964:1) however mentions that formal education is not the only way to invest in Human Capital. Informal training where people learn from each other, for example on the job, also constitutes the investment in Human Capital. On-the-job training increases a person's experience, which in turn will increase better productivity and earnings.

I will argue that Human Capital Investment, either through formal or informal processes, even in today's educational society, is of major importance, not only for the economic prosperity of the individual, but also for a country as a whole.

As mentioned above, initial work on the Human Capital Theory was done by British economist Adam Smith (1723 – 1790). It shortly stated that skills acquired during education contribute to a person's productivity that will lead to increased earnings (Fitzsimmons, 1999:1).

With the classical theory, more productivity and higher earnings were taken for granted in cases where skills development took place.

Although other writers and researchers (Mincer 1958; Becker 1964) were also involved in the development of the theory, the modern theory was largely produced and developed by the Chicago School, under the intellectual inspiration of Theodore W. Shultz.

De Bartolo (1999:3) states that the different writers and researchers focused on two complementary aspects:

"Shultz, Denison and Griliches had used the theory of the human capital to analyze the productivity and the economic growth, on the other front, Jacob Mincer, Gary S. Becker and their "followers" had set the general theory and they had focused the attention on the study of the relations between human capital and labor income".

In the years after that, many debates took place on the assumptions made by Schultz and Becker. Education was seen as one of many investment alternatives individuals could choose from to ensure future benefits. According to Reed and Wolniak (2005:2), a further assumption that was made was that earnings in the labour market for individuals with more education were higher than those of individuals with lesser education. Schools were seen as the major driving force to increase the productive skills of students.

The more modern approach towards the theory also caused more conscious decisions concerning the different directions in the labour market, before individuals make

decisions in which directions they should better themselves through education. De Bartolo (1999:4) agrees with this. She states that the

"theory developed by the Chicago School is different from the classical theories; it is in fact the postulation of individuals' rational behavior".

Individuals are making a rational choice on the investments and direction of self development with the goal to optimize their future earnings. The choice is made based on the possibilities of increased income in different directions.

Reed and Wolniak (2005:2) also stated that

"Human capital theory has typically been applied to education in explaining investment decisions in higher education and on-the-job training".

In summary of above, in relation to the classical theory, the modern Human Capital Theory suggests that better decisions should first be made concerning education and training, whether formal or on the job, before higher productivity and earnings will materialise. A further difference is the fact that schools alone are not seen anymore as the only driving force for skills development. On-the-job training also enhances skills development, and therefore can also increase productivity and higher income.

According to what is mentioned in the Skills Development Act (Act 97 of 1998), employment is the starting point of economic growth. Employment can be seen as the platform that is needed to ensure increased productivity and improved earnings. Without employment (including self-employment), productivity cannot be achieved, therefore better earnings are not possible. As seen in my Figure 2.1, Skills development through education and training, and even on-the-job training, can be seen as the steps towards a platform of employment. For this example, getting onto a lower platform is an indication of a lower level of education. More steps (skills development) will need bigger investments, but will also lead to a higher platform (employment). A higher platform will therefore be seen as employment with better salary packages, and/or opportunities for

better income. It is my argument that the development of skills and knowledge, either through self investment or external investment, allows a candidate the opportunity to rise to a platform of possible employment, or to increase possibilities on an existing platform (employment).

The following questions can therefore be asked. When does an individual decide to go from the steps (skills development) onto a platform (into employment)? Is there a need within the labour market for specific platforms (directions of employment)? Will there be a return on investment (grants paid by government for learnerships) if you are not on the appropriate platform, or if you are on steps towards a platform where there is no market need for?

How do we ensure that there is a need in the market for specific skills, therefore employment possibilities in such a market? Workforce planning and strategic Human Capital Management, although still unknown in many industries, becomes a reality that we must acknowledge and explore. Workplace Skills Plans and Sector Skills Plans assist in workforce planning.

It is my assertion that Human Capital planning must be done in an organised and structured way, ensuring that skills most needed in the country are developed. In South Africa, this is specifically addressed through learnerships. Learnerships are developed, and funded according to the real market needs identified in the country. This is not only to prosper the economic sustainability of the country, but that of the individual as well.

Criticisms against this theory are seen in discussions by Brown. According to Brown (2001:11), there is an indication that the Human Capital approach may lead to more unemployment, negatively impacting society, yet still having a positive effect on the economy of the country, as well as only a number of people who achieve personal economic gain from it.

I am of the opinion that this argument carries weight when a specific industry is flooded with skills and knowledge for that particular industry, which leads to a scarcity of

employment in that specific industry. This is the reason why better decisions should be made concerning the direction in which skills development should take place (Reed and Wolniak, 2005:2).

Baptiste (2001:195) also states that there are substantial critiques of the human capital theory. He says that:

"....critics have cited the theory's overly mechanistic, one-dimensional view of human beings; its narrow understanding of labor; its use of correlational data to establish cause; the inconclusiveness of its empirical evidence; and the insurmountable methodological hurdles associated with calculating returns on educational investment".

Maglen (in Quiggin, 1999:10) also supports this critique regarding the Human Capital model. He claims that, although the link between education and earnings is well established,

"microeconomic evidence on the link between education and productivity, and between productivity and earnings is weak".

WESTERN CAPE

"Particularly in New Zealand, Maglen's attack on the human capital model has been used to justify cuts in educational expenditure and a switch to narrowly vocational training" (Quiggin, 1999:13).

Although Maglen has this critique, it is my argument that his critique is not based on strong negative evidence, but the lack of data, and the difficulty of conducting such a conclusive test.

Learnerships are still a new concept in South Africa. I have the opinion that this critique of Maglen can specifically be related to learnerships because of the current lack of data in

this field. Within the next couple of years, more usable data may become available to make conclusions that may truly support the Human Capital Theory.

Out of the above analysis of the Human Capital Theory, I believe that the Human Capital Theory is applicable towards the efforts South Africa has in market-driven related education and training. However, as mentioned, the Human Capital Theory does not specifically include employment as the one specific aspect that is needed to ensure better productivity and increased earnings. It is my argument that employment or self-employment is of crucial importance to ensure better productivity and increased earnings. A person with a doctorate degree, with no job, will not have increased earnings solely based upon the degree.

I view this as a shortcoming of the Human Capital Theory where, in today's society, scarcity of employment is in the order of the day. The theory creates the idea that better education and training will automatically guarantee better productivity and increased earnings. I state that it is simply not true. Employment as platform, is necessary to ensure that where a person gets off the steps (skills development), there is a platform (employment) from where better productivity can be initiated, which in turn will lead to increased earnings.

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The crucial factor is for government to establish identified platforms according to market needs. Government must further ensure that there are steps (skills development) made available towards these platforms. Certain measures must be in place to ensure that it becomes easy for all candidates who take part in the process, when stepping off the steps (skills development) onto the platform (employment).

Although the Human capital theory only partially explains the impact of education on earnings, in my opinion, there is little doubt that education directly impacts on earnings, as long as that education is applicable to industries where a real need exists. No matter what level of education and training a person has, if there is no job where it can be applied, there will be no productivity that will lead to increased earnings.

# Section 3 - Research Design and Methodology

#### Introduction

It is evident in the literature review that the Human Capital Theory is relevant to the investigation of learnerships. This investigation is however not an attempt to confirm the Human Capital Theory in the South African context, but to prove the importance of employment as success factor of the Human Capital Theory. Better productivity, and increased earnings, can only become possible if learners become employed or self-employed. Only then will economic growth of individuals and industries be initiated through better productivity.

The research design and methodology are aimed at confirming the important relationship between the learner's success, and the positive influence it may have on a specific industry. Through my research design and methodology, I will show that learnerships are designed to enable learners to develop knowledge and skills which would enable them to find employment.

#### Hypothesis

The IT Technical Support Learnerships presented in South Africa by a Private Provider between August 2003 and December 2004, in specific, contributed to employability in the IT Technical Support sector.

#### Key concepts and variables

The key concepts are employment, employability and learnerships in the IT Industry and other Industries.

As all respondents were from a small group of 40 learners who attended the same learnership, (and who were subjected to the same trauma of moving them from one provider (CS Services) to the other Private Provider, there are no real variables applicable to this group.

All learners involved in this learnership are black. Different races could cause a variable, due to different backgrounds. Age also played a limited role, because all learners were between the age group of 18 and 30. This age group is classified by government as youth.

#### Research Methods and Instruments

Different methodologies can be used to investigate a certain phenomenon. Research methods are specific research techniques, such as quantitative and qualitative techniques. Qualitative techniques are normally used during observations, or even the analysis of written information received from respondents or participants in the research project. Quantitative techniques include the analysis of statistical data received either from the respondents or other statistical data available and applicable on the research topic.

Silverman in Seale (2004:53) states:

"A methodology is a general approach to study research topics. It establishes how one will go about studying any phenomenon. In social research, examples of methodologies are quantitative methodology, which uses numbers to test hypotheses and, of course, qualitative methodology, which tries to use first-hand familiarity with different settings to induce hypotheses."

According to Spicer in Seale (2004:294), researchers often look at the differences between the qualitative and quantitative research techniques, and then emphasize why they decide on a specific approach. Some researchers are therefore more in favour of the one technique over the other. Spicer in Seale (2004:294) however also suggests possibilities for combining qualitative and quantitative methods within a single research project. He uses the term "combined methods research" (Seale, 2004:294).

Spicer discusses several approaches of using the different methods together. One of these approaches is "the triangulation of methods":

"Triangulation implies combining more than one method in looking at a particular research question to cross-check results for consistency and enhance confidence in the research findings" (In Seale, 2004:294).

According to Seale (2004:77), triangulation is a technique advocated by Denzin (1978) for validating observational data. In Seale (2004:77) Denzin outlines the following four types of triangulation:

- 1. "Data triangulation involves using diverse sources of data.....
- 2. Investigator triangulation involves team research.......
- 3. Theory triangulation suggests that researchers approach data with several hypotheses in mind......; and
- 4. Methodological triangulation".

Methodological triangulation is the most and widely used method of combining different research methods. According to Denzin, this "ideally involves a 'between-method' approach which can take several forms (Seale, 2004:78). Methodological triangulation is also seen as the method to combine qualitative and quantitative methods in a study. Some arguments on the use of triangulation are the following:

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"Once a proposition has been confirmed by two or more independent measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through a triangulation of measurement processes. If a proposition can survive the onslaught of a series of imperfect measures ... confidence should be placed in it" (Webb et al. 1981:35).

"Investigators engaged in qualitative research will have increased confidence in the credibility of their results when multiple data collection methods yield consistent findings" (Knafl and Breitmayer 1989:238).

Multiple and independent measures, if they reach the same conclusions, provide a more certain portrayal of the ... phenomenon" (Jick 1983:136).

There are arguments for and against the use of combined methods, and mostly based upon the differences between the different methods. Spicer in Seale (2004:294) states that:

"Critics of combined method research argue that the assumptions behind qualitative and quantitative methods are fundamentally different both in terms of what we are able to know and how we know it (issues of epistemology) together with assumptions about the nature of the social world (issues of ontology)."

Epistemology is the theory of knowledge, or as explained by Williams and May in Seale (2004:9) with the question: "Where does our knowledge come from, and how reliable is it?"

Ontology can be seen as a branch of philosophy that is concerned with what can be said to exist. It is different from entomology where it is more about how we know what exist (Seale, 2004:508).

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To combine different methodologies can be viewed as controversial because of the differences between ontology and epistemology. For the quantitative researcher, qualitative data is not subject to measurement and, therefore not useful whereas for the qualitative researcher, it is impossible to measure meanings, and therefore quantitative analysis is not useful.

According to Downward and Mearman (2005:1) it is common to reject triangulation for ontological reasons.

Positivist social scientists (or those influenced by positivism) tend to hold that methods should only be used which conform to positivist principles, such as objectivity, observability, and precision. All of these principles are met by quantitative data. For interpretivists, the opposite position is taken. Interpretivism

includes hermeneutic concerns that social phenomena are intrinsically meaningful; that meanings must be understood; and that the interpretation of an object or event is affected by its context. Moreover, for the above reasons, meanings cannot be measured, counted or understood. Unsurprisingly, interpretivist approaches tend to focus on the limitations of quantitative analysis in the social arena. Silverman (1993) offers a typical example of the interpretivist approach. Silverman argues that quantitative methods retain a positivist perspective in which data collectors basically follow established protocols and data providers simply reveal aspects required of the protocol as 'objective' entities. In contrast, qualitative methods are 'interactionist' and reflect the interviewer creating the interview context and the interviewee engaging in a dialectic with the definition of the situation, so that the research reflects social relationships which are inherently subjective and not objective. On this basis Silverman rejects quantitative methods as inappropriate to social research.

Downward and Mearman (2005:1) continue to discuss the reasons that combined methods should not be rejected.

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If methods are to be rejected because they impose some degree of closure on an open reality, then in fact, all methods so far proposed must also be rejected. Any method which supposes that an entity remains fixed for long enough for it to be identified as an object of study imposes closure on an open reality. Thus quantitative analysis involves closure, because the act of quantification involves the assumption of qualitative invariance across subjects. Likewise, if qualitative investigation is concerned with collating insights and offering stylised interpretations and narratives, this assumes qualitative invariance – or, in Critical-Realist terminology, intrinsic closure. Contrast explanation is thus challenged because, first, it tends to involve quantitative contrasts; second, because it makes assumptions about what are surprising, abnormal or significant instances, which in turn presupposes a notion of a normal deviation from a trend or fixed pattern, and finally because qualitative endeavors to explain the contrasts are not

fundamentally distinct in terms of maintaining a degree of closure.

Where as quantitative methods rely on statistical data, either numbers or close-ended questions where only certain answers can be given, qualitative methods offer access to attitudes and values, flexibility and exploration of suppressed views (Seale, 2004:182). To achieve these outcomes, qualitative methods include structured interviews, and also in cases where questionnaires are used, open-ended questions where the respondent has the freedom to structure his/her own answer.

This study was conducted by means of methodological triangulation which comprised a survey questionnaire. The latter consisted of quantitative questions, which focused on issues related to learnerships, the successes of learnerships, and the relationship between learnerships and employability. The questionnaire also included some questions that addressed the qualitative issues, and was used to cross-check the quantitative results for consistency.

The reason for choosing this research approach was that most of the learners who completed the learnership were not easily available. A formal qualitative study through interviews or focus groups would have a major financial implication on the project.

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The research questionnaire was constructed using a research software package obtainable from <a href="www.zoomerang.com">www.zoomerang.com</a> (See Appendix 2). Zoomerang is online survey software that provides a powerful, streamlined alternative for organizations needing to conduct accurate and comprehensive surveys with a minimum of cost and effort. Zoomerang online survey tools are in use in over 200 countries, and over 100 million surveys have been sent through Zoomerang. Zoomerang is an easy to use, Internet-based survey tool allowing researchers to design and send surveys and analyze the results in real time. Watt (1997:1) discusses several reasons that the Internet can be a powerful means to conduct research.

First, there is the speed with which a questionnaire can be created, distributed to respondents, and the data returned. Since printing, mailing, and data keying delays are eliminated, you can have data in hand within hours of writing a questionnaire. Data are obtained in electronic form, so statistical analysis programs can be programmed to process standard questionnaires and return statistical summaries and charts automatically.

A second reason to consider Internet surveys is cost. Printing, mailing, keying, and interviewer costs are eliminated, and the incremental costs of each respondent are typically low, so studies with large numbers of respondents can be done at substantial savings compared to mail or telephone surveys.

The questionnaire consisted of three categories of questions. The first category covered the respondent's personal details and historical background. The second covered detail about the learnership, specifically the core and elective unit standards that were applicable on this learnership. The third category covered the questions with the purpose of identifying respondent's feelings about the success of the learnership in different areas such as confidence, employability in the specific sector, as well as employability in other sectors.

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Most of the 29 questions were close-ended questions that supported the quantitative method, and lesser open-ended questions that allowed for gathering more qualitative information. As mentioned, data was collected by means of a questionnaire which was emailed to all respondents. As back-up, a structured questionnaire, with mostly close-ended questions could also be completed by means of telephone interviews. The use of the back-up process was however not necessary in this study.

A qualitative methodology normally "tries to use first-hand familiarity with different settings to induce hypotheses" (Silverman in Seale, 2004: 53). Quantitative research on the other hand is the idea of taking a scientific approach to create statistical analysis of the subject being researched. Quantitative research involves an objective look into society; which relies only on statistics and number rather than opinions and feelings

through words, expressed by the respondents, as in the case of qualitative studies.

Quantitative questions as partly used in the questionnaire of this study have fixed questions and have fixed responses. The qualitative questions allowed for more freedom to express certain feelings, and to elaborate on some issues.

Questionnaires have advantages and disadvantages, some of which are discussed here.

It is an inexpensive way to gather data from a potentially large number of respondents. It is often the only feasible way to reach a number of respondents large enough to allow statistically analysis of the results in the case of specifically quantitative questions.

Some disadvantages of using questionnaires are the fact that the moment it is distributed, the researchers do not have that much control over it any further. This loss of control means the validity of the results is more reliant on the honesty of the respondent. Because of the fact that respondents may be biased towards some questions, it may be difficult to claim complete objectivity with a questionnaire. With structured interviews, other disadvantages can be that the interviewees could be influenced by the presence of the interviewer.

The reasons for my choice of a questionnaire were the following:

The availability of the respondents. In the case of this study, all possible respondents were already finished with the learnership and not that available for one-on-one interviews or focus groups. My resources and funds were limited. By administering the questionnaire, using e-mail, collection of data was quite inexpensive.

Time was an important issue. The e-mail questionnaire allowed for many respondents to respond within a few days. It therefore maximized the time available. It would be impossible to get a similar number of respondents to be interviewed.

It is easier with questionnaires to administer confidentially. In this case, by using the Zoomerang software, no learner knows which other learner did respond, and what has been said.

By using both quantitative and qualitative research methods by means of methodological triangulation, and by means of the internet, was the most appropriate approach under the circumstances.

The quantitative and qualitative results allowed me "to cross-check results for consistency and enhance confidence in the research findings" (Seale, 2004:294). The questionnaire and software allowed efficiency in administering the questionnaires, and processing the data.

## Sample Design, Techniques and Criteria

As contact information for all forty learners, and internet technology was readily available to all these learners, it was decided to invite the total population to participate in the survey.

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To ensure that learners were aware of the research project, all were contacted and e-mail addresses were confirmed. This was followed up with an e-mail to all learners, explaining the purpose of the research project, and aspects concerning confidentiality.

To test the understanding of the research questionnaire, four easily-accessible learners (10% of the total population) were asked to complete it. The reason was to ensure that the learners understood the questions being asked, and also what was expected from them. This was done with no involvement from the researcher. The learners therefore had to depend on their own abilities to understand and complete the questionnaire.

This process showed that no alterations had to be made to the questionnaire. The same questionnaire, as per Annexure A, was therefore used during the final research.

#### **Data Collection Process**

The research questionnaire was launched through <a href="www.zoomerang.co">www.zoomerang.co</a> on 18 April 2005, and the URL link issued by Zoomerang was forwarded to all e-mail addresses. The Ms Outlook function was activated to determine if all learners received and read the e-mails. In the first two days 35 e-mails returned as undelivered, 5 indicated as delivered, but only one was indicated as read. The researcher realized that although all e-mail addresses were confirmed, most of the in-boxes to these e-mail addresses were probably full, which resulted in the return of mail.

On the 20<sup>th</sup> of April 2005 the researcher activated the same Zoomerang URL Link on the Private Provider website, and informed all learners again per telephone about the change. A limitation is applicable to unpaid Zoomerang members, in that the consolidated results of the survey are only available for 10 days after the launch of the survey. Learners therefore had to complete the questionnaire by 8 days after they were telephonically informed about the new location of the research questionnaire on the Private Provider website. By the last day, the research questionnaire was visited 43 times, and 20 learners completed the questionnaire.

#### **Data Editing and Coding**

The Zoomerang research software package was used specifically to minimize any human errors. It was also regarded as appropriate because all the learners involved in this case study, are computer and internet literate.

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As all questionnaires were electronically submitted, the consolidated results report was updated immediately. This information was accessible only by the researcher through a secured Zoomerang website, which had to be entered by means of a username and password. There was no unauthorized access to the results, and the system also did not allow any of the results to be ignored or changed.

Question 7 was added to the questionnaire to serve as a counter-check for the data. The information requested in question 7 was a short summary of all the main aspects of the full questionnaire. The outcome of question 7 corresponded with the overall outcome of the survey.

#### Rationale for Data Analysis Procedures

Most of the data was computed by the Zoomerang software package. All data was immediately consolidated, as it entered the system, into the main results report for access by the researcher. The main results report gave a consolidated answer to all the responses received. This was done in the form of graphs, number of responses per choice, as well as percentages of the total number of responses per question. Because the questionnaire also included open-ended questions, the researcher had to study all individual responses as well. The Zoomerang package allows the researcher to see all individual responses of open-ended questions on one document, and it is also possible to see the full report per individuals who participated (See Appendices 3 to 5).

All responses to open-ended questions were analyzed by the researcher and conclusions reported in section four of this paper. The responses to the open-ended questions gave clear insight to the feelings of the respondents, either negative or positive.

#### Possible Limitations and Gaps

The first limitation was the limited access of ten days to the results. I believe that with more time available, all or most of the total population would have participated in the survey, which could have given a better reflection of the total population.

The second limitation was that when testing your questionnaire by means of the available technology, URL links could become accessible through e-mails to the total population, instead of just the test group.

These limitations prompted me to test the questionnaire manually on four learners who were readily available. When they indicated that they understood what was expected of them, and that they understood the questions, the questionnaire was then launched on the internet.

The last limitation is that as an unpaid member of Zoomerang, I was not able to edit or manage the research questionnaire after the launch. One specific problem on the research questionnaire was identified after the launch, and could not be changed.

This problem is indebt in question 5, where I wanted to establish a history of previous employment. The fourth option of "currently employed" should not have been there. 40% of the respondents chose that as an answer, which made me unsure of their previous employment status.

To overcome this problem, I had to assume that these 8 respondents were also previously involved in the formal employment sector.

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#### Section 4 - Data Analysis: Presentation and Discussion

#### Introduction

This section analyses the data which was gathered by means of a questionnaire administered to 40 learners who had completed the learnership, entitled 'Information Technology Technical Support'. The research question, at the centre of this study is the following, 'Did the IT Technical Support Learnerships presented in South Africa by a Private Provider between August 2003 and December 2004, in particular, contribute to employability?. Included here is a discussion of the trends and patterns evident in the data, particularly in relation to the relationship between the structured workplace learning experience component and employability. The triangulation research method was used with mainly quantitative research questions, with some qualitative open-ended questions where the respondents could elaborate on issues where they wanted to motivate some of their answers (Seale, 2004:294). False names are used to honour confidentiality. Reflections of the method of data-gathering conclude this section.

#### The Learnership

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Learnerships in the South African context try to address the complete picture as seen in Appendix 1. The elements of this complete picture are the following:

The Structured Workplace Learning component is done at a workplace where working activities covered by the theoretical learning component take place. These two components together form the Structured Learning Programme, namely the Learnership.

The different parties involved in a Learnership are the Learner, the ETD Provider, and the Workplace.

It is my argument that all the above-mentioned elements of a learnership are necessary to achieve the outcome of the Human Capital Theory, namely increased earnings. As seen in Schultz (1961:20), Human Capital Investment did not stay abreast with physical development. The need for labour therefore caused an almost non-existence of unemployment. As discussed in the literature review, we have a reversed situation in South Africa where there is a lack of employment opportunities, causing many educated people to be unemployed. The South African Qualifications Authority has conceptualized the learnership (NSDS: 2002) to include the steps (educational programmes), but also an opportunity for candidates to experience the platforms (employment) through the Structured Workplace Learning component that form part of a learnership.

This approach follows international trends and best practices to ensure that a learner also gain experience in a workplace as part of the integrated learning process. Reference to such international trends includes Boud and Garrick (1999:2), where they acknowledge the power and importance of workplaces as sites of learning. Becker (1964:1) also states that on-the-job-training increases a person's experience.

Boud and Garrick (1999:6) state specifically that one of the purposes of workplace training is to advance the industry ("enterprise") through contributing to production. Real industry needs (employment platforms) can therefore be addressed through learnerships, which allows for economic growth through the availability of better skilled labour in that specific industry.

Learnerships, according to the Skills Development Act (Act 97 of 1998), are developed to address the skills shortages, therefore, real industry needs in the labour market (Services Seta: 2004). Skills shortages are determined through Workplace Skills Plans (WSP) compiled by employers. WSP's are consolidated into Sector Skills Plans for each specific industry. A WSP is a plan compiled by companies which outlines all the specific skills shortages in a company, as well as the process to be followed to address these shortages through training. WSP's of companies in the same industry (sector) are combined to form a Sector Skills Plan (Act 97 of 1998).

Learnerships are also intended to build on the universal apprenticeship tradition of combining theoretical skills development with a Structured Workplace Learning component. It also leads to a qualification in the country's National Qualifications Framework (NQF). Learnerships are "designed to meet legally specified criteria for NQF- alignment, e.g. it is portable and serves as a building block for further learning" (Services SETA: 2004)

The target group of learners originates from most occupational fields. These learners can be employed, unemployed or pre-employed at the time of entering the Learnership.

The duration of a learnership is normally a minimum of one year, which is determined by the minimum of 120 credits of the qualification. Approximately 30% of this period is spent on the Structured Institutional Learning component, and 70% on the Structured Workplace Learning component. A formal learnership agreement (contract) is entered into between the participating parties. These parties are the Learner, the Lead Employer and Lead Training Provider.

The purpose of the learnership is to provide education and training opportunities in order to create access to employment opportunities. This is done by means of an integrated approach where theory and practice are vital. The steps (education) and the platform (employment) are therefore seen as a complete picture that needs to be seen in conjunction with each other. Within the learnership context, this is referred to as an Integrated Skills Development process that includes climbing the steps (theory) and operating on the platform (practical employment).

The learnership consists of two components; namely the Structured Workplace Learning component (practicing employment on the platform) and the Structured Institutional Learning component (climbing the steps towards the platform). These two parts must be integrated, to ensure that the learner has the chance to apply the theory in the workplace. Out of this discussion, it becomes clear that "practicing on a platform" (as part of the Structured Workplace Learning component) will ensure that candidates will also have the chance to proof themselves in the working environment as well. The practicing on the

platform forms part of the integrated skills development model, and is of crucial importance to ensure competence in the real world of work.

During Learnerships, occupation-specific skills are developed that also include generic (critical cross-field) competencies, relevant in all work contexts (SAQA: 2004).

After successful completion of the different components of a learnership, learners are awarded credits for the outcomes achieved, even if they do not complete the Learnership.

The details of the learnership under discussion are the following:

# National Certificate: Information Technology Technical Support NQF Level 4. (See attached current SAQA qualification marked Annexure E).

This qualification had been registered on the SAQA data base and identification number 24293 had been issued to this qualification. This qualification has a total of 16 Fundamental Unit Standards, 12 Core Unit Standards, and 21 Elective Unit Standards out of which a choice can be made to ensure a minimum credit value of 163 credits. Before any SAQA registered qualification can be presented as a learnership, it must also be registered at the Department of Labour as a Learnership. Registration number 12Q000016451754 had been issued by the Department of Labour.

The following table gives an indication of the Skills Programmes that cover all the Unit Standards as part of the Structured Institutional Learning component:

Skills Programmes and Unit standards: National Qualification in Technical Support NQF 4 Registration no 24293

No	Unit Standard Title	US ID	Credits	
1	Access information in order to respond to client enquiries in a financial services environment	9302	2	
2	Accommodate audience and context needs in oral communication	8968	5	
3	Communicate verbally with clients in a financial environment	9303	3	7
1	Interpret and use information from texts	8969	5	7
5	Use language and communication in occupational learning programmes	8973	5	
5	Write texts for a range of communicative contexts	8970	5	

9	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	9015	5	
10	Apply problem solving strategies	14927	4	_
11	Engage in sustained oral communication and evaluate spoken texts	8974	5	-
12	Participate in groups and/or teams to recommend solutions to problems	14920	3	_
13	Read, analyse and respond to a variety of texts	8975	5	
14	Represent, analyse and calculate shape and motion in 2- and 3-dimensional space in different contexts	9016	4	
15	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	7468	2	
16	Write for a wide range of contexts	8976	5	
Cor	6		18	
No	Unit Standard Title	US ID	Credits	
17	Handle a range of customer complaints	10025	4	Customer Services
18	Comply with service levels as set out in a contact centre operation	10313	10	Computer Technology
19	Describe information systems departments in business organisations	14926	3	Computer Technology
20	Investigate the use of computer technology in an organisation	14963	6	Computer Technology
21	Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment	114636	6	Technical Suppo
22	Explain the principles of computer networks IVERSITY of the	14913	5	Technical Suppo
23	Demonstrate an understanding of testing IT systems against given specifications	14908	6	Technical Suppo
24	Describe the types of computer systems and associated hardware configurations	14921	6	Technical Suppo
25	Explain Computer Architecture concepts	14917	7	Technical Suppor
26	Explain how data is stored on computers	14944	7	Technical Suppor
27	Resolve computer user's problems	14919	5	Technical Suppor
29	Resolve technical computer problems	14938	5	Technical Suppor
		TOTAL	70	-
elec	tives			
No	Unit Standard Title	US ID	Credits	
30	Apply the principles of supporting users of local area networks	14937	7	Technical Support

31	Assemble a personal computer or handheld computer and peripherals from modules	14939	7	Technical Part 2	Support
32	Demonstrate an understanding of hardware components for personal computers or handheld computers	14934	7	Technical Part 2	Support
33	Demonstrate an understanding of computer network communication	14942	9	Technical Part 2	Support
		TOTAL	30		
Cre	dit allocation				
	Fundamental		tre la		
	Core		70		
	Electives		30		
	Total		168		

# Background to the delivery of the Learnership, National Certificate: Information Technology Technical Support NQF Level 4

For this specific group of learners, the starting date of the learnership at CS Services was during December 2003, and the end date at the new Private Provider was November 2004.

This learnership was initially offered by another company (CS Services – False Name), which was contracted to deliver the complete learnership. The initial group of learners who started the learnership at CS Services consisted of 80 learners. This learnership started during December 2003. After completion of the theoretical component of the learnership, no workplace was available where the learnership could be continued. These learners found them in a situation where the first company (CS Services) contracted for the learnership could not comply with the Service Level Agreement. It placed these learners in a vulnerable position, where they stood the chance to be denied the opportunity to qualify, as well as the opportunity to become more employable in this specific industry. The negativity experienced by the learners because of this situation, is well reflected by some of the respondents under questions 27 to 29. Comments were made concerning the lack of organisation from the Seta's side, and the time that went by before the new Private Provider took over and solve the problems. Jabu specifically

requested that companies should be investigated by Seta's to determine their ability to be involved in learnerships.

As CS Services did not comply with the Service Level Agreement with the ISETT SETA, and could not continue with the Structured Workplace Learning component, the new Private Provider was contracted to complete the learnership with 40 of the initial 80 learners. With commencement of the "rescue" project by the new Private Provider, several problems were identified. No information was made available by CS Services on the recruiting process they followed before commencement of the learnership. There was therefore no proof that all these learners did comply with the entry requirements of the learnership. Several assessments on the theoretical component were outstanding, and Portfolio's of Evidence were not completed up to the specific point of the learnership. When the learnership was taken over by the new Private Provider, no information relating to how the unit standards were incorporated into specific learning programmes or modules was made available to it. A complete skills analysis and gap training as earlier mentioned was therefore seen by the new Private Provider as a necessity.

The new Private Provider conducted a skills analysis and gap training of about two weeks, to ensure that the Structured Institutional Learning component of the learnership was completed. Thereafter the project continued over a 96 day period where the Structured Workplace Learning was covered at the workplace.

The following schedule was followed:

Skills programme	Date	Duration	Status
Induction and selection	28 April 2004	1 day	Completed
A+ and N+ Training	03 - 07 May 2004	5 days	Completed
Introduction to Comcell 4	11 May 2004	1 day	Completed
N+ practical and preparation	12, 13 May 2004	2 days	Completed
Start on project	17 May 2004	96 days	Completed

During May 17, 2004 the learners were placed by the Private Provider at a host workplace for the purposes of the Structured Workplace Learning. This host workplace was involved with a national project, where 29 000 computers of a National Government Department had to be visited as part of an audit, of which 11 000 had to be replaced. They completed this project during October 2004. During this period workplace assessments were done, and during November 2004 summative assessments were completed. The final moderation report was sent to the Isett Seta for Verification during December 2004.

#### **Profile of Learners**

As mentioned above, the total population of 40 learners were invited to take part in the survey; however, only 20 learners completed the survey. The group of respondents consists out of 15 men and 5 women. All of them are black Africans, with the majority in the age group 18 to 25 years. Only 4 were between 26 and 30 years of age at the time of the learnership.

Although all learners were unemployed at the time when the learnership began, the majority indicated that they were employed in the formal employment sector before. Only 3 of the respondents were previously employed in the informal sector and 1 had never been employed previously.

15 respondents said that the reason for entering the learnership was that they wanted to prepare themselves for employment. 12 of these learners were employed in the formal sector before, 2 were employed in the informal sector before, and 1 was never employed before. Out of this information, the assumption is made that the learners who experienced formal employment before realised that they were in fact not prepared for employment

before entering the learnership. One learner who also experienced formal employment said that he wanted to better himself in his job. The 4 remaining learners gave reasons such as to gain more knowledge and experience in the field.

Half the respondents had a higher qualification than just Grade 12. These qualifications included other National Certificates as well as Diplomas.

One learner with Grade 12 as the highest qualification indicated that there was some workplace experience applicable on the previous qualification, and two respondents with diplomas indicated that they also gained some workplace experience as part of their previous qualifications. Only Susan, Charles and Sam indicated that their previous qualification included some form of workplace experience.

A shortcoming of the research questionnaire is that it did not determine the kind of workplace experience to which the respondents referred. Therefore it cannot be confirmed if these respondents attended a technical school, college or technikon where some workplace experience was included as part of the qualification.

An interesting fact is that 17 of the respondents, according to the addresses given stayed in urban areas. These areas included Arcadia, Sunnyside, Centurion and Mabopane in Pretoria, Diepkloof, Meadowlands and Rockville in Soweto, Braamfontein Johannesburg, Germiston and the Midrand. All of these areas have no problems with electricity and the availability of infrastructure such as Internet Café's. The remaining 3 respondents did not indicate an address at all.

#### The Learnership and Employability

Although Becker (1964:1) states that education and training is the most important form of investment in Human Capital, education does not automatically cause better productivity and increased earnings. Employment is a crucial factor to facilitate it.

In question 6 of the research questionnaire, the question was asked: "Why did you enter this learnership?"

75% of the respondents indicated that they entered the learnership to prepare themselves for employment. Sammy indicated that he wanted to better himself in is job.

The other four respondents specified other reasons namely:

Mokgadi said she wanted to get more knowledge about computer technology. Charles said he wanted to gain more practical experience. Oupa said he wanted to increase his skills and acquires more knowledge. Sam said it has always been his dream to learn IT.

Out of the response on question 6, it is clear that the majority of the respondents were concerned about employment as a factor for success. They believed that the Structured Workplace Learning component could enhance their employability, and even secure employment.

These respondents realised that although they were going to gain extra skills and knowledge that it was not going to be enough to ensure employment. Practical experience, as mentioned by Charles, as well as the exposure to real life working situations assisted with that preparation for employment. Exposure to real life working situations therefore adds to the learning experience. Boud and Garrick (1999:6) state that the workplace has become a site of learning where individuals can enhance their knowledge and skills to capacitate them as employees.

#### Unit standards applied in the Structured Workplace Learning component

The research also investigated the extent to which the core and elective unit standards of this learnership were applied in the Structured Workplace Learning component. The data received indicated that the majority of learners felt that the unit standards included in the questionnaire was indeed applied either to some degree or regularly during the Structured Workplace Learning component. Of the total 12 Core Unit Standards and 11 Elective Unit Standards, 79% of these unit standards were indicated as applied regularly. 17% of

these unit standards were indicated as applied to some degree. 4% of these unit standards were rated equally between "applied to some degree" and "regularly", and no unit standard had a majority vote for "applied not at all". The Unit Standards which were rated very high as "regularly applied" included the following:

Core 14921: 85%;

Core 14944: 90%;

Core 14919: 95%;

Core 14938: 95%;

Elective 14934: 80%;

Elective 14931: 79%; and

Elective 14943: 85%.

80%;
79%; and
UNIVERSITY of the

The highest ratings for Unit Standards only "applied to some degree" were the following:

Core 14913: 50%;

Core 10313: 60%;

Core 14908: 50%; and

Elective 14935: 50%.

The highest ratings for Unit Standards "applied not at all" were the following:

Core 14926: 28%; and

Elective 14953: 30%.

This gives an indication that the Core and Elective Unit Standards were indeed applied

during the Structured Workplace Learning component, and also seen by the majority of

the respondents as applicable on the specific industry.

Structured Workplace Learning component and employability

The conclusion is made that these learners were unemployed because of a lack of

opportunity to gain experience in the workplace. It therefore seems imperative that

theoretical learning should be complemented with a Structured Workplace Learning

component, allowing learners the opportunity to gain workplace experience.

During the transition from CS Services to the new Private Provider, all learners were still

unemployed. After completion of the learnership, only Josef, Charles, Godfrey and Joe

were not employed. Josef indicated that he is busy with a new Learnership, and Charles,

Godfrey and Joe indicated that they are busy with other studies. Of the other 16

respondents, 8, including all the women, were in full-time employment; and 4 in

temporary employment.

This change in employment status may be an indication that the critique from Brown

(2001:11) on the Human Capital Theory that it may lead to more unemployment is not

valid.

The reason for the change in status from unemployed to employed was determined

through several questions in the questionnaire. The cases where the Structured Workplace

Learning component was specifically indicated as the main reason will be discussed

under this heading. 19 respondents indicated that they definitely felt that the Structured

Workplace Learning component was essential to make them employable.

- 49 -

15 of the respondents indicated that they definitely gained the necessary practical experience to make them more employable, and the rest indicated that they gained practical experience to some degree, that made them more employable. The other 5 respondents indicated that they gained experience to some degree. No learners disagreed with this.

The majority learners also indicated under question 23 that they definitely or to some degree gained experience during the Structured Workplace Learning component, that made them more employable for other industries. The following motivations were given under question 24 in this regard.

Gaining confidence was singled out as a main factor that made the respondents believe that they are also employable for other directions. Thabo said that the Structured Workplace Learning component built his self esteem. It taught him to handle pressure and difficult clients. Sammy said he felt more skilled because of the Structured Workplace Learning component. Josephine, Josef and Charles also mentioned that they gained more confidence.

Another aspect that also came out is the improvement of communication skills. Innocentia and Monica both mentioned that their communication skills improved. Godfrey said that he is ready to work in Call Centers, administration related jobs, and where he has to work with customers. Denver mentioned that he gained some leadership skills, and that he believes that he will be able to get a job in other sectors.

These kinds of responses are also a clear indication that CCFO's have been addressed during the Structured Workplace Learning component.

As mentioned earlier, all learners who entered the learnership with CS Services initially were unemployed at the time. The fact that learners felt that they became more

employable because of the learnership could only be supported if the learners got employment after completion of the learnership.

#### Structured Workplace component, Communication skills and employability

Respondents were also given the opportunity to elaborate in an open ended question (question 14), on any other factors from the Structured Workplace Learning component that they felt contributed to their employability. The main issue that was reported in this case was the communication and interpersonal skills that were gained because of the Structured Workplace Learning component. Although communication was covered during the fundamental unit standards, and not included in the questionnaire as such, the Structured Workplace Learning component of the learnership was seen as an area where communication and interpersonal skills were mainly developed. This would not have been possible if the learners had not been introduced into a formal workplace. The specific fundamental unit standards that cover communication and interpersonal skills during this learnership are Communicate verbally with clients in a financial environment, Use language and communication in occupational learning programmes, Write texts for a range of communicative contexts, Apply comprehension skills to engage oral texts in a business environment, Apply comprehension skills to engage written texts in a business environment, Engage in sustained oral communication and evaluate spoken texts, Participate in groups and/or teams to recommend solutions to problems, and Read analyze and respond to a variety of texts.

Jabu referred to "customer satisfaction" and "interpersonal skills" that was developed during the Structured Workplace Learning component. Thabo referred to the users whose complaints he had to attend to during the Structured Workplace Learning component. Innocentia said she was part of a winning team. Josef also mentioned customer service, and Samson also mentioned that his "communication skills improved drastically". Josephine covers this issue the best by saying the following in response to this question:

"I never was involved Customers now i am confident i can tolk to Customers, handle problems and give them the best service they need."

The above-mentioned responses given also indicate that the following Critical Cross-Field Outcomes as discussed in the literature review were achieved:

"Identify and solve problems using critical and creative thinking."

Thabo mentioned that attending to complaints taught him about solving problems. Josephine mentioned that she never had the chance to work with customers before. She now feels confident that she can handle their problems and give them the best service they need.

"Work effectively in a team using critical and creative thinking activities."

Innocentia referred to being part of a winning team helped them to deliver in time.

"Collect, analyse, organise and critically evaluate information."

Mokgadi specifically referred to the fact hat she had to configurate e-mail and exchange servers, and she had to set up software and hardware.

Communicate effectively, using visual, mathematical and language skills."

Samson mentioned that his communication skills improved drastically.

#### Finding employment after completion of the learnership

Although learnerships, according to government, are only aimed at improving a learner's chances for employment, (therefore creating better employability), it was also important to see whether the learners did in fact gain employment after completion of the

learnership. Question 18 to 22 addressed this issue. An interesting fact apparent from the responses was that only Thabo, Samson and Denver were permanently employed by the hosting company after completion of the learnership. A possible reason for this phenomenon was given by Oupa, by saying the following:

"Yes. Learners should be given more time on the workplace environment to show off their skills and even to compete with those who are already busy working and having solid experience so that they should share the knowledge as we all know that in IT industry no has ever know enough"

The conclusion is therefore drawn that the competition was very strong between the 40 learners. This also allowed the workplace provider to choose the best candidates for permanent employment.

The above-mentioned is also a clear indication how Methodological Triangulation was used within this research process. The qualitative data received out of the questionnaire, question 18 to 21, could have given a wrong impression if it was not supported by the responses of qualitative question 22. Where quantitative methods relies on statistical data, either numbers or close-ended questions where only certain answers can be given, qualitative methods offer access to attitudes and values, flexibility and exploration of suppressed views (Seale, 2004:182).

Of the remaining 16 respondents, 8 indicated that they were employed by another employer after completion of the learnership. Daniel, Oupa, Sam and Simon indicated that they became self-employed. Only Victor indicated that he could not get a job at the time the questionnaire was completed.

It therefore indicates that although workplaces are willing to allow learners to gain practical experience during a learnership, it may happen that such learners will still have to get other employment opportunities at other workplaces after completion of the learnership. Out of the 20 respondents, 15 did get employment. Oupa, however, did

indicate under question 21 and 22 that some of the employment was/is only temporary.

Lees (2002:2) differentiates between the two concepts "employment" and "employability". He states:

"being employable means having the qualities needed to maintain employment and progress in the workplace"

Having the necessary qualities however do not always help to maintain employment. Oupa mentioned that the lack of a driver's license was the main problem why fulltime employment was not possible. There are therefore many other reasons other than qualities obtained through skills development that may cause that employment cannot be maintained. It may be a lack of transport, or other infrastructure that do not allow people to maintain employment. The balance between what is invested in Human Capital, and what is invested in infrastructure has been pointed out in the literature review as very important to ensure future employment (Van Tonder, 2005:10).

The last 4 learners gave the following reasons for not getting employed: Josef indicated that he/she is busy with a new learnership and Joe, Godfrey and Charles indicated that they were busy with other studies. Godfrey also indicated in a response under question 26, that this learnership contributed to the success he has with his new studies.

#### Self-confidence and obtaining employment in IT and other industries

Although learners were subjected to a learnership applicable to a specific industry, the research questionnaire also aimed to determine if these skills were applicable on other industries.

With question 15, respondents were asked whether they felt these new skills were only usable in the IT industry. 13 of the respondents indicated that they felt these skills were also usable in other industries. Although all respondents indicated that they achieved confidence in getting a job in the IT Industry. All 16 of the respondents indicated that this

confidence was gained because of the Structured Workplace Learning component of the learnership. These learners could therefore break through the barrier mentioned by Vorwerk (2000:60)

Only Jabu, Sam, Innocentia, Charles, Oupa, Denver and Josef indicated that they felt the Structured Workplace Learning component did not enhance their employability for other industries. Questions 23 to 26 specifically looked at the possibility of getting employment in sectors other than the IT sector. 16 of the respondents showed a better confidence level for getting employment in industries besides the IT sector. Issues such as self esteem, the development of interpersonal skills were mentioned as reasons why they felt their confidence levels increased.

### Improvements suggested to the Structured Institutional Learning component

Responses of specific value applicable to the Structured Institutional Learning component of the learnership included advice to the Isett Seta about more effective communication to learners. Susan blamed the lack of proper communication from the Isett Seta as the main reason why the learners became negative. She also complained about the fact that CS Services did not communicate the changes and problems with them.

Mokgadi, Charles, Godfrey and Oupa felt that the Structured Institutional Learning component was in detail and did not have any improvements to suggest. Josef, Samson, Victor and Monica also indicated that they did not have any suggestions about the improvement of the Structured Institutional Learning component. However, detailed reasons were not given by them.

Denver felt that there should have been more time available for studying.

Other suggestions included the mixture of the Structured Institutional Learning component and the Structured Workplace Learning component. Sammy said the following in this regard:

"I think they should do a bit of both at the same time, theoretical and practical".

Daniel confirmed this statement by suggesting that after each theoretical component, the learner must get the chance to practice it in the workplace.

Other suggestions to include more practical issues within the Structured Institutional Learning component came from Thabo. He said that the more physical aspects such as the building of PC's in class should be done more consistently. Care must however be taken by the training provider that such practical aspects in class is not used to try and simulate the workplace. Simulation of a workplace can happen during the Structured Institutional Learning component, but it must be followed up by a Structured Workplace Learning component in a real workplace. Johnson and Burden (2003:39) state that there is a limitation to the extent teaching and learning can take place through simulations, "even where extreme efforts are made to simulate the work situation".

It must also be mentioned that the research questionnaire did not allow the respondents to clearly indicate if they were referring to the Structured Institutional Learning component presented by CS Services, or if they were referring to the two weeks gap training presented by the new Private Provider.

#### Improvements suggested to the Structured Workplace Learning component

Responses of specific value applicable to the Structured Workplace Learning component of the learnership included the following:

Jabu suggested that when workplaces are identified for the Structured Workplace Learning component that it is workplaces where a real need for permanent employees exist. He said that companies should be evaluated in this regard to ensure that all learners do stand a chance to get full time employment after completing the learnership.

Mokgadi mentioned that the chance to work together with more experienced IT people during the Structured Workplace Learning component was of specific value to her. She also said that this approach make it much easier for learners to gain experience. William saw the Structured Workplace Learning component as an opportunity to show off his skills in the field, which can also lead to permanent employment.

Thabo suggested the rotation of tasks at the workplace. He argued that it will allow an opportunity for the learner to learn different tasks within the specific company. Daniel agreed with this statement by saying that the focus must be on more than one area in the workplace. Sammy however said in this regard that workplaces must keep in mind that they are only learners, and it cannot be expected from them to be skilled in everything.

William requested more time in the workplace to ensure more experience in the field. He felt that more time will allow the learners to compete with the more experienced people. He said that showing off skills in this way can also ensure a better chance for permanent employment.

Susan mentioned communication as a field for improvement. No specific reasons however were given.

Samson, Monica, Denver and Sam indicated that they had no improvements to suggest. Josef and Victor commended the new Private Provider for the efforts concerning the Structured Workplace Learning component.

## Other suggestions applicable to the learnership and employment

It is clear out of the responses that the fact that it became necessary to move the learners from CS Services to the new Private Provider was seen as a negative factor on this learnership. CS Services could not comply with the contract with the Isett Seta, and learners saw it as a flaw on the side of the Isett Seta. Jabu made it clear that the learners had to suffer for the disorganized way in which the learnership started at CS Services.

Thabu agreed by saying that the same problems should not occur again with future learnerships.

Permanent employment and the ways to achieve it were also raised as a major issue. Susan said that at least 90% of learners should have a permanent job after completing a learnership, and the other 10% should be able to start their own businesses. She suggested the inclusion of business skills in the curriculum of the learnership.

Innocentia suggested that lesser learners should be placed in a company for the Structured Workplace Learning component. She felt that too many students at one workplace will decrease chances for full time employment in that specific company.

Sam suggested an extension of the learnership to two years, of which at least one year should be the Structured Workplace Learning component. He said that it will give especially unemployed learners a real chance to get a job afterwards.

The delay in the issuing of certificates by the Isett Seta was also criticized. Josef and Monica and William mentioned the delay in the issuing of certificates as a negative fact. William said that the lack of certificates caused prospective employers to still see them as unqualified, therefore not suitable for employment.

Several negative comments were made about the incompetence of CS Services, and the chaos it caused. However, it is clear from the comments of the respondents that the way the Isett rectified the situation by appointing a new Private Provider to take over, and the way this Private Provider completed the learnership was seen in a very positive light. Mokgadi said that the Isett Seta and this Private Provider had outdone themselves with a good job done. Oupa also wanted to sincerely thank the Isett Seta and the Private

Provider for offering the learnership to him. Godfrey thanked one of the managers of the

"THANK YOU VERY MUCH, TAU, TILL I HEAR FROM YOU, SIR".

Private Provider by saying the following:

#### Summary of main results - positive and negative

The outcome of this research project clearly indicated that learnerships do contribute to better employability, which as mentioned, is a crucial factor to complete the full cycle of the Human Capital Theory. However, the Structured Workplace Learning component was clearly indicated as the determining factor to create better employability.

It is, therefore, essential that the unit standards applicable to specific learnerships must be a true reflection of what is really needed in the workplace.

The research also indicated that learners became more employable for other industries besides the ISETT Sector.

A negative aspect clearly indicated by the respondents is that the learnership had to be moved from one company to the next in order to complete the learnership.

A further negative aspect from this research, (not specifically tested), is the fact that the verification process by the ISETT SETA was only completed during November 2005. Learners were therefore waiting for their certificates from the ISETT SETA. Godfrey said the following in this regard:

"Present us with our certificates in time, because we are losing out on employment as we are not yet 'qualified'."

The researcher could not determine the reason for this delay by the ISETT SETA ETQA.

The conclusion can be made that a Learnership, specifically the Structured Workplace Learning component, increases confidence in obtaining employment and the possibility of getting employment.

The learnerships as presented by the Private Provider during this specific case study, confirmed the Hypothesis.

There are several factors that do not allow the researcher to make the same conclusions concerning learnerships that are presented by other companies. These factors include

aspects such as the experience level of managers, facilitators, and mentors etc., who are involved in the daily management and presenting of learnerships.

#### Reflections on use of research methods

As mentioned in section 3 of this document, Methodological Triangulation is the most and widely used method of combining different research methods. According to Denzin, this "ideally involves a 'between-method' approach which can take several forms (Seale, 2004:78).

Huysamen (1998:128) says the following about using both open- and close-ended questions:

"The questions in questionnaires or interview schedules may be open-ended so that respondents have to formulate responses themselves, or they may be of the multiple-choice variety in which respondents have to select, from among two or more alternative responses; the one which best applies to them."

Within the research questionnaire close-ended questions were used to ensure that the respondents address the issues that were seen as important for this study, and as per the triangulation method, open-ended questions were added to allow respondents to elaborate where they felt it was necessary. However, Huysamen (1998:129) also states that although open-ended questions give more freedom for the respondent, it makes the analysing of the data more difficult. For this reason, as well as the fact that most of these learners were not available for close contact sessions, the majority of the questions asked were of the quantitative nature (close-ended and multi-choice). An example of such a situation where answers on an open-ended question did not have any value is the following:

Question 14 of the questionnaire asked "what other factors from the Structured Workplace Learning component, not mentioned as part of the unit standards in the

previous question, can you say contributed to your employability? Susan answered the following: "Making Money".

Jabu mentioned issues that he felt should have been addressed, and therefore did not answer the question correctly:

"Networking was not included. Lan, wan, can, Customer Satisfaction Interpersonal Skills".

Answers in this case which had value were from Josephine and Charles.

"I never was involved Customers now i am confident i can tolk to Customers, handle problems and give them the best service they need."

"I can say setting up of IP Addresses and I also have a thorough knowledge of Network Cabling, so I can say I am more prepared to work as Network Controller/LAN."

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Although Jabu answered the question wrong, his answer is also contradictory to what Josephine said about the handling of customers. Jabu's comment concerning Networking, LAN etc is also contradictory to what Charles mentioned in his response where he specifically mentioned that he feels now more prepared in the field of Networking.

#### Section 5 - Conclusions and Recommendations

#### Summary and Discussion of Salient Points

As mentioned earlier, there were problems getting the research questionnaire to the e-mail addresses of the total population. However, the second option of placing the URL link on the Private Provider web site, prompted learners to respond. A salient point in this regard is that so many learners did participate in the survey.

The research data also showed that the learners attended the learnership with the specific idea to better their opportunities for employment.

The transfer of this learnership from CS Services to the new Private Provider also played a role in the learner's feeling towards learnerships in general. Learners were very negative during the transfer process, and blamed CS Services and the ISETT SETA for the situation. After joining the new Private Provider, the learners became positive towards the learnership and the ISETT SETA once again.

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## Linking findings and the Literature Review

From the literature review and the analysis of the research data, it is clear that in regards to learnerships, the South African Government has the goal to develop not only individuals, but also the economy of the country.

The core function of learnerships is to address and redress inequalities, to empower people in such a way that they can become more employable, and also to ensure economic growth for all learners who take part in learnerships. Learnerships are purposely developed to integrate theoretical learning and workplace learning.

The Human Capital Theory, as mentioned, neglects employment, which is according to me, a crucial factor which serves as the platform on which better productivity and increased earnings can be established.

The Structured Workplace Learning component, as part of the integrated skills development process, has been identified as the most important to create better employability. Employability was discussed in detail, to clearly indicate what is meant by it, and when a person can be considered as employable.

Learnerships do not only address individual development, but also economic development for the individual, the organisation in which the learner operates, as well as the country as a whole.

## Anomalies, surprise findings, deviations and possible reasons for them

The only anomaly identified by the learners during this case study is that the learners had to be transferred from one company, (who could not complete the learnership), to the new Private Provider, which was able to complete the learnership successfully.

In the future, such a situation should be avoided at all costs, as far as it is possible for SETA's. However, under the awkward circumstances, the ISETT SETA did handle the situation in an appropriate and effective manner.

A possible reason for this situation was that CS Services was seen as one of the major role players in the ISETT Industry. Although big in the industry, I do not think that training and education, and specifically the management of learnerships, can be seen as the core function of CS Services. The lack of skills in this environment most probably caused the situation.

One specific surprise finding that is worth mentioning, is that although the majority of learners did get employment, only a small number of them got employment at the workplace that provided the Structured Workplace Learning.

Two possible reasons are identified in this regard.

The national project, of which the learners were part, was a once-off project that was very labour intensive. Secondly, the extra labour was only needed until the end of the project. Only the best were employed after completion.

However, the fact that the majority of learners still obtained employment at other places, once again confirms the success of the learnership, and also contributed to the completion of the cycle of the Human Capital Theory.

#### Larger relevance of study, and aspects that may need further research

I agree that the Human Capital Theory provides the most compelling arguments for learnerships as integrated skills development system. If possible, further research should be done on this group of learners at a later stage, to specifically test better productivity and better earnings, as part of the Human Capital Theory.

## Possible implications of study on policy or practice of the

Although it is not possible to generalise this study on all learnerships presented by other providers, it seems that this study confirmed that Government, SAQA and the SETA's, are on the right track with learnerships.

However, further research on learning theories, specifically applicable to learnerships, may have an implication on Government Policies and SETA practice in the future.

It is recommended that further research be done on this group of learners, to determine sustainability of employment after at least a year after completion of the learnership. It is also recommended that similar studies be done on other learnerships presented by other companies, to determine if similar findings can be made.

#### Conclusion

I want to conclude with a quote from the Chief Executive Officer of the ISETT SETA, Mr Oupa Mopake, which again confirms the importance of employment, before better productivity and increase earnings can become a reality. He said in The Business Day of 29 July 2004 the following:

"We are sometimes accused of putting people through learnerships, and they end up roaming the streets without employment. Every job seeker knows experience is irreplaceable. You can have all the qualifications in the world, but without experience, the chances of finding a job are extremely slim. This workplace training will remove that problem."

This case study showed Mr Mopake to be correct. The Structured Workplace Learning component was singled out as one of the main reasons why learners felt they are more employable, and that they also have much more confidence in securing employment, not only in the ISETT Sector, but even cross sectoral.

### UNIVERSITY of the

In specific, the IT Technical Support Learnerships presented in South Africa by a Private Provider between August 2003 and December 2004, contributed to employability.

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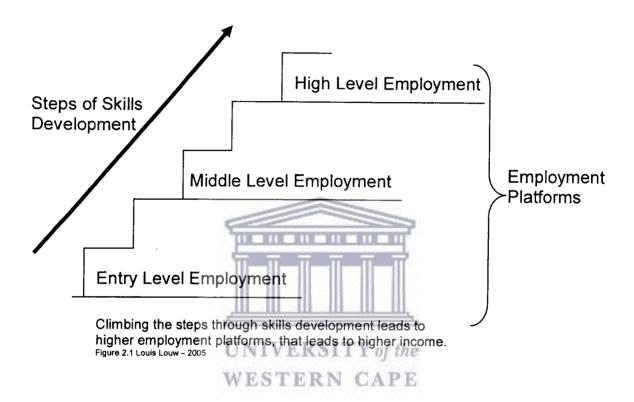
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## Appendix 1

#### Increasing income through Skills Development



## Appendix 2

## **Zoomerang Research Questionnaire**





This research questionnaire is applicable on learners who completed the National Certificate in Information Technology: Technical Support Learnership - NQF Level 4 at Desto (Pty) Ltd at the end of 2004. As researcher, Louis Nel Louw (Tau), I give my assurance that personal information or information about the workplace that provided the practical workplace experience, will not be made public to any entity. Only the results of the research will be made available to third parties such as the Isett Seta and Desto Management.

Complete the following details if available. It will only be used by the researcher for administration purposes, and will not be mentioned in the research findings or reports. If all these details are not available, complete only your name.

Name:	
Company:	
Address 1:	
Address 2:	
City/Town:	
State/Province:	
ip/Postal Code:	
Country:	
Email Address:	

2

What is your Gender?

Male Female 3 Race? African Indian Coloured White 4 What is your current age? Between 18 and 25 Between 26 and 30 Between 31 and 35 UNIVERSITY of the Above 35 WESTERN CAPE 5 Can you please give some historical background on your employment: Never employed before Have only been employed in the informal sector before Have been employed in the formal sector before Currently employed 6 Why did you enter this Learnership? To prepare myself for employment

		To better m	yself in my j	ob			
		To receive an allowance					
	2	Other, Please Specify					
					<del></del>		
7	BEN	EFIT DERIN	/ED FROM <sup>-</sup>	THE LEARNERS	HIP:		
	Stron	1 gly Disagree	2 Disagree	3 No Opinion/ Neutral	4 Agree	5 Strongly Agree	
	The	learnership	increased m	y interest in the s	subject		
		1 1	2	3	4.		
	Havi	ng complete	ed the learne	rship, I feel knov	vledgeable i	n the subject	
		1 chellissi	112	Arabanda ir	4	5 No rough	
	The	learnership	contributed	to the completen	ess of my e	ducation	
		1		Salestan I	4 June 1907 sei	5	
	I fee	I more empl	oyable withi	n the IT Industry	the		
		1	WEST	ERN CA	PE <sub>4</sub>	5 Marianto	
	I fee	I more emp	loyable for o	ther industries as	s well		
		1	2	saretunid"	4	5 months of	
		I that this le loyed	arnership ind	creased my chan	ges to beco	ome self	
		1	and the state of the	Astrono +	4	בייפונוניייי	
Learne and De	rships ecemb	presented i	in South Afri pecific contr	mine whether the ca by Desto (Pty ibuted to employ	) Ltd betwee	en August 2003	

a) What was your highest qualification before you entered the

	learnership?
	Do not have Matric/Std 10/Grade 12
	Matric/Std 10/Grade 12
	National Certificate
	Diploma
	Degree
9	b) Did the studies mentioned under question 8 above include a workplace experience component?
	Yes
	No III
10	e) Do you think that workplace experience is essential to make you more employable?
	Definitely WESTERN CAPE
	Not sure
	Not at all
11	a) Did you gain any practical experience during the workplace learning component of the learnership, that you can say added to your employability?
	Definitely
	To some Degree
	Not at all

12	If your answer why you say th		: at All", give a short descri	ption of the reason
				<u>.</u> 1
	•		etermine what part of the place your employability.	oractical workplace
13	Which of these	unit star	and Elective Unit Standar dards were applied the merience component?	
	1	ما مد مال	2	3 Was applied regularly
	Was not applie	eo at all	Applied to some degree	vvas applied regularly
			ate an understanding of pr ental and safety issues in	
	<u>1</u>	Щ.	2	3
	Core 14913 Ex	oplain the	principles of computer ne	tworks
	_1	WE	STERN CAPE	3
	Core 10313 Co	omply wit	h service levels as set out	in a Contact Centre
	1		2	3
	Core 14908 De against given s		te an understanding of tes ions	ting IT systems
	<b>1</b>		2	<b>3</b>
	Core 14926 De organisations	escribe in	formation systems depart	ments in business
	1		2	3
	Core 14921 De		ne types of computer syste	ms and associated
	1		2	.3.

Core 14917 Explain computer architecture concepts

.1	2	<b>3</b>
Core 14944 Explain ho	ow data is stored on com	outers
. <b>1</b> .	<b>2</b>	<b>. 3</b> .2
Core 10025 Handle a	range of customer comple	aints
1	2 woman s	<u>3</u>
Core 14963 Investigate organisation	e the use of computer tec	hnology in an
1 marine copyes	<b>2</b> name:	3
Core 14919 Resolve of	omputer user's problems	
<b>1</b>	. 2	<b>.3</b> .:
Core 14938 Resolve te	echnical computer probler	ms
1 🖷	-2	3
Elective 14937 Apply the	ne principles of supporting	g users of local area
1 ===	<u> </u>	<u>3</u>
Elective 14939 Assemble and peripherals from m	ble a personal computer codules	r handheld computer
1	2	3 ************************************
Elective 14942 Demons	strate an understanding o	f computer network
ya.ma.c.	2	<b>3</b> watere
	strate an understanding o or handheld computers	f hardware components
1	2 REGISTRAL	3
Elective 14929 Describe	e computer cabling	
<u>1</u>	2	<u>3</u>
Elective 14953 Install a	local area network	
1 .	2,	3

Elective 14950 Install a personal computer or handheld computer and

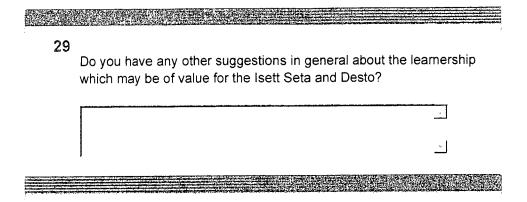
	periprierais		
	.1	.2.	<b>3</b>
	Elective 14931 Ins	tall networked computer appli	cation software
	1	2	3 ************************************
		tall system software and appli or hand-held computer	cation software for a
	1.	.2	3
	Elective 14940 Re module level	pair a personal computer or h	and-held computer to
	1	2	<b>3</b>
	Elective 14935 Re	pair peripherals for a persona le level	l computer or handheld
	1 souther	2	parent
14	not mentioned as	from the practical workplace part of the unit standards in th buted to your employability?	experience component, e previous question,
	V	VESTERN CAP	E
Answer	the following suppo	orting questions below.	
15	/	t the skills learned during this stry applicable to the learners	
	Yes		
	No		
		A ANG MENGALIFICATION OF THE SECRETARIAN PARTY AND	Mikari Managaran ya ya da ya ya ya managara kirin kirin kirin kirin kirin ka ka ka mamada wakirin a a mama ka Mikari Managaran kirin kirin kirin ka managara kirin kir
16	b) Do you have m	ore confidence in getting a job	o in this industry after

having completed the workplace experience component?

	Yes
	No
17	c) Would you have the same confidence if you only completed the theoretical part of the learnership?
	Yes
	No No
Answer complet	the questions below to determine whether you found employment since ing the learnership.
18	a) Were you appointed after completion of the learnership by the workplace provider who provided the practical workplace experience component?
	Yes WESTERN CAPE
	No
19	b) If your answer for question 18 above was "no", were you appointed by any other employer after completion of the learnership?
	Yes
	No
	Not applicable, my answer for question 18 was YES
	c) If your answer for question 19 above was "no", did you become self- employed or could you use the skills learned during the learnership to earn an income on your own?

Yes No Not applicable, my answer for question 19 was YES 21 If not employed, choose one of the following reasons Busy with new learnership Busy with other studies Cannot get a job Not Applicable, I am employed Other 22 If other, explain shortly. . Answer the questions below to determine whether the practical workplace experience component of the learnership improved your employability in more occupations than only the direction of the learnership. 23 a) Did the exposure to a practical workplace environment improve your chances of employability in other directions than the learnership? Definitely To some degree Not at all

24	4	1
	Motivate your answer:	
		ন
		<u>· 1</u>
25	b) Do you have more confidence in getting a job in any other i after completing the workplace experience component?	ndustries
	Yes	
	 No	
	140	
26		•
	Motivate your answer:	
		]
		_
	UNIVERSITY of the	
	ete the following to support the development and presentation of	future
learners	ships in this particular field.	
27	Do you have any suggestions for improving the theoretical lear component of the learnership?	ning
		J
28	Do you have any suggestions for improving the practical workp experience component of the learnership?	lace



I thank you for completing this research questionnaire. If necessary, a follow-up questionnaire will be forwarded for completion. Your contribution in this regard will be used to motivate changes to learnerships if necessary. Desto (Pty) Ltd also wishes you all the luck and success for your future. Greetings from Louis Louw (Tau).

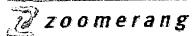


Survey Page 1

## Appendix 3

## **Quantitative Research Results**





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Responses:

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Receive results in spreadsheet format

Survey Results (included Responses)

Learnerships and Employability: A Case Study of Desto (Pty) Ltd Learnerships in the IT Sector between 2003 and 2004. National Certificate in Information Technology: Technical Support: SAQA ID 24293 NQF Level 4 - Gijima Project

Report created on: Apr 26 2005 7:15AM

The results of your survey are displayed below. If your survey includes text responses, click the "View" button to read individual results.

As a reminder, survey results are maintained for a period of 10 days after

You may view reporting on a maximum of responses per survey. To view reporting on more than responses or to increase your storage time, become a zPro member.click here

Or contact Support for more options.



Launch Date	Apr 18 2005 2:56AM
Close Date	
Email Invites	0
Visits	43
Partials	0
Completes	20

Image: New Desto Logo Small.jpg

This research questionnaire is applicable on learners who completed the National Certificate in Information Technology: Technical Support Learnership - NQF Level 4 at Desto (Pty) Ltd at the end of 2004. As researcher, Louis Nel Louw (Tau), I give my assurance that personal information or information about the workplace that provided the practical workplace experience, will not be made public to any entity. Only the results of the research will be made available to third parties such as the Isett Seta and Desto Management.

Complete the following details if available. It will only be used by the researcher for administration purposes, and will not be mentioned in the research findings or reports.

1.If all these details are not available, complete only your name.

20 Responses

2. What is your Gender?

Male

Male

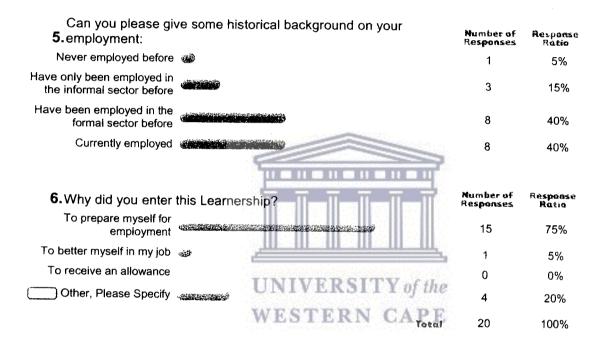
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3.Race?

imber of Response isponses Hatio

African	20	100%
Indian	0	0%
Coloured	0	0%
White	0	0%

4. What is your current a	age?		Number of Responses	Response Ratio
Between 18 and 25			16	80%
Between 26 and 30			4	20%
Between 31 and 35			0 .	0%
Above 35	•		0	0%
		Total	20	100%



#### 7. BENEFIT DERIVED FROM THE LEARNERSHIP:

The top percentage indicates total respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Strongly Disagree	2 Disagree	3 No Opinion/ Neutral	4 Agree	5 Strongly Agree
1. The learnership increased my interest in the subject	0%	0%	10%	35%	55%
	0	0	2	7	11
Having completed the learnership, I feel knowledgeable in the subject	0%	0%	5%	45%	50%
	0	0	1	9	10
The learnership contributed to the completeness of my education	0%	10%	10%	55%	25%
	0	2	2	11	5
4. I feel more employable within the IT Industry	0%	5%	20%	30%	45%
	0	1	4	6	9
5. I feel more employable for other industries as well	0%	20%	30%	<b>45</b> %	5%
	0	4	6	9	1
6. I feel that this learnership increased my changes to become self employed	5%	15%	5%	<b>45%</b>	30%
	1	3	1	9	6

Answer the questions below to determine whether the IT Technical Support Learnerships presented in South Africa by Desto (Pty) Ltd between August 2003 and December 2004 in specific contributed to employability within the IT Technical Support sector.

<ul><li>a) What was your highest qualification before you entered the</li><li>8.learnership?</li></ul>	Number of Responses	Response Ratio
Do not have Matric/Std 10/Grade 12	0	0%
Matric/Std 10/Grade 12	11	55%
National Certificate	5	25%
Diploma (A)	5	25%
Degree	. 0	0%
b) Did the studies mentioned under question 8 above include a <b>9.</b> workplace experience component?	Number of Responses	Response Ratio
Yes Caracana	3	15%
No	17	85%
e) Do you think that workplace experience is essential to make 10. you more employable?  Definitely  Not sure  Not at all	Number of Responses 19 0 0	Response Ratio 100% 0% 0%
a) Did you gain any practical experience during the workplace learning component of the learnership, that you can say added to 11.your employability?  Definitely	Number of Responses	Response Ratio 75%
To some Degree	5	25%
Not at all	0	0%
12. If your answer was "Not at All", give a short description of the reas	on why you	say that:

Answer the questions below to determine what part of the practical workplace experience component improved your employability.

Rate the following Core and Elective Unit Standards of the Learnership. Which of these unit standards were applied the most during the practical workplace experience

13. component?

The top bercentage indicates lotal respondent ratio; the bottom number represents actual number of respondents selecting the option	1 Was not applied at all	Applied to some degree	3 Was applied regularly
Core 114636 Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment	5%	40%	55%
	1	8	11

<ol><li>Core 14913 Explain the principles of computer networks</li></ol>	5%	50%	<b>45%</b>
	1	10	9
<ol> <li>Core 10313 Comply with service levels as set out in a Contact Centre Operation</li> </ol>	15% 3	60% 12	25% 5
<ol> <li>Core 14908 Demonstrate an understanding of testing IT systems against given specifications</li> </ol>	5% 1	50% 10	<b>45%</b> 9
<ol> <li>Core 14926 Describe information systems departments in business organisations</li> </ol>	28% 5	33% 6	39% 7
<ol><li>Core 14921 Describe the types of computer systems and associated hardware configurations</li></ol>	5% 1	10% 2	85% 17
<ol><li>Core 14917 Explain computer</li></ol>	10%	30%	60%
architecture concepts	2	6	12
Core 14944 Explain how data is stored on computers	0%	10%	90%
	0	2	18
<ol><li>Core 10025 Handle a range of</li></ol>	5%	35%	60%
customer complaints	1	7	12
<ol> <li>Core 14963 Investigate the use of computer technology in an organisation</li> </ol>	5% 1	32% 6	63% 12
11. Core 14919 Resolve computer user's problems	0%	<b>5%</b>	95%
	0	1	18
12. Core 14938 Resolve technical computer problems	0%	5%	95%
	0	1	19
<ol> <li>Elective 14937 Apply the principles of supporting users of local area networks</li> </ol>	5% 1	20%    4	75% 15
14. Elective 14939 Assemble a personal computer or handheld computer and peripherals from modules	0% 0	40% 8	60% 12
<ol> <li>Elective 14942 Demonstrate an understanding of computer network communication</li> </ol>	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	RSIT <sub>42%</sub> f the	53% 10
16. Elective 14934 Demonstrate an understanding of hardware components for personal computers or handheld computers	5% 1	15% 3	80% 16
17. Elective 14929 Describe computer cabling	5%	40%	55%
	1	8	11
18. Elective 14953 Install a local area network	30%	15%	55%
	6	3	11
<ol> <li>Elective 14950 Install a personal computer or handheld computer and peripherals</li> </ol>	5% 1	20% 4	75% 15
20. Elective 14931 Install networked computer application software	5%	16%	79%
	1	3	15
21. Elective 14943 Install system software and application software for a personal computer or hand-held computer	5%	10%	85%
	1	2	17
22. Elective 14940 Repair a personal computer or hand-held computer to module level	11%	44%	44%
	2	8	8
23. Elective 14935 Repair peripherals for a personal computer or handheld computer to module level	15%	50%	35%
	3	10	7

What other factors from the practical workplace experience component, not mentioned as part of the unit standards in the previous question, can you say contributed to your **14.**employability?

10 Responses

Answer the following supporting questions below.

<ul><li>a) Do you feel that the skills learned during this learnership are</li><li>15. only usable in the industry applicable to the learnership?</li></ul>	Number of Responses	Response Ratío
Yes	7	35%
No	13	65%
b) Do you have more confidence in getting a job in this industry  16. after having completed the workplace experience component?	Number of Responses	Response Ratio
Yes	20	100%
No	0	0%
c) Would you have the same confidence if you only completed 17.the theoretical part of the learnership?  Yes	Number of Responses	Response Ratio 20%
No Carte Car	16	80%

Answer the questions below to determine whether you found employment since completing the learnership.

a) Were you appointed after completion of the learnership by the workplace provider who provided the practical workplace

18. experience component?	Number of Responses	Response Ratio
Yes	4	20%
No description of the second o	16	80%

b) If your answer for question 18 above was "no", were you appointed by any other employer after completion of the

19.learnership?		Responses	Ratio
Yes	A Section of the sect	8	42%
No	And the state of t	8	42%
Not applicable, my answer for question 18 was YES	Secretary and	3	16%

c) If your answer for question 19 above was "no", did you become self-employed or could you use the skills learned during 20.the learnership to earn an income on your own?

20. the learnership to earn an income on your own?		Number of Responses	Responso Ratio	
Yes		4	24%	
No ·		. 6	35%	
Not applicable, my answer for question 19 was YES		7	41%	

21. If not employed, choose one of the following reasons	Number of	Gespenso Gelia
Busy with new learnership 🐲	. 1	6%
Busy with other studies	3	19%
Cannot get a job	3	19%
Not Applicable, I am employed	5	31%
Other	5	31%

22. If other, explain shortly.

3 Responses

Answer the questions below to determine whether the practical workplace experience component of the learnership improved your employability in more occupations than only the direction of the learnership.

a) Did the exposure to a practical workplace environment improve your chances of employability in other directions than 23. the learnership?



Number of Responses	Response Ratio
9	45%
10	50%
1	5%

24. Motivate your answer:

UNIVERSITY of the

b) Do you have more confidence in getting a job in any other industries after completing the workplace experience 25.component?

Yes	And the second s
No	Contractor contractor

Number of Responses	Response Matio
17	85%
3	15%

26. Motivate your answer:

12 Responses

Complete the following to support the development and presentation of future learnerships in this particular field.

Do you have any suggestions for improving the theoretical learning component of the 27.learnership?

) 17 Responses

Do you have any suggestions for improving the practical workplace experience <b>28.</b> component of the learnership?
18 Responses
Do you have any other suggestions in general about the learnership which may be of <b>29.</b> value for the lsett Seta and Desto?
18 Responses

I thank you for completing this research questionnaire. If necessary, a follow-up questionnaire will be forwarded for completion. Your contribution in this regard will be used to motivate changes to learnerships if necessary. Desto (Pty) Ltd also wishes you all the luck and success for your future. Greetings from Louis Louw (Tau).

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## Appendix 4

## **Qualitative Research Results**



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Questions that required written responses are displayed by individual query. The "Report Overview" button or "Back" button will return you to your survey results.

Each individual respondent is referenced under the # column.

12. If your answer was "Not at All", give a short description of the reason why you say that:

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# Response N/A

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Each individual respondent is referenced under the # column.

What other factors from the practical workplace experience component, not mentioned as part of the unit standards in the previous question, can you say contributed to your **14.** employability?

#### # Response

- Networking was not included.Lan,wan,can, Customer Satisfaction Interpersonal Skills
- 2 Making money
- 3 1 CONFIGERING EMAIL AND EXCHANGE SERVER 2 SETTING UP NOVELL 3 NETWORK PRINTERS 4 INSTALLING NET WIZARD
- 4 I think attending to complains from users was the main thing.
- 5 Installations of computers in a workplace. The I.T infrastructure and the environment.
- 6 ALSO WAS PART OF A WINNING TEAM WHEN ITS TIME TO DELIVER. AND DELIVER ON TIME SCEDUEL PUPORSES
- I never was involved Customers now i am confident i can tolk to Customers, handle problems and give them the best service they need.
- 8 Learning other software packages,customer service
- I can say setting up of IP Addresses and I also have a thorough knowledge of Network Cabling, so I can say I am more prepared to work as Network Controller/LAN.
- 10 My communication skills improved drasticly.

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Survey Results (Included Responses)

Learnerships and Employability: A Case Study of Desto (Pty) Ltd Learnerships in the IT Sector between 2003 and 2004. National Certificate in Information Technology: Technical Support: SAQA ID 24293 NQF Level 4 - Gijima Project

Questions that required written responses are displayed by individual query. The "Report Overview" button or "Back" button will return you to your survey results.

Each individual respondent is referenced under the # column.

22. If other, explain shortly.

#### # Response

- The Jobs that I get is only for Temporary. like 2months, 3weeks and so on but now I'm still looking for a job.
- N/A
- Have been moving from one contract to other
- completing sita internshop program
- Applyed to few companies but got no response yet.
- It was a limited contract. I am still looking for another job. 6
- STILL APLYING FOR JOB IN VARIUS PLACES, AND COMPANIES.AND ALSO PERSUING MY OWN COMPANY.
- I am still busy looking for the job and the other thing that is giving me a problem is a Driver's Licences and in would advice other Learners to take it serious ,it's not a joke.

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Each individual respondent is referenced under the # column.

#### 24. Motivate your answer:

#### # Response

- 1 never tryd to go other dirictions than Technician, not at the moment.
- Increased Confidence. 2. Assembling and Disassembling PC's 3. How to handle Difficult Customers
   Working with End users.
- 3 I found myself employable in most departments other than the IT one.
- 4 It built self esteem and tuaght us to handle pressure and difficult clients
- 5 Simply becouse i am feeling more and more skillmetic
- 6 It gave me skills to communicate well with clients.
- 7 basically i became more confident abount mu job
- 8 BECAURSE I'M CONFIDENT WHEN I LOOK AT MY CV.AND I BELIEVE COMPONIES WILL RECOMMEND MY IT.
- 9 I was more confident
- 10 I have gained the IT technical skills and as well as working in the IT environment has gave a lot of exposure to IT industry and has improved my ability.
- 11 I WAS COMMUNICTING WITH OTHE PEOPLE IN A WORK PLACE, AND EXPIRIENCE UNDER THAT COMPANY
- i can now face clients talk and resolv problems with them.
- 13 I got to know about other technologies, which increases my level of knowlegde
- Because when applying for the job. Companies want to employ people with solid experience so it's a bit harder for us to get the job soon. Companies must give we new blood a chance to show how skilled we are.
- 15 I could easily get a job in places like Call Centres, administration work, customer service and use my learnership knowledge to do well in getting better jobs in the IT industry.
- 16 Like i mentioned my communication skills improved very well and I've got a little bit of experience now.
- 17 I have also gained some leadership skiils because of the Learnership program and I believe I can get a job in other sectors.

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Questions that required written responses are displayed by individual query. The "Report Overview" button or "Back" button will return you to your survey results.

Each individual respondent is referenced under the # column.

#### 26. Motivate your answer:

#### # Response

- All the practical and theory we did was baset only in the IT technical side.
- I know I can. On top of that I wanna have my own Company to show that I have gained Confidence. 2
- I can say having to do multy-tasking in the company that i'm currently working for improves my 3 employability in other industries.
- Most if the industries use information technology of which is the same in every industry
- Becouse after the experience i felt like i can do the job
- BECAURSE WE ARE LIVING IN THE WORLD OF TECHNOLOGY, ANY COMPONY NEED A 6 technician/IT IMPLOYEE.
- Now adays computers are every were, so i can have more chances of getting a job.
- IM FULLY QUALIFIED TECHNICAL SUPORTER WITH EXPRIENCE.
- I've gott the expirience i need.
- I'm busy studying information systems, and the technical aspects i now master them because of the 10 NIVERSITY of the learnership
- It's because nowadays most companies have IT Department so they need IT professionals so as to increase the Security and other major impact within company. 11
- Yes, the exposure (technical)I have had is sufficient for me to be employable. It is just difficult to get a job, I am trying and need to be patient because I have learn a lot of valuable IT knowledge from the 12 learnerhip.

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Do you have any suggestions for improving the theoretical learning component of the 27.learnership?

#### # Response

- None
- Specifically to ISETT SITA Guyz you don't regularly talk to Students, Because we were encounting 2 some problems first because you were not communicating to us and those people who supply the learnership they wont tell you everything, never.
- I can say that the theory part of the learnership was very much detailed and the learning material complied with all units standards of the learnership.
- I think it should include the physical aspects of building the pc's in class as a preparation for the workplace experience and it should be done consistently
- I think they should do a bit of both at the same time, theoretical and practical 5
- 6 Please contact me in person
- yes choose the right employees
- 8
- 9 I think the theory part of things is fine
- 10 No
- N/A

11

- 12 No
- After completing a section of work, visit the employer and get the feel of it, so that you confident about 13

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- I guess so. I think it is important for the Learners to be provided with more knowledge as well as practical so that when they leave for the practical they should be more confident than expected to be. And again they must be given enough chance to prove themselves at the workplace environment.
- I think so far the preentation of theoretical componet is good enough, that is why I did not have a problem learning the practical part of it. So far, I do not have anything to suggest for improvement. I was very happy with it.
- 16 No, everything went smooth with theory.
- The unemployed learners should get more time to study rather than the one week courses. I feel it 17 would have been better if some of the courses were done in two weeks.

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Each individual respondent is referenced under the # column.

Do you have any suggestions for improving the practical workplace experience 28.component of the learnership?

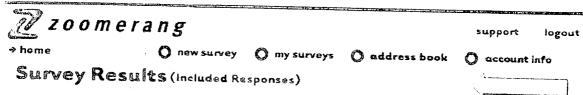
#### # Response

- Students must be sent to companies that they stand a chance of getting employde after the learnership, and companies must be evaluated before sendind students there.
- Communication 2
- on the practical side i would say that it is good for learners to work with experienced people in the IT sector cause it becomes mich easier for learners to get experience.
- I feel that the should be a rotation of tasks for an individual in order for them to know different things eg, dealing with networks, call desks etc.
- The must allway think or bear in mind that they are still student 5
- Same as above 6
- use different companies from which u have used
- COMPONIES LIKE DESTO IS NEEDED FOR THE PRACTICALS 8
- I think more time should be given 9

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- 10
- WE NEED MORE OF LEARNERSHIP LIKE THESE OF DESTO. 11
- 12
- Do not focus on one area of work 13
- Yes.Learners should be given more time on the workplace environment to show off their skills and even to compete with those who are already busy working and having solid experience so that they should 14 share the knowledge as we all know that in IT industry no has ever know enough.
- learners must be well taken care of
- I wish we could get more time for practical until we get permanet jobs. 16
- 17
- No, the workplace experience was perfect. 18

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Questions that required written responses are displayed by individual query. The "Report Overview" button or "Back" button will return you to your survey results.

Each individual respondent is referenced under the # column.

Do you have any other suggestions in general about the learnership which may be of **29.** value for the lsett Seta and Desto?

#### # Response

- Organize your things better and try to be more profesional because is guys like us down here who get to suffer for your mistakes.
- Do Follow-ups guyz. Make sure that Atleast 90% of Students are working and 10% starts their own Business before Another LearnerShip, so Include Business Skills also. "What's the point if 40% got a job (Temporary) and 60% doesn't.
- I think up to so far the Isett Seta and Desto have both out done themeself in participating in leanership projects, thanx and keep up the good job.
- 4 As much as they expect us to perform well, they should also deliver from their side on time and should not let what happened to us happen to their future learnership students cause its demoralising
- 5 All parties must be involve in every thing giong on.. Thanks.
- Put less student in one company to increase the chances of them been taken after learneship, avoid putting them on projects because when the poject is over the is no hope for them
- 7 Same as above
- 8 big up and we still waiting to graduate and get our certificates please make sure
- 9 THEY MUST KEEP ON DOING THE SAME THING TO ANOTHER STUDENT
- 10 I thnk so far so Good
- 11 I think communication is what needs to kept.
- 12 WE NEED OUR CERTIFICAS FROM THE LEANERSHIP, THANK YOU.
- 13 yes we need NQF level 6, so that we can be more marketable
- 14 Get more feedback from learners(career path,employment opportunities). Present us with our certificates in time, because we are loosing out on employment as we are not yet "qualified". Investigate thouroughly the companies appointed to undertake learnerships.
- No. I think so far every angle has been exposed which lacks skills development and knowledge not unless may be I'm still not sure so far about any Learnership that's not been initiated by Labour Department. THANK YOU VERY MUCH, TAU. TILL I HEAR FROM YOU, SIR.
- So far it is good. I would like to take this opportunity to sincerely thank Isett Seta and Desto for offering me the learnership. It has improved my chances of getting a job. Without this lernership, there would be no hope for me as a young person who wanted to learn IT from high school age.
- 17 To be certain that the students will get a permanent job after completion of Learnership.
- They should try and make learneship programs run for 2 years of which one year would be theoretical learning and the other year workplace experience. That will give learners especially those unemployed a real chance of getting a job aftermards.

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## Appendix 5

# National Certificate: Information Technology Technical Support NQF Level 4



#### [Registered Qual & Unit Std Home page] [Search Qualifications] [Search Unit Standards]



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## SOUTH AFRICAN QUALIFICATIONS AUTHORITY REGISTERED QUALIFICATION:

National Certificate: Information Technology: Technical Support

SAQA QUAL ID	QUALIFICATION TITLE				
24293	National Certificate: Information Techno	nology: Technical Support			
SGB NAME	NSB	PROVIDER NAME			
SGB Information Systems and Technology	NSB 10-Physical, Mathematical, Computer and Life Sciences	cal,			
QUALIFICATION TYPE	FIELD	SUBFIELD			
National Certificate	Physical, Mathematical, Computer and Life Sciences	Information Technology and Computer Sciences			
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS		
Undefined	163	Level 4	Regular-Unit Stds Based		
REGISTRATION STATUS	SAQA DECISION NUMBER	REGISTRATION START DATE	REGISTRATION END		
Registered ·	SAQA 2352/04	2004-02-11	2007-02-11		

## PURPOSE AND RATIONALE OF THE QUALIFICATION ERSITY of the

The purpose of this qualification is to build a foundational entry into the field of Computer Sciences and Information Technology, specifically into the field of Systems Support, covering basic knowledge needed for further study in the field of Systems Support at Higher Education Levels.

The qualification can be acquired in the traditional way of formal study as well as in the workplace, through learnerships. Acquiring the qualification through learnerships has the potential of addressing the problems of the past, where newly qualified people getting into the industry struggled to get employment, because they were required to have practical experience. The workplace experience can now be gained while acquiring the qualification through the various learnership schemes that are planning to use this qualification.

A Qualifying learner at this level will be a well-rounded entry-level Systems Support professional with a good fundamental knowledge of the Information Technology field, coupled with interpersonal and business skills, allowing for specialisation in one of the following Systems Support fields:

- Hardware and Infrastructure Support for Personal Computers
- Hardware and Infrastructure Support for Office Products
- Data Communications and Networking
- (and any new field not specified yet, allowing for new specialisations in this area)

#### The qualification is designed to:

- Provide learners with an entry level for further study in Information Technology and related fields, as well as for initial employment in the computer industry.
- Allow many of the listed unit standards to be used in Learnership Schemes in the Information Systems and Technology sector, as well as other sectors where Information Technology is a key requirement.
- Provide a foundational qualification for people who are pursuing a career in the computer industry, or related fields. People with this qualification have an introductory level of understanding about computer industry concepts and/or are able to work in areas of Information Technology with little technical complexity. Examples of the areas covered are entry-level hardware, software, electronics and network support, on mainly (but not limited to) desktop and hand-held devices and local area

networks.

- Allow the credits achieved in the National Certificates in Information Technology (Level 2 & 3) to be used as foundation (i.e. learning assumed to be in place) for the requirements of this qualification.
- Have a flexible structure to allow for changing requirements in the computer industry, and to allow providers to create learning programmes with a predominantly Information Technology Support component but tailored to meet the local, national or international needs.

#### Rationale of the qualification

This qualification has been formulated such that it reflects the workplace-based needs of the Information Technology Industry as expressed by its stakeholders.

The input has been used to ensure that the qualification provides the learner with accessibility to be employed within the IT Industry.

The introduction of national qualifications in Information Technology based on unit standards will allow learners to qualify for a national qualification by accumulating the required credits via short learning programmes or workplace practical experience or both. It also allows learners to achieve the qualifications through recognition of prior learning and/or learnerships schemes, overcoming past barriers in the methods of achieving formal qualifications.

Academically this National Certificate is intended to be an entry-level qualification in the area of Systems Support. The qualification builds on knowledge areas covered in National Certificates and short learning programmes at NQF level 2 to 4, and it facilitates entry into the Systems Support field. It aims to enhance readiness for further study in Information Technology and related fields at the Further Education level, provides a pathway into further study at Higher Education level, as well as providing for initial employment in the computer industry.

One of the most important needs for this qualification is to provide for the recognition of prior learning. There are currently no unit standards based registered qualifications in the Systems Support area. However, hardware and networks are being installed, maintained and upgraded on a daily basis in a number of different industry sectors. People with workplace experience in the areas covered by this qualification will now be allowed to request assessment and get recognition for prior learning.

The qualification provides the learner with the flexibility to articulate in the IT environment with a wide variety of specialisation options and articulation within the Telecommunications, Information Technology and Electronic Industries and other industries where IT is a key component, like the Financial Services Industry.

#### LEARNING ASSUMED TO BE IN PLACE AND RECOGNITION OF PRIOR LEARNING

It is assumed that the learner is competent in skills gained at the further education and training band, with exposure to computing as an advantage, but not a requirement. A learning assumption of this qualification is foundational skills in English and Mathematics at NQF level 3. Further learning assumed is the ability to use a personal computer competently, and competence in the unit standard, "Participate in formal meetings", NQF Level 2 (ID 14911).

The assumed learning can be acquired in the traditional way of formal study as well as in the workplace. Acquiring the competencies in a workplace (either via formal learnerships or normal on-the-job training) has the potential of addressing the problems of the past, where formal qualifications were only obtainable by way of formal study.

Recognition of prior learning (RPL)

Many of the competencies used in the Information Technology profession has traditionally been acquired through short courses and on-the-job training, which did not provide formal recognition of the knowledge and skills acquired. These competencies are still today viewed by most industries as invaluable, with the sad reality that there is no formal recognition. The nature of the Information Technology field means that competence is developed experientially, therefore the assessment processes should recognise experience versus theoretical knowledge. Recognition of prior learning will now allow people with these valuable competencies to be assessed and recognised formally.

Any learner wishing to be assessed may arrange to do so without having to attend further education or training. For recognition of prior learning the learner will be required to submit a portfolio of evidence of relevant experience, in a prescribed format, to be assessed for formal recognition. The assessor and learner will decide jointly on the most appropriate assessment procedures, subject to the assessment rules of the relevant ETQA. Learning assumed to be in place must be assessed by the assessor prior to any assessment relating to this qualification.

#### **RECOGNISE PREVIOUS LEARNING?**

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#### **QUALIFICATION RULES**

Rules of Combination for the qualification

Rules regarding the number of credits

The qualification consists of a minimum of 163 credits and has been designed in accordance with the SAQA rules of combination.

Rules regarding Fundamental, Core and Electives

- 1. All fundamental outcomes are compulsory for this qualification. This is in excess of the 56 credits that are mandatory according to the SAQA FET Policy. The fundamental unit standard titles that are compulsory are listed in the qualification matrix.
- 2. All core outcomes are compulsory (70 credits)
- 3. Additional standards from any other SAQA field or sub-field may be added to the listed electives.
- 4. A minimum of 20 elective credits need to be completed out of one of the elective specialisation fields.
- 5. The qualification description will list the field(s) of specialisation on the qualification document.

Below is a list of the elective unit standards that are grouped per specialisation field. A minimum of 20 credits from any one specialisation field is needed to be recognised as a specialisation field. Depending on the credits achieved, more than one specialisation field might be printed on the qualification certification documentation.

Specialisation Field: Hardware and Infrastructure Support for Personal Computers - 60 credits

- 14922; Demonstrate knowledge of principles of electronic logic for computing; L4; 9 credits
- 14929; Describe Computer Cabling; L4; 4 credits
- 14934; Demonstrate an Understanding of Hardware Components for Personal Computers or Hand-held Computers; L4; 7 credits
- 14939; Assemble a Personal Computer or Hand-held Computer and peripherals from modules; L4; 7 credits
- 14935; Repair Peripherals for a Personal Computer or Hand-held Computer to Module Level; L4; 9 credits
- 14940; Repair a Personal Computer or Hand-held Computer to module level; L4; 12 credits
- 14950; Install a Personal Computer or Hand-held Computer and Peripherals; L4; 7 credits
- 14943; Install system software and applications software for a Personal Computer or Hand-held Computer; L4; 5 credits

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Specialisation Field: Data Communications & Networking Support - 56 credits

- 14922; Demonstrate knowledge of principles of electronic logic for computing; L4; 9 credits
- 14928; Demonstrate knowledge of basic concepts of telecommunications; L2; 7 credits
- 14932; Describe Synchronous and Asynchronous Communication with Computers; L3; 6 credits
- 14947; Describe data communications; L3; 4 credits
- 14942; Demonstrate an understanding of computer network communication; L4; 9 credits
- 14931; Install networked computer application software; L4; 5 credits
- 14953; Install a Local Area Network ; L4; 10 credits
- 14937; Apply the Principles of Supporting Users of a Local Area Network; L4; 7 credits

Specialisation Field: Hardware and Infrastructure Support for Office Products - 27 credits

- 14922; Demonstrate knowledge of principles of electronic logic for computing; L4; 9 credits
- 14936; Describe and install scanning systems; L4; 3 credits
- 14946; Describe and install photocopier machines.; L4; 3 credits
- 14952; Describe and install a facsimile machine.; L4; 2 credits
- 14945; Describe and install computer printers. ; L4; 2 credits
- 14941; Describe and install colour copiers/printers; L4; 4 credits
- 14948; Describe and install high-volume photocopier machines.; L4; 4 credits

#### **EXIT LEVEL OUTCOMES**

Exit Level Outcomes:

A learner will be able to

- 1. Communicate effectively with fellow IT staff & users of information systems.
- 2. Demonstrate an understanding of different types of computer systems and the use of computer technology in business.
- 3. Demonstrate an understanding of problem solving techniques, and how to apply them in a technical environment.
- 4. Demonstrate an understanding of Computer Technology Principles.
- 5. Select and use materials and equipment safely for technological purposes.
- 6. Work effectively as a team member within a support team.
- 7. Carry out, under supervision, a small size task to demonstrate knowledge of techniques & skills needed in one or more of the following areas of majoring/specialisation:
- Hardware and Infrastructure Support for Personal Computers
- Hardware and Infrastructure Support for Office Products
- Data Communications and Network Support

In addition to the above, unit standards will be utilised to provide depth of specification of the outcomes ranges and the assessment criteria and processes.

#### ASSOCIATED ASSESSMENT CRITERIA

Assessment Criteria for Exit Level Outcomes

In particular, assessors should check that the learner is able to demonstrate an ability to consider a range of options and make decisions, meeting the following criteria:

- 1. Effective Communication is demonstrated with fellow IT staff & with users of information systems, in the form of written and verbal communication.
- 2. An understanding of different types of computer systems and the use of computer technology in business is demonstrated, being able to describe the different computers systems and associated hardware and network configurations and investigate (sometimes under supervision) its use within organisations.
- 3. The ability to identify different problem solving techniques, and when and how to apply them, is demonstrated.
- 4. A fundamental understanding of Computer Technology Principles are demonstrated by explaining computer architecture, networking and operating systems concepts, as well as different data storage methods.
- 5. An understanding of use of equipment safely for technological purposes is demonstrated, being able to install, maintain and upgrade hardware or infrastructure in areas of specialisation, according to customers` Service Level Agreements, manufacturers` recommendations and safety regulations.
- 6. Working effectively as a team member within a support environment, taking part in team activities and understanding different roles within different support teams.
- 7. The knowledge of the techniques & skills needed in one or more areas of specialisation is demonstrated by carrying out a small size task that is covering the assessment criteria explained in the unit standards selected in the specialising area being assessed in.

In addition to the above, unit standards will be utilised to provide depth of specification of the outcomes ranges and the assessment criteria and processes.

Furthermore, the assessment process should also cover the following generic components:

- Measure the quality of the observed practical performance as well as the theory and underpinning knowledge behind it;
- Use methods that are varied to allow the learner to display thinking and decision making in the demonstration of practical performance;
- Maintain a balance between practical performance and theoretical assessment methods to ensure each is measured in accordance with the level of the qualification; and
- Ensure that the relationship between practical and theoretical is not fixed but varies according to the outcomes being assessed.

Assessment of Critical Cross-field Outcomes:

To ensure applicability of Fundamental and Critical Cross-field Outcomes this should be assessed as part of Core and Elective assessments.

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#### Integrated Assessment:

Development of the competencies may be through a combination of formal and informal learning, self-learning, training programmes and work-based application.

The practical, applied, foundational and reflexive competencies demonstrated for the group of assessment criteria in this qualification, must prove that the whole competence is more than the sum of the parts of the competencies. Providers should conduct diagnostic and formative assessment. Formative, continuous and diagnostic assessments should also take place in the work place, if applicable. The learner should also be able to assess him or herself and determine readiness for a summative assessment against this qualification.

During integrated assessments the assessor should make use of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflexive competencies. Input to completing the Integrated Assessment typically makes use of combinations of the following assessment methods:

- 1. Time-constrained written examinations
- 2. Coursework Evaluations
- 3. Continuous Evaluation
- 4. Practical Evaluation
- 5. Evaluation of Portfolios of Evidence

#### INTERNATIONAL COMPARABILITY

The concept of qualifications based on unit standards is not unique to South Africa. This qualification and unit standards have been evaluated against, and are comparable to core knowledge and specialised knowledge elements found in the following International Qualifications Frameworks:

- New Zealand NQF,
- Australian NQF,
- · British NVQs.

Furthermore input to the development of the qualification has been benchmarked against the following International sources, where the outcomes and assessment criteria, degree of difficulty and notional learning time has been compared:

- City and Guilds Certificate and Diploma for IT Technicians (refer 7261 IT Scheme administered by ISETT),
- NCC Education's International Certificate and Diploma in Computer Studies for IT Professionals,
- CompTIA`s A+ and N+ certification,
- Microsoft MCSE certification
- E-Skills

This qualification combines the NQF principles and requirements, with Internationally accepted Knowledge Areas required in a System Support Qualification.

#### **ARTICULATION OPTIONS**

Upon successful completion of the qualification, the learner will understand the role of a Systems Support Technician and be able to competently carry out the exit level outcomes of the qualification, in a business environment. The purpose of this qualification is stated as being a foundational qualification at the Further Education and Training band (level 4), allowing for further study in Information Technology and related fields at Higher Education levels. This will allow the qualified learner to progress to further qualifications either in Systems Support or other IT domains, or in other related industries where IT is a key component.

In particular, this qualification has been designed to allow entry into either the National Certificates in Systems Support at NQF level 5 or the National Certificate in Systems Development at NQF level 5, but can also be used as foundational to other IT qualifications that will be defined in future.

#### **MODERATION OPTIONS**

- Anyone assessing a learner or moderating the assessment of a learner against this Qualification must be registered as an assessor or moderator with the relevant ETQA.
- Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant ETQA.
- Assessment and moderation of assessment will be overseen by the relevant ETQA according to the ETQAs policies and guidelines for assessment and moderation.
- Moderation must include both internal and external moderation of assessments at exit points of the qualification, unless ETQA policies specify otherwise.
- Moderation should also encompass achievement of the competence described both in individual unit standards as well as the integrated competence described in the qualification.
- Anyone wishing to be assessed against this Qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited for assessment by the relevant ETQA.

To ensure that national standards are maintained, the final assessment should be conducted on the following basis, which will be under the control of the relevant ETQA's (ISETT SETA or other relevant ETQA's):

- National assessment of written papers and/or practical assignments needs to be undertaken, by the relevant ETQA. This must include the necessary assessment tools (eg. marking schemes) to ensure consistent assessment. This function can be performed by the ETQA itself or a nominated body or bodies.
- Assessment can be institutional or workplace based and must be done by a registered assessor.
- External moderation will be undertaken as required, to ensure that the quality of NQF standards maintained nationally.

#### **CRITERIA FOR THE REGISTRATION OF ASSESSORS**

The criteria to register as an assessor includes the following:

- Assessors should be registered as assessors with the relevant ETQA, in accordance with the policies and procedures defined by the ETQA.
- Have a relevant academic qualification or equivalent recognition, at a level higher that the qualification being assessed.
- All registered assessors must have met the requirements of the generic assessor standard, and should be certificated by the ETDP SETA or by the relevant ETQA in agreement with the ETDP SETA in this regard.

#### **NOTES**

Knowledge Areas covered by the qualification

This qualification addresses the following knowledge areas being developed for the IT qualifications framework, inter alia:

- Competence in providing a variety of support services to users of IT, with limited supervision and direction of others.
- Contributing to solving user technical problems and meeting their support needs.
- Apply problem solving techniques to given user technical problems and solving the problems, according to customers` Service Level Agreements and manufacturers` recommendations.
- Review of customer usage of IT support services and implementation of specified improvements to the support services.
- Application of a range of IT technical skills and knowledge to meet user needs, within designated responsibilities
- Competence in dealing directly with customer staff.
- Understand the structure of a typical systems support teams, knowing the different roles and knowing when to ask for assistance in performing the above tasks.

#### Level Description of the qualification:

The knowledge areas listed in the notes section of this qualification display competence that are complex and non-routine, which is appropriate at this level. It involves the application of knowledge and skills in a limited range of varied work activities, performed in a wide variety of contexts. Some level of responsibility and autonomy is allowed, where control or guidance of others is often required, although complete responsibility is assumed for the quantity and quality of the individuals own outputs. Collaboration with others, perhaps through membership of a work group or team, may often be a requirement.

This also supports the SAQA approved level descriptors at this level, as listed below:

#### Foundational Competence:

- Possession of wide-ranging scholastic/technical skills.
- Possession of a broad knowledge base incorporating some theoretical concepts.
- Demonstrate the ability to access, analyse and evaluate information independently.
- Employ a range of responses to well defined but often unfamiliar or unpredictable problems.

Progression is manifested by the change from routine responses at level 3 to generation of responses at level 4.

#### Practical Competence:

- Operate in a variety of familiar and unfamiliar contexts under broad guidance and evaluation.
- Select from a considerable choice of procedures.
- Give presentations to an audience.

There is evidence of progression in terms of the range of skills, choice of actions and the ability to present information to others.

#### Reflexive Competence:

- Complete responsibility for quantity and quality of output.
- Possible responsibility for the quantity and quality of output of others.

Progression is marked by a significant increase in responsibility for individual outputs and the need to interact with others. At level 4, the learner can assume leadership roles of a limited nature.

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#### **Oualification Naming and Specialisation Description:**

The Information Technology sub-field has been broken into various domains, of which Systems Support is one. Qualification names will be linked to these domains, with specialisation descriptions attached to the qualification certification document being produced. The reason for this is firstly to reduce the number of qualifications needed to be registered to a manageable level, and secondly to have the qualification linked to the typical structure of the Information Technology industry. Finally we want to have the qualification document to reflect fields of specialisation, for unit standards that has been achieved within listed fields of specialisation. These specialisation fields are defined as part of the elective unit standards for the qualification. This will allow flexibility in future to add new specialisation fields without having to redefine the whole qualification. This is very important to the IT industry which is a very dynamic and fast changing industry.

The naming of this qualification is as follows:

National Certificate in Information Technology: Technical Support - (NQF level 4),

Specialising in one or more of the following fields:

- Hardware and Infrastructure Support for Personal Computers
- Hardware and Infrastructure Support for Office Products
- Data Communications and Network Support
- (and any new field not specified yet, allowing for new specialisations in this area)

A minimum of 20 credits from any one specialisation field is needed. The specialisation field(s) will be printed on the qualification certification documentation.

#### **UNIT STANDARDS:**

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Core	114636	Demonstrate an understanding of preventative maintenance, environmental and safety issues in a computer environment	Level 3	6
Core	14913	Explain the principles of computer networks	Level 3	5
Core	10313	Comply with service levels as set out in a Contact Centre Operation	Level 4	10
Core	14908	Demonstrate an understanding of testing IT systems against given specifications	Level 4	6
Core	14926	Describe information systems departments in business organisations	Level 4	3
Core	14921	Describe the types of computer systems and associated hardware configurations	Level 4	6
Core	14917	Explain computer architecture concepts	Level 4	7
Core	14944	Explain how data is stored on computers	Level 4	7
Core	10025	Handle a range of customer complaints	Level 4	4
Core	14963	Investigate the use of computer technology in an organisation	Level 4	6
Core	14919	Resolve computer user`s problems	Level 4	5
Core	14938	Resolve technical computer problems	Level 4	5
Fundamental	9302	Access information in order to respond to client enquiries in a financial services environment	Level 3	2
Fundamental	8968	Accommodate audience and context needs in oral communication	Level 3	5
Fundamental	9303	Communicate verbally with clients in a financial environment	Level 3	3
Fundamental	8969	Interpret and use information from texts	Level 3	5
Fundamental	8973	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	8970	Write texts for a range of communicative contexts	Level 3	5
Fundamental	12154	Apply comprehension skills to engage oral texts in a business environment	Level 4	5
Fundamental	12155	Apply comprehension skills to engage written texts in a business environment	Level 4	5
Fundamental	9015	Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems	Level 4	6
Fundamental	14927	Apply problem solving strategies	Level 4	4
Fundamental	8974	Engage in sustained oral communication and evaluate spoken texts	Level 4	5
Fundamental	14920	Participate in groups and/or teams to recommend solutions to problems	Level 4	3
Fundamental	8975	Read analyse and respond to a variety of texts	Level 4	5
Fundamental	9016	Represent analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 4	4
Fundamental	7468	Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues	Level 4	6
Fundamental	8976	Write for a wide range of contexts	Level 4	5
Elective	14928	Demonstrate knowledge of basic concepts of telecommunications	Level 2	7
Elective	14947	Describe data communications	Level 3	4
Elective	14932	Describe Synchronous/ Asynchronous Communication with computers	Level 3	6
Elective	14937	Apply the principles of supporting users of local area networks	Level 4	7
Elective	14939	Assemble a personal computer or handheld computer and peripherals from modules	Level 4	7
Elective	14942	Demonstrate an understanding of computer network communication	Level 4	9
Elective	14934	Demonstrate an understanding of hardware components for personal computers or handheld computers	Level 4	7
lective	14922	Demonstrate knowledge of the principles of electronic logic for computing	Level 4	9
Elective	14952	Describe and install a facsimile machine	Level 4	2
lective	14941	Describe and install colour copiers/printers	Level 4	4
lective	14945	Describe and install computer printers	Level 4	2
lective	14948	Describe and install high-volume photocopier machines	Level 4	4
lective		Describe and install photocopier machines	Level 4	3
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Elective	14929	Describe computer cabling	Level 4	4
Elective	14953	Install a local area network	Level 4	10
Elective	14950	Install a personal computer or handheld computer and peripherals	Level 4	7
Elective	14931	Install networked computer application software	Level 4	5
Elective	14943	Install system software and application software for a personal computer or hand- held computer	Level 4	5
Elective	14940	Repair a personal computer or hand-held computer to module level	Level 4	12
Elective	14935	Repair peripherals for a personal computer or handheld computer to module level	Level 4	9

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