# The Efficacy of the Skills Development Act in the Manufacturing and Retail Sectors - Pietermaritzburg Area

By

Amritha Singh

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Human Resource Management
University of Kwa-Zulu Natal
Pietermaritzburg

Supervisor: Dr C.R. Hunter
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To my husband, Shane: Thank you for your love, understanding and endless hours of proof-reading and editing. To my mum, Premie: Thank you for all your support, encouragement and words of wisdom. To my son, Liam: You have been my impetus through adversity.

Finally, I would like to dedicate this dissertation to the memory of my father, Amar Singh. "Daddy, I did it!"

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## ABSTRACT

This study is concerned with the efficacy of the Skills Development Act in promoting skills development and training in South Africa. Skills development and training was examined in the context of the 30 manufacturing companies and 20 retail companies based in Pietermaritzburg.

Firstly, the literature study provided a foundation on which to base the idea that skills development and training is vital in order for a country to achieve economic success. Secondly, efforts of other countries in promoting skills development and training were examined. Thirdly, skills development and training was examined in the South African context. The literature study lent support to the idea that there is a need for skills development in South Africa, considering factors such as HIV/AIDS, the shortage of scarce skills and labour demand trends in the South African labour market and the South African economy.

The field study involved the use of questionnaires to gather data from the respondents. The results of the field study were group into pre-defined variables. The variables were then correlated and hypothesis testing was conducted to test the relationship between the variables.

The main conclusions of the study are based on the hypothesis testing and the results of the field study and are detailed below.

1. The perceived effectiveness of the Skills Development Act was found to be a positive correlate of the effectiveness of training, the application of effective training procedures, the percentage of employers conducting formal training and the percentage of training costs recovered from the SETAs.
2. Training was perceived to be effective in terms of employee learning, employee performance and organizational performance.
3. There was an even split between companies that applied effective training procedures and those that did not.

4. Compliance with the Act was a pre-requisite for selection of the sample, however full participation in the Act was found to be lacking in general. This means that the majority of companies in the sample did not submit Workplace Skills Plans and Implementation of Training reports.
5. Compliance with the Skills Development Act was found to be a correlate of the application of effective training procedures, assistance received from the SETAs, the perceived effectiveness of training and the perceived effectiveness of the Skills Development Act.
6. It was generally perceived that the assistance received from the SETAs was poor.
7. On-the-job training was found to be prevalent in all companies; however formal training was more prevalent in companies that have a large number of employees. The average rate of formal training was calculated as 29.64%.
8. The number of employees was found to be a correlate of the percentage of formal training conducted, the percentage of training costs recovered from the SETAs, the perceived effectiveness of training and the application of effective training procedures.

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# Chapter One

## The Introduction to the Study

### 1.1 Introduction

"The Human Capital Theory postulates that investment in people represents an investment in their productive capacity, whether it is in the form of formal education or on the job training." (de W. Bruwer & Haydem 1996: 1)

The concept of human capital has been known to economists from as early as the eighteenth century, however, work on the economic theory of human capital first appeared in literature 1961. In the last four decades, the concept of human capital has been incorporated into mainstream economics, as individuals and organizations became increasingly aware of its importance. The twenty first century is termed, by many authors, as the "era of human capital" (Middleton, Ziderman & Van Adams, 1993; Crawford, 1991; Hornbeck & Salamon, 1991).

But, what is human capital? Human capital may be regarded as the collective assets of a country in the form of people, which constitute a workforce, taking into account their knowledge and skills. Crawford (1991: 3) refers to the dawn of the knowledge economy. He maintains that in the knowledge economy, "information and knowledge replace physical and financial capital as the major competitive advantages in business." (Crawford, 1991: 4). The greatest investment in this type of society is, therefore, to improve the skills and knowledge of its people. Employment training in the early twentieth century was the personal endeavour of individuals entering the labour market. Skills were acquired via, for example, apprenticeships. Individuals usually worked for a lower wage during the period of their training (Middleton *et al.* 1993: 37). The common mindset of governments of developing countries in the 1950's and 1960's was that they needed to augment capital investment with an investment in occupational skills training. Accelerated industrialization created rapid economic growth that required an increased supply of skilled workers and technicians.

Effective skills training leads to the greater productivity of a country's workforce and "contributes to economic development through its positive effects on the rate that

workers are absorbed into the economy and their job mobility." (Middleton *et ai*, 1993: 39). In addition, investment in training has an impact on the quality of life of individuals in terms of better employment prospects and greater earning potential. (Middleton *et al,* 1993:39).

The improvement of the productivity and skills of a work force results in the economic and social development of a country. It has long been realized that if South Africa is to compete successfully in the rapidly changing global economy, salience must be given to, amongst other factors, skills development. To these ends, the South African government designed the Skills Development Act (97 of 1998) and the Skills Development Levies Act (9 of 1999). Attention must be given, at this juncture, to the way in which the Skills Development Act was designed to work.

The Skills Development Levies Act creates the funding mechanism for training and development. When the Act was implemented, companies with a payroll of more than R250 000 per annum had to pay a levy of 0.5% of total remuneration in the first year (2000) and 1% thereof from 1 April 2001 to the South Africa Revenue Service. The Skills Development Levies Act was amended in August 2005, to exclude all companies with a payroll of less than R500 000 per annum.

The South African Revenue Service then disburses 20% of all company contributions to the National Skills Fund (NSF). This is to be used as training grants for companies, who require additional skills funding, as advised by the National Skills Authority (NSA). The remaining 80% of company contributions is disbursed to the Sector Education and Training Authority (SETA), with 20% used for administration purposes while the remaining 60% is refundable to companies upon submission of a workplace skills plan.

Despite the money received in the form of skills development levies paid by businesses and the establishment of twenty five SETAs, skills development has had a slow start. Kraak (2004:52) states that "R3.2 billion was collected from 120 225 firms through skills levies for the year 2001/02." In November 2002, the Department of Labour released updated figures of 136 645 firms paying the skills development levy out of 208 697 eligible firms (DoL2002d:5). This means that companies

compliant with the Skills Development Levies Act amounted to 65.48%. Hunter (2002: 35) maintains that there continues to be a shortage of skilled workers in South Africa.

The Skills Development Act was enacted with the aim of encouraging employers to adequately train their employees. This research project has the objective of investigating the efficacy of the Skills Development Act in promoting the training and development of human capital in South Africa.

## 1.2 The Reason for the Study

The basis of my justification for the choice of the study is the importance of skills development for the economic success of South Africa, financially benefiting businesses and individuals.

In this regard, Shaik (2001: 21) puts forward an economic case for skills development by analyzing important economic reasons for skills development. According to Shaik, there is a gap between the Gross Domestic Product (outputs of a country) of South Africa and the Gross Domestic Product of developed nations. The effective training and development of people in South Africa would decrease this gap. Subsequently, a company's investment in training would be economically beneficial in the long term.

Further, research by Shaik (2001: 24) has shown that if South Africa is to develop and maintain economic success, an investment must be made in terms of human capital. Social issues surrounding poverty, unemployment and the like can be overcome by skills development, thereby providing a better quality of life for South Africans (as set out in the Skills Development Act).

In her article, Loots (1998: 319), examines job creation and economic growth in South Africa in terms of the Growth, Employment and Redistribution strategy (GEAR), which, in 1998, was the official macroeconomic strategy for South Africa. It was found that there was an increase in the number of jobs that required skilled labour and a decrease in the number of jobs requiring unskilled labour (Loots, 1998:

336). Her findings suggests that the level of skill of the work force in South Africa must be uplifted so that individuals can be equipped to meet the demand for skilled workers in the labour market.

The Skills Development Act states that one of its purposes is to "increase investment in education and training of the labour market and to improve the return on that investment". The view that human resource development costs more than it returns in benefits seems to be entrenched and perpetuated (Swanson, 1998: 285).
The return on investment (ROI) is essentially a cost benefit analysis of training. In his study, Swanson (1998) focused on the Financial Analysis Method (FAM) of Human Resource Development (HRD), which is used to convert the actual HRD intervention and the forecasted financial benefits of an HRD intervention into monetary terms. The three main components include: "the performance value resulting from the program, the cost of the program and the benefit resulting from the program." (Swanson, 1998: 287)

Various studies (Dooley, 1945; Meissner, 1964; Thomas, Moxham and Jones, 1969; Clements and Josiam, 1995 and Swanson and Sawzin 1975), conducted in the USA and Britain, as cited in Swanson (1998: 287-290), offered support to illustrate the high ROI. These studies used the FAM and the consistent results concluded that human resource development that is "embedded in a purposeful performance improvement framework - and systematically implemented - yielded very high returns" (Swanson, 1998: 289).

There is, however, no evidence that unfocused and unsystematic training will yield a positive return on investment. Baldwin and Ford (1988: 65), examine transfer of training. They provide a framework for examining the transfer of training by outlining a model of the transfer process. South Africa is currently experiencing the adverse effects of the lack of an efficient strategy for training and development. The implementation of the Skills Development Act has done little to relieve this problem. Kraak (2004:51) maintains that training in South Africa has a poor history because of the history of apartheid and employer apathy to training. If we are to benefit from return on investment, as set out in the Skills Development Act, we need to develop and implement an effective skills development strategy.

Macro level economic studies deal with the relationship between training and national economic performance. Such studies by Sturm, (1993) and Mincer (1994) as cited in (Wang, Dou & Li, 2002: 204), conducted in Santa Monica and Cambridge, concluded that training improves the quality of labour, which is one of the factors responsible for economic growth. Skills development is of importance not only to the economy of the country but also to the components that constitute the economy, namely companies and individuals.

At a micro-economic level the impact of training can be seen in the profitability of a company. This positive value for companies seems fairly obvious because in simplified terms, an investment in the development of employees has a direct impact on profits. The general consensus of the Human Capital Theory is that "companies providing training programs must forego current profit-earning opportunity for future profitability." (Kaufman, 1994: 205). In South Africa however, the government has provided incentives for training in the form of refunds of a portion of training levies.

From the discussion above, it can be seen that skills development cannot be viewed in isolation as it forms an integral part of a relationship of interdependence, between individuals, companies and the economy, that is, it is geared toward the goals of economic success of the country in its entirety.

## 1.3 The Research Problem

The research problem is that there is a shortage of skills in South Africa and there is a need for effective training and development of employees. Furthermore, although the Skills Development Act was introduced in 1998 it does not appear to have had much impact on the skills deficit in the country.

Notwithstanding the good intentions of the government in promulgating the Skills Development Act, it is the opinion of Gerrie Bezuidenhout, the South African Chamber of Business (SACOB) director of labour market policy, that businesses accept the terms of the Skills Development Act with reservation: "It could endanger jobs, but I will not generalize too much about it. Companies operating under tight

financial constraint and those with cash flow problems could be adversely affected and be forced to reduce staff." (Financial Mail: April 30, 1999:43). The reason for the reduction of staff might be related to a perception of increased taxation in the form of the skills levy, as set out in the Skills Development Levies Act.

The Skills Development Act was the culmination of intensive investigations conducted by the National Training Board and the Human Sciences Research Council. This will be discussed further in Chapter four of this dissertation. "The Skills Development Act aims at stimulating skills development by encouraging training of the existing work force in growth sectors where skills demands are higher." (Financial Mail: June 9, 2000 : 49). The Act came into effect on 2 February 1999, however, by June 2000 only 20% of eligible businesses had registered with the various SETAs for the training levy.

In order to cope with the skills deficit in the country, South Africa is in dire need of foreign skills. After the enactment of the Skills Development Act of 1998, the government's proposed solution to the shortage of skills in the country was to pass an Immigration Bill aimed at drawing foreign skills into the country. For various reasons, this Bill was never passed into legislation. Although the shortage of skills in South Africa is not the research problem, it is important to note that the lack of skills serves to reaffirm the research problem, which is, skills development is not necessarily ensured by the legislation. If such a Bill were to be passed into legislation it would be essential to include a provision that foreign skilled labourers be permitted to work in the country on a limited basis and for a limited time and that the transfer of their skills to local labourers be prescribed and measurable.

An example of the lack of skills development can be illustrated as follows:
In 2001 the construction industry expected an economic expansion of approximately 3%. The cause for concern was that the industry would not be able to manage that growth due to the shortage of skilled personnel in the industry. Construction Education and Training Authority (CETA) skills development manager, Pierre Swanepoel, stated that the industry might have to turn to foreign recruitment or try to get back some of the expertise which has left the country. (Financial Mail, June, 8, 2001:40)

Iraj Abedian, Standard Bank's Chief Economist, conducted research which seems to suggest that there is a skills shortage for "between 200 000 and 500 000 positions" in the economy as a whole. (Financial Mail, May, 17, 2002: 27) This means that these positions cannot be filled because individuals possess inadequate skills to carry out these jobs.

The shortage of skills and the availability of inadequate skills imply that the Skills Development legislation is not being successfully implemented.

## 1.4 The Research Questions

1.4.1 Has the Skills Development Act, and its implementation, ensured an adequate supply of skilled people in South Africa?

1.4.2 What perceptions do companies in the sample have of the Skills Development Act?

1.4.3 What perceptions do companies in the sample have of effective training?

1.4.4 Are effective training procedures applied by companies in the sample?

1.4.5 To what extent are companies in the sample compliant with the Skills Development Act?

1.4.6 To what extent do companies in the sample receive assistance from the SETAs?

This study will focus on the importance of training and development. The intended contribution of the study to the labour market is to identify methods to improve the implementation of what may be an efficient national training and development initiative by government. In addition, it will hopefully be a valuable learning experience for all individuals who will be involved in this project.

## 1.5 The Scope of the Study

This study is concerned with businesses from the retail and manufacturing sector in the Pietermaritzburg region. It is agreed that a comprehensive study should include

all economic sectors spanning a larger geographic location. However, a study of this magnitude will require a great deal of time and additional resources and will therefore have been impractical in the circumstances. Due to the sample size (60) and the limited geographic location, conclusions drawn are indicative rather than definitive of the state of training in the entire country. Further, the findings based on just two economic sectors cannot be applicable to training and development in other economic sectors.

## 1.6 The Research Objectives

Main Objective

The main objective of the study is to evaluate the efficacy of the skills development act, and this is broken down into various sub-objectives, which are listed below.

Sub Objectives

1. To determine if there is a relationship between the number of employees in a company and the amount of training they conduct.

2. To determine whether there is any relationship between the number of employees in a company and the amounts claimed for refunds.

3. To determine the percentage range of skills development refunds that is collected by companies.

4. To determine the percentage of companies in the sample that are compliant with the Skills Development Act.

5. To examine the state of training and development in the sample of companies studied.

6. To determine the extent to which respondents believe that training benefits their organisations.

7. To determine the extent to which the Sector Education and Training Authorities (SETAs) have assisted companies in the sample with training and development.

8. To formulate recommendations to improve the efficacy of the Skills Development Act and the Skills Development Levies Act.

9. To formulate recommendations, based on the research findings, to improve training and development in South Africa.

## 1.7 The Hypotheses

### 1.7.1 The Main Hypotheses

The Null Hypothesis: There is no significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

The Alternate Hypothesis: There is a significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

### 1.7.2 The Sub Hypotheses

The null hypotheses are listed below.

1. There is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

2. There is no significant correlation between the number of employees in a company and the percentage of formal training conducted.

3. There is no significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

4. There is no significant correlation between the number of employees in a company and the perceived effectiveness of training.

5. There is no significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

6. There is no significant correlation between the number of employees in a company and the application of effective training procedures.

7. There is no significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

8. There is no significant correlation between the assistance received from the SET As and the perceived effectiveness of the Skills Development Act.

9. There is no significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

10. There is no significant correlation between the application of effective training procedures and the assistance received from the SETAs.

11. There is no significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

12. There is no significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

13. There is no significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

14. There is no significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

15. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

16. There is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

17. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

18. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

## 1.8 The Outline of the Dissertation

Chapter Two - Literature Study: The Theoretical Basis of Training and Development.
This chapter focuses on the benefits of training and development from a theoretical point of view.

Chapter Three - Literature Study: The Efforts of Governments to Promote Training.
The focus of this chapter is to examine training systems that have been implemented in different countries.

Chapter Four - Literature Study: Training in South Africa
Training in South Africa is discussed in detail. The state of skills, the need for training, and training legislation are among pertinent issues that are discussed.

Chapter Five - Research Methodology
The theory of research methodology as well as how it was applied to the study is discussed in this chapter.

Chapter Six - The Results of the Field Study
The statistical results of the study are detailed here.

Chapter Seven - The Most Significant Findings, Discussions and Conclusions

The most significant findings of the study based on the statistical results are discussed here and the main conclusions are drawn.

Chapter Eight

Recommendations, suggestions for future research and the limitations of the study are discussed this chapter.

## 1.9 Summary

The purpose of this introductory chapter was to provide a background to the study. The rationale behind the study, the statement of the research problem, and the development of the research question were discussed. The importance of skills development with specific reference to South Africa was highlighted and the hypotheses, the objectives and the scope of the study were indicated.

The chapter concludes with an outline of the rest of the dissertation. The following chapter concentrates on the theoretical basis for training.

# Chapter Two

## Literature Study: Theoretical Basis of Training and Development

### 2.1 Introduction

Where training is conducted effectively, it is beneficial to both employers and employees. Employers invest in training benefit in terms of company performance and employees invest in training benefit in terms of their own marketability. Employees therefore have greater bargaining power for jobs in the labour market. In addition to individual and organizational benefits, the strength of an economy, in part, is determined by its stock of human capital.

The focus of the first part of this chapter is skills development from a theoretical perspective. The Neo-Classical Theory, Endogenous Growth Theories and the Human Capital Theory are examined in terms of the benefit of skills development and training in relation to economic growth.

For training to be beneficial, it must be effective, which means that the training should achieve specific learning and performance objectives. There is no evidence to suggest that ineffective training, despite a great quantity, can yield positive results for stakeholders in training. The amount of money spent on training brings into question the Return on Investment (ROI) of training. (Swanson, 1995:285) Evidence suggests that training is of little or no value if knowledge and skills acquired through training cannot be translated to the job and maintained over time (Yamnill & McClean, 2001; Kozlowski & Salas, 1997). With this in mind, the rest of this chapter focuses on transfer of training (Baldwin & Ford, 1988), theories that support the transfer of training, the evaluation of training (Kirkpatrick, 1964) and the return on investment (ROI) of training (Swanson, 1995).

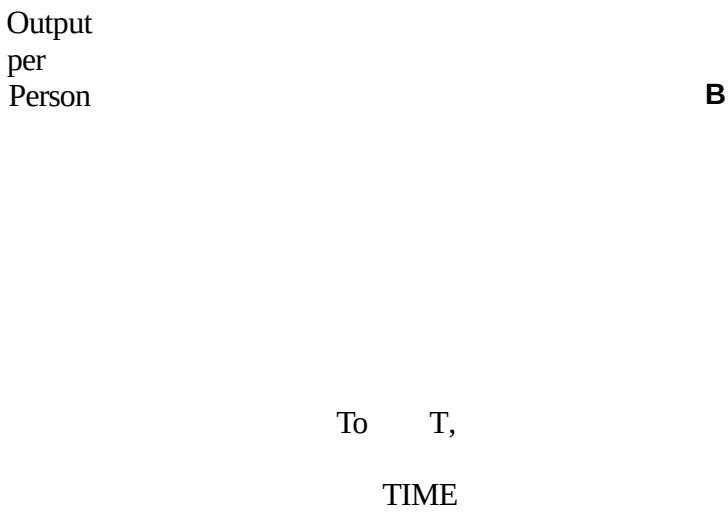
## 2.2 Training: A Theoretical Perspective

Any consideration of training within a country requires a consideration of the effects of education and training on the rate of growth of a country. The rate of growth, as reflected by the annual rate of increase in GDP, is important in creating wealth for a country, which in turn creates the basic foundation for social improvement within the country.

### 2.2.1 The Neo-classical Growth Theory

Since 1956, the growth of economies has been described in terms of the neo-classical theory, which was developed independently by Robert Solow and Trevor Swan. In terms of this theory, the basis of economic growth in the short term is investment in physical capital. The emphasis is placed on the purchase of equipment and machinery to enhance the productive capacity of an organization. However, the growth expected in terms of this theory is on a short-term basis only, being restricted by the limited availability of land and resources. (Dowrick, 2003:4) In addition, any large injection of capital into the economy can only cause the rate of growth to increase until it reverts to a fixed rate that is determined by exogenous technological progress (Dowrick, 2003:4). Figure I below illustrates the neo-classical growth model in graphical terms.

Figure 1: The impact of increased investment in the Neo-classical and Endogenous growth models




Source: Dowrick, (2003:5)

In Figure 1, time is represented on the x-axis and out per person (units) is represented on the y-axis. The Neo-classical theory is depicted by lines A and B. Line A represents the Neo-classical theory without an investment in physical capital. Line B represents the Neo-classical theory with an injection of physical capital. The endogenous growth theory is depicted by line C.

It is important to make a distinction at this point regarding the rate of growth and the output per person, as depicted on the graph in Figure 1 above. As mentioned above, it is vital to understand that the output per person is reflected on the y-axis of the graph, and any increase in time (x-axis) corresponds with an increase in output per person. However, the rate of growth of the economy is depicted by the gradient of the respective lines. Since parallel lines have the same gradient, it therefore follows that the gradient of lines A and B indicate the same rate of growth. It should also be pointed out that a steeper gradient indicates a greater increase in the rate of growth. Therefore, it is evidenced by

Figure 1 that an investment in physical capital results in an increase in output per person but the growth in output remains the same (lines A and B are parallel indicating the same rate of growth.) The importance of an investment in human capital must be stressed here. As stated above, line C denotes the endogenous theory. According to this model of growth, an investment in human capital, that is, in education and training, causes the growth in outputs *{rate* of growth) to increase indefinitely. The focus and importance of training in this model is paramount to economic success and therefore provides support for the writer's argument regarding the importance of human capital investment in an economy. The endogenous growth theory will be discussed in the following section of this chapter.

Prior to a detailed discussion of the above theories in terms of Figure 1, it is important to define terms such as outputs, unit labour costs and labour productivity and explain its impact on the growth of an economy with specific reference to South Africa.

Unit Labour Cost comprises the cost of wages, salaries and benefits per unit of output. This may be expressed as:

$$\text{Unit Labour Cost} - \frac{\text{Number of units (output)}}{\text{Cost of employment}}$$

Labour Productivity can be defined as output per unit of labour input. This may be expressed as:

$$\text{Labour Productivity} = \frac{\text{Output (in units)}}{\text{Number of employees (input)}}$$

Based on the above definitions, an economy will have a competitive advantage in the global market if unit labour costs are low and labour productivity is high compared to that of their trading partners. Certain countries such as China and India have low unit labour costs, resulting in a lower cost price of goods manufactured in these countries compared to other competing countries. Therefore, companies that base their manufacturing operations in countries such as China are able to offer goods at a lower

price to the world's consumers, ensuring a competitive edge not available to countries, such as South Africa, with higher unit labour costs.

Outputs on the y-axis of the graph (Figure 1) are determined by the labour productivity of an economy. To this end, the South African government has created the National Productivity Institute (NPI). The aim of the NPI is to improve the productivity of the country. This will be discussed later in Chapter 4. Ultimately, the measure of a country's success in selling its products in the international market is whether they are able to produce more goods at a lower cost, without compromising the quality thereof.

To continue with the theoretical discussion in terms of Figure 1, line A represents the neo-classical growth theory with no large increase in investment in physical capital. Without any increase in capital, the rate of growth is constant, as can be observed by the fact that the graph is a straight line, which is characterized by a constant gradient.

Line B is similar to line A, however at a certain time (To), an injection of capital occurs, which causes the gradient of the line (B) to increase, implying that the growth rate has increased. Of importance is that an increase in investment at point To initially causes the growth rate to increase, however at a certain point, point T| the growth rate starts to mirror the growth rate of line A (same gradient - parallel lines). The reason for the decrease in growth rate in line B, resulting in a "train track" with line A, is that further increases in capital investment have a saturation effect. The growth rate then starts to be restricted by limitations in land and labour resources, as well as limits to endogenous technological advances within the same time period. Endogenous technological advances refer to technological advances within a country. After point Ti, the *output* per person on line B is higher than that on line A, however there is no *increase* in the output per time period or unit, and therefore the growth rate remains constant. The key factor in the neo-classical theory is the idea that increases in capital lead to diminishing returns after a period of time (Dowrick, 2003:4).

### 2.2.2 The Endogenous Growth Theory (New Growth Theory)

The endogenous growth theory first gained prominence through the work of Paul Romer in 1986. In the simplest terms, endogenous means growing from within. Romer required a better explanation of growth rates than the one provided by the neo-classical theory and he realized that this theory did not place emphasis on education and skills levels, but only concentrated on the increasing use of traditional capital to influence growth rates. The striking difference between the neo-classical theory and the endogenous theory in respect of economic growth is that the latter allows for the possibility of non-diminishing returns on investment, provided the investment is in education and skills development. Dowrick (2003:5) points out that a defining feature of endogenous theory is that policy intervention and the nature of institutions can influence the long-run growth of an economy. His idea of policy intervention and the nature of institutions is therefore synonymous with the writer's idea of investment in education and skills development. Should policy intervention, such as governmental legislation, result in more emphasis on education and collective skills development, then it is possible for the economy to experience long-term growth. Should this occur at point To on the line, then the entire line B changes to a new line with continuous growth. This new line, line C, is different from line B in that there is no diminishing return in response to increased capital investment. Although Dowrick (2003) does not mention that the increased investment in skills development does not occur at the expense of increases in capital investment, it is important to note that at point To there is an increase in the capital investment which applies to all three lines (A, B and C). In fact, the increases in skills development and the increase in capital are mutually inclusive in the endogenous growth theory.

Dowrick (2003:6) is of the opinion that those models that embody the principles of complementarity, dynamic feedback and non-rivalry distinguish between the accumulation of ideas and skills and the accumulation of objects only (traditional capital). The value of this opinion should not be underrated, as it seems to underpin the entire change in economic growth theory. Therefore, these principles are explored to a greater degree below:

- Complementarity

According to Dowrick (2003:6), complementarity refers, in a skills context, to the skill level of an employee influencing the skill level of another employee and therefore the average skill level of the entire workforce is increased by an increase in the skills of individual employees. This idea has emanated from the endogenous growth theory of Lucas (1988), who postulated that the productivity of any worker was increased by the enhancement of not only his skills but also of the average skill level of his co-workers. This suggests that each worker adapts to the skills of the others in an environment in order to be able to work together - an indication of common learning. However, the worker with the highest level of skill will not know beforehand what that level should be for it to be high enough to affect the productivity of all the other workers (in fact, the worker will not even know beforehand whether he will have the highest skill level in his environment), and therefore this makes a case for governmental subsidization in skills development. In theory, subsidization of skills development will allow the highest number of workers to develop the widest range of skills, providing a working environment with the optimum skills level based on the quality of training available.

- Dynamic Feedback

According to the theory put forward by Lucas (1988), dynamic feedback refers to the use of learned skills to develop and learn a greater range of skills. The importance of this principle is that a stronger and wider basic skills base allows for faster learning of higher skills. However, in order for dynamic feedback to contribute to continuous growth, the human capital investment has to be limitless. Traditionally, the idea that human capacity can be infinite has been rejected. However, Romer (1990) sought to overcome this obstacle by characterizing human capital as embodied and disembodied. He defined embodied human capital as those skills that die with the individual possessing them, and disembodied human capital as those skills and ideas that are transferred to other people and therefore belong collectively to humanity. Romer concentrated on the disembodied

capital and therefore found that, given sufficient dynamic feedback, human capacity as a collective is limitless. Romer therefore advocated that the higher the number of people involved in research and development, then the more likely it will be that human capital will increase continuously and the rate of growth will also increase continuously.

In the context of South Africa, practices such as affirmative action (AA) have been put into place to redress past inequality, especially in terms of employment. As a result, people who possess knowledge and skill have been 'evicted' from the system and therefore this knowledge and skill cannot be passed on to future generations and will therefore die with them. This is an example of embodied human capital which consequently places a ceiling on a country's continuous economic growth because of a shortage of specialized skills. This will be discussed at length in Chapter 4.

- Non-rivalry of Ideas

Romer (1990) also postulated that the fact that ideas are non-rival, meaning that they are not limited in usage to only one person at a time, allows for human knowledge to expand continuously. This lends itself to the continuous growth rate predicted by endogenous theory. While it is true that patenting restricts usage of designs, it does not prevent licensed use of designs or the use of ideas, which cannot be patented. Therefore, the pool of human knowledge can grow forever, provided that research continues forever.

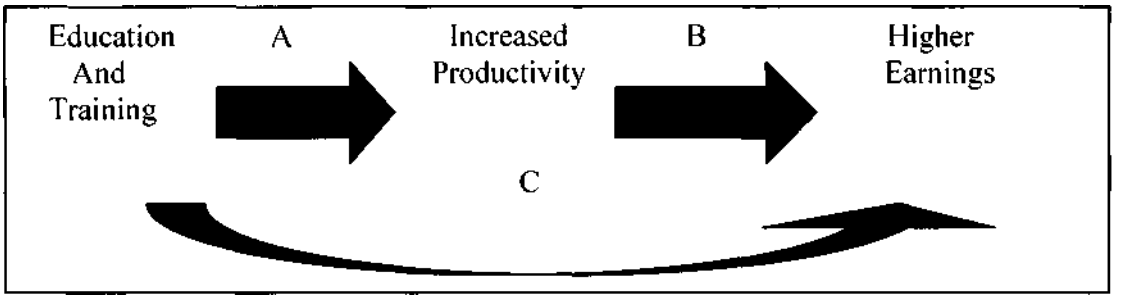
"The South African economy corresponds with the so called new growth theory which implies that modern economic growth creates employment opportunities for skilled people" (Strydom, 1996:24 as cited in loots, 1998:328). The South African economy will be dealt with in detail in Chapter 4.

### 2.2.3 The Human Capital Theory

"The basic premise of the human capital theory is that education and training enhance a person's stock of human capital and therefore increase that person's productive potential.

This in turn leads directly to higher earnings" Barker (1992:102). This is illustrated in Figure 2 below:

Figure 2: Human Capital Theory




Source: Barker (1992:102)

Paths A and B above indicate that there is a direct relationship between education and training which leads to increased productivity and higher earnings. It must be noted, however, that in terms of the Human Capital Theory, an increase in productivity is not always a criterion for higher earnings.

According to Barker (1992:102), an increase in productivity does not necessarily have a bearing on a higher salary whereas education and training are directly related to higher earnings, as indicated by path C in figure 2. An example of this relationship is the fact that employers are often willing to pay higher salaries to graduates and skilled individuals.

Becker (1964) as cited in Xiao (2001:2) suggests that "education or training raise the productivity of workers by imparting useful knowledge and skills." Another line of thinking about the Human Capital Theory is that more educated people have access to higher earnings because of their ability to be trained, which is acquired through the education process, and not through their superior skills and knowledge. Thurow (1975) maintains that "productivity is largely a characteristic of jobs rather than of workers; employers use education as a criterion to select workers because better educated people

can be trained for specific jobs more quickly, at a lower cost than their less educated peers." As cited in Xiao, (2001:3).

It is inferred then from the Human Capital Theory that the positive impacts of education include greater employability, higher earnings and an indirect increase in productivity. These positive factors will have a like impact on any country. Specifically, if these suggested factors regarding education hold true, then it may be implied that poverty will be reduced through the greater employability of the otherwise largely unskilled workforce, provided that education becomes prioritized. This will have a direct positive impact on other socio-economic conditions such as HIV/AIDS. In addition, education increases the trainability of a workforce. Studies of this nature will be discussed later in this chapter. Finally, with regard to productivity, a positive impact at the enterprise level is a pre-requisite for positive performance at a national or macro level through increased output.

From this point of view the Human Capital Theory affirms an economic case for skills development which serves both the individual and the employer and therefore, ultimately, the economy.

## 2.3 Effective Training and Evaluation

For training to be beneficial, it must be effective. There is no evidence to suggest that ineffective training, despite a great quantity, can yield positive results for stakeholders in training. Effective training may be defined as the extent to which training objectives are met. If clear objectives are not set then it is difficult to measure, achieve and determine effective training. Therefore, in order for training to be effective, training needs must be properly identified, clear objectives for training must be set and training programs must be evaluated in terms of efficacy. Effective training therefore, in this study, is measured in terms of employee learning, employee performance and organizational performance.

It has become a commonly held ideology that the strength of competition within an organisation, and therefore its success, is achieved through the skills and performance of its people. For example, it is estimated that in 1997 in the USA, organisations with more than 100 employees spent $58.6 billion on training. (Yamnill & McClean, 2001:195) This expenditure made a significant contribution the growth of the US economy.

The annual estimate for the expenditure on training in the USA is $200 billion per annum "with the inclusion of indirect costs, informal on-the-job training and costs incurred by small organisations." (Yamnill & McLean, 2001:195) This estimate is supported by research into training by Salas and Cannon-Bouwer, (2001) when they state that "recent estimates suggest that the investment in training activities in (US) organisations ranges from $55.3 billion to $200 billion annually. (Salas & Cannon-Bouwer, 2001:472) In South Africa, the National Training Board and the Human Sciences Research Council estimated the average expenditure on training at Rl 1 billion in 1991. (Hunter, 2003:29-36) Further details and more recent figures on the expenditure on training will be discussed in Chapter 4.

The amount of money spent on training, brings into question the Return on Investment of training (Swanson, 1995). Evidence suggests that training is of little or no value if knowledge and skills acquired through training cannot be translated to the job and maintained over time (Yamnill & McClean, 2001; Kozlowski & Salas, 1997).

With regard to the effectiveness of training, the following discussion will involve Baldwin and Ford's Transfer of Training Model, Kirkpatrick's Four Level Evaluation Model, as well as Return on Investment (ROI).

### 2.3.1 Transfer of Training

Transfer of training may be loosely defined as the extent to which employees apply that which they have learned, to a job situation. The Baldwin & Ford model was applied to this study because this model clearly defines the process and the variables involved in

training whereas other training models do not refer to the training process and how it is applied. In their extensive review of training literature, Baldwin & Ford (1988:63) define positive transfer of training as "the degree to which trainees effectively apply knowledge, skills and attitudes gained in a training context to the job."

Desimone, Werner & Harris (2002:88) maintain that the transfer of training to the job situation is of paramount importance to the success of human resource development. They make further distinctions between different forms of transfer. *Positive transfer* (as referred to above), occurs when job performance improves through training intervention. *Zero transfer* occurs when there is no change in job performance through the training intervention. *Negative transfer* occurs when job performance declines as a result of the training intervention.

Baldwin & Ford (1988): A Model of the Transfer Process

The model is described in terms of the following factors (refer to Figure 3):

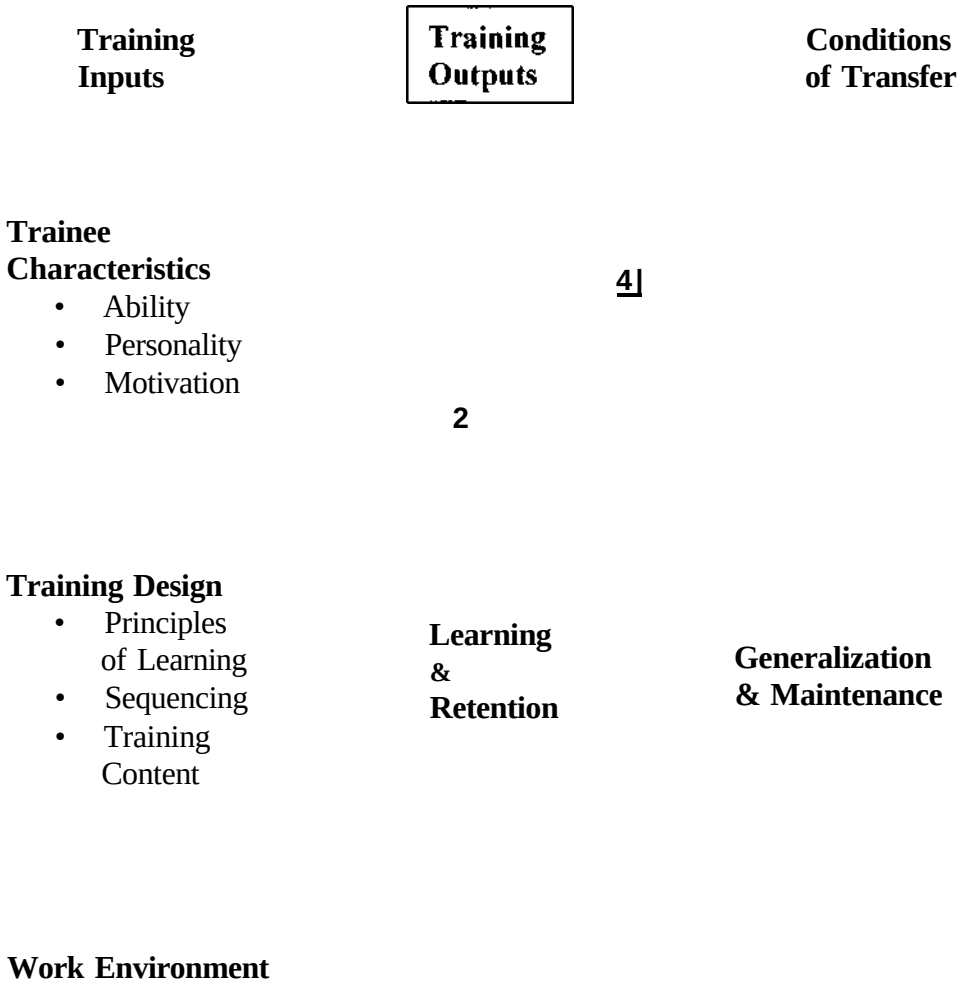
1. Training inputs, which include trainee characteristics, training design and the work environment. Trainee characteristics are detailed as ability, personality and motivation. Training design include the principles of learning when designing the training intervention, the sequence of the training intervention and the training content which is the relevance of training to the job. The work environment includes the support and opportunity for the trainees to apply what they have learned to their job situation.

2. Training outcomes, which include learning and retention.
   "Training outcomes are defined as the amount of original learning that occurs during the training program and the retention of the material after the program is completed." (Baldwin & Ford, 1988:64)

3. Conditions of transfer, which include generalization of the learned material to the job situation and maintenance of the learned material over a period of time.

The transfer model suggests that training inputs (that is, trainee characteristics, training design and the work environment) affect learning, retention and the transfer of training (paths 1, 2, 3 and 6 in figure 3). However, training characteristics and work environment have a direct effect on the transfer of training. This is denoted by paths 4 and 5 in Figure 3.

Figure 3: Model of the Transfer Process




Source: Baldwin and Ford (1988: 65)

The transfer of training model however, does not include an evaluative component. This is the impact of the training intervention on individual performance and organizational performance. Holton (1996) provided an evaluation model of training focused on individual performance. According to the Holton model, training interventions have three primary outcomes. These are learning, individual performance and organizational results. (Holton, 1996: 17) Since factors affecting the transfer process are well represented in Baldwin & Ford's model of the transfer process, individual performance and organizational results as suggested by Holton (1996) would ideally represent the evaluative component for Baldwin & Ford's model.

### 2.3.2 Theories Supporting Transfer of Training

Yamnill & McLean (2001) delineated theories on the motivation of transfer, theories on training transfer design and theories supporting transfer climate in order to explain Holton's (1996) evaluation of training model. The writer is of the opinion that these theories are applicable to the Baldwin & Ford (1988) model and will therefore be discussed accordingly.

According to the Baldwin & Ford model, the factors affecting the transfer of training include: training inputs, training outputs and conditions of transfer. Refer to Figure 3 - please note the top 3 blocks in the Baldwin & Ford model. The following discussion focuses in more detail on the input factors in the Baldwin & Ford model. That is, why people are motivated to change their performance, what kind of training design facilitates the transfer of training and what kind of work environment supports the transfer of training.

#### Theories on Motivation of Transfer

Motivation to learn and to transfer what is learned has been shown to be a critical factor in the effectiveness of training. In addition, an understanding of motivational theory will enable the understanding of how to increase learner motivation.

a) Expectancy Theory

The basic premise of the expectancy theory is "a momentary belief concerning the likelihood that a particular act will precede a particular outcome." (Vroom, 1964:17) as cited in (Yamnill & McLean, 2001:197) According to the expectancy theory, people will attempt an activity if they believe that they are capable of performing that activity and that their performance will lead to a desired outcome. "Expectancy theory argues that decisions about which activities to engage in are based on the combination of three sets of beliefs: expectancy, instrumentality and valence." (Desimone, Werner & Harris, 2002:50) Expectancy refers to an individual's belief that putting effort into a task will result in its accomplishment. Instrumentality refers to the individual's judgement about the possible connection between task performance and the outcome. Valence refers to the value that is placed on a particular outcome.

Given that the expectancy theory assumes that motivation is a conscious process, employees are likely to change their behaviour or performance after training if expectancy, instrumentality and valence are high.

b) Equity Theory

The basis of the equity theory is that all people have a desire to be treated fairly. The theory defines equity "as the belief that employees are being treated fairly in relation to others." (Desimone *et ai,* 2002:54) The converse is true for inequity.

According to Carrel & Ditttrich, (1978: 149) equity theory is based on the following assumptions:

- "People develop beliefs about what constitutes fair and equitable return for the contributions they make to their jobs;
- People compare their own returns and contributions to those of others; and
- Beliefs about inequity (unfair treatment) create tension that motivates people to reduce tension."

To put it in simply, with respect to transfer of training, if people believe that they are being treated fairly in relation to others, then perceptions of inequity resulting in tension do not arise, therefore they are more likely to transfer that which they have learned to the job situation.

c) Goal Setting Theory

A goal is an objective that is aspired to prior to any action taking place. Goal-setting theory involves intentions and values, with the intentions occurring prior to action and the values embodied in the decision to accept the intentions (Locke: 1968).
According to the goal-setting theory, "once a hard task is accepted, the only logical thing to do is to try until the goal is achieved or until a decision is reached to lower or abandon the goal." (Yamnil & McLean, 2001:199) Therefore, goal-setting combined with valid feedback, allows for better performance and "participation, incentives and individual differences affect performance through goal-setting" (Yamnil & McLean, 2001:199)

According to the motivation theories, trainees leave training programs with different levels of motivation to transfer. An important consideration then, is how are these theories relevant to the effectiveness of transfer?
Yamnill & McLean (2001:200) offer the following explanation:

- In terms of the expectancy theory and the goal setting theory, trainees who believe that what they have learned meets their expectations and bears relevance to the achievement of their goal, will be more likely to transfer that training to the job situation.
- The expectancy theory also implies that successful learners may feel more capable of performing what they have learned and will therefore have greater motivation to transfer.
- The expectancy theory, the goal setting theory and the equity theory implies that people with high commitment and job satisfaction are more likely to transfer. This view is evidenced by a study that confirms that people with more positive job attitudes can be expected to exhibit greater motivation to transfer learning

into job performance. (Tannenbaum, Mathieu, Salas & Cannon-Bowers, 1991:765) Similarly, Noe & Schmitt (1986) as cited in Baldwin & Ford (1988:69) found that people with high job involvement were more motivated to learn and transfer their learning to the job situation.

## Theories for Training Transfer Design

### a) Identical Elements Theory

According to this theory, positive transfer of training is proportional to the extent to which the training environment mirrors the performance or work environment in terms of the tasks learned. Therefore, if the training situation closely resembles the work situation in terms of the expected output, transfer of training would be expected to be of a relatively high level. Holding (1965) suggests that if the task to be performed is identical in training and in the work situation, trainees would simply be practising the task during training. However, if the stimulus and responses during training differ markedly from that in the work situation, no transfer of training would occur. Worse still is the situation where the stimuli in training and in the workplace are the same but the responses are different - this results in negative transfer of training. The most common situation is where the stimuli in training and in the workplace are different, but the responses required are the same. In this case, trainees can generalise from the stimuli to provide consistent responses (Holding, 1965).

### b) Principles Theory

This theory advocates that training can embody general principles, which can be applied by the trainee in the work situation for specific tasks (Goldstein, 1986). While this is possible, it does place strain on the designer of the training to find the general principles applicable to the particular industry and training goals.

c) Near and Far Transfer

This training embodies to an extent the ideas behind the Principles Theory and the Identical Elements Theory. In terms of this theory, transfer of training can be near, arising from almost identical stimulus/response situations in training and in the workplace, or it can be far, arising from the teaching of general principles to be applied to a variety of situations which may not be present in the workplace immediately (Laker, 1990:212)

The extent to which transfer is near or far is dependant on whether the Principles Theory or the Identical Elements Theory guides the development of the training intervention.
Laker (1990:215) suggests that the purpose of the training intervention must be considered. For example, Identical Elements Theory should be used to facilitate near transfer when technical training is being pursued. The reason here is that technical training "usually teaches specific behaviours that are applicable to an individual's current job." (Yamnill & McLean, 2001: 202) Far transfer is facilitated by the Principles Theory. According to Laker (1990:216) far transfer is suited to types of training that are directed toward long-term goals, for example, creative problem solving.

Theories Supporting Transfer Climate

The "work environment" that is mentioned in the Baldwin & Ford model (refer to Figure 3) is more commonly referred to as the "transfer climate." (Rouiller & Goldstein, 1993 and Holton, Bates, Seyler & Carvalho, 1997). The transfer climate can be described as the trainee's work situation and how that situation affects his willingness and ability to use skills learned in training. Holton *et ai,* (1997:97) defined transfer climate as the trainee's "sense of imperative that arises from a person's perception of his or her work environment".

a) Transfer Climate Framework

Rouiller & Goldstein (1993) suggest that workplace climate consisted of two (2) types of workplace cues, these are, situation cues and consequence cues. Situation cues remind trainees to utilise what they have learnt in training. Thus a supportive work environment would have more situation cues, allowing the trainee the opportunity to apply what he has learnt. Consequence cues refer to feedback that the trainee receives after application of the skills that he has learned in the training programme. This type of feedback drives the trainees to perform better and to approach training openly and willingly if it is positive, but causes loss of interest and apathy if the feedback is negative or non-existent.

In addition, different organisations have different transfer climates. (Rouiller & Goldstein, 1993:387) Similarly, Ford, Quinones, Sego & Sorra, (1992:512) noted in their study that after four months of aviator technical training, there was a substantial difference in opportunity to perform among the trainees. These differences in climates have an impact on whether trainees transfer behaviours that they have acquired in the training process.

There are several practical implications related to transfer climate research. As previously noted, evidence suggests that training is of little or no value if the knowledge and skills acquired through training cannot be translated to the job and maintained over time. (Yamnill & McClean, 2001 and Kozlowski & Salas, 1997)

Apart from setting training objectives that can be measured and evaluated to determine if an HRD intervention was successful, employers need to ensure that the work environment or transfer climate is conducive to the transfer of training. Rouiller & Goldstein (1993:389) suggests that "organizational analysis assessing transfer climate should be a requirement in determining if the organization is ready to support its training program." In addition, they also suggest that members of the organization should receive training to provide a supportive work environment to trainees so that the transfer of training may be facilitated.

b) Organizational Theory

According to this theory, training and acquired skills at the individual level are applied in team technology, co-ordination processes and social system contexts (Kozlowski and Salas: 1997) as cited in Yamnil & McLean (2001: 203). Kozlowski and Salas (1997) argue that the need for change, the implementation of interventions and the transfer of trained skills are embedded within the context of team, sub-unit and organisational levels. This theory suggests that the organisation as a whole can affect training attitudes by adopting a systemic approach to the need for training.

In summary, trainee characteristics, training design and work environment as set out in the Baldwin & Ford model have been explained in terms of theories of motivation, theories for training transfer design and theories supporting transfer climate respectively.

## 2.4 Evaluation of Training

The Baldwin & Ford model of the transfer process can be criticized because it does not include an evaluative component. It has been mentioned that Holton (1996) provided an evaluation model of training focused on individual performance. According to the Holton model, training interventions have three primary outcomes. These are learning, individual performance and organizational results. (Holton, 1996: 17) However, according to Desimone *et al,* (2002:231), Kirkpatrick's model of evaluation "is the most popular and influential framework for training evaluation." Therefore, it will be used in this study and may be considered a representation of the evaluative component that is absent in the Baldwin & Ford model of the transfer process.

### 2.4.1 Kirkpatrick's Model of Evaluation

The dominant model of training evaluation in Human Resource Development (HRD) research and interventions is the four level model as proposed by Kirkpatrick in 1964. According to this model, training can be evaluated as follows:

**Level 1: Reaction**

Reaction refers to the trainee's perception of the programme. In essence, did they enjoy the programme and did they think that it was effective? (Desimone *et al*, 2002:231).

**Level 2: Learning**

This criterion determines whether the learning objectives of the HRD intervention were met. In other words, did the trainees acquire the skills or knowledge that was required? A measurement tool should be used to determine the success at this level.

**Level 3: Job Behaviour**

This element refers to the transfer of training. If the assimilated material or skill is not applied to the job situation, the HRD intervention cannot have a positive effect on the organization. Job behaviour may be assessed by managers, supervisors or by performance records.

**Level 4: Results**

This level relates to the effectiveness of the organization. If the training intervention was successful, then the organization's performance would have improved measurably.

It will be recalled that effective training is defined as the extent to which training objectives are met. If clear objectives are not set then it is difficult to measure, achieve and determine effective training. Therefore, in order for training to be effective, training needs must be properly identified, clear objectives for training must be set and training programs must be evaluated in terms of efficacy. Effective training therefore, in this study, is measured in terms of employee learning, employee performance and organizational performance. Employee learning, employee performance and organizational performance are derived from levels two, three and four respectively, of Kirkpatrick's model.

Despite the popularity of Kirkpatrick's model, it has been suggested that the model should expand the Reaction Level to include specific components of the employee's reaction to the program, or by adding a fifth level (beyond Results) to include societal contributions created by the HRD intervention or to assess the organization's return on investment (Desimone *et al,* 2002:232). The return on investment discussed in the following section should be viewed as the extension of Kirkpatrick's model.

### 2.4.2 The Return on Investment (ROI) of Training

The ROI in training is a method of evaluating training and is essentially a cost benefit analysis. (Hunter, 2003:72) In other words, when training is evaluated in terms of costs and benefits to the employer, ideally the benefits should exceed the costs of training.

Philips (1996:21) as cited in Hunter (2003:72) points out that there are 'hard and soft data' that may be used to calculate the ROI. The hard data is based on measures of quality, quantity and time. Because the measure of quality, quantity and time are somewhat concrete, converting these measurements into benefits in monetary terms is relatively easy. The problem lies in the measurement and calculation of soft data which include measures that are subjective, making the benefits intangible. It is recommended therefore that hard data be converted into monetary terms while intangible benefits are stated in general terms. (Hunter, 2003:72)

Swanson (1998) focuses on the financial analysis method of HRD. The Financial Analysis Method (FAM) is used to convert the actual HRD interventions and the forecasted financial benefits of an HRD intervention into monetary terms. The three main components include: the performance value resulting from a program, the cost of the program and the benefits resulting from the program. "The basic financial analysis model is PERFORMANCE VALUE - COSTS = BENEFITS." Swanson, (1998:287)

The general strategy for the calculation of the ROI can be obtained by dividing the total results by the total costs. (Desimone *et al*, 2002: 251) This should yield a ratio of results to cost (results: costs). The greater the ratio of results to cost, then the greater the benefit of the training intervention to the organization. The actual calculations for financial analysis lie outside the scope of this study. Of importance however, is whether it is beneficial to invest in training.

In this regard, studies (Rosentreter, 1979; Swanson & Sawzin, 1975 and Swanson & Mattson, 1997) indicate that if an HRD intervention is executed in a purposeful way, then it would yield high returns on investment.

Clements & Josiam (1995) used the FFB method to forecast the benefit of the investment of unstructured training and structured training in the hotel industry. The benefit of structured training was forecast at 8.7:1 over unstructured training for a three-month period.

In a similar study, Jacobs, Jones & Nel, (1992) forecasted the benefits of structured on-the-job training and unstructured on-the-job training in a large truck assembly plant over an evaluation period of three months. It was concluded that structured on-the-job training yielded a higher ratio which was 63:1.

Swanson (1998:285) suggests that a common misconception in HRD is that training costs organizations more than it returns. In terms of the ROI ratio explained above, the

abovementioned studies provide some evidence that costs of training in organizations do not always exceed the returns.

## 2.5 Summary

This chapter focused on skills development in a theoretical context.

Firstly, skills development was examined in terms of the Neo-classical Theory, the Endogenous Growth Theory and the Human Capital Theory. The emphasis of the Neo-classical Theory is that short term economic growth is dependant on the investment in physical capital. Conversely, the Endogenous Growth Theory takes into account investments in education and training. The basis of this theory therefore, is that if emphasis is placed on education and collective skills development, then it is possible for an economy to experience long term growth. The Human Capital Theory focuses on individuals' employability and earnings. The basic premise of the human Capital Theory is that education and training enhance a person's stock of human capital and therefore increase that person's productive potential. (Barker, 1992:102).

Secondly, effective training and evaluation were discussed. The measure of effective training is the transfer of training that occurs after a training intervention as defined by Baldwin & Ford (1988). The transfer model suggests that training inputs (that is, trainee characteristics, training design and work environment) affect learning and retention and transfer of training. However, training characteristics and work environment have a direct effect on the transfer of training. In order to maximize the transfer of training, training inputs must be considered when designing a training intervention. Further, in line with the transfer of training, theories that are considered to have an effect on the change in employees' behaviours after a training intervention were discussed. These included theories on motivation of transfer, theories for training transfer design and theories supporting transfer climate.

Thirdly, evaluation of training was considered using Kirkpatrick's 4-level model of evaluation. According to this model, training can be evaluated on four levels, including, reaction, learning, job behaviour and results. Although this model is dominant in human

resource development, a shortcoming is the lack of evaluation in terms of monetary value to an organisation.

Finally, Swanson (1998) argued that the reason for a training intervention is to change performance and that this performance should be measured in terms of the Return on Investment (ROI) of training. The ROI may be viewed as an extension of Kirkpatrick's model of evaluation. Studies relating to (ROI) were discussed and it was concluded that an investment in training provided returns that were beneficial to organisations provided that the training intervention was purposeful.

The following chapter focuses on efforts of governments to promote skills development.

# Chapter Three

## Literature Study: The Efforts of Governments to Promote Training

### 3.1 Introduction

The theoretical view of training and development as discussed in the previous chapter is that training benefits individuals, organisations and economies alike. Specifically, individual benefit was explained in terms of the Human Capital Theory, organizational benefit was explained through measurement of the return on investment (ROI) and economic benefit was explained in terms of growth theories.

Given these benefits of training, this chapter focuses on newly industrialized countries and their efforts to promote training and development. The different types of levy schemes, the impact of levy schemes and the guidelines for the successful implementation of levy schemes are discussed in general. Education and training systems in South Korea, Malaysia, Singapore and Taiwan, China are examined according to Tzannatos & Johnes (1997). Thereafter, enterprise training in newly industrialized countries is discussed. This is done with a view to point out factors that influence enterprise training. These include, firm size, education and skill mix, the firms' technology, automation and quality control and female labour and unionization. (Tan & Batra, 1995) The discussion focuses on the first three factors as it bears direct relevance to the study.

The reason behind the choice of South East Asian countries for this discussion is that about a decade ago they were considered developing countries. One of the factors that have catapulted these countries onto the path of economic growth and development is education and training. South Africa is looking to achieve similar successes and an indicative comparison to these countries will prove useful.

## 3.2 Levy Schemes

In the following sections, studies relating to training and training levies (especially in developing and newly industrialized countries) are examined. This is done with a view to compare the training systems and the effectiveness thereof, to the training system implemented in South Africa (see chapter 4). It is important to note however, that cross national comparisons of training are problematic for various reasons. Rather than directly comparing training in other countries to that in South Africa, emerging trends will be noted. In this way, lessons may be learned from countries that are further along the skills development path than South Africa.

### 3.2.1 Payroll Levies

These refer to charges levied by the State on the basis of the total payroll or salary and wage cost of the companies in the payroll levy programme.

### 3.2.2 Training Levy Schemes

Employer targeted training policies have been in place in developed as well as developing countries to foster training in enterprises in order to develop skills and upgrade the existing skills of the workforce. Skills development and training has received much attention in recent literature in the light of factors such as technological advancement and globalization, where skill of a workforce plays a defining role in a country's ability to compete successfully. Despite the importance and implementation of training policies, there has been little attempt by governments at rigorous evaluation of theses policies to determine effectiveness.

Dar, Canagarajah & Murphy (2000) attempt to evaluate the usefulness of levy schemes. They provide a brief rationale, advantages and drawbacks as well as the impact of training levy schemes.

Dar *et al.* (2000:1), maintain that the rationale behind the choice of payroll levies is as follows:

- The person or entity that benefits from the training is held accountable. This may be tied in to a component of the Human Capital Theory which states that general training is the responsibility of the individual while the cost of firm specific training must be borne by the employer.
- Governments usually opt for the payroll levy system because they are of the opinion that if firms are compelled to financially commit to training, the quantity of training will increase by continuously upgrading the skills of their workforce.
- Payroll levies provide a dependable source of revenue for training, which the government may not be able to generate for training.

They go on to discuss two types of schemes that are most commonly used in developing countries, namely the revenue generating scheme and the levy grant scheme (also referred to as the levy rebate scheme). The latter was implemented in South Africa during the apartheid era. The revenue generating scheme operates whereby "firms are taxed to generate revenues to finance training provided by the public sector" and in the levy grant scheme, "training provision is encouraged by providing firms with training incentives." (Dar *et al,* 2000:2)

Although levy disbursement schemes bear relevance to the study at hand, revenue generating schemes will also be explained because examples of the implementation and effectiveness of both types of schemes in particular countries will be discussed later in this section.

With this in mind, the types of levy disbursement schemes may be explained as follows:

1. Payroll Tax Exemption: example France and Cote 'd Ivoire

Companies may pay a levy in an inverse relation to the amount of training that they provide. In other words, the more they train the lower the levy and the levies payable

may be reduced or they may be exempt altogether from paying the levy if they are heavily involved in training.

2. Training Cost Re-imbursement: example Malaysia and previously Singapore

Companies are paid grants to cover the cost of pre-selected types of training. Examples of such training schemes in Malaysia are: the Approved Training Program (ATP); the Skim Bantuan Latihan (SBL) and the Pelan Latihan Tahunan (PLT). The ATP scheme approves training conducted at registered training institutions. The SBL scheme approves occasional training provided by firms or unregistered training providers. The PLT scheme approves regular training offered by firms. An important note here is that the rate for training expense re-imbursements differs according to the type of training that is provided. For example, the rate for re-imbursement is 60% for technical, craft or computer training. In this way, the government can facilitate the development of skills that are required. In addition, firms employing less than 200 people qualify for an additional 10% over their training cost re-imbursement. This encourages smaller firms to participate in the training system which usually benefit larger firms to a greater degree than smaller firms.

3. Levy-grant Schemes: example South Africa, Hungary, Singapore and previously, the United Kingdom

Levy-grant schemes require companies to pay a levy that constitutes a percentage of their payroll. In South Africa for example, companies with a payroll of more than R500 000 per annum are required to pay a levy of 1%. Grants are then disbursed from the levies collected, for training that is conducted using systematic training approaches as well as an approved training provider. In this type of scheme, a portion of the levy is disbursed to a national training authority or to public training institutions.

Revenue generating schemes uses revenues collected through payroll taxes to develop and financially maintain a national training system. A key difference between levy disbursement schemes and revenue generating schemes is that in the latter, "the emphasis is on public sector training provision rather than the encouragement of firms to undertake training." (Dar *et al,* 2000:2)

Dar *et al.*(2000:5) provide possible advantages and limitations of levy schemes. Amongst the advantages discussed is the view that levy disbursement schemes promote "self financed, employer-based training" as well as a culture of employer-based training. In addition, training is more systematic because there are criteria that must be met in order to qualify for rebates from levy-based funds. A salient point here is that training that occurs under the implementation of a levy scheme, although systematic, may not necessarily be effective. In other words, there might be a mismatch between training needs and the actual systematic training provided.

The possible limitation of this type of scheme is that only a portion of the levy may be claimed. This means that employers may not recover their total levy contribution. The problem here is that employees may be discouraged to invest in training in terms of the payment of levies because the actual cost of their training may amount to less when compared to the amount that they are compelled to pay in skills development levies. Companies may also conduct training in order to fulfil legislative training requirements, and therefore training may not be beneficial. Again, this relates to the effectiveness of training as mentioned above. In the case of South Africa, the question arises as to whether the skills development levy has contributed to the effectiveness of the training of the South African work force. This will be discussed at length in Chapter 4, taking into account the results of the South African National Skills Survey (2003) commissioned by the department of labour.

### 3.2.3 The Impact of Levy Schemes

According to Dar *et al.* (2000:5), levy schemes are in operation in over 30 countries. However, there is limited evaluative evidence on the effectiveness of such schemes. Similarly, Tan (2001:1) states that many developing countries have put into place policies to advance enterprise training but there is limited and mixed evidence on the effectiveness of these policies.

Dar *et al.* (2000:6) provide evidence on the effectiveness of 13 levy schemes that have been evaluated. Their general findings are:

- *"Levy schemes have led to an increase in quantity of training.*
- *These schemes are more effective under conditions of economic growth.*
- *Small employers do not benefit substantially from these schemes.*
- *The levelling effect. Firms which may have otherwise invested more in training tend to reduce their effort to the level required by the law in order to receive the minimum rebate or tax credit. "*

### 3.2.4 Guidelines for the Successful Implementation of Levy Schemes

Suggested guidelines for the implementation of successful levy schemes offered by Dar *et al.* (2000:9) are as follows:

- *"Employer buy-in for these schemes is crucial. "*

The optimal functioning of the levy schemes depends on employer participation. Small companies often regard the levy scheme as an additional tax because they tend to benefit to a lesser extent than larger companies. However, levies are not always well received by larger companies either (see for instance Dar et al 2000; Tan (2001) & Tan & Batra, 1995). According to Grawitzky, this is also evident in South African companies where the Skills Development Act has been met with trepidation by employers (Grawitzky, 2001:1). She also argues that the perceived lack of delivery by SETAs prevented employer 'buy-in' into the levy scheme. In the United Kingdom, the levy grant scheme

was also seen as an additional tax that was added to industry cost and in this instance, the levy served to reduce competitiveness within industries. (Dar, 2000:8; Dougherty & Tan, 1991)

- *"Administrative efficiency and transparency is crucial. "*

It is important that the collection agencies, particularly in the processing and reimbursement of claims, are efficient and transparent in order to promote maximum compliance. A problem with the levy grant system in South Africa is the disbursement of levies by the respective SETAs. Grawitzky (2002:1) states further that by 2002, SETAs had collected an estimated R3 billion which they had not disbursed. This points, firstly, to the administrative inefficiency of the SETAs. Secondly, it is an indication of the possible lack of commitment of employers to training. She maintains that SETAs are public bodies and should be run as such. Chief Executive Officers of various SETAs had at that point been suspended and charged with various counts of fraud and mismanagement. Glasskov (1994) as cited in Dar et al (2000:9) provided instances of countries with well administered schemes such as The Singapore Skills Development Fund, the French Levy Exemption Scheme and the Human Resource Development Fund in Malaysia. These will be discussed in greater detail later in this chapter.

- *"Fund design should ensure that non-governmental providers are not crowded out. "*

There should be equal opportunity for governmental as well as non-governmental training providers to offer training services. This allows for competition between training providers and will also promote effective training. In countries where a part of the training levies are channelled back to fund public training institutions, non governmental providers of training were crowded out. (example: Kenya and Tanzania)

- *"Governments should play a significant role in evaluating the effectiveness of these schemes. "*

So far, there has been limited evidence of rigorous evaluation of levy schemes. For instance, of the 30 countries that have implemented levy schemes, Dar *et al.* (2003:5) found evaluative evidence on the implementation of just 13 levy schemes. The objectives of levy schemes are to promote training and to ensure training is effective through monitoring the quality and the implementation of training. In order to achieve these objectives, monitoring and evaluation of these schemes is imperative.

### 3.3 Education and Skills Training in Newly Industrialized Countries

There is no universally applicable method for successful implementation of a training system in a specific country. However, a positive step in this direction is to examine the successes and shortfalls of countries that share commonalities, and in this way lessons may be learnt for the improvement of education and training.

Tzannatos & Johnes, (1997:431) note from their experience that *"there is no universal prescription for training interventions. Much depends on country specific characteristics such as simple or sophisticated production, the availability of information, size of the country....The socially optimal provision of training, therefore, depends on the developmental stage of the country. "*

It could be concluded from Tzannatos and Johnes' comments that to compare a country such as South Africa with advanced countries will not be helpful. For reasons such as educational and skill level of the workforce it might be more applicable to discuss countries with similar characteristics and developmental levels. Therefore, the following discussion includes education and training systems in South Korea, Singapore and Malaysia, each exhibiting their own successes and shortfalls.

### 3.3.1 South Korea

#### A. Primary, Secondary and Tertiary Education

South Korean primary education lasts from the age of 6 to the age of 12, while compulsory education lasts until the age of 14. In 1960, the country achieved universal primary education, where all children were enrolled for primary schooling at the age of 6. The continuation of studies into secondary education is very high (95%). The South Korean schooling system has a primary school level, followed by a middle school level (3 years) and a high school level (3 years). High schools are divided into vocational and technical types, and academic types. At middle school level, some of the material encountered is vocational in nature, allowing learners to determine what their future learning path will be. Recently, the vocational high school system has been split into a 2-year system and a 1-year work experience system. In these cases, the learner is paid half minimum wage and the companies participating in the system are granted loans, subsidies and tax relief for their participation. Vocational training continues after high school, with vocational colleges providing instruction, and this system sits in parallel with the academic university system. It is important to note that compulsory education is free.

#### B. Further Training

In South Korea, training outside of the formal education sector comprises in-service training. The private sector receives major incentives for training its workers, such as tax relief, loans and subsidies. Companies employing at least 150 workers are required each year to submit training plans, indicating the number of workers who will receive the approved training. Should the number of trainees be lower than the approved number, a tax is imposed on the company. This tax is based on a percentage of the total payroll of the company. The number of workers required to be trained in each sector of the economy is determined in advance by reference to the skills shortages in the sector and the employment growth rate. A training co-efficient has been established and represents

the percentage of workers who are required to receive training in a particular year. This training co-efficient has steadily declined in South Korea, possibly indicating that the pool of trained workers has reached its carrying capacity in terms of employment. It has been reported that over time many companies have preferred to pay the levy rather than train their workers (Tzannatos and Jones, 1997:433). This may be a response to the quality of training and the opportunity cost of training to the employer in large companies, and a fear of losing trained workers in smaller companies.

South Korea is characterized by in-service training on the premises of the employer and by training provided on an inter-company basis. The former ensures that the training received is relevant to the profit motive, while the latter is a cost solution to smaller firms with common training needs. The fears of the smaller companies are partly allayed in the sense that workers who undergo training are required to contract to their companies for a period of twice that of the training programme. The South Korean government, noting its economy's comparative advantages, has intervened and provided support to those industries that make full use of the country's comparative advantage. Therefore, it has also used the education system to produce the labour potential to meet the needs of the economy.

## C. Concerns

Concerns that the post-school training in South Korea does not meet the needs of industry still exist. (Tzannatos & Johnes, 1997:435). It has been found that there is a shortage of skills in the manufacturing industry, where the country does have a comparative advantage, while there is unemployment amongst the humanities graduates. This may indicate that the culture of the country is such that there is great family and social emphasis on formal tertiary education, which may be seen as a measure of success. Another concern is that those responsible for accreditation of courses may lack the necessary knowledge themselves and thus prescribe courses that are of little real value to the learner. Finally, the incentives for teaching may be too little to allow for the maintenance of high standards.

### 3.3.2 Malaysia

#### A. Primary, Secondary and Tertiary Education

Since the early 1980's Malaysia has experienced universal primary education. Children enroll at the age of 6 and primary school lasts 6 years, with tuition being free. Thereafter, there is a period of lower secondary schooling for 3 years. Promotion during this initial 9-year phase is automatic. The upper secondary period lasts 2 years and is divided into academic courses and vocational and technical courses.

#### B. Further Training

Further training in Malaysia can be undertaken via a variety of government institutes, statutory bodies and industry apprenticeships. There are public-private partnerships designed to assist in training, especially in those areas where the industries are short of skilled workers (Tzannatos & Johnes, 1997:438). In this way, the labour needs of the country are met by the grooming of potential workers. The government introduced the Double Deduction Incentive for Training (DDIT) scheme in 1987 to allow companies that train their workers to deduct from their taxable income twice the approved training costs incurred in that year (Tzannatos & Johnes, 1997:438 ). This system was also applied in South Africa during the apartheid era but was scrapped mainly because of fraud. For the companies to be able to utilize this scheme, they must train their workers at approved training centres or in-house but subject to approval from the Malaysian Industrial Development Authority (MIDA). The use of the scheme between 1987 and 1992 was very limited, with mainly international companies in the electronics sector being involved (Tzannatos & Johnes, 1997:438). Since 1992, the DDIT scheme has been restricted to manufacturing companies with fewer than 50 workers, but companies have continued to be reluctant to utilize the scheme. Tzannatos and Johnes (1997:40) believe that the reason for the reluctance is that the administrative demands and costs on these companies are too high. In addition, the incentive to train within this scheme is lost if the

firm in question experiences income that is below the income tax threshold that exists in Malaysia.

The Human Resources Development Fund (HRDF) has also been implemented to cater to the needs of the larger manufacturing firms. This is a payroll levy scheme which is highly subsidized by the state. Employers contribute 1% of their payroll costs to the fund and are reimbursed at different rates for training, depending on the field that the training is conducted in. Firms may only claim training costs if they have been contributing to the fund for a period of at least 6 months. According to Tzannatos and Johnes (1997:440), the difficulty with levy schemes is that of monitoring and accreditation.

### 3.3.3 Singapore

#### A. Primary, Secondary and Tertiary Education

Primary education is free in Singapore, and lasts 6 years. Secondary education does attract a nominal fee but, like tertiary education, is highly subsidized by the state. At tertiary level, further training occurs by either junior college, which is an entry point for university, or polytechnics, which are similar to technikons and award certificates and diplomas to successful students, or the Institute of Technical Education (ITE). The ITE is responsible for providing training and also being the regulatory authority for all public and private training. This indicates that standards are monitored by one body and should therefore be easier to maintain. The ITE is advised on training needs and requirements by 12 Training Advisory Councils (TAC's) which represent different economic or industrial sectors. The TAC's comprise employers, professionals and other skilled workers and therefore the relevance of the training is almost guaranteed. The ITE, like other educational institutions in Singapore, is highly subsidized by the state.

B. Further Training

Singapore also utilizes a payroll levy system, but limits the use of the system to technical vocational training. The firms involved are taxed at 1% of a predefined low wage total, and they may receive up to 90% of their training costs back. Most of the firms in Singapore, including the medium sized and small firms, have benefited from using the levy system. This is in stark contrast to many other countries which employ the levy system.

Smith & Billet (2004:30) suggests that the success of the skills development levy system in Singapore is due to the highly targeted nature of training that has exerted a significant impact on the skills of its workforce. In addition, the Skills Development Fund in Singapore is tightly controlled. This means that the government has planned its economic development and training systems so that there is congruence between them. Smith & Billet (2004:30) state that the Singaporean employers also subscribe to the government's vision for the economy. Therefore, they are committed to the skills development of the workforce and are willing to contribute to the skills development fund. This ties in with the guidelines offered for the effective implementation of levy schemes as suggested by Dar *et al.* (2000) in the previous section. In addition, an important consideration is Singapore's population. According to SingStat (2006) the population of Singapore is 4.4 million. This population is fairly small in comparison to a country such as South Africa with a population of approximately 47 million.

### 3.3.4 Taiwan, China

A. Primary, Secondary and Tertiary Education

Schooling in Taiwan is free for the 9 years that schooling is compulsory as well as for the 3 years of senior high school. Primary schooling lasts 6 years, followed by junior secondary for 3 years and finally senior secondary for 3 years. Senior high schools are divided into academic and vocational schools, with the academic schools divided into the

pure sciences and social sciences respectively. The vocational schools belong in the private sector, with many having strong links to companies.

B. Further Training

In-service training is mainly conducted at the firms themselves, but there are public institutions that cater for the training of workers. The level of mainland state intervention in education in Taiwan is very high, with the state responsible for curricula and all other aspects of training. There was a levy scheme similar to that utilized in Singapore, but this was scrapped in 1974 as a result of an economic recession. However, the private sector encourages training and trains a large number of workers in Taiwan. The state provides subsidies to those firms that conduct training or send workers to a public training centre.

The centralized co-ordination of training has caused regional mismatches in supply and demand of labour (Tzannatos & Johnes, 1997:446). This problem may be solved by the appointment of regional organisations, which can take into account the needs of the region, the skills of the population there and the demands of the regional economy.

## 3.4 Enterprise Training in Newly Industrialized Countries

The following section will focus on enterprise training in newly industrialized countries. Specifically, the impact of Malaysia's levy system on training as well as the determinants and productivity outcomes of training in other developing countries.

### 3.4.1 Malaysia: Human Resource Development Fund (HRDF)

In Malaysia, the Human Resource Development Fund (HRDF) was implemented in 1993. Prior to 1993, Malaysia used the tax incentive scheme whereby companies benefited from tax incentives for approved training paid for from general revenue funds. This system had been in operation since 1997 and proved to be ineffective, (see Tan & Gill,

2000) Financing for training in Malaysia is currently provided for by payroll levies, specifically the training levy-rebate scheme as described in the section above.

Tan (2001) conducted a study to determine the impact of the HRDF and technological activities on training in manufacturing firms. The main objectives of their study were:

1. To evaluate the impact of the implementation of the HRDF on training, amongst different firms.
2. To determine whether the incidence of training was a result of the implementation of the HRDF or other factors such as the adoption of new technology.
3. To estimate the impact of training on firm-level productivity growth.

Tan, (2001:3)

Before the findings of the study are discussed, a brief overview of the establishment and the functioning of the HRDF are noted.

To reiterate, the HRDF was put into practice in 1993 and the Malaysian government supplied a grant which was equivalent to projected levy contributions to the HRDF for the first year. "The government contributed M$48.9 million to match projected company levies in the first year; and in each of the following three years, it will added an additional M$16.3 million to the HRDF." (Tan, 2001:4). Companies eligible for the payment of the training levy were those who employed more than 50 workers and their contribution to the HRDF amounts to 1% of their annual payroll. The Human Resource Development Council (HRDC) was set up to administer the HRDF schemes. Re-imbursement rates were dependant on the type of training conducted and the maximum re-imbursement for training was levy contributions for the year. Re-imbursement for larger companies was lower than other companies.

As mentioned above, Malaysia implemented a training rebate scheme. For clarity, a training rebate scheme (referred to as a cost re-imbursement scheme above), operates whereby companies are re-imbursed out of payroll levies to conduct training from pre-selected or approved training programs. There are three basic training schemes on offer

by the HRDF such as the ATP Scheme, the SBL Scheme and the PLT scheme. The ATP scheme, for instance operates whereby companies can send employees on approved training programs conducted by registered providers. Re-imbursement claims may be submitted to the HRDC once training is completed. For a detailed discussion of types of training schemes, see (Tan ,2001:5) & (Tzannatos & Jones, 1997:439) Between 1995-1997 additional schemes focusing on small and medium enterprises were introduced to deal with the possible compliance problems of these firms. It has been noted above that smaller companies do not respond well to payroll levies because it is less beneficial to them than larger companies.

The results of the incidence of training since the inception of the HRDF revealed that there was a definite increase in training over the three years that were examined. Tan (2001:7) measured training in 1988, 1994 and 1997 to determine the incidence of training before and after the implementation of the HRDF. For these years, the incidence of overall training were 34.1 percent, 40.6 percent and 51.7 percent respectively. These results may be decomposed to reveal firm size and the incidence of training in the table below.

Table 1: Incidence of Training according to company size.

| **Firm Size (no. of employees)** | **Percent of Formal Training** | | |
|---|---|---|---|
| | **1988** | **1994** | **1997** |
| **Small (under 100)** | 24.3 | 25.5 | 35.1 |
| **Medium (100-249)** | 49.9 | **51.8** | 63.6 |
| **Large (more than 250)** | 68.6 | 69.7 | 81.7 |

Source: Data extracted from Tan (2001:7), Table 1.

From Table 2, the emerging trend is that larger firms train more than smaller firms. It is also important to note that the percentage of training in small and medium size firms shows a great increase after 1994. This may be attributed to the additional training

schemes implemented by the HRDF, as discussed above that specifically targeted these firms. This points toward the efficacy of the HRDF, in training the Malaysian workforce. Tan (2001:7) notes further that the incidence of training is greater in companies that require the use greater technology compared to companies who are not are not technologically intensive.

In order to determine whether the impact of HRDF affected the incidence on training to a greater extent than technology, Tan (2001:8) made a further distinction within the sample of companies used in 1994 and 1997. He divided the eligible companies (more than 50 employees) into those that were registered with the HRDF and were paying the levies, and those that reported non registration with the HDRF. Predictably, data revealed that there was a higher incidence of training in companies that were registered with the HRDF. Specifically, in 1994 the incidence of training was 35.07% and 60.48% for non registered and registered companies respectively. Similarly, in 1997 the incidence of training for non registered firms was 34.26% and 77.24% for registered. A further inference can be made from the data as follows: The above percentages indicate that training in non registered companies actually decreased by 0.18% when comparing training in 1994 to 1997 while registered companies show a marked increase in training of 16.76‰ for the same years.

It is noteworthy at this stage that 75% of eligible firms reported registration with the HRDF. (Tan 2001:8) This means that only 25% of eligible firms were not registered. From literature reviewed so far, it may be inferred that a significant proportion of the non compliant percentage comprise smaller firms.

The discussion thus far has focused on whether the HRDF served its purpose which was to promote enterprise training. Evidence has repeatedly pointed to the efficacy of the HRDF. This bears direct relevance to the study at hand.

With regard to the use of technology and the need for training, and the impact of training of firm level productivity growth, a detailed discussion is not warranted here. However,

Tan (2001:19) noted in his concluding remarks that: *"Technological change had a role in inducing enterprise training, but the overall contribution of the HRDF was much larger. The resulting increase in training, whether induced by HRDF or the adoption of new technology, had strong demonstrated impact on productivity growth. "*
A detailed discussion on the relationship between training and productivity will be dealt with later in this chapter.

### 3.4.2 Enterprise Training in other Newly Industrialized Countries

Tan & Batra (1995) conducted a study to investigate the incidence, determinants and productivity outcomes of training in five developing countries (Columbia; Malaysia; Indonesia; Mexico and Taiwan). In this section, the main findings of their study relating determinants of training as well as the productivity outcomes will be discussed.

#### A. Determinants of Enterprise Training

The determinants of enterprise training in the study noted above concentrate on factors that shape an employer's decision to train. Such factors were outlined by Tan & Batra (1995) and include firm size, education and skill mix, the firms' technology, automation and quality control and female labour and unionization. The first three factors will be discussed as it bears direct relevance to this study.

1. Firm Size

Firm size was found to be a correlate of enterprise training. "'Larger firm sizes are associated with monotonically higher likelihoods of formal training." (Tan & Batra, 1995:14). In addition, they found that the effects of firm size on training differ by skill group and source of training. In other words larger firms are more likely to provide training for skilled workers than unskilled workers and training is usually

provided by external sources. Similarly, Dawe (2003) found in a survey of Australian firms that larger enterprises tend to provide more training, especially formal training, to their employees. This finding was also prevalent in a skills survey conducted in Britain (Falstead, Green & Mayhew, 1997) as cited in Paterson, McGrath & Badroodien, 2004:59). They note that the relationship between enterprise size and training reinforces existing skill difference across enterprises because small enterprises are less likely to provide formal, of-the-job training. This means that if small enterprises employ people that are lower skilled, there is little opportunity for them to improve their skills.

2. Education and Skill Mix

Predictably, Tan & Batra (1995:15) show that the higher the education of the workforce, the greater the likelihood is of formal training. With the exception of Indonesia, the other countries in the sample (Mexico, Malaysia, Indomesia & Taiwan) exhibit similar trends.

Similar views are expressed by O'Connell (1999) as cited in Paterson, McGrath & Badroodien (2004:62) who observe that adults who have attained a higher level of education are more likely to participate in training, and training for this group is usually longer in duration. A possible explanation here is that training for people with higher skill and educational levels may tend to be more specialized or technical, therefore requiring a greater amount of time. In addition that skill mix was found to be a greater determinant of external training than educational levels. The findings here imply that educated and skilled workers have access to training more readily than their lower educated and less skilled counterparts.

3. Firm Technology

In Malaysia, Mexico and Taiwan the study indicates that firms associated with the greater use of technology were more likely to train. Tan & Batra (1995:17) maintain that higher income countries were associated with increased use of technology and

therefore training. Another important observation is that these firms train skilled and unskilled workers alike especially when new technologies are introduced.

B. Productivity Outcomes of Enterprise Training

In this study, "training was found to have a positive and statistically significant impact on firm level productivity in all five countries - Malaysia, Taiwan, Mexico, Columbia and Indonesia." Tan & Batra (1995:26)

In terms of skills level, the training of skilled workers has a positive impact on firm level productivity. The training of unskilled workers has a statistical insignificant impact on productivity. Tan & Batra (1994:30) argue that productivity is enhanced by an educated and skilled workforce which might explain why employers invest in the training of their more skilled and educated employees.

From the discussion above significant conclusions may be drawn:

- Larger companies are more likely than smaller companies to invest in training.
- Educated and skilled individuals of a workforce are more likely to have access to external training.
- An investment in training of a skilled and educated workforce yields an increase in productivity of an enterprise as opposed to their counterparts.

Considering the educational and skill levels of the South African workforce, conclusions such as these are not positive. In chapter three findings will be discussed in terms of the state of enterprise training to determine whether these conclusions are indicative of training in the South African workforce.

## 3.5. Summary

This chapter started with a general discussion of levy schemes. Thereafter, the education and training systems of newly industrialized countries were discussed. Finally, the determinants of enterprise training and the impact thereof were pointed out.

The main conclusions will be discussed accordingly.

Dar *et al.* (2000) attempted to evaluate the usefulness of levy schemes. They differentiated between the two most commonly used schemes, namely, levy disbursement schemes and revenue generating schemes. They concluded that there is limited evaluative evidence on the effectiveness of such schemes however general findings were that: Levy schemes have led to an increase in the quantity of training; levy schemes are more effective under conditions of economic growth; smaller employers do not benefit substantially from these schemes and levy schemes sometimes cause a leveling effect. Consequently, they suggested guidelines for the successful implementation of levy schemes.

The education and training systems in South Korea, Malaysia, Singapore and Taiwan were examined. An important commonality between these countries is the importance that is placed on education. All countries have a compulsory period of schooling, usually between six years and nine years. In Singapore and Malaysia, Primary school education which lasts until the age of 12 is completely free. In South Korea, compulsory education which lasts until the age of 14 is free and in Taiwan, primary, junior secondary and senior secondary education is free. The fees that may be required for secondary education in certain countries (Singapore) are nominal and subsidized by the state. This ensures at the very least, a foundation for skills development. The secondary schooling phase is divided into academic and vocational schools. Further training is conducted by enterprises in the form of in house training or by an array of government institutions. These countries have enjoyed different levels of success with their education and training systems.

The impact of the Human Resource Development Fund (HRDF) on enterprise training in Malaysia was discussed. It was concluded that the HRDF served its purpose which was to promote enterprise training. Further, enterprise size positively correlated with the incidence of enterprise training in Malaysia.

Finally, the determinants and productivity outcomes of enterprise training in newly industrialized countries were noted. These are firm size, education and skill mix and the firms' technology. Again, firm size was found to be a correlate of enterprise training. Educated and skilled individuals are more likely to have access to external training. In terms of technology, it was noted that firms that require the greater use of technology were more likely to train. With respect to productivity, the training of skilled workers had a positive impact on productivity while the training of unskilled workers revealed an insignificant impact thereon.

The following chapter will focus on training in South Africa.

# Chapter 4

## Literature Study: Training in South Africa

### 4.1 Introduction

•"There is broad agreement that human capital, defined to include both education and post school training, contributes to economic growth through raising the productivity of workers and facilitating the adoption and use of new technologies." (Tan & Batra, 1995:1) Studies in three research traditions (human capital, technology and models of endogenous growth), tend to support this view.

Human capital studies maintain that educated workers are more productive, especially in a changing environment, and they can be trained more quickly at a lower cost than uneducated workers, and therefore earn higher salaries than uneducated workers. (Tan, 1980; Mincer, 1989 & Xiao, 2001) The Human Capital Theory has been discussed in Chapter two.

Technology studies maintain that educated workers play a pivotal role in the innovative process. (Carnoy, 1990; Pack, 1992)

It will be recalled from Chapter two that models of endogenous growth hold that purposive human capital investments would lead to the long term growth of an economy. (Lucas, 1988;Romer, 1989).

These three research traditions, especially the endogenous growth model, lend support to an economic case for skills development in the South African context. With this in mind, the beginning of this chapter focuses on South Africa's economic development and the overview of the South African economy.

With the South African economy as a backdrop, trade liberalization and the need for skills development are discussed. Skills development is vital to the economic success of South Africa and is therefore explored in some detail, considering the impact of HIV/AIDS and the demand for scarce skills in the context of the labour market.

The Skills Development Act and the Skills Development Levies Act were mentioned briefly in Chapter 1. These pieces of legislation will be explored in detail in this chapter. Thereafter, further initiatives by the government aimed at skills development will be discussed. This includes the National Skills Development Strategy and Sector Education and Training Authorities. These mechanisms have been put in place to complement the Skills Development Act and therefore their achievements and shortfalls will be detailed. This is done with a view to estimate South Africa's position on the skills development path.

Findings from the National Skills Survey (2003), commissioned by the Department of Labour, concludes this chapter. Specifically, attention is given to the incidence of enterprise training in South Africa by race, enterprise size and the service delivery of the SETAs.

## 4.2 South Africa's Economic Development

South Africa's vast mineral wealth was discovered in the late nineteenth century. The discovery of diamonds in 1869 and gold in 1886 revolutionized the economy through European investment. South Africa entered the international economy through its exports and its demand for agricultural imports. The continued expansion of the mining industry and the increased levels of trade served as catalysts for economic growth.

In the first half of the twentieth century the government's economic policies were aimed at meeting local consumer demand as well as reducing the country's reliance on the mining industry. This was achieved by providing incentives for farming and the establishment of manufacturing enterprises (www.reference.allrefer.com). The government's incentives and assistance did not, however, apply to the Black population.

Instead, "the government saw its role as helping to defend white farmers and businessmen from African competition."(www.reference.allrefer.com). During the 1920's, the government promoted the development of the manufacturing industry through the establishment of state corporations to provide inexpensive electricity and steel for industrial use. Black entrepreneurs were neither supported nor encouraged. Subsequently, new laws were implemented to limit the rights of black workers, which resulted in the creation of low cost industrial labour to meet the employment needs of the manufacturing industry. As late as the 1930's, Black entrepreneurs still found themselves outside the formal economy.

The economy experienced rapid growth after World War II. With the government's increased involvement in the economy, both the manufacturing and agricultural production expanded, so much so that by 1970 the manufacturing output exceeded that of mining (www.reference.allrefer.com). This economic growth, however, was not sustainable for reasons such as fluctuations of the gold price and over reliance on gold exports and severe droughts that hindered agricultural production. By the 1980's production in many industries was adversely affected in part by the decrease in the price of gold and the rising labour militancy of Black workers. Foreign banks withdrew their loans because of the political instability in South Africa. The impact of apartheid on profits was far-reaching.

Economic recession lasted from March 1989 to the latter part of 1993 due to international economic conditions as well as the long term effects of apartheid.

## 4.3 An Overview of the South African Economy

### 4.3.1 The Apartheid Economy

Historically, the greatest contributors to the national outputs of South Africa were mining and agriculture. During and after World War II however, the greatest contributor to overall GDP was manufacturing. The overall economic growth in the 1960's averaged

5.9% in real terms and rivaled that of developed countries such as Japan. This was a definite increase compared to the 1950's, which exhibited a 4% annual average growth. The two decades after the war were characterized by the world's need for resources and food from the third world, as much of Europe was physically affected by the war and recovery was difficult, while the US had committed a large amount in resources and money to the war. South Africa, with its large population of unskilled Black workers, provided these materials and prospered as a result of the low production costs in terms of labour.

In the 1970's the services sector (insurance, industry, financial facilities and transport services) became the fastest growing economic sector. Economic growth slowed in the late 1970's because of declining gold revenues, increased price of oil imports and increased competition in other export commodities.

By the 1980's the average annual GDP growth was a mere 1.5%. This could be attributed to oil price increases as well as a series of droughts that adversely affected agricultural outputs. In addition, Black consciousness was at its highest and the world started to take notice of this via international media agencies. This, in turn, caused political unrest in Europe and the US, and investment in South Africa had begun to wane. As a result, the population growth in South Africa outweighed its economic expansion. The negligible growth in the 1980's was responsible for the decline in the overall living standards of the South African population. The per capita GDP decline was approximately 10% during this decade and therefore by the 1990's real wealth was no higher than it was in the 1970's.

Economic stagnation continued in the early 1990's with the country's GDP declining in 1991 and 1992. The government's Central Statistical Service (now Statistics South Africa - as cited in www.reference.allrefer.com) reported a weak positive growth of 0.4% in 1993. The late 1980's and early 1990's were characterized by severe opposition to apartheid and by international sanctions against the country, resulting, in the period immediately prior to 1992, in severe economic adversity for the country. During all of the

apartheid years, the economy of the country was sustained by mining and agriculture, pursuits that could afford to hire an unskilled majority at the most competitive price. Serious mechanization was not considered during this period because the labour costs were so low. However, the lack of progression in mechanization and scientific endeavour also meant that South Africa was falling behind in terms of technical advancement and technical training.

From this discussion it can be concluded that the apartheid era was characterized by economic underdevelopment. McCord (2003:33) states that growth and development in South Africa during this period was a result of "rich economic resource base, rather than the appropriate economic policies".

### 4.3.2 The Post Apartheid Economy

The new political dispensation in 1994 adopted an economy that was largely diluted. The main reasons for South Africa's faltering economy was the political climate under the apartheid regime, internal unrest, and sanctions imposed on the country which resulted in the lack of foreign investment. In addition, the structure of the economy was characterized by a low level of global integration and the structure of the labour market was racially divided in terms of salaries and skill levels. In this regard, McGrath, Badroodien, Kraak & Unwin (2004:16) state that the post apartheid government was faced with three major setbacks:

- "Skill had been profoundly racialised and gendered; Black (especially female) South Africans had been denied access to skills development or had received no certification or recognition of their real level of skills and knowledge learned on the job; and provider institutions and delivery systems were fragmented and dysfunctional.
- The state had abandoned much of its responsibility for building skills and business seemed incapable of developing a strategic position; and

- South Africa's apartheid-driven industrial development path had led to an intense polarization of skill between high skill and low skill elements; with a serious underdevelopment of the intermediate skill segment, which is seen as essential to successful industrialization and competitiveness internationally."

McGrath *et al.* (2004:16-17)

The new government was therefore tasked with undoing "economic injustices of the apartheid era, by addressing issues of equity and redistribution, while simultaneously creating economic stability and policy credibility required to re-integrate the country into the global economy." (McCord, 2003:34)

This led to the introduction of the Growth, Employment and Redistribution Strategy (GEAR) in 1996. The goal of GEAR was macroeconomic stabilization which was necessary for economic growth, employment and redistribution.

In her article, Loots (1998:319) establishes whether the goals set out in GEAR regarding creation of employment and economic growth are attainable. "In terms of this [GEAR] strategy an economic growth of 6 % per annum and the creation of 400 000 employment opportunities are envisaged". (Loots, 1998:319) To forecast the impact of economic growth on employment, two sets of projected GDP growth rate figures were used. The first relied on GDP projections for 1997-2000 as set out in the GEAR strategy. Refer to table 2 below. Using the GDP growth rates as set out below, Loots (1998:333) projected that the average employment growth for the period 1996-2000 amounts to 67 158 jobs as opposed to the GEAR strategy projection of 270 000 jobs. The GEAR Strategy predicted that a total of 1.3 million jobs will be created in the five year period (1996-2000) as opposed to the calculations by Loots (1998) of approximately 335 790.

Table 2: Creation of Employment Forecast 1996-2000 using GEAR GDP projections

| | 1996 | 1997 | 1998 | 1999 | 2000 | Average |
|---|---|---|---|---|---|---|
| GDP Growth (GEAR) | 3.7 | 2.9 | 3.8 | 4.9 | 6.1 | 4.2% |
| New Jobs (GEAR) | 126 000 | 252 000 | 246 000 | 320 000 | 409 000 | 270 000 |
| New Jobs (Forecast) | 49 402 | 46 442 | 61 134 | 79 309 | 99 503 | 67 158 |

Source: Extracted from Loots (1998:333) Table 8

The second set of employment forecasts for the period 1996 - 2000 relies on the GDP growth predictions using the Medium Term Budget Statement Policy, illustrated in table 3 below. The GDP growth rate represents a lower prediction than that of the GEAR Strategy as detailed above. The number of new jobs created in this scenario totals 275 430 for the period 1996-2000. This prediction falls far below the GEAR target of 1.3 million jobs as set out above.

Table 3: Creation of Employment Forecast 1996-2000 using Medium Term Budget Policy Statement (MTBPS)

| | 1996 | 1997 | 1998 | 1999 | 2000 | Average |
|---|---|---|---|---|---|---|
| GDP Growth (MTBPS) | 3.7 | 2.0 | 3.0 | 4.0 | 5.0 | 3.5 |
| New Jobs (Forecast) | 49 402 | 32 029 | 48 197 | 64 570 | 81 232 | 55 086 |

Source: Extracted from Loots (1998:333) Table 8

Loots (1998:334) concludes that "economic growth does not presently contribute to the creation of a sufficient number of jobs, nor can it be expected to do so in the near future."

In retrospect it can be stated that the GEAR strategy has not successfully propelled South Africa onto the path of envisaged economic growth and employment.

Programmes such as the Accelerated and Shared Growth Initiative for South Africa (ASGISA) and the Joint Initiative for Priority Skills in South Africa (JIPSA) were launched in 2005. "ASGISA and JIPSA have been initiated in 2005 to put the economy on a high growth trajectory while poverty reduction is enhanced partly through employment creation." (DoL2, 2006:4)

Although most of the objectives set out in the GEAR strategy had been achieved by 2000 and 2001, and Black and Rankin (1998:452) agree that GEAR had contributed to macroeconomic stability, they felt that other factors such as flexible labour markets and capital investment needed to be explored.

McCord (2003:35) argues that South Africa is still characterized by insufficient growth to generate jobs and the employment and redistribution component of GEAR have not been met. She goes on to say that South Africa has not achieved its intended growth targets as set out in the strategy thereby characterizing South Africa as a country of 'stabilization without growth.'

Several factors have been identified to explain poor growth, employment and redistribution. Each of these components will be explored in terms of factors that are pertinent to this study. Therefore, of particular relevance to this study, firstly, is that the skills shortage is one of the constraining factors in terms of economic growth. Again, one of the reasons cited is that there is a misalignment of labour demand and the existing labour force.

Skills shortages may not imply that there is an excessive demand for highly skilled workers. In this context, the existing skills base may be insufficient to support a normally growing economy (Lewis, 2001:33).

Secondly, employment growth has been insufficient to absorb the unemployed as well as new entrants into the labour market. In addition, unemployment rates have risen and the portion of the population that continues to bear the brunt are African and the unskilled, (see Bhorat 2003, Oosthuizen 2003). The reason is that the creation of employment absorbs the skilled and highly skilled segment of the labour market. McCord (2003:37) offers key factors that have an impact on unemployment as follows:

- "structural and technological changes in the economy over recent decades, which have led to increases in capital intensity and a reduction in demand for unskilled labour;
- The re-integration of South Africa into the global economy and the removal of protective tariff barriers;
- Low levels of domestic and foreign investment is inhibiting economic activity and hence labour demand; and
- Labour market inflexibility."

McCord, (2003:37)

Lastly, in terms of redistribution, GEAR has contributed little to alleviate the inequality in income distribution. Natttrass and Seekings (2001) as cited in McCord (2003:37) state that although there has been a reduction in inequality between race groups, there is now greater inequality intra-racially. This is a direct consequence of employment opportunities for skilled black workers while the largely unskilled black population remains unemployed or at best employed with a low wage.

## 4.4 The Impact of Trade Liberalization in South Africa

Prior to 1994, South Africa was not a member of the World Trade Organization (WTO), mainly as a result of its isolation due to apartheid. Economic sanctions meant that the country did not compete with other producers on the world stage. Effectively, this meant that South Africa produced goods and services for its own use. This led to high production costs since there was no competing seller of goods. The production process

was typified by a high level of unskilled workers and the production rates did not have to be very high since there was no export requirement. After admittance to the WTO in 1994, however, it became apparent that South Africa would have the opportunity to export more goods and also compete against other countries in respect of imported goods. The obvious problem to be encountered was that goods and services internally, with their high cost of production, would not be able to be competitively priced with imports. Although admittance to the WTO and treaties such as the European Union-South Africa Free Trade Area and the Southern African Development Community Trade Protocol were designed to liberalize trade and strip the existing protectionist barriers, concerns abound that a full scale and immediate liberalization would leave South African producers with virtually no protection and hence in danger of being competed out of the market. However, continued protection is also undermining efficiency of process and productivity gains as producers are not improving enough to be competitive (Lewis & Fedderke, 2001 as cited in McCord, 2003:45).

In general, trade liberalization should allow the competitive process to free up resources for a wider range and specialty of markets, McCord, (2003:45). This is because liberalization allows for a competitive edge which requires that labour costs decrease with specialization and therefore the labour force is widened to allow for its application in other fields. In the long term, the economic growth caused by enhancements in the production process and in technological development should stimulate the economy to the extent that there would be a greater demand for labour in newer and broader ranging industries (McCord, 2003:45). However, this general idea of the relationship between liberalization, growth and employment is contentious, both from an international literature perspective (Jenkins, 2002) and from the available South African data (Bhorat, 2000 & Edwards, 2001). In South Africa, liberalization has not stimulated significant growth, to the extent that the growth levels are still below those required for an increase in the employment rate. Whether the South African economy and its unique features are adaptable to the general theory of trade liberalization is an interesting point, particularly in view of the skills distribution in this country. In my opinion, trade liberalization is effective as a creator of employment when it creates fair global competition, which

results in skilled workers being able to transfer employment to other sectors of the economy when the current sector has optimized production. In South Africa, with the high level of unskilled and semi-skilled workers, trade liberalization may actually exacerbate the problem of unemployment because factors such as improved efficiency and technological advancements remove the unskilled from employment without allowing the unskilled to translate jobs, since they do not have the skills to enter the newer sectors of the economy. Therefore, it is my belief that it is only when training is coupled with trade liberalization that employment can increase.

Jenkins (2002) seems to have the same opinion and goes further to state that liberalization tends to promote capital-intensive sectors rather than employment generating sectors. This is probably due to the fact that the competing countries have advanced technologically to the point where the need for unskilled workers has been reduced, while the need for skilled workers has increased. Therefore, when competition between these countries and South Africa occurs unhindered by trade barriers, the only way in which a South African company can be competitive is by "playing by the same rules", that is, by reducing the unskilled labour requirement and increasing the skilled labour requirement. A rather oversimplified example of this is that newer machines, which replace unskilled workers, require skilled operators and technicians. Since these machines are cheaper to operate than an unskilled workforce, the company that uses this technology would have a reduced cost element. A competing company would then have to replace its unskilled workers with the technology and would also have to hire skilled workers to operate and maintain the machinery. In South Africa, the replacement of the unskilled workers would be easy to do, but there are insufficient skills in the labour market to operate and maintain the machinery, which results in unemployment of the unskilled and a demand for skilled employment that simply is not there.

In their state of skills report the DoL(2005:40) note that "There has already been sufficient discussion to trigger greater demand for more labour-intensive, low skill employment through government interventions such as greater infrastructural investment, the Expanded Public Works Programme, and the development of small enterprises

through SMMEs. Appropriate entry level training schemes will soon be in huge demand and will play a crucial role in these socio economic activities."

In addition to the requirement of skilled workers to facilitate international competition, and job creation for unskilled workers in South Africa, cost implications of labour and productivity must be examined.

Unit labour costs and labour productivity as well as its impact on an economy were discussed in Chapter 2. For clarity, unit labour cost is the cost per unit of output and unit labour productivity is defined as output per unit of labour input. The unit cost of labour is the key problem in South Africa. Productivity needs to be increased in South Africa to reduce unit labour costs which will result in the price of goods produced becoming more internationally competitive.

Certain countries such as China and India have low unit labour costs, resulting in a lower cost price of goods manufactured in these countries compared to other competing countries. Therefore, companies that base their manufacturing operations in countries such as China are able to offer goods at a lower price to the world's consumers, ensuring a competitive edge not available to countries, such as South Africa, with higher unit labour costs.

Outputs are determined by the labour productivity of an economy. To this end, the South African government has created the National Productivity Institute (NPI). The aim of the NPI is to improve the productivity of the country. This will be discussed later in this chapter. Ultimately, the measure of a country's advantage in selling its products in the international market is whether they are able to produce more goods at a lower cost, without compromising on quality.

## 4.5 History of Training in South Africa

For the past three decades, South Africa has had various funding mechanisms that were used for training. These mechanisms may be identified as follows:

- From 1974 to 1990 there was a National Tax Incentive scheme for employers who were involved in training. Due to the establishment of the Manpower Training Act in 1982, an industry based levy scheme was introduced.
- In 1998, the Skills Development Act was introduced. This will be discussed in detail later in this chapter.

The funding mechanisms in place prior to the enactment of The Skills Development Act and the Skills Development Levies Act, proved inefficient. These tax rebates and cash grants were used by the governments to encourage private sector training. They were discontinued because of misuse and fraud by companies. Therefore, during 1994/1995, the Department of Labour together with the National Training Board (NTB) and the National Economic and Development Labour Council (NEDLAC) embarked on an in-depth study into the Funding Mechanisms in South Africa.

The main conclusions of their study can be identified as follows:

- "The training system is not well co coordinated.
- Employer expenditure on training is low and there is limited external pressure to train.
- Individual attitudes to training are restricting investment.
- There are gaps in the provision of training.
- The introduction of a qualification and accreditation framework is required.
- Competition in the training supply market is constrained.
- Barriers prevent suppliers from entering the market." This means that the cost of technical vocational training is too high and this is hindering the entry of technically qualified individuals into the labour market.

Cited in Nel, Gerber, van Dyk, Haasbroek, Schultz, Sono & Werner (2001:447)

The findings of the study resulted in the government opting for a levy grant scheme. It appears that at the time of the NEDLAC/NTB study, the government believed that the training difficulties in the country were mainly due to funding mechanisms. However, it will be shown later in this chapter that greater problems with training were identified and detailed studies were conducted in an attempt to alleviate these problems.

## 4.6 The Need for Skills Training In South Africa

### 4.6.1 The South African Labour Market

This study is concerned with the skills problem that South Africa is continually faced with and does not deal directly with unemployment. It must, however, be remembered that skills shortages and unemployment are not mutually exclusive. In an attempt to point out skills shortages, labour demand trends in South Africa are explored.

Labour Demand Trends 1995 - 1999

Through his extensive research into the South African labour market, Bhorat (2003:1) states that, "skills biased labour demand shifts, has clearly been a defining feature of employment trends in South Africa since the 1970s." This means that there is incongruence between the labour supply and the labour demand in South Africa. (Barker, 1992; Bhorat and Hodge, 1999; Edwards, 2001 and HSRC, 2003. The purpose of his study was to determine whether labour demand shifts reported in previous studies will be the same in a later period (1995 -1999), and how new findings will impact on the labour market during the period 1995-1999, and the future labour demand trajectory for a post apartheid South Africa.

Data analysis was conducted using the October Household Surveys (OHS) which were re- weighted to ensure consistency. An interesting finding is that during the period 1995 - 1999, there was an overall increase in employment of 10% (970 000 workers). The

popular belief that there is a jobless growth, (that is, a growing economy with a marked decrease in the number of jobs), of the South African economy could be incorrect. It is correct to assume however, that the creation of jobs cannot support the growing economically active population. Although 970 000 jobs were created during 1995 - 1999, the number of potential new entrants into the labour market was 2.9 million for the same period. This means that approximately 2 million people were left unemployed. Employment would have had to grow 31.2 % for the labour market to absorb all the new entrants during that period. (Bhorat, 2003:3). While this figure is contentious, Bhorat, Lundall & Rospabe (2002:7) further explains this observation.

> "This stylized fact is not consistent with the national statistics provided by Statistics South Africa (also used by the SA Reserve Bank) since these latter only cover employment in the non-agricultural formal business sector. According to this data source, total employment decreased by almost 7% between 95 and 99 (South African Statistics 2000). The advantage of the OHS is to provide information on the agricultural and domestic sectors, on a few more formal activities not covered by the other data sources, as well as the informal sector."

According to the OHS, the Financial and Business Service sectors showed the highest increase in employment - 61% between 1995 and 1999. Construction and Internal Trade showed and increase of 31% and 28% respectively. These sectoral expansions of employment are in line with previous studies. Bhorat goes on to state further that these trends in employment are "likely to intensify and continue over the medium-to-long run in South Africa. Bhorat, (2003:5). There was a decline of employment in the same period in the following sectors: Mining (19.4 %), Utilities (6.6 %) and Agriculture (3.3 %).

In addition to the sectoral employment increase or decrease of the labour market during the 1995 - 1999 period, attention must be given to the types of occupation that were affected by the decline in employment.

Bhorat (2003: 6), states that the occupational groups that were adversely affected during this period (1995 - 1999), were: technicians, whose employment was stagnant; clerks showed an employment decline of 5.58 %; machine operators declined by 2.12 %. The largest overall decline of employment was that of individuals in elementary (unskilled) position, 13.71 %. There greatest increases in demand for labour were as follows: professionals increased by 72 %; while the employment of managers increased by 38 %.

So far, we have examined the largest recorded increases and decreases in terms of labour demand according to sectors and occupations. Of particular relevance to this study is labour demand according to level of skill. It was previously mentioned that there was a decline in employment within the Agricultural and Mining Sectors. According to Bhorat (2003:8), although agriculture shed approximately 40 000 workers (which accounts for the employment decline), there was an increase in this sector of 26 000 highly skilled jobs. With respect to mining, 100 000 jobs were lost. These were mainly semi skilled and unskilled occupations, (66 000 were labourers). Again, within this sector, there was an increase in highly skilled jobs. The statistics noted above serve to re-affirm labour market trends that were previously researched.

The examination of the data on the secondary sectors, that is, manufacturing, construction and internal trade, revealed the following:

- The manufacturing industry sector was aligned to other sectors discussed above, as jobs were created on the higher end of the skills spectrum. The percentage increases were 152% for professionals, 50 % for managers and 38 % for technicians.
- Data from the construction industry deviated somewhat from employment figures from previously discussed sectors. Aligned to the discussion above, employment for professionals grew by 88 %. The difference lies in the employment of managers and technicians which showed a decline of 9.9 % and 64 % respectively. In addition, apart from professional jobs, there was a significant increase in demand for craft workers of 38 % which is classified as semi skilled labour.

- Other sectors which showed positive employment results for semi skilled workers are the Wholesale and Retail Trade sector and the Finance and Business (105 %) sectors. It is worth noting that in the Finance and Business Sectors employment for semi skilled labour is three times the national employment requirement which is 31.2 % as mentioned above.

The findings for labour trend for the period 1995-1999, concur with the findings of a more recent study on employment trends for the period 1999-2003. (Oosthuizen (2003)

The employment trends discussed above should be seen as a backdrop for the following section detailing the demand for scarce skills and shortage of skills within three skills bands: high skill, intermediate skill and low skill.

4.6.2 The Demand for Scarce Skills

Economic changes over the past decade have had a significant impact on the South African workforce because there has been an increase in demand for skilled workers and a decline in the availability of employment for unskilled workers.

According to Woollard, Kneebone & Lee (2003:459), there is a "double imbalance" of skills in the country. There is an oversupply of certain skills and an undersupply of others. Statistics South Africa (Stats SA) reported that in 2002, the number of unemployed people in South Africa was 7.8 million. According to the South African Institute of Race Relations (SAIRR), there was a shortage of between 350 000 - 500 000 people in the managerial and technical sectors. (Willard *et al.*, 2003:459).

In their state of skills report, the Department of Labour state that "the issue of scarce skills has become a key government priority and it is now generally accepted that skills shortages in key occupational areas are hindering future economic growth." DoL(2006:55) The government developed its first Scarce Skills list in 2003. They tasked the SETAs with identifying skills requirements within their respective sectors. The

SETAs data provided the basis for the comprehensive methodology developed by the Department of Labour for identifying scarce skills. Essentially, skills or occupations that were classified as being in high demand were identified as scare skills. See Appendix A for a comprehensive list of scarce skills projected for the period 2004-2009.

Instead of discussing occupational categories that define the scarce skills list, this discussion will focus on the skills shortages as they appear in skill bands, as bears direct relevance to this study. The table 4 below outlines the three skill bands according to levels of the National Qualifications Framework (NQF).

Table 4: Skills bands according to the National Qualifications Framework

| NQF Level | Skills Bands |
|---|---|
| **1** | Low skill |
| **2** | (Pre-matriculation) |
| **3** | |
| **4** | Intermediate skill |
| **5** | (Equivalent to matric and matric plus one diploma) |
| **6** | High skill |
| **7** | (Equivalent to higher education degrees and post graduate courses. |
| **8** | |

Source: Kraak (2004:75)

- <u>High Skills</u>

There is consensus in the reviewed literature that the development of skills in South Africa is a pre-requisite for economic growth and development. "There is no doubt that the continual expansion of high skills in South African society is a key socio-economic and political imperative." Kraak (2004:70) The position of high skills on the National Qualifications Framework is illustrated in Table 4. In their study, Woolard, Kneebone & Lee (2003) provide a forecast of positions that will arise as a result of industrial growth as

well as replacement of employees through factors such as mortality and retirement, for the period of 2001 to 2006. The table below lists the personnel shortages according to eight selected categories.

Table 5: Number of workers needed to meet new and replacement demand in selected occupations, 2001-2006

| Occupations | Total number of professionals employed in 2001 | Number of professionals required to meet new and replacement demand over five years | Number of professionals required to meet new and replacement demand per year | Annual shortages rate as a percentage of the total number of professionals employed |
|---|---|---|---|---|
| Academics | 37 237 | 6 651 | 1 330 | 3.6 |
| Doctors | 34 370 | 5 207 | 1 041 | 3.0 |
| Nurses | 155516 | 35 461 | 7 092 | 4.6 |
| Computer related professions | 75 841 | 15 600 | 3 120 | 4.1 |
| Teachers | 354 469 | 73 077 | 14615 | 4.1 |
| Engineers | 29 824 | 5 116 | 1 023 | 3.4 |
| Engineering technologists | 32 132 | 5 973 | 1 195 | 3.7 |
| Managers | 280 298 | 45 130 | 9 026 | 3.2 |

Source: Woolard, Kneebone & Lee (2003) as cited in Kraak (2004:71)

The data from Table 5 shows that skills shortages in the selected occupational categories fall in a range between 3% and 4.6%. However, Kraak (2004) argues that South Africa is not experiencing a skills *crisis* in terms of high skill. He argues that South Africa is experiencing a high skills *shortage*, rather than a high skills crisis. The basis of his argument is founded on data on peak periods of skills shortages in the country, as listed in table 6 below. At that time occupational categories with a vacancy rate of 5% were classified as being 'in crises'. During the period 1977-1985 the skills shortages for the

same occupations listed in the table above reveals a crisis situation for Medical Doctors, Engineers, Technicians, Technologists, Nurses and Scientists, peaking in 1981. The figures for skills shortages during the period 1977-1985 compared with the estimated shortages for 2001-2006 reveals that the skills shortages that are being currently experienced are moderate.

Table 6: Vacancy Rate per occupational group, 1977-1985

| **High Level Professionals** | **1977** | **1979** | **1981** | **1983** | **1985** |
|---|---|---|---|---|---|
| Educationalists | 1.08 | 1.16 | 2.73 | 1.29 | 1.88 |
| Medical Doctors | 6.66 | 5.77 | 6.46 | 6.25 | 4.10 |
| Engineers | 4.23 | 8.06 | 12.70 | **7.77** | 4.88 |
| Technicians, Technologists | 2.72 | 5.24 | 9.94 | 9.06 | 7.94 |
| Nurses | 7.51 | 8.53 | 10.98 | 9.44 | 9.85 |
| Scientists | 6.35 | 9.46 | 13.17 | 8.63 | 8.84 |
| Managing Directors | 0.01 | 0.05 | 0.09 | 0.16 | 0.15 |
| Other Managers | 0.17 | 0.42 | 0.98 | 0.70 | 0.71 |
| Total | 2.62 | 3.68 | 6.03 | 4.81 | 4.61 |

Source: Kraak (1987); NMC (1987:22) as cited in Kraak (2004:73)

The reason that the skills shortages noted have not turned into a crisis situation is mainly because of the stagnant and low growth economic conditions in South Africa. However, Kraak (2004:75) maintains that the current situation in terms of high skills will evolve into a high skills crisis if the economic conditions change. In other words, if South Africa's initiatives to improve growth succeed, there will be a greater demand for high skill. The low output of graduates on the supply side of the labour market will not be to keep pace with the demand thereby hindering economic growth and recovery. The point here is that South Africa does not have sufficient skilled people to maintain the economy

at the current growth rate; therefore there will be insufficient skilled people available to achieve and sustain a higher economic growth (from 4% to 6% GDP growth).

"South African higher education institutions need to be positioning for a future where high skill outputs are in excess of current needs. Supply side provision at the high end of the skills spectrum should facilitate rather than constrain future economic growth." (Kraak, 2004:75)

- Intermediate Skills

Intermediate skills lie between the high skill and the low skill band as set out in the National Qualifications Framework, as shown in Table 4 above. The educational levels of intermediate skill include all post-junior secondary school certificates and their equivalents but exclude degree level qualifications in higher education. To allay any confusion, semi skilled and skilled work (for example, cashiers, clerks, plumbers, technicians) form part of the intermediate skill band.

Although there has been a structural shift in the economy toward greater capital and skills intensity, the demand for intermediate skills have not subsided. (McCord & Bhorat, 2003) A study by SASOL found that there is a depletion of artisans (electricians, welders, plumbers, and fitters and turners) across all industrial sectors. They approximate the skills shortage to be about 20 000 people. (Business Day, 2003) In this regard, the Minister of Labour has permitted SASOL to 'import' 821 skilled artisans to alleviate the skills deficit, "insisting however, that there is a continuing need to upgrade the skills levels of South Africans." (DoL, 2005:60)

Further evidence is provided by the Baseline Survey of Industrial Training in South Africa (2000). The findings indicate that the greatest skill deficit and greatest recruitment difficulty was experienced amongst technical and craft workers. (Kraak, 2004:76) Other occupations that require intermediate skills identified by Kraak are the jobs in the 1CT Sector, Nursing and the Informal Economy. It is estimated the 90% of jobs in the ICT sector are dependant on technikon graduates. Nurses trained at the intermediate level are

in great demand in public sector health care. Nurses are classified into three broad occupational categories. These are: registered nurses, enrolled nurses and nursing auxiliaries. The latter two require Grade 10 plus two years of college training and Grade 10 plus one year of college training respectively. Therefore, enrolled nurses and nursing auxiliaries are trained at the intermediate level. The South African Nursing Council (SANC) register indicates that 40.9% of nurses are enrolled and auxiliary nurses. (Hall & Erasmus, 2003 as cited in Kraak, 2003:78)

Intermediate skills play an important role in the economy, especially with an economic focus of services and manufacturing. One of the problems experienced in the intermediate skills sector is technikon and college enrolments. The problem here is despite the increased level of enrolments, there has been a decline in enrolments that develop skills that are needed (for example, the technological field such as engineering). Students are registering for qualifications in non technical subjects.

Kraak (2004:83) concludes that output of intermediate skill by public sectors and private sector training providers are insufficient to meet let alone exceed the intermediate skill requirements of the economy. This represents a clear deficit in the intermediate skill band.

- Low Skills

A recurrent theme in this study thus far is a surplus of and a decreasing demand for employment requiring low skill (or unskilled labour). Blacks remain more disadvantaged than other race group for reason such as previous disadvantages including education. The government has done much to alleviate this problem but the plight of the low skilled and unemployed still exists. According to Kraak (2004:84), South Africa's growth part should include a low skill, labour intensive strategy. In this regard, the Department of Labour states that:

"There has already been sufficient discussion in this report [State of Skills, 2005] to trigger greater demand for more labour-intensive, low skill employment through

government interventions such as greater infrastructural investment, the Expanded Public Works Programme, and the development of small enterprises through SMMEs. Appropriate entry level training schemes will soon be in huge demand and will play a crucial role in these socio economic activities." DoL (2005:37)

### 4.6.3 The Impact of HIV/AIDS

HIV/AIDS has far reaching consequences for South Africa given that 12.5% of the global HIV infected population occurs in this country (Vaas, 2003:186). The HI virus has a disproportionately negative effect on the economically active population (the age group between 15 and 65), with the unskilled portion of the economically active population being particularly most negatively affected. Of importance to this study, however, is that the impact of HIV/AIDS "is projected to occur unevenly across companies and sectors, and all skills levels will be negatively affected." (Vaas, 2003:187).

The pattern of the prevalence and projections of HIV/AIDS infections through research states that HIV/AIDS has a differential effect on the population in terms of age, race and gender. The Bureau for Economic Research (2001:7) offers the following statistics on HIV/AIDS prevalence: Blacks - 19.5%; Coloureds - 6%; Whites - 4.6% and Indians - 4.8%. The point here is that Blacks are overwhelmingly and disproportionately affected by HIV/AIDS. They go on to say that more women are infected from a younger age (15 - 35) as opposed to men (20 - 45). In terms of age, the most vulnerable group is adults between the ages of 15 and 45. Interestingly, this age group makes up a large portion of the economically active population.

In addition to the multitude of factors that have an impact on our workforce, and therefore the economy, one of the reasons for poor economic growth is "HIV/AIDS impacting on economic performance, by increasing demands on the health budget and contributing to the loss of skilled staff in all sectors, thereby undermining both performance and service delivery, as well as diverting sources from productive investment." (McCord, 2003:36).

Therefore, HIV/AIDS serves to compound the problem of skills training and development as well as the shortage of skills and subsequently, investment. It has a directly negative impact on the size of the labour potential as well as the country's skills base. This may be attributed to an increase in AIDS related morbidity and mortality rates. It was estimated that in a one year period (1999), AIDS was responsible for 40% of mortality in the 15 to 49 year age group. (Vaas: 191). The consideration of this age group implies that the supply of labour is affected and crucial skills gained through experience and training is lost. Apart from the loss of skills and the erosion of the workforce there is a financial loss in terms of investment in training.

In addition, the loss of productivity due to the reduction in the workforce would cause the profitability of companies to decrease, and since the amount paid in skills development levies are based on payroll margins, the amounts paid by companies towards skills development would also decrease. According to Vaas (2003: 202), the incentive to train unskilled and semi-skilled workers would decrease as a result of the risk associated with loss of workers due to AIDS. Further, she states that another factor that has not been accounted for is the lack of succession planning by companies and government departments in terms of the AIDS threat. Normal succession planning would simply not be enough to account for the increased loss of the workforce due to AIDS. Service delivery, already a thorny problem in the public sector, would be severely affected by the loss of skilled workers due to AIDS. Finally, the risk of a lower return on investment in terms of training would be a discouraging factor in the motivation of employers to train workers most at risk of contracting AIDS.

The Actuarial Society of South Africa (ASSA) predicts that in the period 1999 to 2010, the HIV prevalence in the economically active population will double, from 11% in 1999 to a staggering 21% in 2010 (ASSA, 2000 as cited in Vaas, 2003:190). Further, AIDS related illnesses and deaths are set to decrease the labour force growth. Macroeconomic projections offered by Vaas (2003:190) show that there will be a reduction in the population growth rate and an increase in adult deaths, causing life expectancy to sharply

decline (example: the life expectancy in 1999 was 55 years and in 2010 the average life expectancy is projected to be 41 years). She goes on to state further that by 2015, "the total labour force will be at least 21% smaller than it would be under a no AIDS scenario." (Bureau for Economic Research 2001, cited in Vaas, 2003: 191)

Current findings on research into the impact of HIV/AIDS on labour supply and skills serve to re-affirm the statement that all skills categories will be unevenly and negatively affected by AIDS. - see for example: Lisk (2002); Dorrington, Bourne, Bradshaw, Laubscher & Timaus (2001); Bureau for Economic Research (2001) and Quattek (2000). Each sector of the economy comprises individuals with different levels of skill. It is important to take cognizance of the way in which each skilled category of individuals is being affected. This will better equip human resource planning the country in order to meet the replacement demand for labour and effect the appropriate interventions. Studies (Morris, Burge & Cheevers, 2000) and Evian, Slotow, Rosen, Thea, Fox, Macleod & Simon, 2001 as cited in Vaas, (2003:198), point out that HIV/AIDS is most prevalent amongst the lowest skilled and lowest paid workers as opposed to better skilled and higher paid workers. In their survey Evian *et al.* (2001) found that highly skilled workers had an infection rate of 4% followed by skilled workers with an infection rate of 6.5% and low level skilled workers had in infection rate of 15% to 21%. Due to inequalities of the past, resulting in poverty and migratory work, it appears that the hardest hit proportion of the population is Africans who are mostly employed in unskilled work.

It could be concluded that the enforcement of the skills development legislation in South Africa, is urgently needed so that inequalities of the past are redressed and a greater percentage of the population may acquire skill that is required to free them from their current socio-economic standing thereby reducing the impact that AIDS exacts on this portion of the population.

Labour and skills replacement is required to counter the HIV/AIDS impact on the work force. The literature review for this study suggests, among other things, that the South African work force lacks skill, that there is a general shortage of skills in the country and

that our economic growth rate is insufficient in terms of job creation for labour market entrants. It is a common perception that replacing semi skilled or unskilled labour should therefore be less costly than the replacement of skilled or highly skilled labour. This is partly due to the country's high unemployment rate and the historically available pool of unskilled workers. Vaas (2003:200) quotes a study by Abt Associates and Heard (1999), stating that professional labour takes eight times longer to be replaced than skilled labour and the cost of professional labour is on average is about five times more. Considering that the replacement of skilled workers is costlier than that of unskilled workers, we can therefore understand the perception that the replacement of unskilled workers is "of a lesser monetary value than losing skilled or highly skilled workers."

Cohen (2002:3) maintains that "the loss of unskilled labour represents the loss of particular location and task-specific skills acquired over time. This represents an absolute loss of human capital which is not easily replaced by an unemployed person." The Bureau for Economic Research (2001), cited in Vaas (2003:200), states that the HIV prevalence rates for unemployed African females is 30 to 50 % higher than it is for those who are employed. If this trend continues without significant intervention, much of the unemployed and unskilled population will be depleted. Replacement of employees is therefore costly in terms of money as well as experience.

### 4.7 Training Legislation in South Africa

Prior to the new dispensation in 1994 training legislation was dictated by the political climate. An example of this is that prior to 1981 it was illegal for blacks to be indentured as apprentices (Nel *et al,* 2001:455). Due to the Wiehahn Commissions report in 1981, industrial relations were de-racialized and the Manpower Training Act was passed. In 1991, this Act was amended to allow for the establishment of non- governmental Industry Training Boards (ITBs). Consequently, it was not compulsory for companies to belong to these training boards. The function of the ITBs was for training of all workers, including apprentices, within each industry. One of the key concerns however, was that the training within each industry could not facilitate the movement of trained workers

between industries. Despite the establishment of the ITBs, the skills profile of the country remained poor.

Several studies and investigations to remedy the seriousness of the skills problem in the country were conducted. "Successive reports by the Human Sciences Research Council (HSRC) and the NTB painted a picture of inattention by employers to systematic skills development," McGrath *etal*, (2004:16).

Firstly, the HSRC and the National Training Board (NTB), conducted a study to investigate the state of training in South Africa in 1989. Their main finding was that "training was ineffective in terms of a lack of trained trainers, inadequate facilities, insufficient time allowed for training and a lack in strategic direction." (Hunter, 2003:5). Secondly, the findings of this study prompted further investigation into the need for a training strategy. Their report published in 1991 revealed the following:

- "There was a lack of commitment to training among employers.
- Many employers were production orientated. They felt that training their employees meant that less production would take place.
- A lack of awareness among employers of the benefits of training made them reluctant to send workers for training.
- Employers had problems identifying the actual training needs in their companies.
- When employers evaluated training, they often thought it had been ineffective because they confused training and what it was worth with issues related to poor management, supervision and planning.
- It was possible to poach trained workers from other companies, thus making some employers reluctant to train their workers.
- It seemed to the respondents that in many companies the development of human resources received a low priority."

(National Training Board/Human Sciences Research Council, 1991a: 111, as cited in Hunter, 2003:7)

Thirdly, after 1994, the government appointed various task, teams to conduct a study into the macro approach to education and training. A further investigation into the state of training was carried out by the National Training Board. These investigations laid the foundation for the current training legislation in South Africa. Based on the findings of the investigations carried out by the various task teams, the NTB/HSRC recommended that "a National Training Strategy be developed and this strategy should incorporate the National Qualifications Framework, Sector Education and Training Authorities (SETAs), a framework for Adult Basic Education Training (ABET), financial incentives, a labour market strategy and proposed education and training legislation." (Hunter 2003:11)

The main outcomes of several investigations were:

- The South African Qualifications Authority Act (1995)
- The Skills Development Act (1998)
- The Skills Development Levies Act (1999)
- The National Skills Strategy (2001)

The latter three are of consequence to this study and will be discussed in the following section.

### 4.7.1 The Skills Development Act

The purpose of the Skills Development Act is:

1. "to develop skills in the South African workforce,
2. to increase levels of investment in education and training in the labour market and improve the return on that investment,
3. to encourage employers to use the workplace as an active learning environment, to provide employees with the opportunities to acquire new skills, to enable new entrants to the labour market to gain work experience and to employ persons who find difficulty in obtaining employment;

4. to encourage workers to participate in learnership and other work-related programmes,
5. to improve prospects of persons previously disadvantaged by unfair discrimination and to redress those disadvantages through training and education,
6. to ensure the quality of education and training in and for the workplace,
7. to assist work seekers to find work, retrenched workers to re-enter the labour market and to assist employers to find qualified employees; and
8. to provide and regulate employment services."

The Skills Development Act provided for:

I. the establishment of the National Skills Authority (NSA). The key functions of the NSA are to advise the Minister of Labour on national skills development issues and to liaise with the Sector Education and Training Authority.

II. the establishment of the National Skills Fund (NSF). The purpose of the National Skills Fund is to receive money as stipulated by the Skills Development Act and to use this money for national skills priorities as set out in the National Skills Development Strategy.

III. the establishment of Sector Education and Training Authorities (SETAs) for specific economic sectors. The main functions of a SETA are to develop and implement a sector skills plan, to establish and register learnerships with the South African Qualifications Authority (SAQA) and to disburse levies collected through the implementation of the Skills Development Levies Act.

IV. The development of Skills Programmes that are occupationally based. Further, theses programmes must be registered with the South African Qualifications Authority.

4.7.2 The Skills Development Levies Act

The Skills Development Levies Act was introduced in 1999 and it serves as the funding mechanism for training and development. In terms of this Act, companies with a payroll

of more than R250 000 (two hundred and fifty thousand Rand) per annum will have to pay a levy of 0.5% of total remuneration in the first year (2000) and 1% from 1 April 2001. The Skills Development Levies Act was amended in August, 2005 to exclude all companies with a payroll of less than R500 000 per annum. (DoL 2b, 2006:25). The South African Revenue Service will then disburse 20% of company contributions to the National Skills Fund (NSF). This is to be used as training grants for companies, who require additional skills funding, as advised by the National Skills Authority (NSA). The remaining 80% of company contributions will be disbursed to each Sector Education and Training Authority (SETA) - 20% of which is used for administration purposes while the remaining 60% is refundable to companies upon submission of a workplace skills plan and an Implementation of Training Report.

According to Nel *et al.* (2001:448), the government opted for a levy system because it is beneficial for the following reasons:

- "It ensures core levels of training.
- It alleviates the free rider problem. This means that the levy will ensure that all firms will contribute to the training costs.
- It improves collection efficiency.
- It balances development and equity.
- It promotes training effectiveness and efficiency.
- It ensures multipartite participation."

Although the levy system may have been the best option for the government to adopt, its benefits as stated above are idealistic. It is too simplistic to assume that if a financial system is in place for training then training would naturally occur. Further, adequate levels of training alone are not sufficient. In order for training to be beneficial, it must also be effective. It will be shown in this study that despite the formation of the macro economic framework within which training is to occur, the number of companies involved in effective training remains unsatisfactory.

## 4.8 Further Initiatives by the Government Aimed At Skills Development

### 4.8.1 Sector Education and Training Authorities (SETAs)

The literature surveyed at the beginning of this chapter indicates that skills development is of importance to facilitate and sustain economic growth as well as social upliftment. A part of the framework within which training is to occur in South Africa involves the Sector Education and Training Authorities. Prior to embarking on a discussion on the successes and drawbacks of the SETAs thus far, a brief discussion on the role of SETA is warranted.

The enactment of the Skills Development Act made provisions for the establishment of 25 SETAs for specific economic sectors in March 2000. Subsequently, the SETAs have been streamlined to 23. The companies of the two SETAs that are no longer in existence have been incorporated into the remaining twenty three SETAs. This is an indication that there is a problem with the effectiveness of the SETAs. The SETAs may be seen as the replacement of the previous Industry Training Boards with a key difference being that training is now conducted within the standardized National Qualifications Framework (NQF). The SETAs receive 80% of funds generated through the payment of the skills development levy - 20% of which may be used for their own administration.

The core functions of SETAs are as follows:

- To develop and implement a skills development plan within its sector;
- To register learnerships;
- To ensure that training conducted within each sector adheres to specific standards by recognized institutions;
- To disburse development grants for priority skills within each sector.
- To disburse skills development refunds for training conducted as set out in the Skills Development Act.

In addition to the payment of the skills development levy, companies are required to appoint a skills development facilitator. The purpose of a facilitator is to develop and implement a skills development strategy for the company. On the basis of this, a workplace skills plan must be submitted to the relevant SETA in order to claim a refund of a portion of the skills development levy paid for a year (up to 15%). The work place skills plan typically contains information about what kind of skills are required to facilitate growth within the company, it describes the type of training proposed and the expected learning outcomes. The remaining 45% of the refund on the skills development levy is payable upon submission of the implementation of training report.

In addition to work related training, strategic grants may be given to companies for special skills training, example, ABET and programmes on HIV/AIDS. Further, if an employer registers for any of SETAs learnership programs, they become eligible for cash grants as well as tax incentives.

a) SETAs and the delivery of training in South Africa

Reports on the achievements of the SETAs since its establishment in 2000 seem to be mixed. According to Vaas (2003: 2002), a report by the Department of Labour in 2002 states that the South African Revenue Service (SARS) was experiencing difficulties in collecting the skills development levies from companies while in the same year Daniels (2002), as cited in Vaas (2003:202), indicates that SETA had exceeded its target by placing 15000 individuals in learnerships as opposed to the targeted 3000. She goes on further to state that by December 2001, 21% of registered large companies, employing more than 150 workers, had claimed back grants for training and only 71 of 140 government departments submitted work place skills plans.

"The organizational failure to claim back grants and complete workplace skills plans suggests that training is not necessarily being implemented." Vaas (2003:202)

Kraak (2003:17-18) found that by 2002, R3.2 billion was collected in skills development levies. This constituted levies collected from 136 645 of 208 896 firms (65%). In the

same year almost 67% of large companies were providing skills training to their employees. (DoL 2002d, as cited in Kraak,2003: 17) These figures look promising and on the surface, it appears that there is an increase in the rate of training from year to year. However, Kraak (2003:18) concludes his discussion by stating that of the "136 645 that paid the skills levy, only 14 261 had grants disbursed to them in 2002. This suggests that only 10.4% of levy-paying firms are effectively participating in the levy grant system."

This re-affirms the above assertion by Vaas (2003). My understanding of the above statistic is that 89.6% of firms who have paid the levy could not claim or did not bother to claim the rebate in terms of training actually accomplished. This indicates that there is a reasonable probability that many firms are merely paying the levy as an added "tax", and not utilizing it for its intended purpose, rendering the skills development system impotent. Referring to employers attitudes to levy schemes, Dar *et al..,* (2003:6) maintain that most employers believe that a training levy is an additional tax that they are unfairly compelled to pay. They go on to say that developing countries experience several problem in term of administration of the fund as well as problems with non-compliance.

This notion is further affirmed by Kraak (2003:20) when he states that:
"an impressive array of new institutions for co-ordinating industrial training has been set up (SETAs), and whilst nearly R3 billion has been collected in 2002 via the levy-grant system, employers' attitudes toward training and improving internal labour market mechanisms remain largely unchanged."
In addition, Hunter (2003:338) states that one of the findings of his study is that "only 18 % of companies budget for training." This indicates that there is a general lack of commitment or inattention of companies that realize the importance of training.

4.8.2 The National Skills Development Strategy for South Africa

It will be recalled that in 1993 a task team was appointed by the HSRC/NTB to develop a national training strategy. Based on the recommendations of their study, the Department of Labour published it as the National Skills Development Strategy (NSDS) and it was launched in February 2001. The NSDS outlined objectives which were to be measured

Progress Achieved by March 2004

1.1 By 31 March 2004, 433 437 workers had an NQF level one qualification. This represents 48% of the target and means that another 471 496 workers need to achieve the target during the period 1 April 2003 - 31 March 2004.

1.2 By 31 March 2004, a total of 3 067 192 workers had embarked on structured learning and of these 2 165 418 had completed their programmes. This means that these targets have been exceeded by more than 100% and two thirds of those who have studied have finished their programmes successfully, significantly surpassing the 50% completion rate target.

1.3 By March 2004, a total of 304 organisations and business units of organisations had committed themselves to achieving the international Investors in People standard, which benchmarks good practice in skills development. Of the 304 organisations, 67 have gained recognition against the standard - that is they have met or exceeded all the criteria set.

Objective 2

Fostering skills development in the formal economy for productivity and employment growth.

Success Indicators

2.1 By March 2005, at least 75% of enterprises with more than 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.

2.2 By March 2005, at least 40% of enterprises employing between 50 and 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.

2.3 By March 2005, learnerships are available to workers in every sector.

2.4 By March 2005, all government departments assess and report on budget expenditure for skills development relevant to public service, sector and departmental priorities.

Progress Achieved by March 2004

2.1 The number of employers with more than 150 workers who are paying the skills development levy has increased from 3 589 in 2002/03 to 4 461 in 2003/04, an increase of 872 firms. The number of companies claiming workplace skills plan grants has increased from 2 591 in 2002/03 to 2 989 in 2003/04, an increase of 386 firms.

2.2 The number of employers employing between 50 and 150 workers and paying the skills development levy has increased from 7 397 in 2002/03 to 7 882 in 2003/04. The percentage of companies claiming workplace skills plans grants has increased from 50% in 2002/03 to 53% in 2003/04. This reflects an increase of 1 993 in the number of medium sized firms claiming grants.

2.3 Learnerships have been available in all sectors of the economy since 2002/03. However, there has also been growth in the number of learnerships registered with the Department of Labour since 2002/03 from 478 to 666. The percentage of learnerships actually being implemented has also jumped in the same period from 28.45% to 50% in 2003/04. The total number of learnerships registered on level 5 and below is 619 and those registered on level 6 to level 8 is 47. The total number of active registered learnerships on level 5 and below is 315 and those on level 6

to level 8 is 20. However, the biggest number of learners engaged in learnerships are those on level 4 with 19 414 learners followed by those on level 7 with 13 826 learners.

2.4 There has been significant growth in the number of government departments who have submitted workplace skills plans over the last three years. The number has increased from 68 in 2001/02 to 75 in 2002/03 to 103 in 2003/04. There has also been growth in the training expenditure of government departments. During 2002/03, R709 million was spent on training across all national departments as compared to R708 664 million in 2003/2004. In 2002/2003 all national and provincial government departments spent R2 752 480 billion, while in 2003/2004 the amount of R3 879 billion was spent.

Objective 3

Stimulating and supporting skills development in small business.

Success Indicators

3.1 By March 2003, at least 20% of new and existing small businesses to be supported in skills development initiatives

Progress Achieved by March 2004

3.1 Currently 37% of small employers including those registered and not registered are supported in skills development initiatives. The target, which is 20%, has been exceeded in this indicator.

Objective 4

Promoting skills development for employability and sustainable livelihoods through social development initiatives

Success Indicators

4.1 By March 2003, 100% of the National Skills Fund apportionment to social development is spent on viable development projects.

4.2 By March 2005, the impact of the National Skills Fund is measured by project type and duration, including details of placement rates, which shall be at least 70%.

Progress Achieved by March 2004

4.1 The utilisation rate by provinces of the NSF funding has increased in the past year from77% to 83%.

4.2 When considering the average placement rate across all provinces, the target for this success indicator has been achieved. However Gauteng North and KwaZulu-Natal have not quite reached the targe/ a/though North West, Northern Cape and Free State have all achieved placement rates above 80%.

Objective 5

5. Assisting new entrants into employment.

Success Indicators

5.1 By March 2005, a minimum of 80 000 people under the age of 30 have entered learnerships.

5.2 By March 2005, a minimum of 50% of those who have completed learnerships within 6 months of completion are employed, in full time study or further training or are in a social development program.

Progress Achieved by March 2004

5.1 The number of registered learnership and apprenticeship agreements has more than tripled in the last year. SETAs will still need to support the registration and implementation of another 10 694 learnership agreements to meet the March 2005 target.

5.2 No results for this indicator. The report is reported to be in draft format, but has not been quoted in terms of figures.

Source: Department of Labour, 2004

b) The National Skills Development Strategy 2005 - 2010

Objective 1

Prioritizing and communicating critical skills for sustainable growth, development and equity.

Success Indicators

1.1 Skills development supports national and sectoral growth, development and equity priorities.

1.2 Information on critical skills is widely available to learners. Impact of information dissemination researched, measured and communicated in terms of rising entry, completion and placement of learners.

Targets for 2005/06: Objective 1

1.1 Twenty three (23) Sector Skills Plans for 2005-2010 must be received by August 2005 and evaluated by 31 March 2006.

1.2 Scarce and critical skills list published. 7183 Skills Development Facilitators to be trained by SETA.

Progress:

1.1 By December 2005, 23 Sector Skills Plans were received and evaluated by the agreed target date.

1.2 State of skills was published and distributed by October 2005. 8082 skills development facilitators were trained. This exceeded the target by 13%.

Objective 2

Promoting and accelerating quality training for all in the workplace.

Success Indicators

2.1 By March 2010, at least 80% of large firms' and 60% of medium firms' employment equity targets are supported by skills development. Impact on overall equity profile is assessed.

2.2 By March 2010, skills development in at least 40% of small levy-paying firms is supported and the impact on the support measured.

2.3 By March 2010, at least 80% of government departments spend at least 1% of their personnel budget on training and the impact of training on service delivery is measured and reported.

2.4 By March 2010, at least 500 enterprises achieve a national standard of good practice in skills development approved by the Minister of Labour.

2.5 Annually increasing number of small BEE firms and BEE co-operatives are supported by skills development.

2.6 From April 2005 to March 2010, there is an annually increasing number of people who benefit from incentivised training for employment or re-employment in new investments and expansion initiatives. Training equity targets are achieved. Of number trained, 100% are South African citizens.

2.7 By March 2010, at least 700 000 workers have achieved at least ABET level four.

2.8 By March 2010, at least 125 000 workers assisted will have entered and at least 50% will have successfully completed programmes, including learnerships and apprenticeships, leading to basic entry-, intermediate- and high-level skills. Impact of the assistance will have been measured.

Targets for 2005/2006: : Objective 2

2.1 Three thousand one hundred and forty four (3 144) large firms and 4 708 medium firms are supported through skills development.

2.2 Twenty seven thousand one hundred and six (27 106) small levy paying firms supported through skills development.

2.3 Eighty percent (80%) of National and Provincial departments spend at least 1% of personnel budget on training.

2.4 A national standard of good practice in skills development submitted to the Minister of Labour for approval.

2.5 There must be a year-on-year increase in number of small BEE firms and BEE cooperatives.

2.6 There must be an annually increasing number of people who benefit from incentives training for employment/ re-employment in new investments and expansion initiatives.

2.7 SETAs committed to a target o 41 838 workers that included workers registered on ABET programmes before April 2005.

2.8 SETAs committed to a target of entering 29 297 workers into programmes leading to scarce skills and at least 14 649 workers must complete these programmes.

Progress:

2.1 Four thousand, eight hundred and sixty six (4 866) and 5 424 medium firms were supported. This represented an excess of the target by 55% and 15% respectively.

2.2 Twenty eight thousand, five hundred and thirty two (28 532) small levy paying firms were supported. (5% over target).

2.3 National Departments spent 1.74% of personnel cost of training. Provincial Department statistics were not available.

2.4 A draft proposal was developed but was not finalized during the 2005/06 period.

2.5 Research can only be undertaken during 2006/07 to determine BEE firms' baseline.

2.6 A total of 1 178 workers in 93 small and medium enterprises received training.

2.7 The number of workers that were registered on ABET levels 1-4 was 41 097 which represents 99% of the target.

2.8 The number of learners that have entered scarce skills programmes is reported at 79 198 which represents a 170% excess over the target and the number of learners that have competed the programmes is 44 623 (205% over the target).

Objective 3

Promoting employability and sustainable livelihoods through skills development.

Success Indicators

3.1 By March 2010, at least 450 000 unemployed people are trained. This training should be quality assured and no less than 25% of the people trained undergo accredited training. Of those trained at least 70% should be placed in

employment, self-employment or social development programmes or should be engaged in further studies.

3.2 By March 2010, at least 2000 non-levy paying enterprises, Non-governmental Organisations, Community Based Organisations and community based co-operatives supported by skills development.

3.3 By March 2010, at least 100 000 unemployed people have participated in ABET level programmes of which at least 70% have achieved ABET level 4.

Targets for 2005/2006: Objective 3

3.1 A total of 90 000 unemployed people must be trained, 25% of training must be quality assured and 70% of trained people must be placed in employment.

3.2 SETAs committed to supporting a target of 466 non-levy paying enterprises with skills development.

3.3 Twenty thousand (20 000) unemployed people have participated in ABET Level programmes leading to the achievement of ABET Level 4.

Progress

3.1 A number of 103 168 unemployed people were trained and 55 376 (54% of target) were placed in employment.

3.2 Non-levy paying enterprises supported with skills development amounted to 829 enterprises which exceeds the target by 78%.

3.3 Framework and calls for applications were completed by the end of March 2006.

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.

Success Indicators

4.1 By March 2010 at least 125 unemployed people assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills.

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 experienced locally or abroad, of whom at least 70% find placement in employment or self-employment.

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.

Targets for 2005/2006: Objective 4

4.1 (a) SETAs committed to a target of 29 568 unemployed learners to enter and 14 784 to complete programmes leading to scarce skills

(b)The NSF committed a total of R3,44 million to supporting learners in programmes leading to scarce skills including learnerships and bursaries.

(c)The UYF committed to assisting young unemployed learners with skills development.

4.2 SETAs committed to a target of assisting 8 301 learners to gain work experience locally or abroad.

4.3 (a) SETAs committed to a target of entering 1 669 young people into new venture creation programmes.
(b)NPI committed to assisting 300 micro enterprise entrepreneurs.

Progress

4.1 (a) A total of 37 227 unemployed learners (26% over the target) have entered programmes leading to scarce skills and 11 678 learners (79 % of the target) have completed the programmes.
(b) A total of 2300 learners in leamerships have been supported and 6 941 bursaries were awarded.
(c) 1 452 learners were placed in the National Youth Service programme and 941 learners were placed in the School to Work programme.

4.2 Three thousand, six hundred and ninety three (3 693) learners entered workplaces to acquire experience (44% below target)

4.3 (a) A total of 1 731 young people entered new venture creation programmes,
(b) A total of 327 emerging entrepreneurs were trained.

Objective 5

Improving the quality and relevance of provision.

Success Indicators

5.1 By March 2010, each SETA recognizes and supports at least 5 institutes of Sectoral or Occupational Excellence (ISOE) within public or private institutions

and through Public Private Partnerships (PPPs) where appropriate, spread as widely as possible geographically for the development of people to attain identified critical occupational skills, whose excellence is measured in the number of learners successfully placed in the sector and employer satisfaction ratings of their training.

5.2 By March 2010, each province has at least two provider institutions accredited to manage the delivery of the new venture creation qualification. 70% of new ventures still operating after 12 months will be used as a measure of the institutions' success.

5.3 By March 2010, there are measurable improvements in the quality of the services delivered by the skills development institutions and those institutions responsible for the implementation of the National Qualifications Framework (NQF) in support of the NSDS.

5.4 By March 2010, there is an NSA constituency based assessment of an improvement in stakeholder capacity and commitment to the NSDS.

Targets for 2005 - 2006: Objective 5

5.1 SETAs committed to recognizing and supporting 55 Institutes of Sectoral or Occupational Excellence (ISOE).

5.2 SETAs committed to supporting 33 provider institutes.

5.3 All SETA based Education and Quality Assurance (ETQA) units maintain SAQA accreditation.

Progress

5.1 One hundred and three (103) organisations were recognized and supported as interim ISOEs

5.2 Fifty eight (58) provider institutes were supported (76% over target).

5.3 Twenty one (21) SETAs received three year Education and Training Quality Assurance (ETQA) accreditation status from SAQA.

### 4.8.3 ASG1SA

ASGISA refers to the Accelerated and Shared Growth Initiative for South Africa. It is chiefly a program to ensure that the rate of growth in GDP of the country should be increased rapidly and that the positive effects of that growth should be shared amongst all the citizens. A troubling effect currently being experienced by the majority of the people as a result of the poor political and economic policies of the past is that a large proportion of the population remains rooted in poverty and unable to benefit from the economic growth rate. In order to benefit from the increase in growth, the skill levels of the population need to be increased so that the jobs created by the increase in growth can be filled by the citizens. ASGISA is a collection of plans and ideas that are considered important to sustain, and even increase, the growth rate and to allow greater participation of the majority of the population in the effects of the increased growth rate, most importantly employment. ASGISA, although a government initiative, has involved discussions with a range of stakeholders and therefore the long-term strategy is that it should be a joint initiative for accelerated and shared growth. Deputy President Mlambo-Ngcuka has stated that it is of great importance that the environment and opportunities for more labour absorbing economic activities is considerably improved.
(http://www.skillsportal.co.za/download_files/asgisa/asgisa-backgrounddoc.pdf)

### 4.8.4 JIPSA

JIPSA refers to the Joint Initiative for Priority Skills Acquisition. It is, in effect, a committee of key ministers, business leaders, trade unionists and education and training providers or experts. Its objective will be to identify urgent skills needs and solutions to the problems of skills shortages, both in the short terms and the long term. Solutions may include special training programmes, bringing back retirees or South Africans working out of Africa, and drawing in new immigrants where necessary. JIPSA will have an initial timetable of 18 months, starting in March 2006, after which its future will be reviewed.

### 4.8.5 Umsobomvu Youth Fund (UYF) and the National Productivity Institute (NPI)

The Umsobomvu Youth Fund (UYF) and the National Productivity Institute (NPI) are two separate agencies. Their common function however, is to contribute to achieving objectives set out in the National Skills Development Strategy.

Umsobomvu Youth Fund (UYF)

In 1998, the government set aside R855 million to create the UYF which was established in January 2001 (DoL 2, 2006:8). The purpose of the fund is to facilitate skills development and job creation for youth, aged between 18 and 35 years.

There are two skills development programmes:

- Community Youth Services (CYS)
- School to Work (StW)

The main idea behind these programmes is to provide skills to the youth so that they are able to contribute to their communities or to the economy, especially in terms of scarce skills. The CYS programme, for example, provides the type of skills to youth that allow them, in turn to provide services to their community.

The StW programme assists young people to enter careers that are defined as scarce (in terms of the NSDS scarce skills list) and were not previously accessible to Blacks.

### 4.8.6 The National Productivity Institute (NPI)

The NPI is an organisation that is "dedicated to the development and enhancement of South Africa's productivity and contributes to socio economic development, competitiveness, and ultimately the general improvement of the quality of life of all South Africans." (DoL2b, 2006:30)

The key functions of the NPI are detailed as follows:

- Promote and facilitate partnerships for national productivity drives.

- Provide information on the country's productivity performance and improvements.
- Initiate relevant productivity improvement approaches and techniques.

## 4.9 Training within South African Enterprises

Reliable studies on enterprise training in South Africa are limited. This is not peculiar to South Africa, as it has been mentioned in Chapter 3 that developing countries around the world are faced with similar problems with regard to training data. In addition, it is noted that "the absence of reliable data on enterprise training [in South Africa] is a serious constraint making it difficult to determine accurately the total number of workers being trained. (Badroodien, 2003:433) Further, South Africa has experienced several training reforms over the past three decades, therefore relevant training studies will have to be based on the current system of training in the country.

With this in mind, the following section on enterprise training in South Africa draws heavily on a study conducted by the Human Sciences Research Council (HSRC) - The *South African National Skills Survey of 2003, (Paterson, McGrath & Badroodien, 2004.)*

### Background

In 2003, the HSRC was commissioned by the European Union and the Department of Labour to conduct a study into enterprise training in South Africa. The target group for the study consisted of private companies, across the spectrum of economic sectors that are registered with the South African Receiver of Revenue.

The data base of 223 761 companies were differentiated by group size (small, 11-50 employees; medium, 51-100 employees and large, in excess of 101 employees). The sample drawn from the target group amounted to 6000. Of the enterprises surveyed, the number of completed questionnaires amounted to 1 374, which yielded a response rate of 22.9 %.

### 4.9.1 The Dimensions of Training

It is important to identify, at the outset, the different dimensions of training before embarking on a detailed discussion on enterprise training in South Africa. Dawe (2003:14) identified the dimensions of training. This is illustrated in table 7 below. The explanation follows:

#### Formal and Informal Training

Formal or structured training refers to training that is conducted according to a predetermined plan or curriculum. In addition, it is monitored and recorded by the training provider Informal or unstructured training is conducted by the individual (example, self study) or by the company as the need arises. This form of training does not have a predetermined plan or specified content.

#### External and Internal Training

"Training content which is provided by an external training provider, curriculum or training package and externally recorded and monitored is referred to as external training." (Dawe, 2002:14) In contrast, the training content in internal training is developed internally by staff or training specialists to meet the needs of the company. In addition, internal training is not subject to the accreditation process that is employed in external training.

#### On-the-job and Off-the-job Training

On-the-job training is conducted at the workplace and forms part of the learner's productive work. Off-the-job training requires time away from work and it usually involves training that is conducted off the work premises unless there are training facilities available at the workplace.

The diversity of training arrangements as discussed above - external, internal, on-the-job and off-the-job training may be formal or informal. This is detailed clearly in table 7 below.

Table 7: The Dimensions of Training

| | **Formal (structured) Training** | **Informal (unstructured) Training** |
|---|---|---|
| **External** | Training content provided by an external training provider, curriculum or training package and externally monitored and recorded. Instructor -led whether delivered on campus, at the workplace or self-paced. | Informal training is instigated by the individual or occurs on an ad hoc basis (as the need arises or depending on the circumstance). External informal training may come from other students, lecturers, family members, other social contacts or from self study. |
| **Internal** | Instructor-led program with training content developed wholly or partly internally within the enterprise by staff, and monitored and recorded within the enterprise only. | Informal internal training, while instigated by the individual or occurring on an ad hoc basis, may come from observing colleagues, asking questions, self learning, or self study at work. |
| **On-the-job** | Formal training can take place on-the-job, that is, while a person is undertaking normal work tasks or as part of productive work, under instruction and supervision of an experienced colleague or workplace trainer. | Informal on-the-job training is undertaken as part of productive work and instigated by the individual or on an ad hoc basis, for example, observing colleagues, asking questions or being coached. |
| **Off-the-job** | Off-the-job training takes place away from a person's job, usually of the premises. Formal training can be undertaken off the job, that is, instructor - led training sessions in a worksite training room or at external training provider locations. | Informal training can be undertaken off-the-job, that is, away from a person's job, or while not carrying out normal work tasks, and is instigated by the individual or on an ad hoc basis, for example, asking questions or listening to friends, union organizers or other contacts |

Source: Dawe (2002:15)

The definition of training used in the national skills survey (2003) is "any activity that improved the skill levels or capacity of employees to do the type of work that they are

doing or have done before, or gives them the skills or capacities to do a completely different type of work, either on-site or off-site." (Paterson, McGrath & Badroodien, 2004:50) In the discussion of enterprise training that follows, training must be considered with this definition in mind.

An important point however, in the discussion at hand is the importance of on-the-job-training. The importance of on-the-job training is usually underrated or not recognized as a valuable form of training. Yet, it may be almost impossible for individual to perform job without being shown how to do it.

Studies in Australia, for example, have shown that on-the-job training constitutes a large percentage of overall training that is conducted. (Dawe, 2003:17) In 1997, the Australian Bureau of Statistics (ABS) provided the findings of an education and training survey. They provide the following measures of enterprise training activity: of the 80% of workers who undertook training, 20% was structured external, 33% was structured in-house while 72% of training was unstructured on-the-job-training. (ABS 1998b) as cited in (Dawe, 2003:17)

In a separate survey of firms with under 200 employees, of the 54% of enterprises that providing training, 68% provided unstructured off-the-job training while 46% received structured formal training. (Smith, 2000) as cited in Dawe, (2003:17).

Ridoutt, Dutneal, Hummel & Selby-Smith, (2002:8) state that "It is important to acknowledge that many enterprises, especially smaller and medium size companies, undertake a considerable amount of 'unrecognized training.' They state that, in addition, governments should acknowledge the nature of training rather than the volume but it is noted by Dawe, (2003:13) that unstructured on-the-job training is the most difficult to measure.

Although findings from the National Skills Survey. 2003 include off-the-job training in their definition of training; no distinction is made between the two. Since the study was

commissioned by the department of labour, formal training is a focal point because the skills legislation focuses on structured accredited training to the exclusion of other forms of training.

4.9.2 The Incidence of Enterprise Training in South Africa

In order to measure the participation of employers in training, the consistent measure of the amount of training conducted is determined by calculating and comparing *training rates*. These rates reveal the training expenditure which is an indication of employer participation in training as well as the general state of training in an economy. According to Paterson *et al,* (2003:50), training rates or training ratios may be calculated through dividing the number of employees receiving training by the total number of employees.

An analysis of data with regard to training rates revealed the following:
The average training rate of enterprises in South Africa is 38 %. This includes permanent, non permanent employees and disabled employees (training rate A). Data according to enterprise size reveals that small, medium and large enterprise training rates are 30 %, 35 % and 41 % respectively.

The training rates for permanent employees, (training rate B) according to enterprise size: small, medium and large enterprises were calculated at 23 %, 24 % and 25 % respectively revealing an average training rate for permanent employees of 24 %. This implies that 76 % of the companies in the sample do not offer training to permanent employees. Therefore, training in South Africa occurs on a continuum with the minimum rate of training being 24% with a maximum of 41%, according to the National Skills Survey, 2003. Although these percentages of training cannot be directly compared meaningfully to training data elicited from other countries, in terms of company size, findings of the National Skills Survey follow a similar pattern of training, that is larger companies appear to train more than smaller companies. (Tan, 2001; Tan & Batra, 1995). This will be discussed in more detail in sections that follow.

Non permanent employees constitute 13.4 % of the workforce of companies in the sample. (Paterson *et al.* 2004:52). Since employers pay a skills development levy based on the size of their payrolls, all employees should ideally have access to the same amount of training. However, the study found that there is a marked difference between training rates for permanent and non permanent employees - non permanent employees receive less than half the training compared to permanent employees. Interestingly, small and medium enterprises offer more training to non permanent staff. Large enterprises were found to offer the least amount of training to the disabled and non permanent population in their employ.

4.9.3 Training Rate by Enterprise Size

Enterprises were classified according to size as follows:

- Small - 11 to 50 employees
- Medium - 51 to 100 employees
- Large - more than 100 employees

The NSS found that the average training rates for small, medium and large enterprise were 23%, 24% and 25% respectively. Paterson *et al.* (2004:59) states that this is in line with international experience and the difference between the training rates are not as marked as expected. In his review of previous enterprise studies in South Africa, Badroodien (2003:439) states that company size affects the investment in training and can be positively correlated to the amount of training provided to employees. Bhorat & Lundall 2002:12) note that large firms invariably provide more training than small firms in South Africa.

Internationally, there is consensus with regard to theses findings. Hayden *et al.* (1996:8) as cited in Ridoutt , Dutneal, Hummel & Selby Smith (2002:21) found that industry sector and enterprise size were the two most powerful variables used to explain differences in training amongst Australian firms. Similar findings in Australia are detailed by O'Connell (1999:2) and Jennings (1998:13) as cited in Paterson *et al.*

(2004:59). In developing countries studies yield similar results. Tan & Batra (1996:v) argue that "enterprises are more likely to train when they are large and employ an educated workforce." A detailed discussion of this study is included in Chapter 2.

4.9.4 Enterprise Training in South Africa by Race

As previously mentioned, the training reform in South Africa began in order to deconstruct the legacy of apartheid characterized by extreme racial disparities in terms of education, training and occupation. This reform culminated into the South Africa's current legislative system of training.

In this respect, the National Skills Development Strategy spells out training equity targets, for example: the equity target is 85%- Black, 54%- women and 4%- people with disabilities across all objectives. Subsequently, one of the purposes of the Skills Development Act is to "improve the prospects of persons previously disadvantage by unfair discrimination and to redress those disadvantages through training and education." According to the National Skills Survey, the average training rate of Africans was found to be higher compared to other race groups. Consequently, there was a positive correlation between the training of Africans and company size. This means that the percentage of training for this race group increased with company size. Paterson *et al.* (2003:37) suggest that ". . . . large enterprises were more able to monitor and respond to the needs in their labour force."

The percentage of training for small, medium and large enterprises for African workers was 19 %, 25 % and 32 % respectively, with the aggregate training rate for African workers calculated at 28 %. This means that 28 out of every 100 Africans employed were exposed to some form of training.

Paterson *et al.* (2003:38), states that in order to "reflect the share of training received by Africans as a proportion of all employees ... it is necessary to calculate the distribution of all training across all race groups." This represented in Table 8 below.

Table 8: Training Access by Race 1999/2000 to 2002/2003

| **Training Access by Race 1999/2000 to 2002/2003 (percentage)** | | | | | |
|---|---|---|---|---|---|
| | **NSDS Target** | **1999/2000** | | **2002/2003** | |
| **African** | 85% Black | 48 | 69% Black | 56.3 | 73.3% Black |
| **Coloured** | | 12 | | 13.6 | |
| **Indian** | | 9 | | 3.4 | |
| **White** | 15 | 32 | | 26.7 | |

Source: South Africa National Skills Survey, (2003: 38)

In terms of race, the equity targets spelled out in the National Skills Development Strategy are close to being achieved. Table 8 illustrates that the training for Blacks achieved in 2002/2003 in terms of the NSS sample is 73.3% of a target of 85%. A cause for possible concern however, is that the training rate for Indians as illustrated in Table 8 has decreased during this period.

4.9.5 Grant Claims and Enterprises Registered with the SETAs

The functions of the SETAs as well as the mechanisms of funding have been detailed above. Suffice it to say here, that companies are required to pay a skills development levy in terms of the Skills Development Act and the Skills Development Levies Act. This discussion involves grant claims and enterprise registered with the SETAs, in the context of the National Skills Survey (NSS) and is therefore not included in the earlier section of this chapter that deals with the SETAs. The (NSS) drew their sample of companies from the South African Receiver of Revenue (SARS) database that included companies that were registered to pay the 1% payroll levy.

*"In effect this group of establishments participated at the first level in the form of an involuntary 'tax-based' transaction which involved paying the levy. The next level of participation - which is voluntary rather than compulsory - is for the establishment to register with SETA. " Paterson et al. (2004:100).* The full participation of employers

beyond merely paying the skills development levy is crucial otherwise training legislation may be rendered ineffective of at the very worst, useless.

Enterprises that were registered with SETAs varied with size. This may be closely related to propensity to train and enterprise size. Table c below illustrates the status of SETAs registrations.

Table 9: Establishments registered with SETAs by enterprise size as a percentage

| Enterprise size | percentage Registered | percentage not Registered | percentage unsure |
|---|---|---|---|
| Small (11-50) | 55.3 | 33.3 | 11.4 |
| Medium (51-100) | 74.0 | 20.6 | 5.4 |
| Large (100+) | 92.5 | 5.2 | 2.2 |
| Total | 62.8 | 28.8 | 9.3 |

Source: Paterson *et al.*. (2004:101)

From table 9, predictable patterns emerge. Firstly the percentage of enterprises that are registered with SETAs, increase with size. Secondly, the largest percentage of enterprises that are not registered or are unsure of their SETA registration are small enterprises. The possible reasons for this pattern may include the quality of services rendered by SETAs and the possibility that larger companies are better equipped to deal with the administrative functions of training within their companies.

The percentage of companies claiming grants were 27 %, 59.1 % and 83.4 % for small, medium and large firms respectively (Paterson *et al.* 2004:103) They go on to discuss the reasons that enterprises offered for not claiming grants as follows:

- One in four respondents indicated that they 'did not know about the Skills Levy grants'. This was the most common response and seriously questions the

efficiency of the SETAs. Paterson *et al.* (2004:103) argues that "this may be interpreted as a failure of policy dissemination rather than a failure of implementation or a failure of policy."

- The second most common reason was that claiming grants were 'not worth the financial effort.' This response was the highest for small companies (24.9%) and it indicates that the National Skills Development Strategy has a way to go in order to achieve its target in this respect.

- One in five respondents indicated that the 'application process was too complicated.'

- Other reasons offered for not claiming grants was that there is a lack of accredited courses against which they could claim grants. Paterson *et al.* (2004:103) suggests that there was a lack of training providers in certain sectors or that training providers were accredited at a slower rate than that which was actually required.

From the findings listed above it appears that there is room for improvement in the functioning of and the services rendered by the SETAs.

## 10. Summary

The aim of this chapter was to provide a detailed account of training and the training system in South Africa.

The economic development of South Africa as well as the overview of the South African economy and the impact of trade liberalization provided a backdrop against which the need for training in South Africa was discussed. The consensus in literature, as discussed, provides support for the relationship between training and the success of the economy.

The history of training in South Africa examined previous, less successful training mechanism in South Africa. The history of training combined with the state of the South African economy affirms the need for training in South Africa. The need for training considered factors such as the South African labour market, the impact of HIV/AIDS and the demand for scarce skills. It was concluded that these factors represent an important driver for training in South Africa.

Training legislation considered two pieces of legislation, deemed relevant to this study. This includes, The Skills Development Act and the Skills Development Levies Act. The purpose of the Acts, as well as the funding mechanisms and the framework within which training is supposed to occur in South Africa, were explained in detail.

This section is followed by a discussion of further initiatives by the government aimed at skills development. These include: the establishment of SETAs, the implementation of the National Skills Development Strategy, the implementation of the Joint Initiative for Priority Skills Development in South Africa, the implementation of the Accelerated and Shared Growth Initiative for South Africa, the Umsobomvu Youth Fund and the National Productivity Institute. Despite the calculated attempts by the government aimed a skills development and economic prosperity, South Africa has still not been catapulted on to its desired position on the skills development path.

This chapter is concluded with the incidence of enterprise training in South Africa with specific reference to the National Skills Survey that was conducted in 2003. The following chapter gives salience to the research methodology that was employed in this study.

# Chapter Five

# Research Methodology

## 5.1 Introduction

Consensus exists in research literature that the research process may be conducted in various steps or stages. Saunders, Lewis & Thornhill (2000:4) state that the precise number of stages may vary, but usually include the following: "formulating and clarifying a topic, reviewing the literature, choosing a strategy, collecting data, analysis of the data and writing up."

Similarly, Sekaran (1992:31) delineates eight main steps in the business research process, as follows: identifying a broad area of research, preliminary data gathering, definition of the research problem and the research questions, identifying the main variables involved, generating the hypotheses, deciding on a research design, collection of data, data analysis and the interpretation of the data.

The steps above suggest that the research process is linear and once a stage in the process is passed it is complete and the researcher may continue to the next stage and so forth until the project or study is complete. Saunders *et ai,* (2000:4) note that although researchers need to go through the stages described in the research process, each stage is often visited more than once. This serves to clarify issues and further refine ideas especially with respect to the research questions and hypotheses. The latter research process best describes the steps taken in this study. This section in this chapter focuses on firstly, research methodology in general, and secondly, how the theory of research methodology was applied to this study.

## 5.2 The Research Problem

The research problem is that there is a shortage of skills in South Africa and there is a need for effective training and development of employees. Furthermore, although the Skills Development Act was introduced in 1998 it does not appear to have had much impact on the skills deficit in the country. This problem is confirmed by the literature study reported on earlier.

## 5.3 The Research Questions

1.4.1 Has the Skills Development Act, and its implementation, ensured an adequate supply of skilled people in South Africa?

1.4.2 What perceptions do companies in the sample have of the Skills Development Act?

1.4.3 What perceptions do companies in the sample have of effective training?

1.4.4 Are effective training procedures applied by companies in the sample?

1.4.5 To what extent are companies in the sample compliant with the Skills Development Act?

1.4.6 To what extent do companies in the sample receive assistance from the SETAs?

## 5.4 The Research Objectives

Main Objective

To evaluate the efficacy of the Skills Development Act.

Sub Objectives

I. To determine if there is a relationship between the number of employees in a company and the amount of training they conduct.

2. To determine whether there is any relationship between the number of employees in a company and the amounts claimed for refunds.

3. To determine the percentage range of skills development refunds that is collected by companies.

4. To determine the percentage of companies in the sample that are compliant with the Skills Development Act.

5. To examine the state of training and development in the sample of companies studied.

6. To determine the extent to which respondents believe that training benefits their organisations.

7. To determine the extent to which the Sector Education and Training Authorities (SETAs) have assisted companies in the sample with training and development.

8. To formulate recommendations to improve the efficacy of the Skills Development Act and the Skills Development Levies Act.

9. To formulate recommendations, based on the research findings, to improve training and development in South Africa.

## 5.5 The Main Variables in the Study

The main variables in the study were derived from an intensive literature study and are as follows:

Variable A:

The perceived effectiveness off the Skills Development Act.

Variable B:

The perceived effectiveness of training in the organization.

Variable C:

The application of effective training procedures.

Variable D:

Compliance with the Skills Development Act.

Variable E:

Assistance from the SETAs.

Variable F:

Percentage of on-the-job training conducted.

Variable G:

Percentage of formal training conducted.

Variable H:

The number of employees in the company.

Variable I:

The percentage of training costs recovered from SETAs.

## 5.6 **The Hypotheses**

The hypotheses were derived from the main variables in the study as stated above.

The Null Hypothesis

There is no significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

The Alternate Hypothesis

There is a significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

**Sub Hypotheses**

The null hypotheses are listed below.

1. There is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

2. There is no significant correlation between the number of employees in a company and the percentage of formal training conducted.

3. There is no significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

4. There is no significant correlation between the number of employees in a company and the perceived effectiveness of training.

5. There is no significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

6. There is no significant correlation between the number of employees in a company and the application of effective training procedures.

7. There is no significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

8. There is no significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

9. There is no significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

10. There is no significant correlation between the application of effective training procedures and the assistance received from the SETAs.

11. There is no significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

12. There is no significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

13. There is no significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

14. There is no significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

15. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

16. There is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

17. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

18. There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

## 5.7 The Research Design

When deciding on the research design for a study, attention must be given to the research approach and the research strategy. Although these terms appear to have the same or a similar meaning, they are distinctly different. The research approach is dependant on the purpose of the study as defined by the research question(s) and objectives. That is, is the study concerned with theory building or theory testing? The research strategy is a plan of how you go about answering the research question(s) considering the objectives of the study. The research approach and research strategy will be discussed in the following section. Thereafter, attention will be given to the way in which the research approach and the research strategy are applied to this study.

### 5.7.1 The Research Approach

There are two main approaches to conducting research. These are: The Deductive Approach and The Inductive Approach.

The Deductive Approach

This approach to research involves the development of a theory, the generation of hypotheses and a research design to test the hypotheses (Saunders et al. 2000:87). Several characteristics of this approach are outlined below.

- There is a need to establish and explain causal relationships.
- The collection of data is quantitative.
- Research methods are highly structured.
- The researcher is independent of the observations.
- The concepts used in study must be operationalised to allow for quantitative measurement.
- Samples of an appropriate numerical size must be selected so that generalisations can be made.

The Inductive Approach

The Inductive Approach to research uses the collection of data to develop a theory as a result of data analysis. Characteristics of this approach are outlined below.

- There is a need to "gain an understanding of the meanings humans attach to events".
- A close understanding of the research context is required.
- The collection of data is qualitative.
- The structure is more flexible to permit changes of research emphasis as the research progresses.
- The researcher is a part of the research process.
- A smaller sample may be appropriate because there is less concern with the need to generalize."

Saunders etal. (2000:91)

The main advantages of the deductive approach can be explained in terms of time, risk and the applicability to business research. Deductive research may be completed in a shorter time than inductive research. This is due to the highly structured nature of this approach. Data is usually collected once excluding data gathered for the pilot study. It enables the researcher to predict time frames more accurately. This is more difficult to control in inductive research because the process of data collection is 'drawn out' in the sense that data collection and analysis occurs very gradually (as relevant themes emerge). Saunders *et al.,* (2000:91) argue that the deductive approach can be a lower risk strategy as opposed to the inductive approach which relies on the emergence of theory and useful data patterns which might not necessarily occur.

Finally, Saunders *et al.,* (2000: 91) state that in their experience, "most managers are familiar with the deductive approach and much more likely to put faith in the conclusions emanating from this approach." It is important to note here that both these approaches are not mutually exclusive. Therefore a study may use both the inductive and the deductive approaches depending on the nature of the study. Mention was made earlier in this discussion of the collection of quantitative and qualitative data. Before the approach that was used in this study is stated, it is useful here to briefly discuss quantitative and qualitative data.

There are two broad categories of observational methods that are generally employed when conducting research. These are the qualitative approach and the quantitative approach. Although these approaches are not mutually exclusive, the major differences between the two are firstly, the type of raw data that is generated. Rosnow & Rosenthal (1996: 74) state more clearly that, "Qualitative means that the raw data exists in non numeric form (eg. Reports of conversations); Quantitative means that raw data exists in numerical form (eg. Observers ratings)."It should, however, be noted that all data will ultimately be converted into a numerical form to facilitate statistical analysis.

### 5.7.2 The Research Approach Adopted in this Study

Saunders *et al.,* (2000:94) emphasise the "dangers of constructing neat boxes in which to categorise the approaches, strategies and methods." Therefore it may be more correct to state that this study is suited to an approach that uses elements found more in the deductive approach, for example the use of quantitative data and the need for structure in this type of approach.

As noted earlier, the purpose of this study, as defined by the research question and objectives, is to examine the relationship between variables. Having considered approaches outlined above, as well as their advantages and disadvantages, it was decided that the collection of quantitative data will be required for the main study. However, a qualitative approach was used for the pilot study. This involved administering the questionnaire and further refining variables and concepts through feedback from the respondents.

### 5.7.3 The Research Strategy

A research strategy is a general plan of how the research question will be answered. This includes, for example sources of data, methods of data collection and so forth. Strategies that are employed in research include: experiment, survey, case study, grounded theory, ethnography, action research. The focus of this discussion is the strategies considered for and eventually utilised in this study. The following strategies were considered:

A. The Case Study Method

This research strategy is based on qualitative research. It involves "the development of detailed, intensive knowledge about a single case or a small number of cases." (Saunders et al, 2000:96) A wide range of data collection techniques may be used in this kind of study. These can include questionnaires, interviews and observations.

B. The Survey Method

The survey method involves collecting information from a pre defined sample population. The advantage of this method is that data may be collected from a fairly large sample in an economical way. If a questionnaire is used, the data collected is standardised facilitating simpler statistical analysis. Saunders *et al.*, (2000:94) state that this approach usually gives researchers greater control of the research process, however there are possible disadvantages. The data collected may be limited as a result of the limited items that the researcher includes in the questionnaire as well as the nature of these items. Other data collection techniques used in the survey method includes structured interviews and structured observations. These will be discussed in the following section.

### 5.7.4 The Research Strategy Adopted in this Study

Having considered the research approach, the research question, the research objectives, and the above discussion, the research strategy that was chosen for this study was the survey method. Although the case study method generates useful in depth information on the "case" being studied it is not useful to this study for the following reasons: To answer the research question as stated above requires that information is extracted from a fairly representative sample. It would be difficult (if not impossible) to make generalisations based on the results yielded from the case study method for this study. Specifically, results obtained from this kind of study would not be representative of companies in Pietermaritzburg and would therefore not be generalizable. In addition, this kind of research is time consuming both for the researcher and the respondents. The respondents might not have agreed to expend their time to the extent that was required to complete the data collection.

The discussion so far has focussed on the research approach that was used for this study, that is, the deductive approach, and the research strategy employed, namely the survey method. The next decision that had to be made was the manner in which data was to be collected.

## 5.8 Sampling

There are two types of sampling techniques: Probability sampling (which may be restricted or unrestricted) and non probability sampling. Probability sampling is associated mostly with survey research and includes: simple random sampling, systematic sampling, stratified random sampling, cluster sampling and multi stage sampling. (Saunders *et al.*, 2000:161) For this study the following probability sampling techniques were considered.

*Simple random sampling* involves selecting a sample at random from a sampling frame. A computer program or random number tables can be used and numbers are drawn until the sample size is reached.

*Systematic sampling* involves selecting a sample at regular intervals from the sampling frame. The first case selected is at random and thereafter at regular intervals.

*Stratified random sampling* involves dividing the population into two or more strata (categories) based on one or more attributes that are important in the study. A random sample (simple or systematic) is then drawn from the sample frame. The advantages of this method of sampling are that the sample can be drawn proportionally from each stratum and tends to be more representative.

In addition, Pedhadur and Schmelkin (1991:331) as cited in Hunter (2003:200), maintain that, "the intent in stratified sampling is to reduce sampling variability by creating relatively homogenous strata with respect to the dependant variable of interest. The first advantage of stratified sampling is that it affords, in addition to a population estimate parameter, estimates for subgroups of the population. A second advantage is the possibility of increased statistical efficiency of the estimates. A third advantage is greater convenience and the potentially greater diversity in procedures and data collection methods that it affords as compared with simple random sampling."

### 5.8.1 Sampling Techniques used in the Study

The techniques used in this study for sampling were systematic sampling and stratified sampling. However, convenience sampling was used in the pilot study. The study required the sampling of manufacturing companies and retail companies in Pietermaritzburg. The sample population was derived from the list of companies from the Pietermaritzburg Chamber of Business. Companies that did not belong to the relevant sectors were excluded. Therefore, manufacturing and retail companies were selected and each company was assigned a number. A table of random numbers was constructed. Systematic sampling was then applied. The first number was chosen at random (the number 6), thereafter every sixth company was selected until the sample size of 60 was reached.

The important reason for the stratification of the companies relates to generalisation of the results obtained in the study. In this respect the functioning of only the relevant SETAs in terms of efficiency was necessary in this study. Without the stratification process, it may have been possible to randomly select companies that belonged to more than the two SETAs under consideration and in that instance the results may well have been diluted considering the sample size of just sixty companies. As a result, it would be difficult to measure and compare the efficiency of SETAs let alone decide whether generalization would be possible. In addition, companies that did not belong to a SETA were not considered because the questions in the questionnaire that attempt to measure the efficiency of SETAs would be rendered unanswerable.

It must be noted here that although the main sample for the study used the techniques of probability sampling, the pilot study used the non probability method of convenient sampling. For this purpose, three manufacturing companies and three retail companies were selected to test the questionnaire.

## 5.9 Confidentiality

Confidentiality and anonymity were factors that were taken into account for this study. Respondents were more willing to take part in the study once the researcher explained that all data obtained from the company, including the name, would be kept confidential. Despite

the confidentiality agreement however, respondents understandably remained reluctant to provide specific financial information to the researcher.

## 5.10 Data Collection Techniques in Survey Research

Interviews and questionnaires are generally used to collect data in survey research. Interviews may be structured, semi-structured or unstructured and in-depth. The choice of interview is dependant on the nature of the study and the type of data that the researcher wishes to gather.

Structured Interviews

"Structured interviews use questionnaires based on a predetermined and standardised or identical sets of questions." Saunders *et ah,* (2000:243) Responses are recorded on a standardised schedule usually containing pre coded answers.

Semi-structured Interviews

This type of interview is not standardised and relies on a list of themes and questions that should be addressed at the interview. Questions may also vary between interviews depending on for example the organisational context. Responses are gathered by means of taking notes.

Unstructured, In-depth Interviews

Unstructured interviews are used chiefly in exploratory research. Although there is no pre-determined set of questions that need to be answered by the respondent, the researcher must have a clear idea of the areas or aspects that need to be explored. This kind of interview generates a large amount of data that would then have to be content-analysed.

Semi-structured and unstructured interviews are time-consuming therefore they would probably suit studies that require fewer respondents. In addition, access to respondents could be problematic considering the time taken to complete a single interview. In addition, large amounts of data that are not standardised will have to be analysed. For these reasons, the choice of structured interviews was necessary in this study. The interview was highly structured using pre-coded answers, thereby facilitating easier data collection.

The Use of Questionnaires

Questionnaires may be self-administered or interviewer-administered. Self-administered questionnaires are completed and returned by the respondent electronically, by mail or delivered to and collected from the respondent. Interviewer-administered questionnaires are conducted by means of structured interviews, in person or telephonically.

The choice of questionnaire administration is dependant on various factors related to the research objectives and questions. These are outlined by Saunders *et al.*, (2000:280):

- The importance of reaching a particular person as a respondent.
- The importance of the respondents' answers not being contaminated.
- The size of the sample required for the analysis.
- The types of questions and the number of questions needed to collect data.

Based on these factors, the possible problems that may be encountered with the use of self-administered questionnaires are that a person other than the respondent may answer the questionnaire; results may be contaminated through uninformed responses which involves 'guessing' at answers for which they may have insufficient knowledge or they may discuss their responses with others, also leading to contamination. In addition, self-administered questionnaires are associated with a lower response rate than interviewer administered questionnaires. In addition, there is no opportunity to clarify any issues that respondents may have while completing questionnaires.

### 5.10.1 The Method of Data Collection used in this Study

Data was collected by means of questionnaires for this study. The nature of this study necessitated that respondents had a fairly intimate knowledge of training-related issues in their companies. Therefore, companies were initially contacted to ascertain who the appropriate respondent would be. Generally, managers, senior human resource personnel and heads of training departments, where applicable, were identified as the appropriate respondents.

Important reasons for the choice of telephonic interviews in this study are: firstly, the human resource departments for larger companies are based in Durban. It was therefore convenient to conduct the interviews telephonically. In addition, if a portion of the interviews were conducted face to face and the others conducted telephonically, this would affect the standardization of the data collection. Secondly, the estimated time taken to complete the questionnaire was approximately 20 minutes which made telephonic interviews a feasible option. Finally, the researcher had to be certain that the questionnaire was completed by the relevant person or the information obtained would be unreliable.

## 5.11 Questionnaire Design

The questionnaire consists of 34 items, (refer to Appendix B) Eight of the 34 items required factual information or information that could not be measured on a Likert scale. These questions related to, for example, the number of employees in a company and SETA registration.

The remaining 26 items were measured on a five point Likert scale. The items included in the questionnaire were based on variables that resulted from a fairly detailed literature study. The definition and measurement of the variables are outlined below.

a) The Definition and Measurement of Variables

Variable A

*The perceived effectiveness off the Skills Development Act.*

The Skills Development Act refers to Act 97 of 1998. The perceived effectiveness of the Act refers to the respondents' view of the efficiency of the Act. The following statements measured this variable:

- The Skills Development Legislation is inefficient.
- The amount of training being done in our company is satisfactory.
- The skills development refund has assisted in the training of our employees.

- The company's involvement in training has increased significantly in the last five years.

Variable B

*The perceived effectiveness of training in the organization.*

Effective training is defined as the extent to which training objectives are met. It is important to set clear objectives so that they may be achieved, measured and evaluated, (refer to Chapter 2)

The measurement of effective training relied, in part, on concepts from Kirkpatrick's model of evaluation (learning, performance and results) and Baldwin & Ford's model of the transfer process as discussed in Chapter 2 of this dissertation. The following statements measured this variable:

- We are conducting effective training in terms of the performance of our company.
- The success of our business depends on effective skills training.
- We are conducting effective training in terms of the amount of learning achieved by our employees.
- Training of our workforce will have a positive impact on our company.
- We are conducting effective training in terms of the performance of our employees.
- Our company results have improved as a result of training.

Variable C

*The application of effective training procedures.*

This variable is closely related to variable B. Effective training procedures refer to the extent to which the training intervention used procedures that facilitated the achievement of the training objectives. Concepts such as qualified trainers as set out in the Skills Development Act as well as Baldwin & Ford's model of the transfer process were used in the following statements in order to measure this variable:

- Training programs are evaluated for their effectiveness.
- Employees are given the opportunity to apply that which they have learned to their jobs.
- Training programs are based on the needs of the company.
- Qualified trainers are used for the training of our employees.
- Our employee skills are continuously updated through skills training.
- Training in our company occurs on a regular basis.

Variable D

*Compliance with the Skills Development Act.*

Compliance with the Skills Development Act refers to whether the companies are fulfilling the requirement of the Act. Paterson *et al.* (2004:100) states paying the skills development levy is in effect an involuntary tax, the next level of participation is registering with SETA. Compliance with the Act is therefore measured by determining the full participation of the companies using the following questions and statements:

- Has your company registered with the relevant SETA?
- Has your company submitted a workplace skills plan?
- Has your company submitted an implementation of training report?
- We regard the payment of the skills development levy as an additional tax.
- The refund of the skills development levy is not easily accessible.
- The main reason that we are involved in training is to obtain a refund on our skills levy.
- The main reason that we are involved in training is to fulfill legislative requirements.

It must be noted that the statements listed above were scored on a 5 point Likert scale whereas questions that required either yes or no answers were assigned discrete values of either 1 or 2. Further, questions that required either yes or no responses were listed as

questions 1 to 8 on the questionnaire and questions that were rated on the Likert scale were listed together from question 9 to 34.

Variable E

*Assistance from the SETAs.*

Assistance from the SETAs is defined as administrative support received from the manufacturing SETA and the Wholesale and Retail SETA. The following statements measured this variable:

- Our SETA has assisted us in training our employees to a great extent.
- Our SETA administers our refunds promptly.
- Information related to courses, programmes and training is readily available from our SETA.
- Our SETA is responsive to our queries.
- The submission procedures of our SETA are complicated.

Variable F

*Percentage of on-the-job training conducted.*

On-job- training is defined as training that is conducted at the worksite during productive working hours. This was discussed in Chapter 4. This variable was measured in percentage terms using the following statement:

- Please indicate the percentage of training that you believe is conducted on-the-job in your company.

Variable G

*Percentage of employers carrying out formal training.*

Formal training refers to a structured training intervention that is conducted off the work site (or in a training room) and does not form part of the productive working day. This variable was measured using the following statements:

- Please indicate the number of employees in your company.
- Please estimate the number of employees that have received skills training in the last year.

Variable H

*The number of employees in the company.*

This refers to the number of permanent employees that are employed at the company. The following statement was used for measurement.

- Please indicate the number of employees in your company.

Variable I

*The percentage of training costs recovered from SETAs.*

The percentage of training costs refer to the percentage received in the form of the skills development refund. The following statement measured this variable.

- What percentage of training cost has your company recovered from SETA in the last year?

b) Determining the Raw Scores of the Data

In order to facilitate statistical analysis, each item on the questionnaire was scored. The raw score for each item was determined as follows:

Items I; 2; 3; 4; and 8 required factual information from respondents (for example, number of employees in a company. Items 5; 6 and 7 required yes or no responses and were therefore

assigned discrete values (0 or 1). A five point Likert Scale was used for the measurement of statements 9 to 34. Responses ranged from 'strongly agree' to 'strongly disagree'. Scores ranged from 1 to 5. For positive statements, a value of 5 was assigned to 'strongly agree'. For negative statements, a value of 1 was assigned to 'strongly agree', that is, reverse scoring was applied.

The raw scores were therefore obtained by assigning a value to a response as explained above.

## 5.12 The Pilot Study

The pilot study was conducted using a qualitative approach and convenience sampling. The study included three manufacturing and three retail companies.

The main purpose of the pilot study was:

- To test the questionnaire especially in terms of validity.
- To ensure that the questionnaire was easily understandable.
- To ensure that the respondents interpreted the questionnaire in a way that the researcher intended.

The results of the pilot test revealed, firstly that companies in the pilot study did not keep detailed records of training in their companies. As a result the following question was not included in the questionnaire:

Please answer the following question with respect to courses conducted in your company in the last year.

| Course Conducted | Number of Employees In Attendance | Duration of Course | Total Employee Hours Spent Training |
|---|---|---|---|
| | | | |

This question was rephrased to read 'Please estimate the number of employees that have received skills training in the last year.'

Secondly, respondents were reluctant to provide financial information. In this regard the question 'How much has your company claimed through the Skills Development refund in the last financial year?" remained in the questionnaire but the following alternate question was also included: 'What percentage of training costs has your company recovered from SETA in the last year?' This was done with a view that respondents would be at ease answering questions that required a financial estimate rather than providing concrete financial data. In addition, the reason that the original question remained was that the researcher anticipated that companies in the main study might in fact provide such information.

Thirdly, it was found in the pilot study that companies experienced problems in terms of the assistance from their SETA. In general they felt that their SETA was administratively inefficient and complicated. As a result it was decided to include a greater number of questions dealing with administration and assistance received from SETAs.

Administration of the Questionnaire in this Study

Respondents were chosen through the sampling techniques explained above. Some of the larger companies in the sample had training departments. In these cases, departmental managers were contacted. In other companies, the Human Resource Departments or senior managers handled training-related issues.

Each company was telephoned and the appropriate person to interview was identified. Questionnaires were completed telephonically by means of a highly structured interview. During the first contact with the respondent, the researcher as well as the nature and the purpose of the study were introduced. If the respondent chose to take part in the study, an appropriate time was arranged for the completion of the questionnaire. This method was consistently followed throughout the data collection stage. The anticipated time for the questionnaire administration was twenty minutes. A convenient time was agreed upon and the telephonic interviews were conducted accordingly. For reasons relating to standardization this procedure was consistently followed throughout the data collection stage.

## 5.13 Problems Experienced During Data Collection

Many respondents were initially reluctant to take part in this study. This was due mainly to the nature of the study. According to the current training legislation, non compliance results in fines and penalties. In addition, companies eligible to pay the skills development levy have a payroll in excess of R500 000 per annum. This has tax implications. Respondents had to be assured that the information collected for the study will be coded and kept completely confidential that is, the name of the company would not be used in the study.

A second difficulty that was experienced was sample size. The researcher originally surveyed sixty companies. Ten companies were excluded from the sample due to the amendment of the Skills Development Levies Act. At the time of data collection, companies that had a payroll of R250 000 per annum were eligible to pay the levy. This was amended in August, 2005 and all companies with a payroll of less than R500 00 per annum were exempt from paying the levy.

## 5.14 Validity

Validity is the extent to which the instrument (a questionnaire in this study) measures what it is intended to measure. According to Rosnow & Rosenthaal (1996:130) the assessment of validity "is considered the most important criterion in instrument evaluation..." There are different types of validity including: external and internal validity, content validity, construct validity and criterion-related validity.

### 5.14.1 External and Internal Validity

"External validity refers to the extent to which the findings of a study can be generalised or applied to other situations." (Hunter, 2003:206) This study was limited to a particular geographic location and companies from two sectors were sampled.

### 5.14.2 Content Validity

Content validity refers to the extent to which the questionnaire adequately represented the content areas or material that it was intended to represent. In other words, the items on the questionnaire must adequately represent the concept being researched.

### 5.14.3 Construct Validity

Construct validity is one of the most important forms of validity. If this is not achieved in a study other forms of validity cannot hold. For an instrument to have construct validity it must have the ability to discriminate appropriate criterion for measurement. If it happens that the instrument is found to measure an unintended criterion in a study, it does not have construct validity.

This kind of validity can be measured statistically in two ways:
Sekaran (1992:171) as cited in Hunter (2003:207), states that "convergent validity is established when the scores obtained by two (2) different instruments measuring the same concepts are highly correlated. Discriminant validity is established when, based on theory, two (2) variables are predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be so.'"

### 5.14.4 Criterion Related Validity

Criterion related validity (also referred to as empirical validity) is the extent to which the scores obtained in the questionnaire correlate with some outcome criteria. To establish this kind of validity, a criterion is selected and the performance on the questionnaire is correlated to this criterion in the present or the future (as in predictive validity).

## 5.15 Summary

This chapter concentrated on the theory of research methodology and how it was applied to this study.

The chapter began with statement of the research problem, the research question, the objectives, the main variables and the hypotheses of the study. This was done so that the reader could understand the reasoning behind the use of techniques that followed.

In sum: the research approach that was adopted in this study was more deductive in nature. The research strategy relied on the survey method. The methods of sampling that was employed were stratified sample and systematic random sampling. The questionnaire design and the results of the pilot study were discussed.

Quantitative data for the main study was collected telephonically through the use of a highly structured questionnaire. The problems encountered during data collection were detailed. The chapter concludes with a brief discussion of validity.

The following chapter focuses on the statistical techniques employed for data analysis and the results of the field study.

# Chapter Six

# Results of the Field Study

## 6.1 Introduction

The purpose of this chapter is to present the results of the main survey.

## 6.2 The Results

1. Please indicate the number of employees in your company?

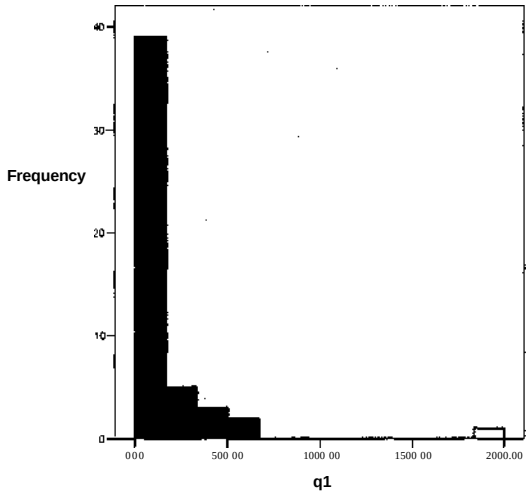



Figure 4: Number of Employees

The average number of employees was 158.94 per company.

2. Please estimate the number of employees that have received skills training in the last year.

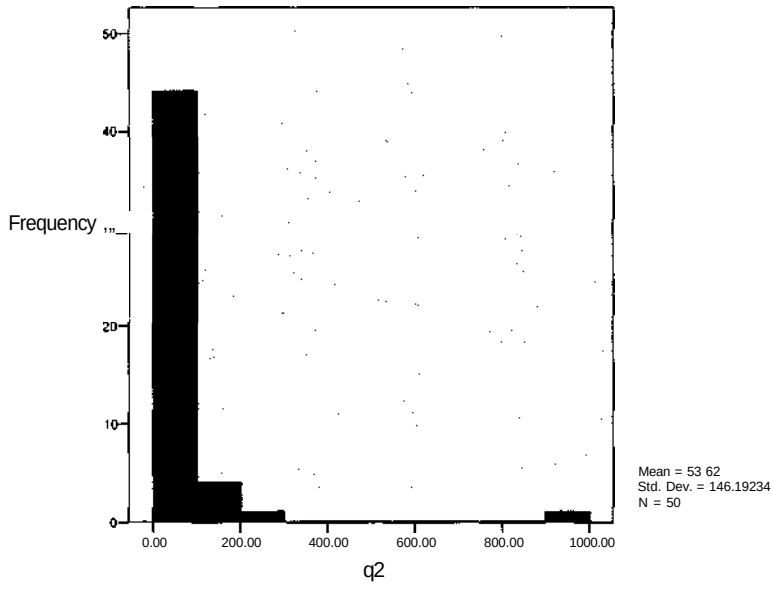



Figure 5: Number of employees that received skills training.

The average number of employees that received training was 53.62 per company

3. How much has your company claimed through the Skills Development Refund in the last financial year?

Null Response

4. Please indicate the percentage of training that you believe is conducted on-the-job in your company.

Table 10: Percentage of on-the-job training conducted

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0%-20% | 10 | 20.0 | 20.0 | 20.0 |
| | 21%-40% | 12 | 24.0 | 24.0 | 44.0 |
| | 41%-60% | 18 | 36.0 | 36.0 | 80.0 |
| | 61%-80% | 10 | 20.0 | 20.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was 41%-60% for this question followed by the three other categories equally at approximately 20% each.

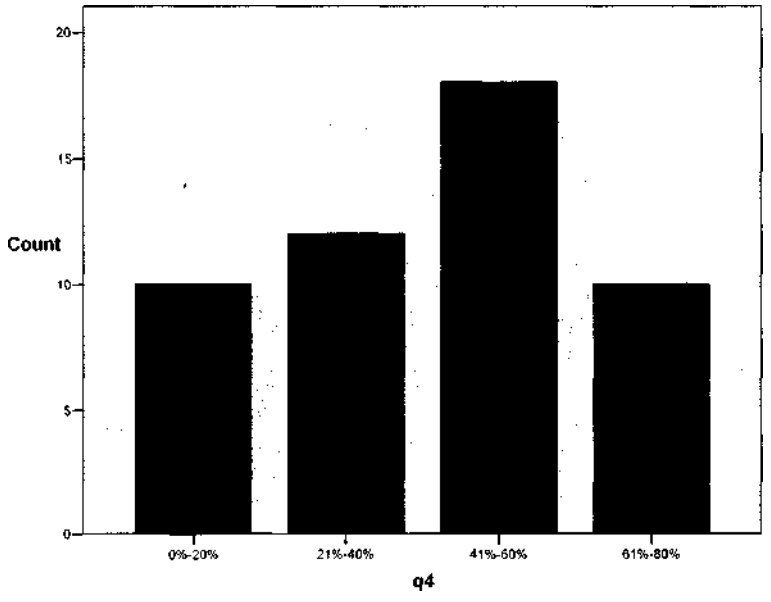



Figure 6: Percentage of on-the-iob training conducted

5. Has your company registered with the relevant SETA?

Table 11: Registration with the relevant SETA

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | yes | 50 | 100.0 | 100.0 | 100.0 |

The modal response was "yes" (100%).

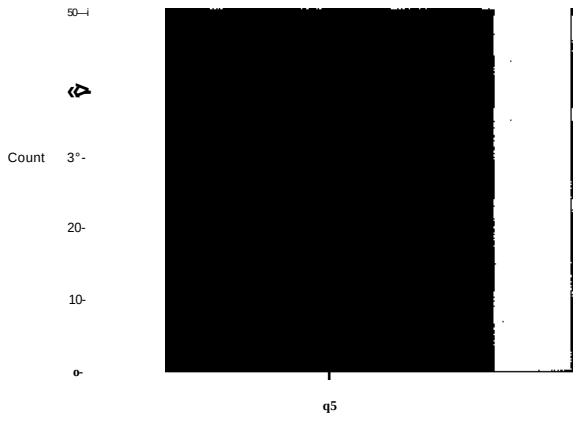



Figure 7: Registration with the relevant SETA.

6. Has your company submitted a Workplace Skills Plan to SETA?

Table 12: Submission of Workplace Skills Plans.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | yes | 28 | 56.0 | 56.0 | 56.0 |
| | no | 22 | 44.0 | 44.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "yes" (56%)

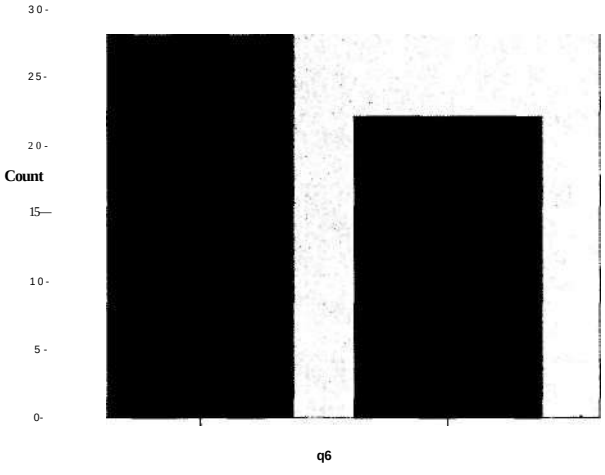



Figure 8: Submission of Workplace Skills Plans.

7. Has your company submitted an Implementation of Training report?

Table 13: Submission of Implementation of Training reports.

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | yes | 22 | 44.0 | 44.0 | 44.0 |
| | no | 28 | 56.0 | 56.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "no" (56%)

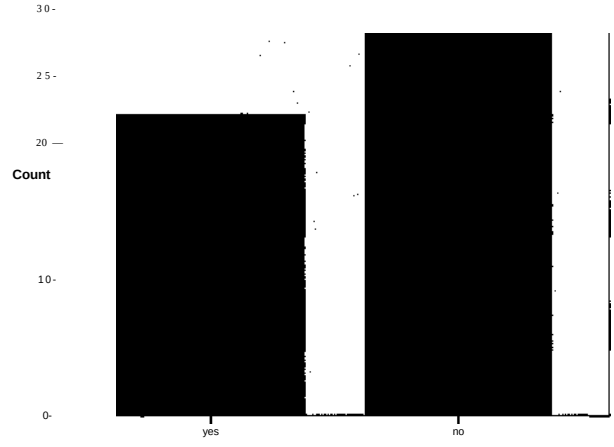



Figure 9: Submission of Implementation of Training reports.

8. Please estimate the percentage of training costs has your company recovered from SETA in the last year?

Table 14: Percentage of training costs recovered

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 0%-20% | 29 | 58.0 | 58.0 | 58.0 |
| | 21%-40% | 9 | 18.0 | 18.0 | 76.0 |
| | 41%-60% | 12 | 24.0 | 24.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "0%-20%" (58%)

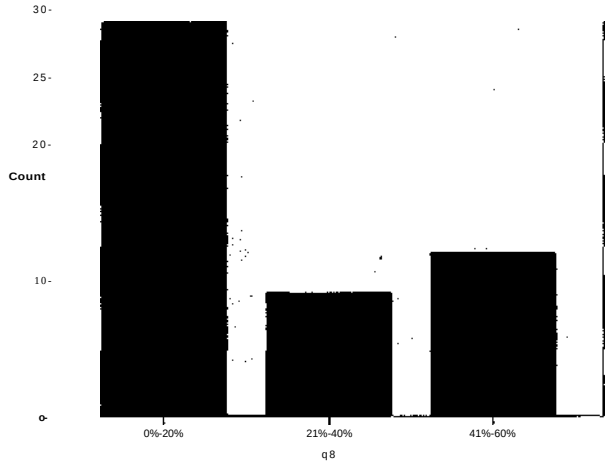



Figure 10: Percentage of training costs recovered

9. Training in our company occurs on a regular basis.

Table 15: Frequency of training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 15 | 30.0 | 30.0 | 30.0 |
| | agree | 21 | 42.0 | 42.0 | 72.0 |
| | neutral | 2 | 4.0 | 4.0 | 76.0 |
| | disagree | 8 | 16.0 | 16.0 | 92.0 |
| | strongly disagree | 4 | 8.0 | 8.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (42%) followed by "strongly agree" (30%).

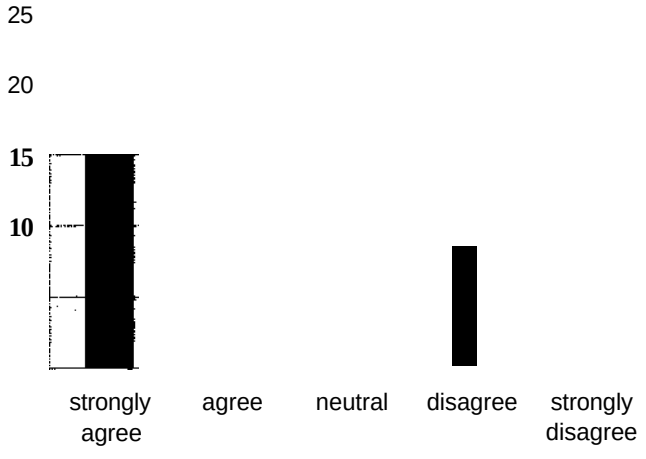



Figure 11: Frequency of training

10. We regard the payment of the Skills Development Levy as an additional tax.

Table 16: The Skills Development Levy as an additional tax

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 10 | 20.0 | 20.0 | 20.0 |
| | agree | 13 | 26.0 | 26.0 | 46.0 |
| | neutral | 7 | 14.0 | 14.0 | 60.0 |
| | disagree | 17 | 34.0 | 34.0 | 94.0 |
| | strongly disagree | 3 | 6.0 | 6.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (34%) followed by "agree" (26%).

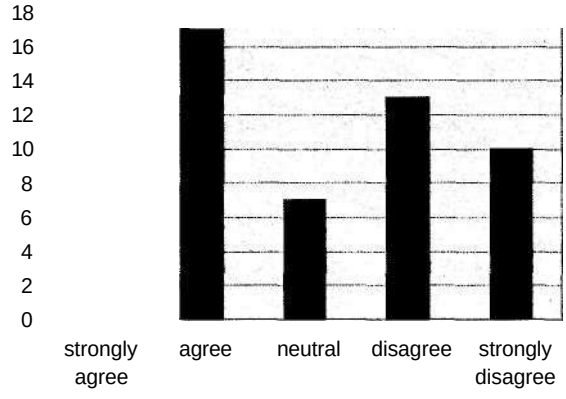



Figure 12: The Skills Development Levy as an additional tax

11. We are conducting effective training in terms of the performance of our company.

Table 17: Effective training versus performance

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 13 | 26.0 | 26.0 | 26.0 |
| | agree | 18 | 36.0 | 36.0 | 62.0 |
| | neutral | 1 | 2.0 | 2.0 | 64.0 |
| | disagree | 13 | 26.0 | 26.0 | 90.0 |
| | strongly disagree | 5 | 10.0 | 10.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (36%) followed by "strongly agree" (26%) and "strongly disagree" (26%).

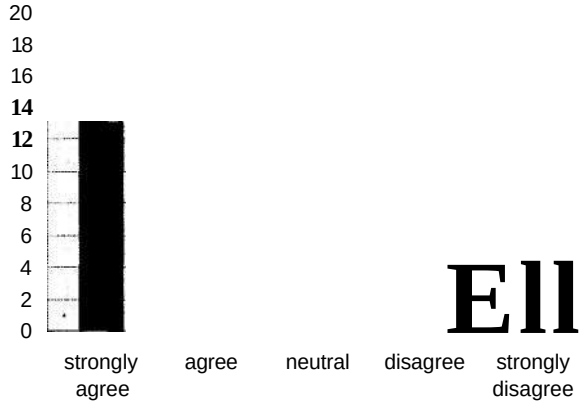



Figure 13: Effective training versus performance

12. The success of our business depends on effective skills training.

Table 18: Success versus effective skills training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 7 | 14.0 | 14.0 | 14.0 |
| | agree | 30 | 60.0 | 60.0 | 74.0 |
| | neutral | 3 | 6.0 | 6.0 | 80.0 |
| | disagree | 7 | 14.0 | 14.0 | 94.0 |
| | strongly disagree | 3 | 6.0 | 6.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (60%) followed by "strongly agree" (14%) and "strongly disagree" (14%).

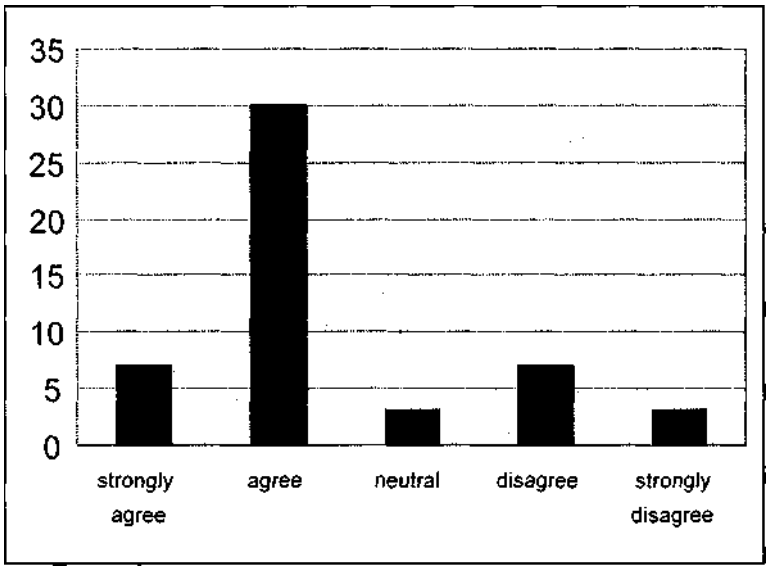



Figure 14: Success versus effective skills training

13. The main reason that we are involved in training is to obtain a refund on the Skills Levy.

Table 19: Training for a refund on the Skills Levy

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 7 | 14.0 | 14.0 | 14.0 |
| | agree | 11 | 22.0 | 22.0 | 36.0 |
| | neutral | 3 | 6.0 | 6.0 | 42.0 |
| | disagree | 23 | 46.0 | 46.0 | 88.0 |
| | strongly disagree | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (46%) followed by "agree" (22%).

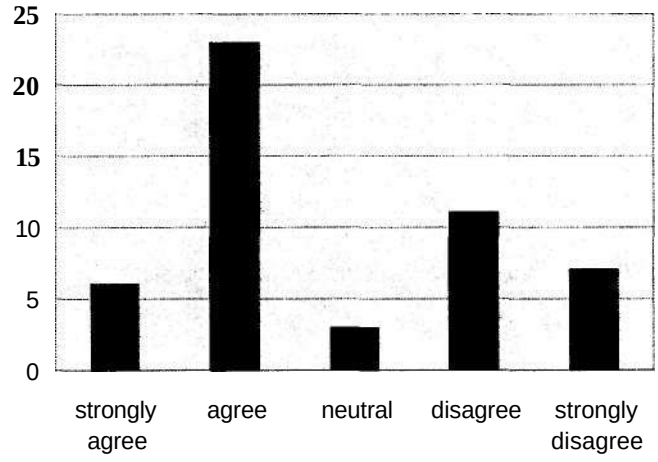



Figure 15: Training for a refund on the Skills Levy

14. Training of our workforce will have a positive impact on our company.

Table 20: Whether training has a positive effect on a company

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 16 | 32.0 | 32.0 | 32.0 |
| | agree | 22 | 44.0 | 44.0 | 76.0 |
| | neutral | 0 | 0 | 0 | 76.0 |
| | disagree | 11 | 22.0 | 22.0 | 98.0 |
| | strongly disagree | 1 | 2.0 | 2.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (44%) followed by "strongly agree" (32%)

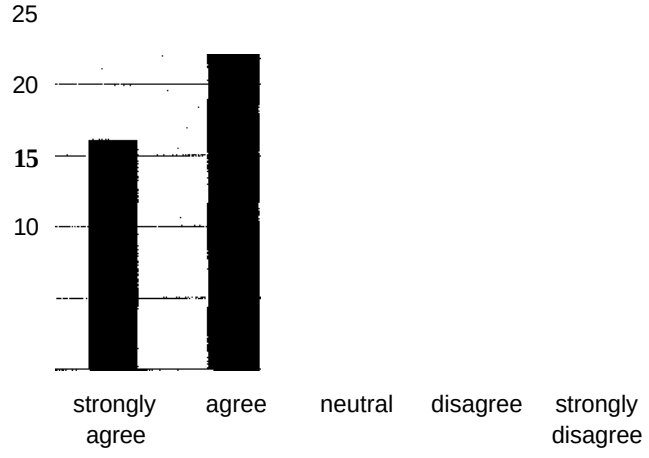



Figure 16: Whether training has a positive effect on a company

15. The refund on the Skills Development Levy is not easily accessible.

Table 21: Accessibility of the Skills Development refunds

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 13 | 26.0 | 26.0 | 26.0 |
| | agree | 18 | 36.0 | 36.0 | 62.0 |
| | neutral | 5 | 10.0 | 10.0 | 72.0 |
| | disagree | 10 | 20.0 | 20.0 | 92.0 |
| | strongly disagree | 4 | 8.0 | 8.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (36%) followed by "strongly agree" (26%)

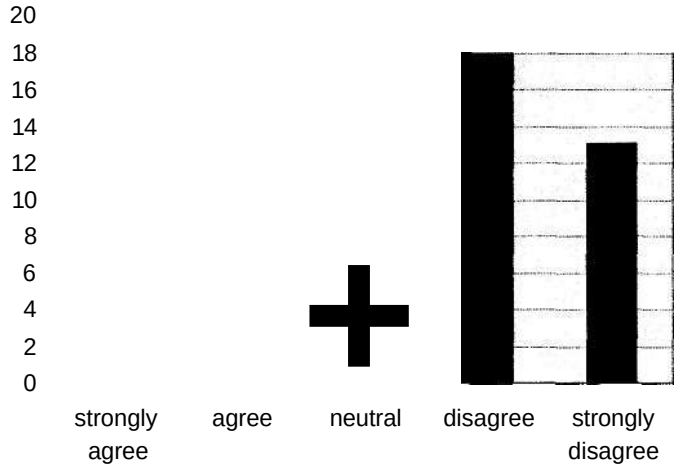



Figure 17: Accessibility of the Skills Development refunds

16. We are conducting effective training in terms of the amount of learning achieved by our employees.

Table 22: Effective training versus learning achieved

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 10 | 20.0 | 20.0 | 20.0 |
| | agree | 17 | 34.0 | 34.0 | 54.0 |
| | neutral | 2 | 4.0 | 4.0 | 58.0 |
| | disagree | 12 | 24.0 | 24.0 | 82.0 |
| | strongly disagree | 9 | 18.0 | 18.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (34%) followed by "disagree" (24%).

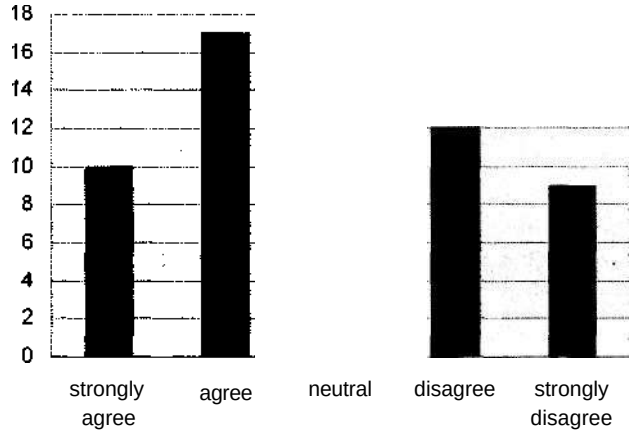



Figure 18: Effective training versus learning achieved

17. The Skills Development legislation is ineffective.

Table 23: The effectiveness of the Skills Development legislation

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 8 | 16.0 | 16.0 | 16.0 |
| | Agree | 19 | 38.0 | 38.0 | 54.0 |
| | Neutr | 7 | 14.0 | 14.0 | 68.0 |
| | disagree | 13 | 26.0 | 26.0 | 94.0 |
| | strongly disagree | 3 | 6.0 | 6.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (38%) followed by "disagree" (26%)

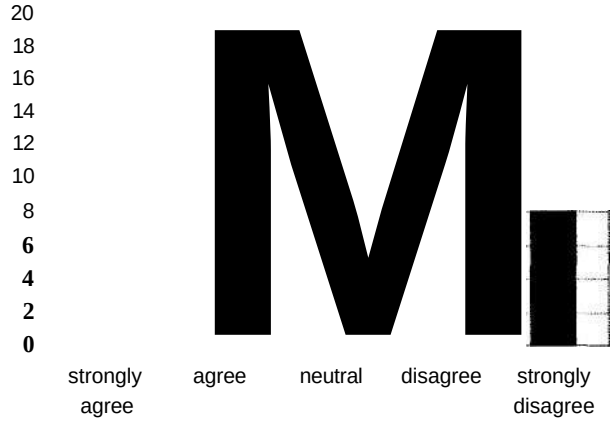



Figure 19: The effectiveness of the Skills Development legislation

18. The amount of training that is being done in our company is satisfactory.

Table 24: Satisfaction with the amount of training conducted

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 3 | 6.0 | 6.0 | 6.0 |
| | agree | 18 | 36.0 | 36.0 | 42.0 |
| | neutral | 2 | 4.0 | 4.0 | 46.0 |
| | disagree | 18 | 36.0 | 36.0 | 82.0 |
| | strongly disagree | 9 | 18.0 | 18.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (36%) followed by "disagree" (36%).

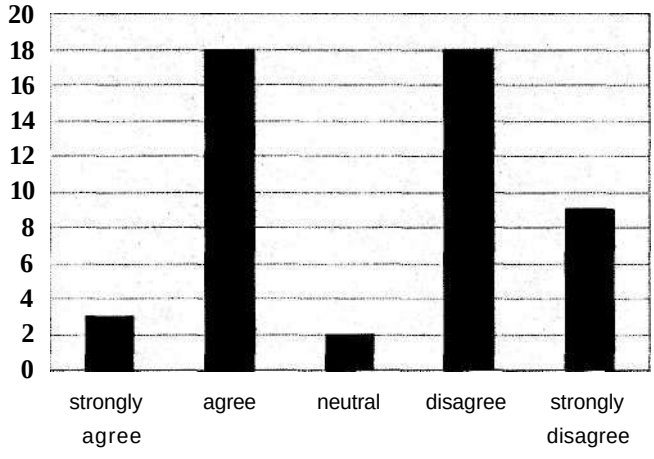



Figure 20: Satisfaction with the amount of training conducted

19. Our employee skills are continuously updated through training.

Table 25: Continuous updating of skills through training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 6 | 12.0 | 12.0 | 12.0 |
| | agree | 16 | 32.0 | 32.0 | 44.0 |
| | neutral | 2 | 4.0 | 4.0 | 48.0 |
| | disagree | 18 | 36.0 | 36.0 | 84.0 |
| | strongly disagree | 8 | 16.0 | 16.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (36%) followed by "agree" (32%).

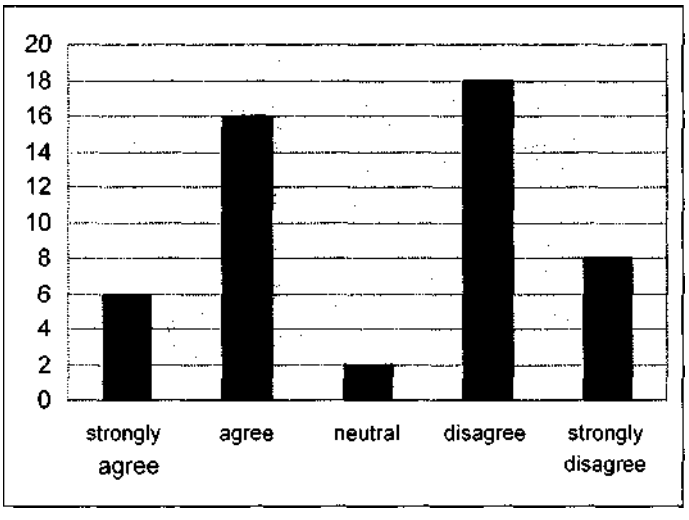



Figure 21: Continuous updating of skills through training

20. The skills development refund has assisted in the training of our employees.

Table 26: The assistance of the refund in the training of employees

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 3 | 6.0 | 6.0 | 6.0 |
| | agree | 11 | 22.0 | 22.0 | 28.0 |
| | neutral | 8 | 16.0 | 16.0 | 44.0 |
| | disagree | 16 | 32.0 | 32.0 | 76.0 |
| | strongly disagree | 12 | 24.0 | 24.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (32%) followed by "strongly disagree" (24%).

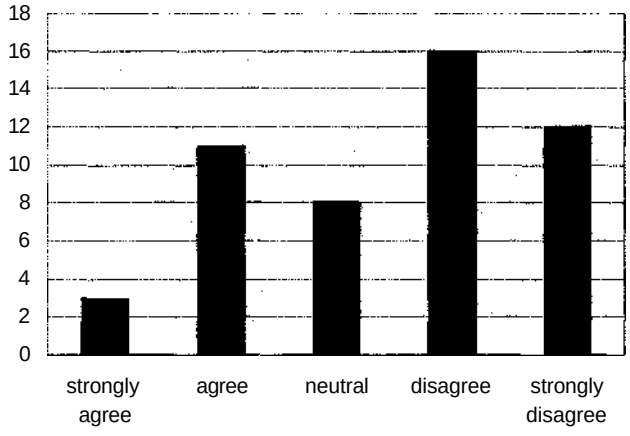



Figure 22: The assistance of the refund in the training of employees

21. Qualified trainers are used for the training of our employees.

Table 27: Qualified trainers are used for training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 10 | 20.0 | 20.0 | 20.0 |
| | agree | 22 | 44.0 | 44.0 | 64.0 |
| | neutral | 2 | 4.0 | 4.0 | 68.0 |
| | disagree | 8 | 16.0 | 16.0 | 84.0 |
| | strongly disagree | 8 | 16.0 | 16.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (44%) followed by "strongly agree" (20%)

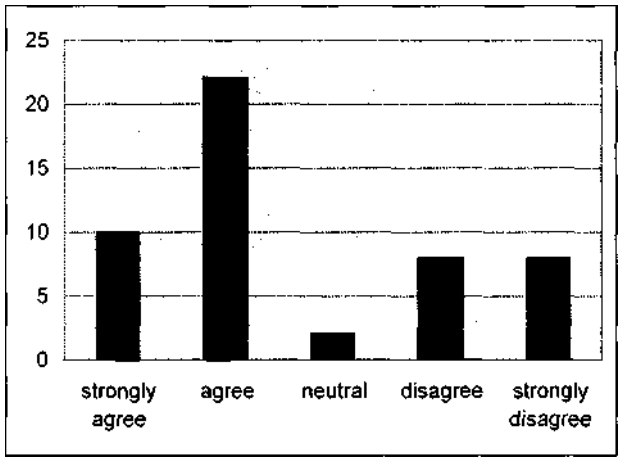



Figure 23: Qualified trainers are used for training

22. The company's involvement in training has increased significantly in the last five years.

Table 28: Company involvement in training in the last five years

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 10 | 20.0 | 20.0 | 20.0 |
| | agree | 18 | 36.0 | 36.0 | 56.0 |
| | neutral | 1 | 2.0 | 2.0 | 58.0 |
| | disagree | 15 | 30.0 | 30.0 | 88.0 |
| | strongly disagree | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (36%) followed by "disagree" (30%).

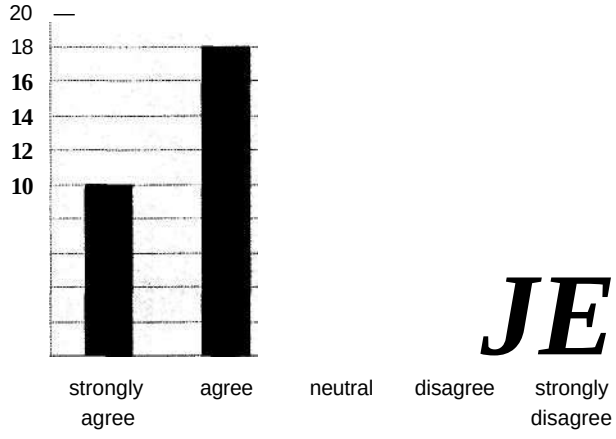



Figure 24: Company involvement in training in the last five years

23. We are conducting effective training in terms of the performance of our employees.

Table 29: Effective training versus performance of employees

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 6 | 12.0 | 12.0 | 12.0 |
| | agree | 19 | 38.0 | 38.0 | 50.0 |
| | neutral | 7 | 14.0 | 14.0 | 64.0 |
| | disagree | 12 | 24.0 | 24.0 | 88.0 |
| | strongly disagree | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (38%) followed by "disagree" (24%).

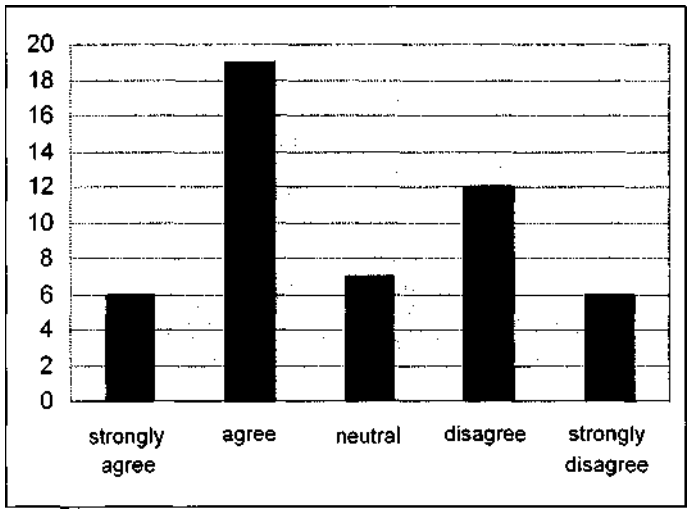



Figure 25: Effective training versus performance of employees

24. Our company results have improved as a result of training.

Table 30: Improvement of company results as a result of training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 7 | 14.0 | 14.0 | 14.0 |
| | agree | 17 | 34.0 | 34.0 | 48.0 |
| | neutral | 7 | 14.0 | 14.0 | 62.0 |
| | disagree | 14 | 28.0 | 28.0 | 90.0 |
| | strongly disagree | 5 | 10.0 | 10.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (34%>) followed by "disagree" (28%).

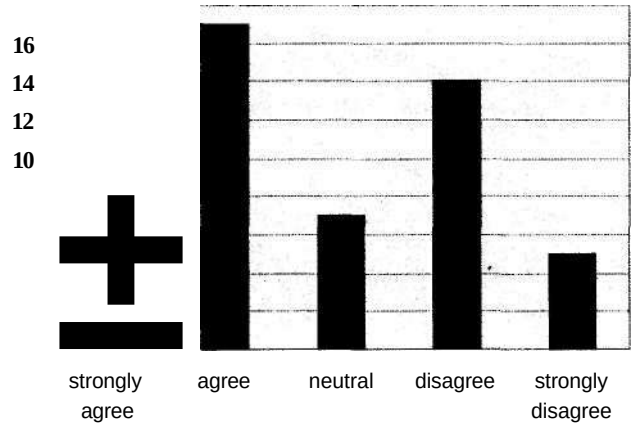



Figure 26: Improvement of company results as a result of training

25. Our SETA has assisted us in training our employees to a great extent.

Table 31: The assistance of SETAs in the training of employees

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 2 | 4.0 | 4.0 | 4.0 |
| | agree | 8 | 16.0 | 16.0 | 20.0 |
| | neutral | 4 | 8.0 | 8.0 | 28.0 |
| | disagree | 25 | 50.0 | 50.0 | 78.0 |
| | strongly disagree | 11 | 22.0 | 22.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (50%) followed by "strongly disagree" (22%)

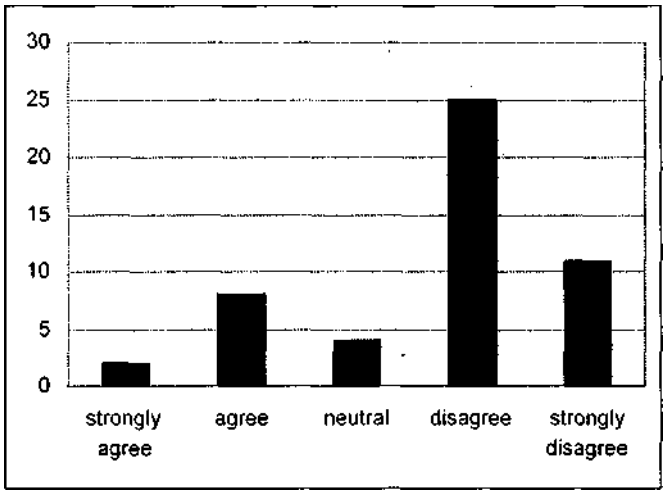



Figure 27: The assistance of SETAs in the training of employees

26. Our SETA administers our refunds promptly.

Table 32: SETA administration of refunds

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 0 | 0.0 | 0.0 | 0.0 |
| | agree | 13 | 26.0 | 26.0 | 26.0 |
| | neutral | 4 | 8.0 | 8.0 | 34.0 |
| | disagree | 21 | 42.0 | 42.0 | 76.0 |
| | strongly disagree | 12 | 24.0 | 24.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (42%) followed by "agree" (26%).

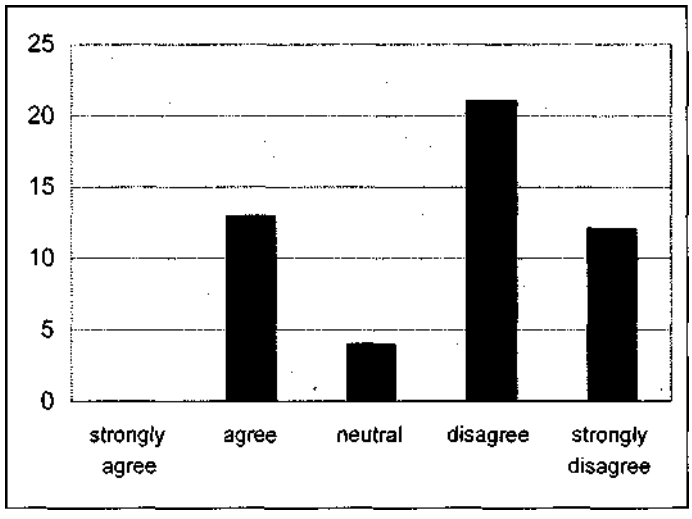



Figure 28: SETA administration of refunds

27. Information related to courses, programmes and training is readily available from our SETA.

Table 33: Information availability from SETA

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 0 | 0.0 | 0.0 | 0.0 |
| | agree | 6 | 12.0 | 12.0 | 12.0 |
| | neutral | 2 | 4.0 | 4.0 | 16.0 |
| | disagree | 20 | 40.0 | 40.0 | 56.0 |
| | strongly disagree | 22 | 44.0 | 44.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "strongly disagree" (44%) followed by "disagree" (40%).

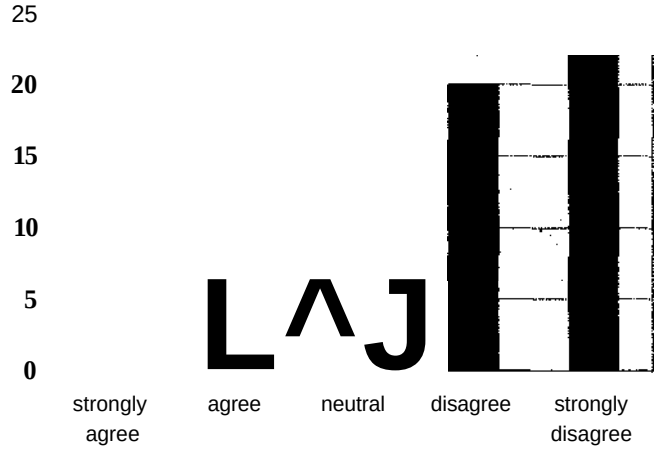



Figure 29: Information availability from SETA

28. Our SETA is responsive to our queries.

Table 34: SETA response to queries

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 0 | 0.0 | 0.0 | 0.0 |
| | agree | 12 | 24.0 | 24.0 | 24.0 |
| | neutral | 2 | 4.0 | 4.0 | 28.0 |
| | disagree | 23 | 46.0 | 46.0 | 74.0 |
| | strongly disagree | 13 | 26.0 | 26.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (46%) followed by "strongly disagree" (26%)

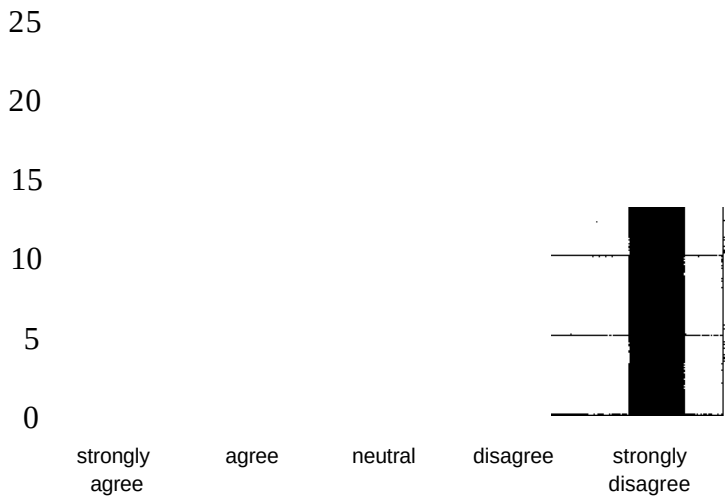



Figure 30: SETA response to queries

29. The submission procedures of our SETA are complicated.

Table 35: SETAs submission procedures

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 14 | 28.0 | 28.0 | 28.0 |
| | agree | 27 | 54.0 | 54.0 | 82.0 |
| | neutral | 1 | 2.0 | 2.0 | 84.0 |
| | disagree | 8 | 16.0 | 16.0 | 100.0 |
| | strongly disagree | 0 | 0.0 | 0.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (54%) followed by "strongly agree" (28%)

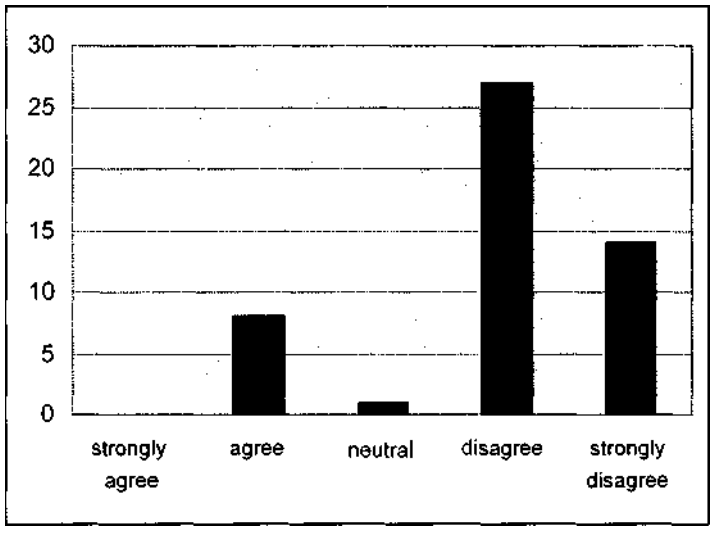



Figure 31: SETAs submission procedures

30. The training of our employees is limited due to cost constraints.

Table 36: The limitation of training due to cost constraints

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 9 | 18.0 | 18.0 | 18.0 |
| | agree | 19 | 38.0 | 38.0 | 56.0 |
| | neutral | 3 | 6.0 | 6.0 | 62.0 |
| | disagree | 13 | 26.0 | 26.0 | 88.0 |
| | strongly disagree | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (38%) followed by "disagree" (26%)

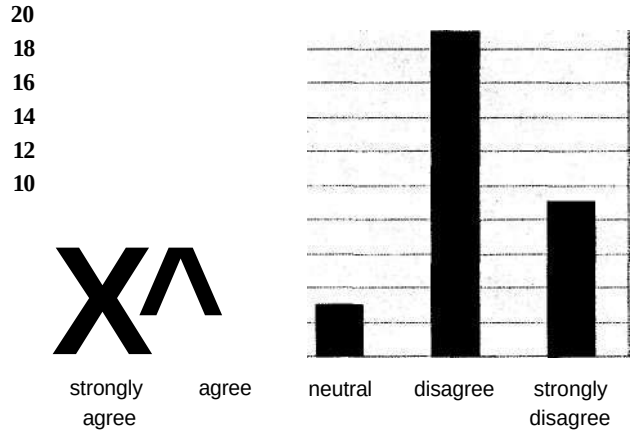



Figure 32: The limitation of training due to cost constraints

31. The main reason that we are involved in training is to fulfill legislative requirements.

Table 37: Training to fulfil legislative requirements

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 6 | 12.0 | 12.0 | 12.0 |
| | agree | 9 | 18.0 | 18.0 | 30.0 |
| | neutral | 8 | 16.0 | 16.0 | 46.0 |
| | disagree | 17 | 34.0 | 34.0 | 80.0 |
| | strongly disagree | 10 | 20.0 | 20.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (34%) followed by "strongly disagree" (20%)

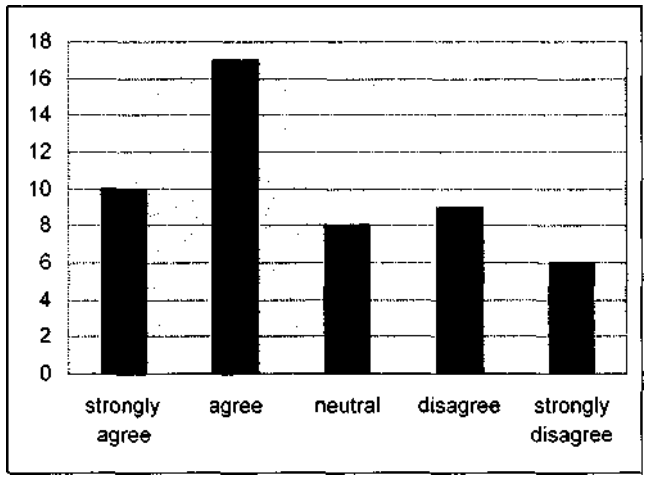



Figure 33: Training to fulfil legislative requirements

32. Training programs are evaluated for their effectiveness.

Table 38: Evaluation of training programs

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 6 | 12.0 | 12.0 | 12.0 |
| | agree | 16 | 32.0 | 32.0 | 44.0 |
| | neutral | 4 | 8.0 | 8.0 | 52.0 |
| | disagree | 18 | 36.0 | 36.0 | 88.0 |
| | strongly disagree | 6 | 12.0 | 12.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (36%) followed by "agree" (32%).

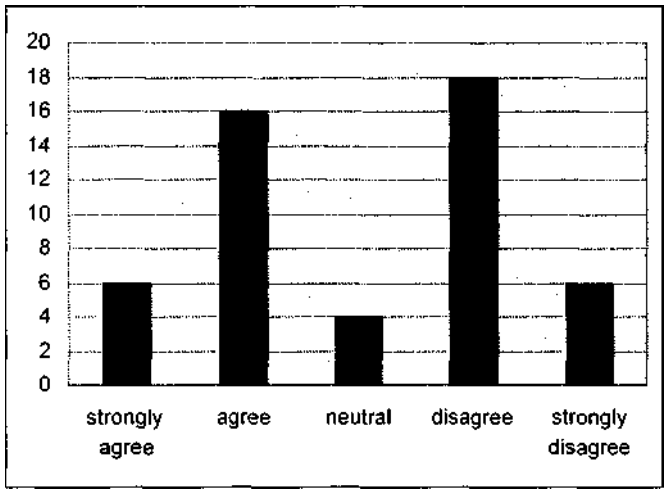



Figure 34: Evaluation of training programs

33. Employees are given the opportunity to apply that which they have learned to their jobs.

Table 39: Transfer of training

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 8 | 16.0 | 16.0 | 16.0 |
| | agree | 14 | 28.0 | 28.0 | 44.0 |
| | neutral | 4 | 8.0 | 8.0 | 52.0 |
| | disagree | 13 | 26.0 | 26.0 | 78.0 |
| | strongly disagree | 11 | 22.0 | 22.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "agree" (28%) followed by "disagree" (26%).

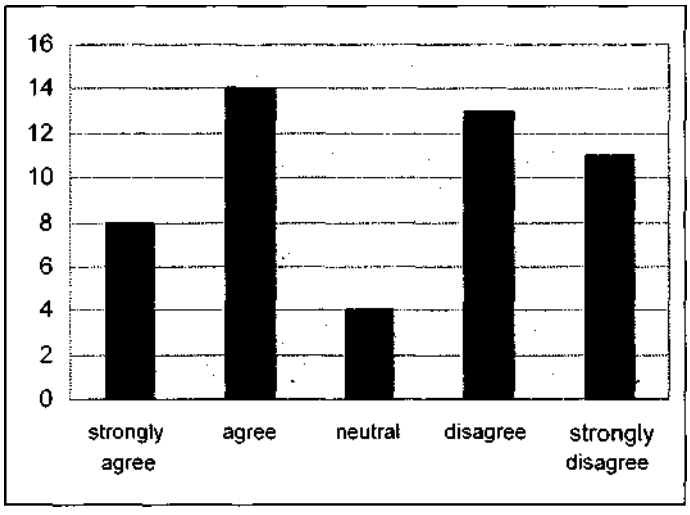



Figure 35: Transfer of training

34. Training programs are based on the training needs of the company.

Table 40: Needs-based training programs

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | strongly agree | 5 | 10.0 | 10.0 | 10.0 |
| | agree | 20 | 40.0 | 40.0 | 50.0 |
| | neutral | 3 | 6.0 | 6.0 | 56.0 |
| | disagree | 12 | 24.0 | 24.0 | 80.0 |
| | strongly disagree | 10 | 20.0 | 20.0 | 100.0 |
| | Total | 50 | 100.0 | 100.0 | |

The modal response was "disagree" (40%) followed by "agree" (24%).

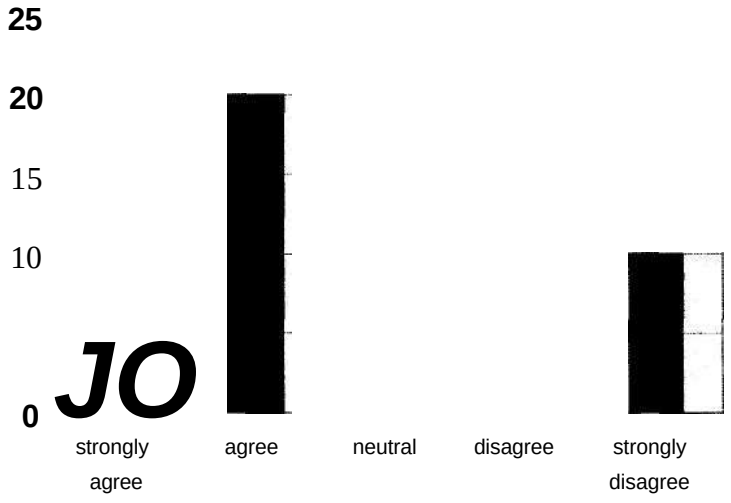



Figure 36: Needs-based training programs

## 6.3 Summary of Results

The average number of employees was 158.94 per company and the average number of employees that received training was 53.62 per company. There was a null response as to how much has your company claimed through the Skills Development Refund in the last financial year. The percentage of respondents that indicated training is conducted on the job in their company was 41%-60%. 100% of the companies in this sample were registered with SETA. There was almost an even split (56%-yes to 44%-no) as to the company submitting a Workplace Skills Plan to SETA. The same split was present due to the company submitting a implementation of training report. 58% of the companies recovered 0%-20% of the training costs from SETA.

For ease of future reference the percentage responses to the questions have been grouped into the variables that they were intended to test. In this way, commonality or difference can be observed at a glance, rather than by having the reader scan this entire conclusion to determine commonality and difference.

**Variable A: The perceived effectiveness of the Skills Development Act**

This variable consists of questions 17, 18, 20 and 22.

An aggregate of 54% of the sample indicated that the Skills Development legislation was, to some degree ineffective, while 26% disagreed. 54% of the sample indicated that the amount of training conducted in their company was not satisfactory. Further, 56% of the respondents indicated that the skills development refund had not assisted in the training of their employees, while the same proportion of respondents agreed that training had increased in their companies in the last five years.

**Variable B: The perceived effectiveness of training in the organization**

This variable consists of questions 11, 12, 14, 16, 23, 24.

62% of the sample agreed, to some degree, that their company was conducting effective training in terms of the performance of the company and 74% agreed that the success of their business depends on effective skills training. A total of 76% of the respondents believed that the training of their workforce will have a positive impact on the company, while 54% believed that they were conducting effective training in terms of the amount of learning achieved by their employees. Exactly half of the sample thought that they were conducting effective training in terms of the performance of their employees, while almost half (48%) thought that their company results had improved as a result of training.

**Variable C: The application of effective training procedures**

This variable consists of questions 9, 19, 21, 32, 33 and 34.

A total of 72% of the sample agreed that training in their company occurs on a regular basis and 52% believed that their employee skills are continuously updated through training. A majority of 64% of the respondents stated that qualified trainers are used in the training of their employees, however a minority of 44% indicated that their training programs were evaluated for their effectiveness. Approximately half the sample, 44% compared to 48%, indicated that their employees are given the opportunity to apply what they have learnt during training, while exactly half indicated that their training programs are based on the training needs of the company.

**Variable D: Compliance with the Act**

This variable consists of questions 5, 6, 7, 10, 13, 15 and 31.

The entire sample indicated that it was registered with a relevant SETA, while 56% had submitted a Workplace Skills Plan and a minority of 44% had submitted an Implementation of Training report. A majority of 46% (compared to 40%) regarded the Skills Development Levy as an additional form of taxation, but 58% disagreed that the main reason that they were involved in training was obtain a refund on the Skills Levy. A total of 62% agreed that a refund on the Skills Levy is not easily

accessible. A total of 54% of the sample disagreed that they were involved in training only to fulfill legislative requirements.

**Variable E: Assistance received from the SET As**

This variable consists of questions 25, 26, 27, 28, 29 and 30.

A large proportion (72%) of the sample indicated that SETA has not assisted them to a great extent in the training of their employees, while a similarly large proportion (66%) disagreed that SETA administers their refunds promptly. An even larger proportion of 84% of the sample indicated that information relating to training courses and programs is not readily available from their SETA, while 72% disagreed that SETA is responsive to their queries. A further 82% of respondents indicated that the submission procedures of SETA are complicated. A total of 56% of the sample agreed that the training of their employees is limited due to cost constraints.

**Variable F: Percentage of on-the-job training conducted**

This variable consists of only question 4.

A majority of 36% of the sample indicated that between 41% and 60% of on-the-job training is conducted in their organization.

**Variable G: Percentage of employers conducting formal training**

This variable consists of questions 1 and 2.

The average number of employees per company was 158.94, while the average number of employees that received training per company was 53.62.

**Variable H: The number of employees in the company**

This variable consists of only question 1.

The average number of employees per company is 158.94.

**Variable I: The percentage of training costs recovered from SETA**

This variable consists of only question 8.

A majority of 58% of the sample indicated that they had received 0-20% of training costs from their respective SETAs.

## 6.4 Descriptive Statistics

Table: 41: Descriptive Statistics

| | N | | Mean | Median | Mode | Std. Deviation | Variance | Range | Minimum | Maximum |
|---|---|---|---|---|---|---|---|---|---|---|
| | Valid | Missing | | | | | | | | |
| q1 | 50 | 0 | 158.9400 | 70.5000 | 90.00 | 300.24870 | 90149.282 | 1988.00 | 12.00 | 2000.00 |
| q2 | 50 | 0 | 53.6200 | 15.0000 | 10.00 | 146.19234 | 21372.200 | 1000.00 | .00 | 1000.00 |
| q3 | 0 | 50 | | | | | | | | |
| q4 | 50 | 0 | 2.5600 | 3.0000 | 3.00 | 1.03332 | 1.068 | 3.00 | 1.00 | 4.00 |
| q5 | 50 | 0 | 1.0000 | 1.0000 | 1.00 | .00000 | .000 | .00 | 1.00 | 1.00 |
| q6 | 50 | 0 | 1.4400 | 1.0000 | 1.00 | .50143 | .251 | 1.00 | 1.00 | 2.00 |
| q7 | 50 | 0 | 1.5600 | 2.0000 | 2.00 | .50143 | .251 | 1.00 | 1.00 | 2.00 |
| q8 | 50 | 0 | 1.6600 | 1.0000 | 1.00 | .84781 | .719 | 2.00 | 1.00 | 3.00 |
| q9 | 50 | 0 | 3.7000 | 4.0000 | 4.00 | 1.28174 | 1.643 | 4.00 | 1.00 | 5.00 |
| q10 | 50 | 0 | 3.2000 | 3.0000 | 2.00 | 1.27775 | 1.633 | 4.00 | 1.00 | 5.00 |
| q11 | 50 | 0 | 3.4200 | 4.0000 | 4.00 | 1.38638 | 1.922 | 4.00 | 1.00 | 5.00 |
| q12 | 50 | 0 | 3.6200 | 4.0000 | 4.00 | 1.08590 | 1.179 | 4.00 | 1.00 | 5.00 |
| q13 | 50 | 0 | 2.8000 | 2.0000 | 2.00 | 1.30931 | 1.714 | 4.00 | 1.00 | 5.00 |
| q14 | 50 | 0 | 3.8200 | 4.0000 | 4.00 | 1.17265 | 1.375 | 4.00 | 1.00 | 5.00 |
| q15 | 50 | 0 | 3.4800 | 4.0000 | 4.00 | 1.31304 | 1.724 | 4.00 | 1.00 | 5.00 |
| q16 | 50 | 0 | 3.1400 | 4.0000 | 4.00 | 1.45700 | 2.123 | 4.00 | 1.00 | 5.00 |
| q17 | 50 | 0 | 3.3600 | 4.0000 | 4.00 | 1.19112 | 1.419 | 4.00 | 1.00 | 5.00 |
| q18 | 50 | 0 | 2.7600 | 2.0000 | 2.00(a) | 1.28667 | 1.656 | 4.00 | 1.00 | 5.00 |
| q19 | 50 | 0 | 2.8800 | 2.0000 | 2.00 | 1.34983 | 1.822 | 4.00 | 1.00 | 5.00 |
| q20 | 50 | 0 | 2.5400 | 2.0000 | 2.00 | 1.24884 | 1.560 | 4.00 | 1.00 | 5.00 |
| q21 | 50 | 0 | 3.3600 | 4.0000 | 4.00 | 1.39620 | 1.949 | 4.00 | 1.00 | 5.00 |
| q22 | 50 | 0 | 3.2200 | 4.0000 | 4.00 | 1.38932 | 1.930 | 4.00 | 1.00 | 5.00 |
| q23 | 50 | 0 | 3.1400 | 3.5000 | 4.00 | 1.26184 | 1.592 | 4.00 | 1.00 | 5.00 |
| q24 | 50 | 0 | 3.1400 | 3.0000 | 4.00 | 1.26184 | 1.592 | 4.00 | 1.00 | 5.00 |
| q25 | 50 | 0 | 2.3000 | 2.0000 | 2.00 | 1.11117 | 1.235 | 4.00 | 1.00 | 5.00 |
| q26 | 50 | 0 | 2.3600 | 2.0000 | 2.00 | 1.12050 | 1.256 | 3.00 | 1.00 | 4.00 |
| q27 | 50 | 0 | 1.8400 | 2.0000 | 1.00 | .97646 | .953 | 3.00 | 1.00 | 4.00 |
| q28 | 50 | 0 | 2.2600 | 2.0000 | 2.00 | 1.10306 | 1.217 | 3.00 | 1.00 | 4.00 |
| q29 | 50 | 0 | 3.9400 | 4.0000 | 4.00 | .97750 | .956 | 3.00 | 2.00 | 5.00 |
| q30 | 50 | 0 | 3.2600 | 4.0000 | 4.00 | 1.32187 | 1.747 | 4.00 | 1.00 | 5.00 |
| q31 | 50 | 0 | 2.6800 | 2.0000 | 2.00 | 1.31615 | 1.732 | 4.00 | 1.00 | 5.00 |
| q32 | 50 | 0 | 2.9600 | 3.0000 | 2.00 | 1.29300 | 1.672 | 4.00 | 1.00 | 5.00 |
| q33 | 50 | 0 | 2.9000 | 3.0000 | 4.00 | 1.44632 | 2.092 | 4.00 | 1.00 | 5.00 |
| q34 | 50 | 0 | 2.9600 | 3.5000 | 4.00 | 1.36964 | 1.876 | 4.00 | 1.00 | 5.00 |

a Multiple modes exist. The smallest value is shown

In this section the mean, the mode, the median, the sample variance and the sample standard deviation are discussed. The mean or the arithmetic mean is the sum of all the values divided by the sample size, the mode is the most frequent response given

by the respondents and the median is the middle most value when the data(per variable/question) is arranged from highest to lowest. The sample variance is the degree or quantity by which each observation varies one from another. The sample standard deviation is the square root of the sample variance. From the table above, majority of the questions, from question 9 to question 34 have a mode of "4" which represents a response of "disagree". The other questions have mode of "2" and "1" which represent "agree" and "strongly agree". The standard deviations are consistently approximately 1 and this indicates good consistency between the observations due to the low variability. The mean and median values are consistent with modal values. (Coakes & Steed, 2003:50)

## 6.5 Reliability Analysis

Cronbach's Alpha

Cronbach's alpha was also calculated as part of the reliability test to assess how consistent the results were and will we get similar results to generalize if we increased the sample size. (Coakes & Steed, 2003:140) A value of 0.7 or higher is an acceptable value that can lead us to say that we will get the same results if we carried out this survey with a larger sample of respondents. The Cronbach's alpha was calculated for questions 9-34 because they have the same scales. The results are as follows:

Table 42: Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .826 | 26 |

The alpha value of 0.826 is excellent in this instance.

## 6.6 Kolmogorov-Smirnov Test For Normality

The Kolmogorov-Smirnov test was used to verify normality amongst the combination of variables A-I to assess what kind of statistical techniques can be used i.e. parametric techniques (such as Multiple Regression) or Nonparametric techniques. The results are produced according to the following hypothesis test:

Ho: The tested variables come from a Normal distribution

Hj: The tested variables do not come from a Normal distribution

Table 43: The Kolmogorov-Smirnov Test

**One-Sample Kolmogorov-Smirnov Test**

| | N | Normal Parameters(a,b) | | Kolmogorov-Smirnov Z | Asymp. Sig. (2-tailed) |
|---|---|---|---|---|---|
| | | Mean | Std. Deviation | | |
| q9 | 50 | 3.7000 | 1.28174 | 2.210 | .000 |
| q10 | 50 | 2.8000 | 1.27775 | 1.599 | .012 |
| q11 | 50 | 3.4200 | 1.38638 | 1.995 | .001 |
| q12 | 50 | 3.6200 | 1.08590 | 2.664 | .000 |
| q13 | 50 | 3.2000 | 1.30931 | 2.188 | .000 |
| q14 | 50 | 3.8200 | 1.17265 | 2.270 | .000 |
| q15 | 50 | 2.4800 | 1.29741 | 1.869 | .002 |
| q16 | 50 | 3.1400 | 1.45700 | 1.856 | .002 |
| q17 | 50 | 2.6800 | 1.20272 | 1.797 | .003 |
| q18 | 50 | 2.7600 | 1.28667 | 1.857 | .002 |
| q19 | 50 | 2.8800 | 1.34983 | 1.858 | .002 |
| q20 | 50 | 2.5400 | 1.24884 | 1.607 | .011 |
| q21 | 50 | 3.3600 | 1.39620 | 2.239 | .000 |
| q22 | 50 | 3.2200 | 1.38932 | 1.929 | .001 |
| q23 | 50 | 3.1400 | 1.26184 | 1.784 | .003 |
| q24 | 50 | 3.1400 | 1.26184 | 1.642 | .009 |
| q25 | 50 | 2.3000 | 1.11117 | 2.308 | .000 |
| q26 | 50 | 2.3600 | 1.12050 | 2.022 | .001 |
| q27 | 50 | 1.8400 | .97646 | 1.944 | .001 |
| q28 | 50 | 2.2600 | 1.10306 | 2.214 | .000 |
| q29 | 50 | 2.0600 | .97750 | 2.436 | .000 |
| q30 | 50 | 2.7600 | 1.34862 | 1.934 | .001 |
| q31 | 50 | 3.3200 | 1.31615 | 1.678 | .007 |
| q32 | 50 | 2.9600 | 1.29300 | 1.776 | .004 |
| q33 | 50 | 2.9000 | 1.44632 | 1.531 | .018 |
| q34 | 50 | 2.9600 | 1.36964 | 1.953 | .001 |
| A | 50 | 2.8000 | 1.11002 | .763 | .605 |
| B | 50 | 3.3802 | 1.10454 | 1.362 | .069 |
| C | 50 | 3.1270 | 1.18017 | .971 | .303 |
| D | 50 | 2.2582 | .44924 | .829 | .497 |
| E | 50 | 2.2636 | .91079 | 1.067 | .205 |
| F | 50 | 2.5600 | 1.03332 | 1.590 | .093 |
| G | 50 | 106.2800 | 222.24396 | 2.305 | .700 |
| gpercent | 50 | 25.0900 | 19.46178 | 1.003 | .267 |
| H | 50 | 158.9400 | 300.24870 | 2.208 | .900 |
| I | 50 | 1.6600 | .84781 | 2.559 | .500 |

a Test distribution is Normal,
b Calculated from data.

Accept Ho for the variables a-i and conclude that the tested variables come from a Normal distribution at the 5% significance level. All parametric techniques such as multiple regression analysis can be applied to this set of variables. (Coakes & Steed, 2003:47)

## 6.7 The Main Variables in the Study

Variable A:
The perceived effectiveness off the skills development act.
Q20; 17; 22; 18

Variable B:
The perceived effectiveness of training in the organization.
Q1l; 16; 23; 24; 12; 14

Variable C:
The application of effective training procedures.
Q21;32;33;34; 19; 9

Variable D:
Compliance with the Skills Development Act.
Q5; 10; 15; 7; 6; 13; 31

Variable E:
Assistance received from the SETAs.
Q25; 26; 27; 28; 29; 30

Variable F:
Percentage of on-the-job training conducted.
Q4

Variable G:
Percentage of employers carrying out formal training.
Ql and 2

Variable H:
The number of employees in the company.
Ql

Variable I:
The percentage of training costs recovered from SETAs.
Q8

## 6.8 Correlation Analysis

Due to the parametric nature of the variables, Pearson's correlation was applied. The results of the correlation analysis in this study are detailed in Appendix C. The strength of the correlations is determined by values of between -1 and +1, whereas a value of 0 indicates that there was no correlation between the variables.. A value closer to -1 indicates a strong negative correlation, while a value closer to +1 indicates a strong positive correlation.

Correlations may be significant at the 1% or 5% level. If a correlation is significant at the 1% level (0.01), then there is a 99% probability that the correlation exists. The same applies to significance at the 5% level (95% probability).

## 6.9 Factor Analysis

Factor analysis was carried out in this study as an exploratory tool in order to reduce a set of items to a smaller set that adequately explains the data and could account for being a set of sub-constructs. The Principal Components method was used with varimax rotation.

From Table 44 below, the cumulative variance that 4 factors are explaining is 78.710%. Furthermore all of these 4 factors have Eigen values over 1. The Scree plot, illustrated in Figure 37 below, also confirms the existence of the 4 factors. The first factor accounts for 60.911% of the variation. This is normally the case in factor analysis. We now look at the rotated loadings table to find out which questions are not loading at all on the factors and could hence be eliminated from the data set and then re-run the factor analysis.

Table 44: Factor Analysis - Total variance explained

**Total Variance Explained**

| Component | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | %of Variance | Cumulative % | Total | %of Variance | Cumulative % | Total | %of Variance | Cumulative % |
| 1 | 15.837 | 60.911 | **60.911** | 15.837 | 60.911 | 60.911 | 10.147 | 39.026 | 39.026 |
| 2 | 2.363 | 9.090 | **70.001** | 2.363 | 9.090 | 70.001 | 6.210 | 23.886 | 62.911 |
| 3 | 1.195 | 4.597 | **74.598** | 1.195 | 4.597 | 74.598 | 2.643 | 10.166 | 73.077 |
| 4 | 1.069 | 4.113 | **78.710** | 1.069 | 4.113 | 78.710 | 1.465 | 5.633 | 78.710 |
| 5 | .685 | 2.633 | 81.344 | | | | | | |
| 6 | .661 | 2.542 | 83.885 | | | | | | |
| 7 | .581 | 2.234 | 86.119 | | | | | | |
| 8 | .477 | 1.834 | 87.953 | | | | | | |
| 9 | .410 | 1.576 | 89.529 | | | | | | |
| 10 | .391 | 1.502 | 91.031 | | | | | | |
| 11 | .322 | 1.239 | 92.271 | | | | | | |
| 12 | .308 | 1.186 | 93.456 | | | | | | |
| 13 | .266 | 1.022 | 94.479 | | | | | | |
| 14 | .241 | .928 | 95.406 | | | | | | |
| 15 | .218 | .839 | 96.245 | | | | | | |
| 16 | .192 | .739 | 96.983 | | | | | | |
| 17 | .146 | .561 | 97.544 | | | | | | |
| 18 | .142 | .545 | 98.090 | | | | | | |
| 19 | .121 | .464 | 98.554 | | | | | | |
| 20 | .100 | .384 | 98.937 | | | | | | |
| 21 | .081 | .310 | 99.247 | | | | | | |
| 22 | .063 | .244 | 99.491 | | | | | | |
| 23 | .049 | .189 | 99.679 | | | | | | |
| 24 | .038 | .148 | 99.827 | | | | | | |
| 25 | .034 | .131 | 99.958 | | | | | | |
| 26 | .011 | .042 | 100.000 | | | | | | |

Extraction Method: Principal Component Analysis.

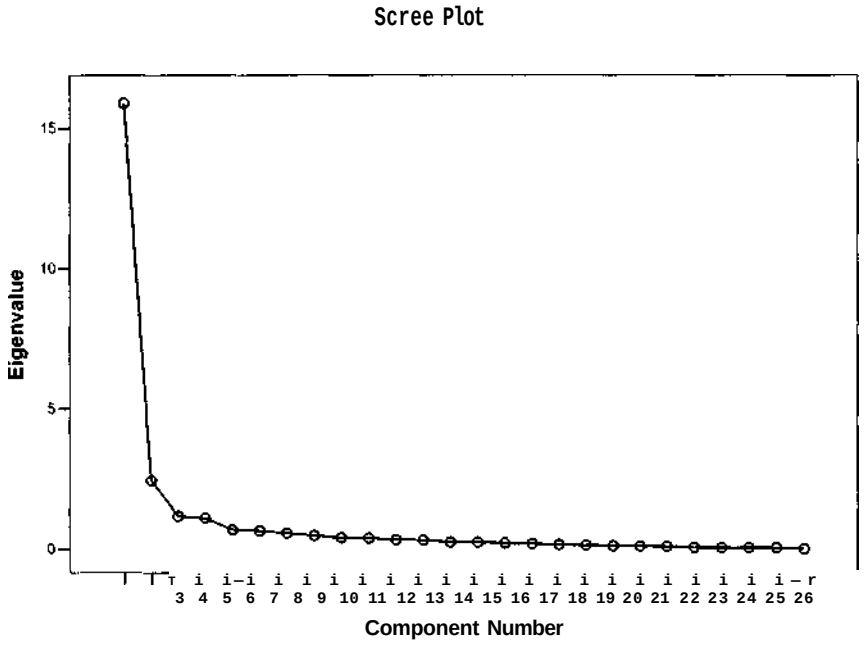



Figure 37: Factor Analysis - Scree plot

Literature suggests that a factor loading of 0.3 or greater can be considered to be significant (Kline 1994). Given the large number of items in the scale, it is advisable to adopt the principle of factor loadings of 0.4 or higher to be significant, otherwise the number of items in the data set will not be reduced and the key reason/purpose of factor analysis, which is to reduce the number of items to a comprehensible set of items, will be defeated.

Table 45: Factor Analysis: Component Matrix (a)

**Component Matrix(a)**

| | Component | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Q23 | .900 | .201 | .105 | .177 |
| q22 | .893 | .188 | .085 | .023 |
| q16 | .884 | .221 | .120 | .139 |
| q32 | .877 | .109 | -.008 | .149 |
| q33 | .871 | .195 | .007 | .078 |
| q24 | .870 | .078 | .060 | .290 |
| q20 | .841 | -.304 | -.003 | -.033 |
| q21 | .833 | .114 | -.004 | .052 |
| q34 | .825 | .287 | -.023 | .070 |
| q11 | .824 | .234 | .049 | -.093 |
| q9 | .817 | .130 | -.130 | -.075 |
| q31 | .808 | -.202 | .025 | -.288 |
| q19 | .802 | .301 | .311 | -.186 |
| q17 | .787 | .301 | .236 | -.062 |
| q25 | .778 | -.522 | .142 | .008 |
| q28 | .776 | -.478 | -.074 | -.010 |
| q18 | .767 | .364 | .134 | -.186 |
| q30 | .762 | -.216 | -.264 | .330 |
| q12 | .760 | .003 | -.235 | .124 |
| q15 | .732 | .394 | -.082 | -.097 |
| q14 | .700 | .129 | -.233 | -.007 |
| q27 | .691 | -.420 | .352 | -.205 |
| q26 | .650 | -.605 | -.089 | -.044 |
| q29 | .638 | .416 | -.040 | .418 |
| q10 | .629 | .113 | .601 | -.117 |
| q13 | -.371 | -.348 | .512 | .600 |

Extraction Method: Principal Component Analysis,
(a) 4 components extracted.

From the above component matrix (Table 45), none of the questions have loadings that are less than 0.4 and none of the questions will be dropped from the data set. Therefore the variables are combined in each factor as follows:

Table 46: Factor Analysis: Rotated component matrix

**Rotated Component Matrix(a)**

| | Component | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| q23 | **.854** | .306 | .261 | -.023 |
| q16 | **.853** | .293 | .224 | .005 |
| q19 | **.851** | .292 | -.118 | .201 |
| q22 | **.817** | .344 | .205 | .113 |
| q18 | **.807** | .193 | .010 | .292 |
| q34 | **.793** | .199 | .284 | .136 |
| q33 | **.787** | .301 | .287 | .101 |
| q11 | **.764** | .291 | .154 | .229 |
| q24 | **.764** | .353 | .354 | -.131 |
| q31 | **.759** | -.208 | -.390 | .069 |
| q32 | **.748** | .354 | .343 | .027 |
| q30 | **.742** | -.362 | .150 | -.318 |
| q21 | **.707** | .349 | .280 | .103 |
| q9 | **.650** | .334 | .317 | .269 |
| q14 | **.537** | .238 | .397 | .242 |
| q12 | **.529** | .340 | .491 | .111 |
| q25 | .350 | **.857** | .185 | -.086 |
| q26 | .130 | **.825** | .318 | .024 |
| q27 | .376 | **.815** | -.125 | .010 |
| q28 | .306 | **.787** | .349 | .037 |
| q29 | -.218 | **.776** | -.014 | -.326 |
| q20 | .471 | **.703** | .283 | .075 |
| q15 | -.379 | **.700** | -.249 | .111 |
| q17 | -.373 | **.608** | -.500 | -.094 |
| q10 | -.253 | -.299 | **.757** | -.236 |
| q13 | -.249 | .027 | -.223 | **.876** |

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization,
a Rotation converged in 7 iterations.

From the rotated component matrix (a) in Table 46 above, the following combinations of factors are given:

**FACTOR 1: THE IMPACT AND NECESSITY OF TRAINING**

| | |
|---|---|
| q16 | We are conducting effective training in terms of the amount of learning achieved by our employees. |
| q23 | We are conducting effective training in terms of the performance of our employees. |
| q19 | The company's involvement in training has increased significantly in the last five years. |
| q22 | Our employee skills are continuously updated through training |
| q18 | The amount of training that is being done in our company is satisfactory. |
| q34 | Training programs are based on the training needs of the company. |
| q33 | Employees are given the opportunity to apply that which they have learned to their jobs. |
| q11 | We are conducting effective training in terms of the performance of our company. |
| q24 | Our company results have improved as a result of training. |
| q31 | The main reason that we are involved in training is to fulfill legislative requirements |
| q32 | Training programs are evaluated for their effectiveness. |
| q30 | The training of our employees is limited due to cost contraints. |
| q21 | Qualified trainers are used for the training of our employees. |
| q9 | Training in our company occurs on a regular basis. |
| q14 | Training of our workforce will have a positive impact on our company. |
| q12 | The success of our business depends on effective skills training. |

**FACTOR 2: SETA AND TRAINING LEGISLATION**

| | |
|---|---|
| q25 | Our SETA has assisted us in training our employees to a great extent. |
| q26 | Our SETA administers our refunds promptly |
| q27 | Information related to courses, programmes and training is readily available from our SETA. |
| q28 | Our SETA is responsive to our queries. |
| q29 | The submission procedures of our SETA are complicated. |
| q15 | The refund on the Skills Development Levy is not easily accessible. |
| q20 | The skills development refund has assisted in the training of our employees. |
| q17 | The Skills Development legislation is ineffective. |

**FACTOR 3: SKILLS DEVELOPMENT LEVY**

10 | We regard the payment of the Skills Development Levy as an additional tax.

FACTOR 4: SKILLS DEVELOPMENT LEVY REFUND

13 The main reason that we are involved in training is to obtain a refund on the Skills Levy.

## 6.10 Regression Analysis

### 6.10.1 Stepwise Regression

Stepwise regression is a statistical technique that uses two regression techniques, namely Forward Selection and Backward Elimination to fit various multiple regression models in trying to assess the variation and explanation of certain independent variables towards a dependent variable. The dependent and independent variables are:

| Independent variable | Dependent variable |
|---|---|
| The perceived effectiveness off the skills development act. (A) | Effectiveness of training (B) |
| The application of effective training procedures. (C) | |
| Compliance with the Skills Development Act.(D) | |
| Assistance from the SET As.(E) | |
| Percentage of on-the-job training conducted.(F) | |
| Percentage of employers carrying out formal training(G) | |
| The number of employees in the company.(H) | |
| The percentage of training costs recovered from SETAs. **(I)** | |

The model that was fitted is:

Effectiveness of training=$p_0$ + Pi A + $p_2$B + $p_3$C+$p_4$D+$p_5$E+$p_6$F+$p_7$G+P8H+p9l +s

Stepwise regression will fit this model in various orders of the independent variables and use the criteria of the grouping of independent variables that explain the highest amount of variation towards the response variable which is, in this case, Effectiveness of Training. Independent variables that do not contribute towards the model are excluded.

The analysis was carried out in SPSS and the aim was to assess which of the independent variables explain the response variable of Effectiveness of Training i.e. which independent variables have the most valid influence with respect to the dependent variable. The results are as follows:

Table 47: Stepwise regression - Modal summary (b)

**Model Summary(b)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .912(a) | .832 | .821 | .46783 |

a . Predictors: (Constant), c, d, a
b. Dependent Variable: b

For any model to be a good one, the R value should be as high as 99%. The adjusted $R^2$ here is 82.1%. This implies that the model fitted is an adequate representation of the data. The independent variables A, C, D, E, F, G, H and I significantly predict dependent variable B, that is, they explain 82.1% of the variation in variable B.

The following ANOVA tables tests the existence of the regression model through the following hypothesis:

$H_0$:pi=0fori=0,...,8
Hi: at least one of the Pi is not zero

Table 48: Stepwise regression - ANOVA (b)

**ANOVA(b)**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 49.713 | 3 | 16.571 | 75.714 | .000(a) |
| | Residual | 10.068 | 46 | .219 | | |
| | Total | 59.780 | 49 | | | |

a Predictors: (Constant), c, d, a
b Dependent Variable: b

We therefore reject Ho at the 5% level because the p-value is less than 0.05 and we conclude that this model exists and the regression is valid.

The t-statistics in the table below tests the following hypothesis (the coefficients are all equal to zero):

(null) $H_0$: pi=0fori=0, 1
(alternate) Hi each coefficient is not equal to zero for the MODEL

Table 49: Stepwise Regression - Coefficients

**Coefficients(a)**

| **Model** | | B | **Std Error** | **Beta** | **t-value** | **p-value** |
|---|---|---|---|---|---|---|
| | (Constant) | 2.028 | .713 | | 2.847 | **.007** |
| | c | .317 | .118 | .347 | 2.689 | **.010** |
| 1 | d | -.542 | .166 | -.319 | -3.268 | **.002** |
| | a | .522 | .179 | .324 | 2.913 | **.006** |

a Dependent Variable: b

A p-value lower than the significance level of 0.05 would result in the rejection of the Ho. Clearly, the null hypotheses are rejected, implying that the model that was built is an adequate representation of the explanation of the dependent variable i.e. the application of effective training procedures, (C), Compliance with the Skills Development Act,(D) and the Perceived effectiveness off the skills development act, (A), is an adequate representation of the effectiveness of training . The model is:

Effectiveness of training = 2.028 + application of effective training procedures (0.317) + Compliance with the Skills Development Act (-0.542) + The perceived effectiveness off the skills development act (0.522).

Model Diagnostics were also carried out to check the validity of the model as follows: This is done by examining the residuals. Firstly, a histogram of the residuals is looked at, to check the normality assumption of the residuals. The following plot was generated:

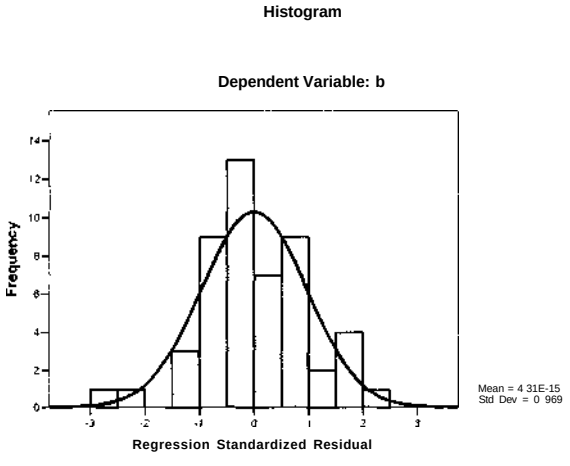



Figure 38: Stepwise regression - Model diagnostics

This is an acceptable graph, indicating a normal curve about the histogram of residuals. Hereafter, the Normal P-P plot was looked at:

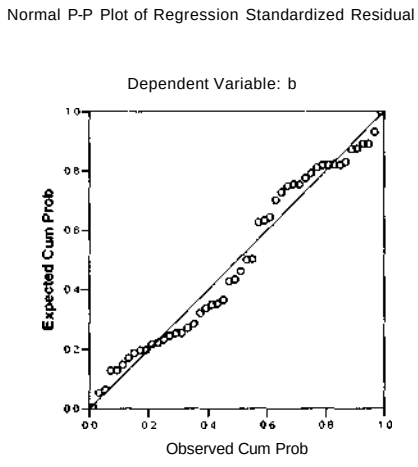



Figure 39: Stepwise regression - The Normal P-Plot

The residuals are also normally distributed here. Finally, a Scatterplot of the residuals and the predicted values was generated:

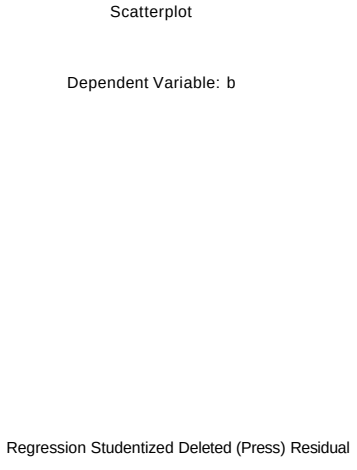



Figure 40: Stepwise regression - The Scatterplot of residuals

There appears to be a random scattering about zero and this is acceptable. The diagnostics indicate that the fitted model is an adequate representation of the dependent variable.

### 6.10.2 Multiple Regression

The same model that was utilised for stepwise regression was fitted for multiple regression:

Effectiveness of training=$p_0$ + Pi A + $p_2$B + $p_3$C+p4D+$p_5$E+$p_6$ F+$p_7$G+$p_8$H+$p_9$I +s

Table 50: Multiple regression - Model summary (b)

**Model Summary(b)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .917(a) | .840 | .809 | .48232 |

a Predictors: (Constant), i, f, e, h, gpercent, a, d, c
b Dependent Variable: b

For any model to be a good one, the $R^2$ value should be as high as 99%. The adjusted $R^2$ in this model 80.9%. This implies that the model fitted is an adequate representation of the data.

The following ANOVA tables tests the existence of the regression model through the following hypothesis:

$H_0$:Pr0fori=0,...,8
H|: at least one of the pi is not zero

Table 51: Multiple regression - ANOVA (b)

**ANOVA(b)**

| Model | | Sum of Squares | df | Mean Square | F | Sig |
|---|---|---|---|---|---|---|
| 1 | Regression | 50.243 | 8 | 6.280 | 26.997 | .000(a) |
| | Residual | 9.538 | 41 | .233 | | |
| | Total | 59.780 | 49 | | | |

a Predictors: (Constant), i, f, e, h, gpercent, a, d, c
b Dependent Variable: b

We therefore reject Ho at the 5% level because the p-value is less than 0.05 and we conclude that this model exists and the regression is valid.

The t-statistics in the table below test the following hypothesis (coefficients are all equal to zero):

(null) $H_0$: pi = 0 for i= 0, 1

(alternative)Hi: each coefficient is not equal to zero for the MODEL

Table 52: Multiple regression - Coefficients (a)

**Coefficients(a)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.367 | .968 | | 1.413 | .165 |
| | a | .518 | .191 | .322 | 2.715 | **.010** |
| | c | .333 | .130 | .364 | 2.569 | **.014** |
| | d | -.468 | .192 | -.275 | -2.432 | **.019** |
| | e | .158 | .176 | .068 | .898 | .374 |
| | f | -.003 | .076 | -.002 | -.033 | .974 |
| | gpercent | .001 | .005 | .011 | .133 | .895 |
| | h | .001 | .000 | -.062 | -.830 | .412 |
| | i | .036 | .156 | .028 | .231 | .819 |

a Dependent Variable: B

A p-value lower than the significance level of 0.05 would lead to the rejection of the Ho. Clearly, the null hypotheses are rejected, implying that the model that was built is clearly an adequate representation of the explanation of the dependent variable i.e. the application of effective training procedures (C), Compliance with the Skills Development Act, (D) and the perceived effectiveness off the skills development act, (A) is an adequate representation of the effectiveness of training.. The model is:

Effectiveness of training = 1.367+0.518A+0.333C-0.468D+0.158E-0.003F+0.001G+0.001H-0.036I

Model Diagnostics were also carried out to assess the validity of the model.

This is done by examining the residuals. Firstly, a histogram of the residuals is looked at, to check the normality assumption of the residuals. The following plot was generated:

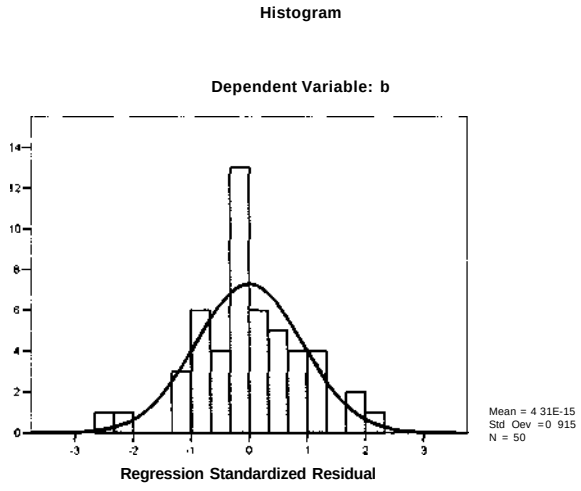



Figure 41: Multiple regression - Model diagnostics

This is an acceptable graph, indicating a normal curve about the histogram of residuals. Hereafter, the Normal P-P plot was looked at:

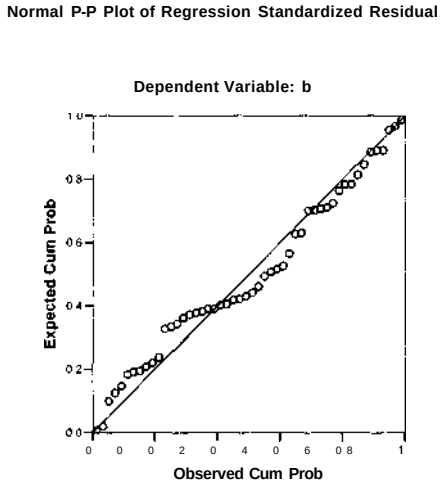



Figure 42: Multiple regression - The Normal P-plot

The residuals also appear to be normally distributed here. Finally, a Scatterplot of the residuals and the predicted values were looked at:

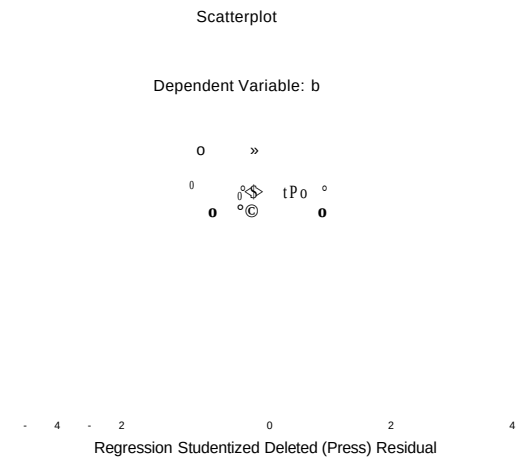



Figure 43: Multiple regression - The Scatterplot

There is a random scattering about zero and this is acceptable. The diagnostics indicate that the fitted model is an adequate representation of the dependent variable.

The regression was then re-fitted with the significant terms from the above model:

Effectiveness of training=Po + (3]C + P2D+P3A +s

The results were the same as those of Stepwise Regression results.

## 6.11 Sub-Objectives

1. To determine if there is a relationship between the number of employees in a company and the amount of training they carry out. (THERE IS RELATIONSHIP, Ql & Q2)

2. To determine whether there is any relationship between the number of employees in a company and the amounts claimed for refunds. (NO RELATIONSHIP, NO VALUES FOR Q3)

We will use Pearson's correlation for these sub-objectives

Table 53: Correlations between variables

**Correlations**

| | | H | G | F |
|---|---|---|---|---|
| H | Pearson Correlation | 1 | .998(**) | .155 |
| | Sig. (2-tailed) | | .000 | .282 |
| | N | 50 | 50 | 50 |
| G | Pearson Correlation | .998(**) | 1 | .148 |
| | Sig. (2-tailed) | .000 | | .305 |
| | N | 50 | 50 | 50 |
| F | Pearson Correlation | .155 | .148 | 1 |
| | Sig. (2-tailed) | .282 | .305 | |
| | N | 50 | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

3. To determine the percentage range of skills development refunds that are collected by companies. (Refer to question 4)

4. To determine the percentage of companies in the sample that is actively involved in effectively training their employees. (Refer to question s 5, 6, 7 and 8)

5. To examine the state of training and development in the sample of companies studied. (Refer to questions 9-34)

6. To determine the extent to which managers believe that training benefits their organisations. (Refer to manager results)

7. To determine the percentage of companies in the sample that are registered with the relevant SETA. (Refer to question 5)

8. To determine the extent to which the Sector Education and Training Authorities (SETAs), have assisted companies, in the sample, with training and development. (Refer to question 25-29)

9. To formulate recommendations to improve the efficacy of the Skills Development Act and the Skills Development Levies Act. (Conclusions)

10. To formulate recommendations based on research findings to improve training and development in South Africa. (Conclusions)

## 6.12 Hypothesis Testing

Hypothesis testing was conducted using the Pearson correlation (refer to Appendix) to determine the correlation between the variables identified in the study.

### 6.12.1 The Main Hypothesis

The hypotheses were derived from the main variables in the study as stated above.

The Null Hypothesis: There is no significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

The Alternate Hypothesis: There is a significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

We will use the Pearson correlation to test for a relationship between Variables A and Variable B.

Table 54: Correlations between variables A and B

| | | | |
|---|---|---|---|
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |
| A | Correlation | 1 | .835(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| B | Pearson Correlation | .835(**) | 1 |

At the 5% significance level, we will reject Ho, because the p-value is less than 0.05.

6.12.2 The Sub-Hypotheses

1. Ho There is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

   Hi There is a significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

Table 55: Correlation between variable H and variable F

| | | H | F |
|---|---|---|---|
| H | Pearson Correlation | 1 | .155 |
| | Sig. (2-tailed) | | .282 |
| | N | 50 | 50 |
| F | Pearson Correlation | .155 | 1 |
| | Sig. (2-tailed) | .282 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is accepted because the p-value is greater than 0.05.

2. Ho There is no significant correlation between the number of employees in a company and the percentage of formal training conducted.

Hi There is a significant correlation between the number of employees in a company and the percentage of formal training conducted.

Table 56: Correlation between variable H and variable G

| | | H | G |
|---|---|---|---|
| H | Pearson Correlation | 1 | .998(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| G | Pearson Correlation | .998(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed)

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

3. Ho There is no significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

Hi . There is a significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

Table 57: Correlation between variable H and variable I.

| | | H | I |
|---|---|---|---|
| H | Pearson Correlation | 1 | .486** |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| 1 | Pearson Correlation | .486** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

4. Ho There is no significant correlation between the number of employees in a company and the perceived effectiveness of training.

H| There is a significant correlation between the number of employees in a company and the perceived effectiveness of training.

Table 58: Correlation between variable H and variable B

| | | H | B |
|---|---|---|---|
| H | Pearson Correlation | 1 | .344 |
| | Sig. (2-tailed) | | .004 |
| | N | 50 | 50 |
| B | Pearson Correlation | .344 | 1 |
| | Sig. (2-tailed) | .004 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

5. Ho There is no significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

H| There is a significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

Table 59: Correlation between variable B and variable C

| | | B | C |
|---|---|---|---|
| B | Pearson Correlation | 1 | .868(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| C | Pearson Correlation | .868(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

6. Ho There is no significant correlation between the number of employees in a company and the application of effective training procedures.

Hi There is a significant correlation between the number of employees in a company and the application of effective training procedures.

Table 60: Correlation between variable C and variable H

| | | C | H |
|---|---|---|---|
| **C** | Pearson Correlation | 1 | 0.433 |
| | Sig. (2-tailed) | | .002 |
| | N | 50 | 50 |
| H | Pearson Correlation | 0.433 | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

7. Ho There is no significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

Hi There is a significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

Table 61: Correlation between variable C and variable D

| | | C | D |
|---|---|---|---|
| **C** | Pearson Correlation | 1 | .781 n |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | 781(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

8. Ho There is no significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

Hi There is significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

Table 62: Correlation between variable A and variable E

| | | A | E |
|---|---|---|---|
| A | Pearson Correlation | 1 | .290(**) |
| | Sig. (2-tailed) | | .041 |
| | N | 50 | 50 |
| E | Pearson Correlation | .290(**) | 1 |
| | Sig. (2-tailed) | .041 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

9. Ho There is a no significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

Hi There is a significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

Table 63: Correlation between variable E and variable D

| | | E | D |
|---|---|---|---|
| E | Pearson Correlation | 1 | .442(**) |
| | Sig. (2-tailed) | | .001 |
| | N | 50 | 50 |
| D | Pearson Correlation | .442(**) | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

10. Ho There is a no significant correlation between the application of effective training procedures and assistance received from the SETAs.

Hi There is a significant correlation between the application of effective training procedures and assistance received from the SETAs.

Table 64: Correlation between variable E and variable C

| | | E | C |
|---|---|---|---|
| E | Pearson Correlation | 1 | .298(*) |
| | Sig. (2-tailed) | | .036 |
| | N | 50 | 50 |
| C | Pearson Correlation | .298(*) | 1 |
| | Sig. (2-tailed) | .036 | |
| | N | 50 | 50 |

* Correlation is significant at the 0.05 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

11. Ho There is a no significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

Hi There is a significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

Table 65: Correlation between variable E and variable G

| | | E | G |
|---|---|---|---|
| E | Pearson Correlation | 1 | .006 |
| | Sig. (2-tailed) | | .969 |
| | N | 50 | 50 |
| G | Pearson Correlation | .006 | 1 |
| | Sig. (2-tailed) | .969 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is accepted because the p-value is greater than 0.05.

12. Ho There is no significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

Hi There is a significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company

Table 66: Correlation between variable B and variable F

| | | B | F |
|---|---|---|---|
| B | Pearson Correlation | 1 | .373(**) |
| | Sig. (2-tailed) | | .008 |
| | N | 50 | 50 |
| F | Pearson Correlation | .373(**) | 1 |
| | Sig. (2-tailed) | .008 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 5% significance level, Ho is rejected because the p-value is less than 0.05

13. Ho There is no significant correlation between the percentage of formal training and the perceived effectiveness of training in the company.

Hi There is a significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

Table 67: Correlation between variable G and variable B

| | | G | B |
|---|---|---|---|
| G | Pearson Correlation | 1 | .5070 |
| | Sig. (2-tailed) | | .040 |
| | N | 50 | 50 |
| B | Pearson Correlation | .507(*) | 1 |
| | Sig. (2-tailed) | .040 | |
| | N | 50 | 50 |

* Correlation is significant at the 0.05 level (2-tailed)

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

14. Ho There is no significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

Hi There is a significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

Table 68: Correlation between variable B and variable D

| | | B | D |
|---|---|---|---|
| B | Pearson Correlation | 1 | .814(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | .814(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level,Ho is rejected because the p-value is less than 0.01.

15. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

Table 69: Correlation between variable C and variable A

| | | C | A |
|---|---|---|---|
| C | Pearson Correlation | 1 | .838(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| A | Pearson Correlation | ,838(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

16. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

Hj There is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

Table 70: Correlation between variable A and variable D

| | | A | D |
|---|---|---|---|
| A | Pearson Correlation | 1 | .690(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | 690(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

17. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

Table 71: Correlation between variable A and variable G

| | | A | G |
|---|---|---|---|
| A | Pearson Correlation | 1 | .431(**) |
| | Sig. (2-tailed) | | .002 |
| | N | 50 | 50 |
| G | Pearson Correlation | 431(") | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, $H_0$ is rejected because the p-value is less than 0.0

18. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs

Table 72: Correlation between variable A and variable I

| | | A | I |
|---|---|---|---|
| A | Pearson Correlation | 1 | .710(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| 1 | Pearson Correlation | .710(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, $H_0$ is rejected because the p-value is less than 0.01.

## 6.13 Summary

The purpose of this chapter was to present the results of the field study.

The statistical techniques used to analyse the data were correlation analysis, regression analysis and factor analysis. The results for hypothesis testing using correlation analysis were also presented.

The following chapter focuses on the most significant findings, the discussions and the conclusions according to the results presented in this chapter.

# Chapter Seven

# The Most Significant Findings, Discussions and Conclusions

## 7.1 Introduction

The aim of this chapter to discuss significant findings and draw conclusions based on the results of the study. The outline of this chapter is as follows:

- Discussion of the objectives of the study.
- Discussion of the results in terms of the research questions posed.
- Discussion of the hypotheses in terms of the literature study where applicable.
- Discussion of the additional statistical tests conducted, these are, factor analysis and regression analysis.
- Presentation of the main conclusions of the study.

## 7.2 Objectives of the Study

The main objective of the study is *to evaluate the efficacy of the Skills Development Act* and this broken down into various sub-objectives which are discussed below.

A) Sub-objectives

1. **To determine if there is a relationship between the number of employees in a company and the amount of training they conduct.**

The data reveals that the average number of employees in a company is 158.94. The average number of employees that received formal training is 53.62 per company. This represents an average formal training rate of 29.64% of employees of companies in the sample. Training was defined to include on-the-job training and formal training. The Pearson's Correlation was applied to these sub-objectives (see Table 53 below).
The variables F, G and H represent on-the-job training, formal training and the number of employees respectively. The correlation values in Table 53 below reveal a relationship between these variables. Training (including on-the-job training and formal training) increases with the number of employees in a company. However, it will be shown under sub-hypothesis 1 and 2 that there is no significant correlation between the number of

employees in a company and the amount of on-the-job training conducted. Conversely, the hypothesis testing revealed that there is a significant correlation between the number of employees in a company and the amount of formal training conducted.

It can be concluded from sub-objective 1 of the study that the amount of training in general that is conducted by a company is significantly and strongly correlated with the number of employees in a company.

Table 53: Correlation between variables

| | | H | G | F |
|---|---|---|---|---|
| H | Pearson Correlation | 1 | .998(") | .155 |
| | Sig. (2-tailed) | | .000 | .282 |
| | N | 50 | 50 | 50 |
| G | Pearson Correlation | .998(") | 1 | .131 |
| | Sig. (2-tailed) | .000 | | .363 |
| | N | 50 | 50 | 50 |
| F | Pearson Correlation | .155 | .148 | 1 |
| | Sig. (2-tailed) | .282 | .305 | |
| | N | 50 | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed)

**2. To determine whether there is any relationship between the number of employees in a company and the amounts claimed for refunds.**

A relationship between number of employees in a company and actual amounts claimed through the skills development refund could not be established due to the null response of question 3 in the questionnaire. This represents a possible limitation of this study and will therefore be discussed accordingly in the concluding chapter of this dissertation.

**3. To determine the percentage range of skills development refunds that is collected by companies.**

The aggregate data revealed that 58% of companies in the sample received a refund of 0-20%; while 18% of companies indicated that they received refunds between 21-40% and 24% of respondents indicated that they have received a refund of between 41-60%.

The skills development levy system was discussed in Chapter 4. This topic is re-visited in light of the results of the field study. It was mentioned that companies with a payroll

exceeding R.500 000 per annum are required to pay a skills development levy of 1% of payroll. Companies are further required to register with the relevant SETA in order to claim a refund of up to 45% of their levy payments. In order to qualify for the refund of up to 15% of levy payments companies are required to submit a Workplace Skills Plan. This document, in simple terms, is a plan of intended training. In order to qualify for the remainder of the refund (up to 45%), companies are required to submit an Implementation of Training Report. This document explains the implementation of training as detailed in the Workplace Skills Plan.

The fact that a majority (58%) of the companies in the sample indicated that they were collecting refunds of between 0-20% implies that they have only submitted Workplace Skills Plans and have not implemented their planned training or that they have implemented their training plan and their relevant SETA had not yet processed their claims. Companies that have received refunds of between 21-40% and 41-60% appear to have received their skills development refunds. This is difficult to determine precisely as the researcher did not have access to actual financial information.

Nevertheless, whether companies did not receive their refunds through their own administrative shortfalls or that of SETA, it is vital that companies are encouraged or continue to be encouraged to submit their reports as the success of the levy system is based on participation from employees as well as support from the SETAs.

**4. To determine the percentage of companies in the sample that are compliant with Skills Development Act.**

The criteria for inclusion of companies in the sample were that companies that were eligible to pay the skills development levy were in fact paying the levy. In addition, all the companies in the sample were registered with the relevant SETAs. Compliance with the Act goes beyond levy payments and SETA registration to include submission of a workplace skills plan, an implementation of training report and claiming refunds from the SETAs. This is the way in which the framework within which training is to occur in South Africa is designed.

The results of the survey revealed that 56% of companies within the sample submitted a workplace skills plan while 44% of companies submitted an Implementation of training

report. In addition, 58% of companies indicated that the percentage of raining costs recovered from SETA was between 0-20%. From the results, it may be inferred that approximately half of the companies in the sample are fully compliant with the Skills Development Act.

From objective 3 it is noted that 58% of companies, collected skills development refunds of between 0-20%. In light of the results stated above, it is inferred that the reason for such a low percentage of skills refunds is that companies are not fully compliant. That is, they are not submitting the necessary reports to SETA in order to qualify for a greater refund.

The reasons that companies did not submit Workplace Skills Plans and Implementation of Training reports lie outside the scope of this study, however from the results of this study as discussed in objective 7, it is inferred that companies are extremely unhappy with the services that they received from the SETAs and are therefore discouraged participate in the levy system beyond paying the required skills levy.

**5. To examine the state of training and development in the sample of companies studied.**

The state of training and development in the sample of companies is revealed through the examination of the results of items 1-34 of the questionnaire.
The average number of employees per company was 158.94, while the average number of employees that received formal training per company was 53.62 (or 29.64%).
36% of the sample indicated that between 41% and 60% of on-the-job training is conducted in their organization.

An aggregate of 54% of the sample indicated that the Skills Development legislation was, to some degree ineffective, while 26% disagreed. 54% of the sample indicated that the amount of training conducted in their company was not satisfactory. Further, 56% of the respondents indicated that the skills development refund had not assisted in the training of their employees, while the same proportion of respondents agreed that training had increased in their companies in the last five years.

62% of the sample agreed, to some degree, that their company was conducting effective training in terms of the performance of the company and 74% agreed that the success of their business depends on effective skills training. A total of 76% of the respondents believed that the training of their workforce will have a positive impact on the company, while 54% believed that they were conducting effective training in terms of the amount of learning achieved by their employees. Exactly half of the sample thought that they were conducting effective training in terms of the performance of their employees, while almost half (48%) thought that their company results had improved as a result of training.

A total of 72% of the sample agreed that training in their company occurs on a regular basis and 52% believed that their employee skills are continuously updated through training. A majority of 64% of the respondents stated that qualified trainers are used in the training of their employees; however a minority of 44% indicated that their training programs were evaluated for their effectiveness. Approximately half the sample, 44% compared to 48%, indicated that their employees are given the opportunity to apply what they have learnt during training, while exactly half indicated that their training programs are based on the training needs of the company.

The entire sample indicated that it was registered with a relevant SETA, while 56% had submitted a Workplace Skills Plan and a minority of 44% had submitted an Implementation of Training report. A majority of 46% (compared to 40%) regarded the Skills Development Levy as an additional form of taxation, but 58% disagreed that the main reason that they were involved in training was obtain a refund on the Skills Levy. A total of 62% agreed that a refund on the Skills Levy is not easily accessible. A total of 54% of the sample disagreed that they were involved in training only to fulfil legislative requirements.

A large proportion (72%) of the sample indicated that SETA has not assisted them to a great extent in the training of their employees, while a similarly large proportion (66%) disagreed that SETA administers their refunds promptly. An even larger proportion of 84% of the sample indicated that information relating to training courses and programs is not readily available from their SETA, while 72% disagreed that SETA is responsive to their queries. A further 82% of respondents indicated that the

submission procedures of SETA are complicated. A total of 56% of the sample agreed that the training of their employees is limited due to cost constraints. A majority of 58%) of the sample indicated that they had received 0-20%o of training costs from their respective SET As.

6. **To determine the extent to which respondents believe that training benefits their organisations.**

The data revealed that 34% agreed that their company results have improved as a result of training while 28% disagreed. These percentages represent modal responses. The cumulative percentages for positive and negative responses are 48% and 38% respectively (14% represent neutral responses). This is an important result because it reveals respondents attitudes to the benefits of training. An examination of this statistic is not entirely positive because less than half of the respondents in the sample have a positive attitude regarding the benefits of training.

7. **To determine the extent to which the Sector Education and Training Authorities (SETAs) have assisted companies in the sample with training and development.**

A large proportion (72%) of the sample indicated that their SETA has not assisted them to a great extent in the training of their employees, while a similarly large proportion (66%o) disagreed that SETA administers their refunds promptly. An even larger proportion of 84% of the sample indicated that information relating to training courses and programs is not readily available from their SETA, while 72% disagreed that SETA is responsive to their queries. A further 82%> of respondents indicated that the submission procedures of their SETA are complicated. A total of 56%> of the sample agreed that the training of their employees is limited due to cost constraints.

The sub-objectives 8 and 9 relate to recommendations and are discussed in chapter 8 of this dissertation.

collected in 2002 via the levy-grant system, employers' attitudes toward training and improving internal labour market mechanisms remain largely unchanged."

It may be argued that the initial employer 'buy in' or uptake of the training legislation was slow. But, 7 years after its implementation as well as the implementation of the second national skills development strategy, there has been little change in companies' attitudes toward the Skills Development Act.

It has been mentioned that the successful implementation of skills development legislation in certain countries (for example, Singapore) is largely dependent on employers' attitudes toward such legislation. Smith & Billet (2004:30) state that the Singaporean employers subscribe to the government's vision for the economy. Therefore, they are committed to the skills development of the workforce thereby facilitating successful implementation of their skills development legislation.

7.3.2 What perceptions do the companies in the sample have of effective training?

This variable was measured by items 11, 12, 14, 16, 23, 24 in the questionnaire.

62% of the sample agreed, to some degree, that their company was conducting effective training in terms of the performance of the company and 74% agreed that the success of their business depends on effective skills training. A total of 76% of the respondents believed that the training of their workforce will have a positive impact on the company, while 54% believed that they were conducting effective training in terms of the amount of learning achieved by their employees. Exactly half of the sample thought that they were conducting effective training in terms of the performance of their employees, while almost half (48%) indicated that their company results had improved as a result of training.

The results of the study indicate that companies are generally conducting effective training in terms of employee learning, employee performance and organizational performance. However, a minority of companies indicated that their company results have improved as a result of training. A possible reason for this is that those companies which have not yet experienced an improvement in results as a result of

training may well be training too little, not training effectively or the benefits of the training may not have materialised as yet.

On a positive note, the perceptions of training were found to be very favourable. This indicates that some companies have realised the value of training.

### 7.3.3 Are effective training procedures applied by companies in the sample?

This variable was measured by items 9, 19, 21, 32, 33 and 34 in the questionnaire.

A total of 72% of the sample agreed that training in their company occurs on a regular basis and 52% believed that their employee skills are continuously updated through training. A majority of 64% of the respondents stated that qualified trainers are used in the training of their employees; however a minority of 44% indicated that their training programs were evaluated for their effectiveness. Approximately half the sample, 44% compared to 48%, indicated that their employees are given the opportunity to apply what they have learnt during training, while exactly half indicated that their training programs are based on the training needs of the company.

It is heartening to note that a large proportion of the sample indicated that training occurs regularly, however obvious pitfalls include the need to design training programs that are evaluated for effectiveness and based on the skills needs of the company. A further problem is that only 44% of the sample indicated that trainees were given the opportunity to apply their new skills to their jobs. One of the goals of a training intervention is the transfer of training (Holton, 1996 and Baldwin & Ford, 1988), and therefore if transfer of training does not occur, the training program will be rendered meaningless.

### 7.3.4 To what extent are companies in the sample compliant with the Skills Development Act?

This variable was measured by items 5, 6, 7, 10, 13, 15 and 31 in the questionnaire.

The entire sample indicated that it was registered with a relevant SETA and were paying the skills development levy. This is deliberate as the criteria for inclusion in the sample for this study was registration with the relevant SETA and payment of the

skills development levy. As mentioned in Chapter 5, this was done so that companies were eligible to register with SET As because they pay the skills development levy and companies in the sample will have experience enough with SET As to comment on their services.

56% had submitted a Workplace Skills Plan and a minority of 44% had submitted an Implementation of Training report. Vaas (2003:202) maintains that "The organizational failure to claim back grants and complete workplace skills plans suggests that training is not necessarily being implemented."

46% (compared to 40%) regarded the Skills Development Levy as an additional form of taxation, but 58% disagreed that the main reason that they were involved in training was obtain a refund on the Skills Levy. Dar *et al..*, (2003:6) maintain that most employees believe that a training levy is an additional tax that they are unfairly compelled to pay. A total of 62% agreed that a refund on the Skills Levy is not easily accessible. A total of 54% of the sample disagreed that they were involved in training only to fulfill legislative requirements.

Paterson, *et al,* (2004:100) explain that companies who pay the levy participate at the first level of compliance which may be seen as a form of an involuntary tax. The next level of participation involves registration with SETAs and in effect the fulfillment of administrative requirements (example submission of Workplace Skills Plans and claiming of grants). Although the full participation of companies in the skills development legislation is voluntary rather than compulsory, the full participation of employers beyond merely paying the skills development levy is crucial otherwise training legislation may be rendered ineffective of at the very worst, useless.

The findings of this study confirm that only 44% and 56% of companies in the sample had submitted implementation of training reports and workplace skills plans respectively. This is consistent with the finding that 46% of companies in the sample regarded the Skills Development Levy as an additional form of taxation. It is therefore concluded that a large proportion of companies in the sample do not participate in the skills development legislation to the extent that is required for its successful implementation.

Another important point is that companies can benefit to the full extent from training if they participate in the way that was intended by the creation of the legislation. If companies choose not to participate beyond paying levies then it is impossible to reap the benefits of levy schemes. On the other hand co-operation and services from SETAs should be at an optimal level so as to facilitate the maximum participation of companies.

### 7.3.5 To what extent do companies in the sample receive assistance received from SETAs?

This variable was measured by items 25, 26, 27, 28, 29 and 30 in the questionnaire.

A large proportion (72%) of the sample indicated that SETAs has not assisted them to a great extent in the training of their employees, while a similarly large proportion (66%>) disagreed that the SETAs administers their refunds promptly. An even larger proportion of 84%> of the sample indicated that information relating to training courses and programs is not readily available from their SETA, while 72% disagreed that the SETAs are responsive to their queries. A further 82%) of respondents indicated that the submission procedures of the SETAs are complicated. A total of 56%> of the sample agreed that the training of their employees is limited due to cost constraints.

These results should not be viewed in isolation as it is closely related to the percentage of training costs recovered from SETA and the number of companies that submit Workplace Skills Plans and Implementation of Training reports. More than half the respondents (58%) indicated that they recovered training costs of between 0-20%, while 18%) of respondents indicated that they recovered training costs of between 21-40%). The remaining 24% of respondents reported recovery of training costs of between 41-60%).

56% of the sample indicated that their companies submitted Workplace Skills Plans while 44%> indicated that they did not. 44% of the sample submitted implementation of training reports while 56% did not. My understanding of this statistic is that at least 44%> of the sample should have received up to 45% of their training costs in grants claims because according to the Skills Development Levies Act, companies are

eligible for grants up to 15% upon submission of a Work Place Skills Plan and up to 45% upon submission of an Implementation of Training Report. But the results indicate that only 24% of the respondents received between 41%-60%.

The large percentage of respondents in the sample that report the recovery of minimal training costs although 44% of respondents indicated full compliance with the training legislation is a possible indication of the level of service delivery that companies receive from SET As as well as the administrative functioning of SET As.

This is confirmed by Paterson, *et al.* (2004:103). They go on to discuss reasons that respondents detailed for not claiming grants.

- One in four respondents indicated that they 'did not know about the Skills Levy grants'. This was the most common response and seriously questions the efficiency of the SET As. Paterson *et al.* (2004:103) argues that "this may be interpreted as a failure of policy dissemination rather than a failure of implementation or a failure of policy."
- The second most common reason was that claiming grants were 'not worth the financial effort.[7] This response was the highest for small companies (24.9%) and it indicates that the National Skills Development Strategy has a way to go in order to achieve its target in this respect.
- One in five respondents indicated that the 'application process was too complicated.'
- Other reasons offered for not claiming grants was that there is a lack of accredited courses against which they could claim grants. Paterson *et al.* (2004:103) suggests that there was a lack of training providers in certain sectors or that training providers were accredited at a slower rate than that which was actually required.

From the findings listed above in addition to the findings of the results of this study, it appears that there is room for much improvement in the functioning of and the services rendered by the SET As.

## 7.4 Statistical Techniques used for Data Analysis

**It** was mentioned in Chapter 6 that the Kolmogorov Smirnov test was used to check for normality amongst the variables. Table 43 below is reproduced here for convenience. It was concluded that the variables come from a normal distribution, that is, they are parametric therefore all parametric statistical techniques may be applied.

The data was analyzed using the Pearson correlation in order to test strength of relationships between the variables. Multiple regression analysis was conducted to determine the impact that the independent variables exacted on the dependent variable, that is, what is the combined effect of the independent variables on the dependent variable. Factor analysis was conducted to confirm the grouping of the questions into variables. Multiple regression analysis and factor analysis will be discussed later in this chapter.

$H_0$:the tested variables come from a Normal distribution

Hi :the tested variables do not come from a Normal distribution

Table 43: The Kolmogorov-Smirnov Test

| | N | Normal Parameters(a,b) | | Kolmogorov-Smirnov Z | Asymp. Sig. (2-tailed) |
|---|---|---|---|---|---|
| | | Mean | Std. Deviation | | |
| q9 | 50 | 3.7000 | 1.28174 | 2.210 | .000 |
| q10 | 50 | 2.8000 | 1.27775 | 1.599 | .012 |
| q11 | 50 | 3.4200 | 1.38638 | 1.995 | .001 |
| q12 | 50 | 3.6200 | 1.08590 | 2.664 | .000 |
| q13 | 50 | 3.2000 | 1.30931 | 2.188 | .000 |
| q14 | 50 | 3.8200 | 1.17265 | 2.270 | .000 |
| q15 | 50 | 2.4800 | 1.29741 | 1.869 | .002 |
| q16 | 50 | 3.1400 | 1.45700 | 1.856 | .002 |
| q17 | 50 | 2.6800 | 1.20272 | 1.797 | .003 |
| q18 | 50 | 2.7600 | 1.28667 | 1.857 | .002 |
| q19 | 50 | 2.8800 | 1.34983 | 1.858 | .002 |
| q20 | 50 | 2.5400 | 1.24884 | 1.607 | .011 |
| q21 | 50 | 3.3600 | 1.39620 | 2.239 | .000 |
| q22 | 50 | 3.2200 | 1.38932 | 1.929 | .001 |
| q23 | 50 | 3.1400 | 1.26184 | 1.784 | .003 |
| q24 | 50 | 3.1400 | 1.26184 | 1.642 | .009 |
| q25 | 50 | 2.3000 | 1.11117 | 2.308 | .000 |
| q26 | 50 | 2.3600 | 1.12050 | 2.022 | .001 |
| q27 | 50 | 1.8400 | .97646 | 1.944 | .001 |
| q28 | 50 | 2.2600 | 1.10306 | 2.214 | .000 |
| q29 | 50 | 2.0600 | .97750 | 2.436 | .000 |
| q30 | 50 | 2.7600 | 1.34862 | 1.934 | .001 |
| q31 | 50 | 3.3200 | 1.31615 | 1.678 | .007 |
| q32 | 50 | 2.9600 | 1.29300 | 1.776 | .004 |
| q33 | 50 | 2.9000 | 1.44632 | 1.531 | .018 |
| q34 | 50 | 2.9600 | 1.36964 | 1.953 | .001 |
| a | 50 | 2.8000 | 1.11002 | .763 | .605 |
| b | 50 | 3.3802 | 1.10454 | 1.362 | .069 |
| c | 50 | 3.1270 | 1.18017 | .971 | .303 |
| d | 50 | 2.2582 | .44924 | .829 | .497 |
| e | 50 | 2.2636 | .91079 | 1.067 | .205 |
| f | 50 | 2.5600 | 1.03332 | 1.590 | .093 |
| g | 50 | 106.2800 | 222.24396 | 2.305 | .700 |
| gpercent | 50 | 25.0900 | 19.46178 | 1.003 | .267 |
| h | 50 | 158.9400 | 300.24870 | 2.208 | .900 |
| i | 50 | 1.6600 | .84781 | 2.559 | .500 |

a Test distribution is Normal,
b Calculated from data.

Ho:the tested variables come from a Normal distribution

H i:the tested variables do not come from a Normal distribution

Accept Ho for the variables A-I and conclude that the tested variables come from a Normal distribution at the 5% significance level.

## 7.5 Hypothesis Testing

The Pearson correlation was applied to determine the relationship between the variables. The results of the correlation analysis are included in Appendix C. The strength of the correlation is indicated by values between -1 and 1. A value that is closer to -1 indicates a strong negative correlation. A value of 0 indicates no correlation and a value closer to 1 indicates a strong positive correlation.

Correlations may be significant at the 1% or 5% level. If a correlation is significant at the 1% level (0.01), then there is a 99% probability that the correlation exists. The same applies to significance at the 5% level (95% probability).

### 7.5.1 The Main Hypothesis

The hypotheses were derived from the main variables in the study as stated in Chapter 6.

The Null Hypothesis: There is no significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

The Alternate Hypothesis: There is a significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

Table 54: Correlation between variable A and variable B.

| | | A | B |
|---|---|---|---|
| A | Pearson Correlation | 1 | .835(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| B | Pearson Correlation | .835(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed)

At the 5% significance level, Ho is rejected, because the p-value is less than 0.05.

It is concluded that there is a significant and strong correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization. This means that those respondents that believed that training was effective in their companies also believed that the Skills Development Act was effective. This can possibly be explained by the fact that the larger companies in the sample found the Skills Development Act to be effective in terms of refunds collected, accredited training providers being suggested and communication with the SETAs being better. It may also be explained by the fact that larger companies have training departments or dedicated training personnel who deal with the SETAs on a continuous basis, thereby creating valuable relationships with SETA personnel. It is therefore not surprising that the companies that benefit from their relationship with the SETAs are often the ones that find the Act effective. The problem in South Africa is, however, that there is a large informal sector consisting of small companies which do not view the Act as effective because they do not benefit from it. Part of the problem in this respect is that the SETAs do not market themselves at all effectively, nor do they realise that smaller companies do not have the means to deal with the bureaucratic 'red tape' which epitomises the functioning of the SETAs.

### 7.5.2 The Sub-Hypotheses

1. Ho There is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

   Hi There is a significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

Table 55: Correlation between variable H and variable F

| | | H | F |
|---|---|---|---|
| H | Pearson Correlation | 1 | .155 |
| | Sig. (2-tailed) | | .282 |
| | N | 50 | 50 |
| F | Pearson Correlation | .155 | 1 |
| | Sig. (2-tailed) | .282 | |
| | N | 50 | 50 |

At the 5% significance level, $H_0$ is accepted because the p-value is greater than 0.05.

Since the null hypothesis is accepted, it is concluded that there is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

This hypothesis was set up to test the common perception that small firms (those that employ between 11-50 people) and medium size firms (those that employ 51-100 people) often conduct more on-the-job training than firms employing a greater number of employees. Ridoutt, Dutneal, Hummel & Selby-Smith, (2002:8) state that "It is important to acknowledge that many enterprises, especially smaller and medium size companies, undertake a considerable amount of unrecognized training." Notwithstanding the assumption that on-the-job training is the most difficult variant of training to measure, it is a valuable form of training that is often overlooked.

The importance and frequency of on-the-job training is affirmed by studies in Australia, which reveal that on-the-job training constitutes a large percentage of overall training that is conducted. (Dawe, 2003:17) In 1997, the Australian Bureau of Statistics (ABS) provided the findings of an education and training survey. They provide the following measures of enterprise training activity: of the 80% of workers who undertook training, 20% was structured external, 33% was structured in-house while 72% of training was unstructured on-the-job-training. (ABS 1998b) as cited in (Dawe, 2003:17)

Similarly, with respect to on-the-job training, the results of this study reveal that 36% of companies in the sample provided on-the-job training of 41%-60% while 20% of the companies in the sample reported that between 61%-80% of training was conducted on-the-job.

Although no correlation was found between number of employees in a company and the percentage of on-the-job training conducted, the frequency of on-the-job training conducted by companies in the sample confirm its importance.

2. Ho There is no significant correlation between the number of employees in a company and the percentage of formal training conducted.

Hi There is a significant correlation between the number of employees in a company and the percentage of formal training conducted.

Table 56: Correlation between variable H and variable G

| | | H | G |
|---|---|---|---|
| H | Pearson Correlation | 1 | .998(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| G | Pearson Correlation | .998(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed)

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since null hypothesis is rejected it is concluded that there is a significant relationship between number of employees in a company and the percentage of formal training conducted. Table 56 above reveals a strong positive correlation between the number of employees in a company and the percentage of formal training conducted.

The literature study confirms this finding. Tan (2001:7) found in a study of companies in Malaysia that formal training increased with firm size (number of employees). Similarly, firm size was found to be a correlate of enterprise training. "Larger firm sizes are associated with monotonically higher likelihoods of formal training." (Tan & Batra, 1995:14). Dawe (2003) found in a survey of Australian firms that larger enterprises tend to provide more training, especially formal training, to their employees. This finding was also prevalent in a skills survey conducted in Britain (Falstead, Green & Mayhew, 1997) as cited in Paterson, McGrath & Badroodien, 2004:59). They note that the relationship between enterprise size and training reinforces existing skill difference across enterprises because small enterprises are less likely to provide formal, of-the-job training. This means that if

small enterprises employ people that are lower skilled, there is little opportunity for them to improve their skills.

The National Skills Survey (2003) found that the average training rates for small, medium and large enterprise were 23%, 24% and 25% respectively. Paterson *et al.* (2004:59) states that this is in line with international experience and the difference between the training rates are not as marked as expected. In his review of previous enterprise studies in South Africa, Badroodien (2003:439) states that company size affects the investment in training and can be positively correlated to the amount of training provided to employees. Bhorat & Lundall 2002:12) note that large firms invariably provide more training than small firms in South Africa.

Internationally, there is consensus with regard to these findings. Hayden *et al.* (1996:8) as cited in Ridoutt , Dutneal, Hummel & Selby Smith (2002:21) found that industry sector and enterprise size were the two most powerful variables used to explain differences in training amongst Australian firms. Similar findings in Australia are detailed by O'Connell (1999:2) and Jennings (1998:13) as cited in Paterson *et al.* (2004:59).

3. Ho There is no significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

   Hi . There is a significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

Table 57: Correlation between variable H and variable I.

| | | H | I |
|---|---|---|---|
| H | Pearson Correlation | 1 | .486** |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| 1 | Pearson Correlation | .486** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than O.Ol.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

The findings of the National Skills Survey (2003) reveals that the percentage of small, medium and large companies claiming grants were 27%, 59.1% and 83.4% respectively. The percentage of grant claims therefore increased with company size. This confirms the relationship tested in this hypothesis which is that the percentage of training costs recovered from SETAs increases with a greater number of employees.

The literature study lends support for the possible reasons for this relationship. Larger companies are better equipped to deal with the administrative functions of training within their companies. (Paterson *et al.,* 2004:101).

In addition, the results of this study revealed that the cumulative percentage of 82% of respondents agreed that submission procedures of grant claims at the SETAs are complicated. It is inferred from this statistic that smaller companies may lack the resources to deal with such complication and may therefore choose not to complete the application process for grant claims.

4. Ho There is no significant correlation between the number of employees in a company and the perceived effectiveness of training.

   Hi There is a significant correlation between the number of employees in a company and the perceived effectiveness of training.

Table 58: Correlation between variable H and variable B

| | | H | B |
|---|---|---|---|
| H | Pearson Correlation | 1 | .344 |
| | Sig. (2-tailed) | | .004 |
| | N | 50 | 50 |
| B | Pearson Correlation | .344 | 1 |
| | Sig. (2-tailed) | .004 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the number of employees in a company and the perceived effectiveness of training.

Although this relationship has not been found in the directly in the literature study, possible reasons for the emergence of such a relationship are discussed in terms of the literature study.

"Larger firm sizes are associated with monotonically higher likelihoods of formal training." (Tan & Batra, 1995:14). In addition, they found that the effects of firm size on training differ by skill group and source of training. Tan & Batra (1996:v) argue that "enterprises are more likely to train when they are large and employ an educated workforce."

Badroodien (2003:439) states that company size affects the investment in training and can be positively correlated to the amount of training provided to employees. Bhorat & Lundall (2002:12) note that large firms invariably provide more training than small firms in South Africa. It has been found in this study that larger firms provide more formal training than smaller firms. The definition of formal training in this study is similar to that which is outlined by Dawe (2003) in Chapter 4, that is, formal training refers to training that is conducted in accordance with a predetermined plan or curriculum.

Because large firms conduct more formal training, it is inferred that they are more likely to perceive training as being effective due to the structured nature of formal training. It has also been mentioned that companies in the sample that employ more than 150 employees often have departments dedicated to training. This confirms the suggestion that ". . . . large enterprises were more able to monitor and respond to the needs in their labour force." (Paterson *et al,* 2003:37)

It is not surprising then, that the perception of effectiveness of training was found to be a correlate of the number of employees in a company.

5. Ho There is no significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

Hj There is a significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

Table 59: Correlation between variable B and variable C

| | | B | C |
|---|---|---|---|
| B | Pearson Correlation | 1 | ,868(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| C | Pearson Correlation | .868(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant and strong correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

Effective training in the study is defined as the extent to which training objectives are met. If clear objectives are not set then it is difficult to measure, achieve and determine effective training. Therefore, in order for training to be effective, the

application of effective training procedures must be applied, that is, training needs must be properly identified, clear objectives for training must be set and training programs must be evaluated in terms of efficacy. Effective training therefore, in this study, is measured in terms of employee learning, employee performance and organizational performance. This has been derived from the Kirkpatrick model of evaluation that was discussed in Chapter 2.

The application of effective training procedures in this study is measured in terms training being based on the training needs of the company, opportunity to apply that which employees have learned to their jobs, the use of qualified trainers and evaluating training programs for their effectiveness.

Literature suggests that there is a relationship between the application of effective training procedures and the effectiveness of training. Employee learning in the Baldwin & Ford model of the transfer process is dependant on trainee characteristics, training design and work environment. Training design includes training content which is related to the application of effective training procedures as detailed above. Specifically, whether training is based on the needs of the company. Work environment as suggested by Baldwin & Ford is related to opportunity to apply that which employees have learned to their jobs (transfer of training). Additional factors that have been used to measure the application of effective training procedures in this study are the use of qualified trainers and evaluation of the training intervention to determine its effectiveness. (Kirkpatrick, 1964 and Holton, 1996).

The findings of the literature survey, as well as the results of this study that were discussed in Chapter 6, confirm the positive correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

6. Ho There is no significant correlation between the number of employees in a company and the application of effective training procedures.

Hi There is a significant correlation between the number of employees in a company and the application of effective training procedures.

Table 60: Correlation between variable C and variable H

| | | C | H |
|---|---|---|---|
| **C** | Pearson Correlation | 1 | 0.433 |
| | Sig. (2-tailed) | | .002 |
| | N | 50 | 50 |
| H | Pearson Correlation | 0.433 | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

Since the null hypothesis is rejected, it is concluded that there is a strong positive correlation between the number of employees in a company and the application of effective training procedures.

This hypothesis is confirmed by discussions above pertaining to number of employees in a company and the propensity to train. Specifically, it was mentioned that "..... large enterprises were more able to monitor and respond to the needs in their labour force." (Paterson *et al.,* 2003:37) This statement implies larger companies are more likely to apply effective training procedures. In general, findings in this study indicate that companies with a greater number of employees are better equipped to deal with training and are therefore more likely to apply effective training procedures in order to facilitate effective training.

7. Ho There is no significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

   Hi There is a significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

Table 61: Correlation between variable C and variable D

| | | C | D |
|---|---|---|---|
| C | Pearson Correlation | 1 | .781(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | .781 n | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

This relationship was not found in the literature study. The researcher decided to test this relationship based on the assumption that if companies are compliant with the Skills Development Act, then they are more likely to apply effective training procedures. It will be recalled that compliance with the Skills Development Act in the study includes, paying the skills development levy, as well as registering with the relevant SETA. This provides a basic framework within which skills development in South Africa is to occur.

It was reasoned that if employers wanted to reap the benefits of training in terms of skilled work force and eligibility for grant claims, then effective training procedures should ideally be applied to training in companies.

8. Ho There is no significant correlation between the assistance received from the SET As and the perceived effectiveness of the Skills Development Act.

Hi There is significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

Table 62: Correlation between variable A and variable E

| | | A | E |
|---|---|---|---|
| A | Pearson Correlation | 1 | .290(**) |
| | Sig. (2-tailed) | | .041 |
| | N | 50 | 50 |
| E | Pearson Correlation | .290(**) | 1 |
| | Sig. (2-tailed) | .041 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

This relationship was not found in the literature study but it is supported by the results of the field study. The findings of the study revealed that 46% of the sample indicated the Skills Development Act was ineffective. 72% of the sample indicated that their SETA had not assisted them with the training of their employees. In general, respondents were extremely dissatisfied with the administrative function of and the services that they received from the SETAs.

This hypothesis therefore implies that if companies in the sample receive more assistance received from the SETAs, then they are likely to view the Skills Development Act in a more positive light.

9. $H_0$ There is a no significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.
Hi There is a significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

Table 63: Correlation between variable E and variable D

| | | E | D |
|---|---|---|---|
| E | Pearson Correlation | 1 | .442(**) |
| | Sig. (2-tailed) | | .001 |
| | N | 50 | 50 |
| D | Pearson Correlation | .442(**) | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 50 | 50 |

* Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the compliance with the Skills Development Act and the assistance received from the SET As.

This relationship is not surprising and is confirmed by the way in which skills development legislation in South Africa is designed. Companies that are not compliant with the Skills Development Act are not eligible to receive assistance received from SETAs. The functioning and purpose of SETAs as well as the Skills Development Act were discussed at length in Chapter 4 therefore; a brief discussion here would suffice.

Companies that are eligible to pay a skills development levy of 1% per annum are those with a payroll in excess of R500 000 per annum. If companies pay the levy and do not register with the relevant SETA, the skills levy amounts to an involuntary tax. (Paterson *et al.,* 2004) . This is not the way in which the skills development system is designed to work. For companies to benefit from the Skills Development Act, they need to be fully compliant. This means that companies ought to pay the skills development levy and register with the relevant SETA so that may claim refunds for recognized training that they have conducted.

Therefore, it may be concluded from this discussion that the more compliant companies are, the greater is the assistance that they receive from the SETAs.

10. Ho There is a no significant correlation between the application of effective training procedures and assistance received from the SETAs.

Hi There is a significant correlation between the application of effective training procedures and assistance received from the SETAs.

Table 64; Correlation between variable E and variable C

| | | E | C |
|---|---|---|---|
| E | Pearson Correlation | 1 | .298(*) |
| | Sig. (2-tailed) | | .036 |
| | N | 50 | 50 |
| C | Pearson Correlation | .2980 | 1 |
| | Sig. (2-tailed) | .036 | |
| | N | 50 | 50 |

* Correlation is significant at the 0.05 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is accepted, it is concluded that there is a significant correlation between the application of effective training procedures and the assistance received from SETAs.

This means that as companies receive greater assistance from the SETAs, then the application of effective training procedures will increase. This relationship was anticipated although it was not found in the literature survey. The reason for this anticipation lies in the basic functions of the SETA. Apart from administering skills development levy refunds and grant claims, the SETAs are tasked with important functions related to training in their respective sectors. These include the development of sector skills plan to guide skills development within their respective sectors. In addition, the SETAs are designed to assist companies with information regarding courses, programs and other training related information.

Companies that do not employ training specialists or lack experience with respect to employee training may not have acquired the necessary knowledge of training that is required to apply effective training procedures. The hypothesis states that the

application of effective training procedures will increase if companies received greater assistance from the SET As. Considering the design of the Skills Development Act, it is the responsibility of the SETAs to assist companies with training related issues and in doing so, they will be able to facilitate the application of effective training procedures.

11. $H_0$ There is a no significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

Hi There is a significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

Table 65: Correlation between variable E and variable G

| | | E | G |
|---|---|---|---|
| E | Pearson Correlation | 1 | .006 |
| | Sig. (2-tailed) | | .969 |
| | N | 50 | 50 |
| G | Pearson Correlation | .006 | 1 |
| | Sig. (2-tailed) | .969 | |
| | N | 50 | 50 |

At the 5% significance level, Ho is accepted because the p-value is greater than 0.05.

Since the null hypothesis is accepted, it is concluded that there is no significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

The result of this hypothesis implies that the amount of formal training conducted in a company is not influenced by the assistance received from the SETAs. This indicates that the SETAs are not very effective. If respondents agreed to a great extent that they received assistance from their SETA then a positive relationship between formal training conducted and assistance received from the SETAs would be confirmed.

In addition, this hypothesis implies that if SETAs were to improve the services rendered to companies, they would be able to exert a positive influence on formal

training. This means that employers who were to receive assistance from SET As will be more likely to conduct formal training as required by the Skills Development Act.

12. Ho There is no significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

Hi There is a significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company

Table 66: Correlation between variable B and variable F

| | | B | F |
|---|---|---|---|
| B | Pearson Correlation | 1 | .373(**) |
| | Sig. (2-tailed) | | .008 |
| | N | 50 | 50 |
| F | Pearson Correlation | .373(**) | 1 |
| | Sig. (2-tailed) | .008 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

At the 5% significance level, Ho is rejected because the p-value is less than 0.05

Since the null hypothesis is rejected it is concluded that there is a significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

On-the-job training as defined in Chapter 4 involves learning during employees' productive hours at work. (Dawe, 2003) This variant of training is highly specific to the job situation and allows the employee to apply what they are learning, almost immediately, to their jobs. In addition, that such a correlation was found also implies that employees' performance improves after an on-the-job training intervention and therefore there is a more positive perception of effective training in the company.
This hypothesis confirms the relevance of on-the-job training in light of the literature study.

13. Ho There is no significant correlation between the percentage of formal training and the perceived effectiveness of training in the company.

Hi There is a significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

Table 67: Correlation between variable G and variable B

| | | G | B |
|---|---|---|---|
| G | Pearson Correlation | 1 | .507(*) |
| | Sig. (2-tailed) | | .040 |
| | N | 50 | 50 |
| B | Pearson Correlation | .507(*) | 1 |
| | Sig. (2-tailed) | .040 | |
| | N | 50 | 50 |

'Correlation is significant at the 0.05 level (2-tailed)

At the 5% significance level, Ho is rejected because the p-value is less than 0.05.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

This means that as formal training increases, employers have a more positive perception regarding the effectiveness of training. The possible reasons that the alternate hypothesis in this instance is confirmed, is that the perceived effectiveness of training is closely related to application of effective training procedures. This implies that the employees in the sample are employing effective training procedures when planning and implementing their formal training programs.

14. Ho There is no significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

Hi There is a significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

Table 68: Correlation between variable B and variable D

| | | B | D |
|---|---|---|---|
| B | Pearson Correlation | 1 | .814(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | .814(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level,Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

The literature study did not reveal literature in support of this relationship. The researcher assumed that companies that were more compliant with the skills development Act will be more likely to perceive training as being effective in their organisations. This assumption is confirmed, in retrospect, by hypothesis 7 above which found a significant relationship between compliance with the Skills Development Act and the application of effective training procedures.

15. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

Table 69: Correlation between variable C and variable A

| | | C | A |
|---|---|---|---|
| **C** | Pearson Correlation | 1 | .838(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| A | Pearson Correlation | .838(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, $H_0$ is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

Although this relationship was not found in the literature study, the result of this hypothesis is not surprising because companies in the sample that have positive perceptions of the of the skills development Act also view training in a more positive light than companies that do not. Therefore, if attitudes to training in general are positive, then companies are more likely to apply effective training procedures so that they conduct effective training from which they will benefit.

16. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

Table 70: Correlation between variable A and variable D

| | | A | D |
|---|---|---|---|
| A | Pearson Correlation | 1 | .690(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| D | Pearson Correlation | ,690(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

This hypothesis is not supported by the literature study. The reasoning behind this hypothesis was that if the Skills Development Act was perceived as effective by companies, then they will be more likely to be compliant with the Act.

17. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

Table 71: Correlation between variable A and variable G

| | | A | G |
|---|---|---|---|
| A | Pearson Correlation | 1 | ,431(**) |
| | Sig. (2-tailed) | | .002 |
| | N | 50 | 50 |
| G | Pearson Correlation | ,431(**) | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.0

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

This relationship was not found in the literature study. It was reasoned that if companies in the perceived the Skills Development Act as more positive then there

will be more likely to conduct formal training. The reason is that the focus of the Skills Development Act is formal training because other forms of training are difficult to measure. (Dawe, 2003)

18. Ho There is no significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

Hi There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs

Table 72: Correlation between variable A and variable I

| | | A | I |
|---|---|---|---|
| A | Pearson Correlation | 1 | .710(**) |
| | Sig. (2-tailed) | | .000 |
| | N | 50 | 50 |
| 1 | Pearson Correlation | .710(**) | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 50 | 50 |

Correlation is significant at the 0.01 level (2-tailed).

At the 1% significance level, Ho is rejected because the p-value is less than 0.01.

Since the null hypothesis is rejected, it is concluded that there is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

Supporting evidence for this relationship was not found in the literature study however it was the intention of the researcher to find out whether companies that perceived the Skills Development Act as effective will be more likely to participate in the Act on all levels. This includes SETA registration, submission of workplace skills plans and implementation of training reports in order to receive the maximum re-imbursement.

## 7.6 Conclusions of the Hypothesis Testing

7.6.1 There is a significant correlation between the perceived effectiveness of the Skills Development Act and the perceived effectiveness of training in the organization.

7.6.2 There is no significant correlation between the number of employees in a company and the percentage of on-the-job training conducted.

7.6.3 There is a significant correlation between the number of employees in a company and the percentage of formal training conducted.

7.6.4 There is a significant correlation between the number of employees in a company and the percentage of training costs recovered from SETAs.

7.6.5 There is a significant correlation between the number of employees in a company and the perceived effectiveness of training.

7.6.6 There is a significant correlation between the perceived effectiveness of training in a company and the application of effective training procedures.

7.6.7 There is a significant correlation between the number of employees in a company and the application of effective training procedures.

7.6.8 There is a significant correlation between compliance with the Skills Development Act and the application of effective training procedures.

7.6.9 There is a significant correlation between the assistance received from the SETAs and the perceived effectiveness of the Skills Development Act.

7.6.10 There is a significant correlation between the compliance with the Skills Development Act and the assistance received from the SETAs.

7.6.11 There is no significant correlation between the application of effective training procedures and assistance received from the SETAs.

7.6.12 There is a significant correlation between the percentage of employers conducting formal training and the assistance received from the SETAs.

7.6.13 There is a significant correlation between the percentage of on-the-job training conducted and the perceived effectiveness of training in the company.

7.6.14 There is a significant correlation between the percentage of formal training conducted and the perceived effectiveness of training in the company.

7.6.15 There is a significant correlation between compliance with the Skills Development Act and the perceived effectiveness of training in the company.

7.6.16 There is a significant correlation between the perceived effectiveness of the Skills Development Act and the application of effective training procedures.

7.6.17 There is a significant correlation between the perceived effectiveness of the Skills Development Act and compliance with the Skills Development Act.

7.6.18 There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of employers conducting formal training.

7.6.19 There is a significant correlation between the perceived effectiveness of the Skills Development Act and the percentage of training costs recovered from SETAs.

From the results of the hypothesis testing, it is concluded that there is positive correlation between all the variables in the study, with the exception of:

- the application of effective training procedure (C) and the assistance received from SETAs (E); and
- the number of employees in a company (H) and the percentage of on-the-job training conducted (F).

## 7.7 Factor Analysis

Factor analysis was conducted to test the extent to which the ratings indicate that the questions have been arranged in significant factors, that is, does the factor analysis confirm the grouping of the questions into the variables used in the study.

The variables (A-E) and the groupings of questions (9-34) are listed below. Since factor analysis uses the ratings of questions to confirm grouping, questions and statements 1-8 were excluded because they were not measures on a Likert scale.

Variable A:
The perceived effectiveness off the skills development act.
Q20; 17; 22; 18

Variable B:
The perceived effectiveness of training in the organization.
Q11; 16; 23; 24; 12; 14

Variable C:
The application of effective training procedures.
Q21; 32; 33; 34; 19; 9

Variable D:
Compliance with the Skills Development Act.
Q10; 15;; 13; 31

Variable E:
Assistance received from the SET As.
Q25; 26; 27; 28; 29; 30

The following factors were given as a result of factor analysis:

1. The impact and necessity of training.
2. SETA and training legislation.
3. The skills development levy.

4. The skills development levy refund.

These are outlined below in accordance with the grouping of the questions that were the result of the factor analysis.

Factor 1 -The Impact and Necessity of Training

| | |
|---|---|
| Q16 | We are conducting effective training in terms of the amount of learning achieved by our employees. |
| Q23 | We are conducting effective training in terms of the performance of our employees. |
| Q19 | The company's involvement in training has increased significantly in the last five years. |
| Q22 | Our employee skills are continuously updated through training |
| Q18 | The amount of training that is being done in our company is satisfactory. |
| Q34 | Training programs are based on the training needs of the company. |
| Q33 | Employees are given the opportunity to apply that which they have learned to their jobs. |
| Q11 | We are conducting effective training in terms of the performance of our company. |
| Q24 | Our company results have improved as a result of training. |
| Q31 | The main reason that we are involved in training is to fulfill legislative requirements |
| Q32 | Training programs are evaluated for their effectiveness. |
| Q30 | The training of our employees is limited due to cost constraints. |
| Q21 | Qualified trainers are used for the training of our employees. |
| Q9 | Training in our company occurs on a regular basis. |
| Q14 | Training of our workforce will have a positive impact on our company. |
| Q12 | The success of our business depends on effective skills training. |

Factor 2-Seta and Training Legislation

| | |
|---|---|
| Q25 | Our SETA has assisted us in training our employees to a great extent. |
| Q26 | Our SETA administers our refunds promptly |
| Q27 | Information related to courses, programmes and training is readily available from our SETA. |
| Q28 | Our SETA is responsive to our queries. |
| Q29 | The submission procedures of our SETA are complicated. |
| Q15 | The refund on the Skills Development Levy is not easily accessible. |
| Q20 | The skills development refund has assisted in the training of our employees. |
| Q17 | The Skills Development legislation is ineffective. |

Factor 3-Skills Development Levy

qlO | We regard the payment of the Skills Development Levy as an additional tax.

Factor 4-Skills Development Levy Refund

**ql3** The main reason that we are involved in training is to obtain a refund on the Skills Levy.

Questions included in the variables A; D and E as listed above were found in all 4 factors that were given in factor analysis. Therefore, it is concluded that the result of factor analysis did not confirm the groupings of these questions according to the variables outlined in the study.

However, questions that were grouped in variable B and variable C are listed under factor 1. The groupings of these questions are therefore confirmed.

### 7.8 Regression Analysis

Regression analysis was conducted to determine the extent to which the independent variables predict the dependant variable.

The process of regression analysis was discussed in Chapter 6, therefore this discussion will focus on the results of the regression analysis. Stepwise and multiple regression analysis were applied to the variables of the study. The independent variables and the dependent variables identified are given below.

Table 73: The dependent variable and independent variables

| Independent variables | Dependent variable |
|---|---|
| The perceived effectiveness off the skills development act. (A) | Effectiveness of training (B) |
| The application of effective training procedures. (C) | |
| Compliance with the Skills Development Act.(D) | |
| Assistance received from the SETAs.(E) | |
| Percentage of on-the-job training conducted.(F) | |
| Percentage of employers carrying out formal training(G) | |
| The number of employees in the company.(H) | |
| The percentage of training costs recovered from SETAs. **(I)** | |

The results of the multiple regression analysis and the stepwise regression analysis confirm that the independent variables (A, C, D, E, F, G,H, and I) combine influence dependent variable (B). This is illustrated in the model below.

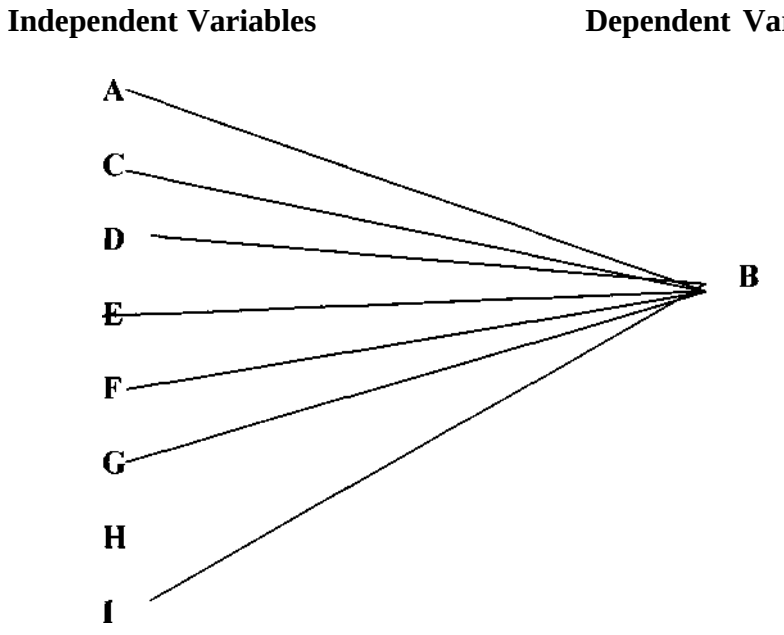



Figure 44: Effect of independent variables on the dependent variables.

Although all the independent variables were found to be predictors of the dependent variable, the constant and most significant variables were C, D and A. This is confirmed by both the multiple regression analysis and the stepwise regression analysis

This is expressed as follows:

Effectiveness of training (B) = the application of effective training procedures (C) + Compliance with the Skills Development Act (D) + the perceived effectiveness of the Skills Development Act (A).

It is concluded the independent variables (C, D and A) have the most significance on the dependent variable. The model for this study is therefore illustrated in the figure below.

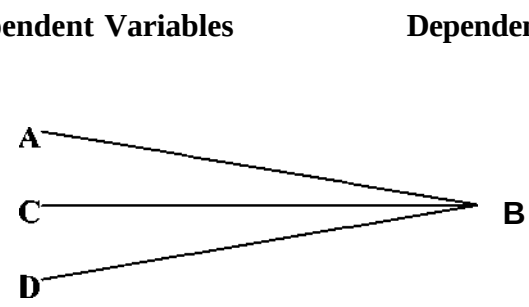



Figure 45: Independent variables with the greatest impact on the dependent variable

## 7.9 Main Conclusions of the Study

The main conclusions of the study are best discussed in terms of the variables in the study and hypothesis testing of the relationships between these variables.

7.9.1 The perceived effectiveness of the Skills Development Act was found to be a positive correlate of the effectiveness of training, the application of effective training procedures, the percentage of employers conducting formal training and the percentage of training costs recovered from the SET As.

7.9.2 Training was perceived to be effective in terms of employee learning, employee performance and organizational performance.

7.9.3 There was an even split between companies that applied effective training procedures and those that did not.

7.9.4 Compliance with the Act was a pre-requisite for selection of the sample, however full participation in the Act was found to be lacking in general. This means that the majority of companies in the sample did not submit Workplace Skills Plans and Implementation of Training reports.

7.9.5 Compliance with the Skills Development Act was found to be a correlate of the application of effective training procedures, assistance received from the SET As, the perceived effectiveness of training and the perceived effectiveness of the Skills Development Act.

7.9.6 It was generally perceived that the assistance received from the SET As was poor.

7.9.7 On-the-job training was found to be prevalent in all companies, however formal training was more prevalent in companies that have a large number of employees. The average rate of formal training was calculated as 29.64%.

7.9.8 The number of employees was found to be a correlate of the percentage of formal training conducted, the percentage of training costs recovered from the SETAs, the perceived effectiveness of training and the application of effective training procedures.

## 7.10 Summary

The purpose of this chapter was to discuss the results of the study and to draw the most significant conclusions.

The results were discussed in terms of the sub-objectives as well as the research questions posed in chapters one and five. The hypothesis testing was conducted with the aim of finding the most significant relationships between the variables in the study. These were discussed in terms of the results of the correlation analysis. The main conclusions of the hypothesis testing were presented.

Additional statistical tests applied to the sample, namely factor analysis and regression analysis, were discussed. Finally, the main conclusions of the study were presented.

The following chapter focuses on the discussion of these conclusions, caveats of the study and recommendations for future research.

in

# Chapter Eight

# Recommendations and Limitations of the Study

## 8.1 Introduction

The aim of this chapter is to provide recommendations to improve the efficacy of the Skills Development Act and to provide suggestions for future research based on the conclusions of the study. Possible limitations of the study are also presented.

## 8.2 Recommendations

8.2.1 The Skills Development Act is a result of intensive investigations as mentioned in Chapter 3. The fact that a large proportion of companies view it in a negative light points to possible problems with the implementation of the Act. There needs to be greater involvement and communication with companies. This can be achieved by setting up provincial workshops to educate companies, especially small emerging companies, on the benefits and the imperatives of training that the training legislation is designed to achieve. In this way companies will be able to share the vision of skills development as intended by the government.

8.2.2 Smaller companies should be encouraged to participate in the training system. Consequently, this is one of the aims of the current National Skills Development Strategy. This could be achieved by offering these companies an additional percentage of the current re-imbursement structure. This will encourage smaller firms to participate in the levy system which may otherwise be biased toward larger companies.

8.2.3 The administration of SETAs needs to be improved. Procedures for grant claims should be streamlined so that grant claims are made equally accessible to all companies. The results of this study indicate that larger companies seem to be more equipped to deal with the bureaucracy of the SETAs than smaller

companies. Companies should receive assistance from the SETAs, especially with respect to designing and implementing Workplace Skills Plans and the procedures required to submit claims.

8.2.4 Dissemination of information regarding training programs should be easily accessible to all companies. This could be easily achieved if SETAs monitor and update their internet websites.

8.2.5 It is important that SETAs are transparent and administratively efficient in the processing and disbursement of claims in order to promote maximum compliance. There has been a claim of misappropriation of funds by the Chief Executives Officers of certain SETAs. This was discussed in Chapter 2. If employers believe that their levy payments are being used for purposes not intended by the Skills Development Act, there will definitely be a problem with compliance. It is therefore vital that the SETAs make public the allocation of its funds.

8.2.6 Training providers and accredited training programs should be continuously evaluated and monitored to ensure quality of skills development. In this regard SAQA needs to be stringent with its criteria when awarding accreditation to institutions.

8.2.7 The challenges of the training legislation are more operational than policy oriented therefore implementation, enforcement and monitoring mechanisms must be given attention by government.

8.2.8 The literature study confirmed the high prevalence rate of HIV/AIDS in South Africa. Companies should implement HIV/AIDS education and awareness programs for the prevention and management of HIV/AIDS.

8.2.9 The Department of Labour (2005) published a list of scarce skills. In order to address this problem, the government should offer subsidies or bursaries to individuals who have chosen a career that has been defined as a scarce skill.

8.2.10 The Department of Labour and the Department of Education could work together to forge partnerships with schools and higher education institutions in order to facilitate scarce skills drives. This could include the alteration of curriculum at the school level to include courses that are aimed at the development of scarce skills. Sponsorships could be offered to higher education institutions to develop and offer courses aimed at bridging the scarce skills gap.

8.2.11 In addition, high schools should be divided into academic schools and vocational schools. Academic schools would then be attended by learner who will continue their studies at university. Vocational schools would provide specific courses (for example in the technical field) so that learners may be able to work in these fields upon the completion of school.

8.2.12 Skills development and education cannot be seen as mutually exclusive. In South Africa, the basic educational level of the population is low compared to that of developed countries. This presents a problem for skills development because if individuals do not possess basic literacy and numeric skills then it is difficult, if not impossible for them to engage in more advanced training. In this regard, primary school education should be compulsory and fully subsidized by the government. This practice is evident in countries further along the skills development path than South Africa, for example, Malaysia and Singapore.

8.2.13 The labour market should be continuously monitored and evaluated so that skills development is congruent with the labour market demand. In other words, the supply of and the demand for skills in the labour market should be consistent. This can be achieved through highly targeted training and strict control of training

funds. Skills training and development should therefore be planned with the countries economic development in mind.

## 8.3 Suggestions for Future Research

8.3.1 Research on skills development legislation in South Africa is lacking in general. The literature study did not yield the same or a similar study. The department of labour commissions a host of useful studies, for example, the National Skills Survey. It is suggested that future studies focus on skills development legislation because this is a framework within which training is supposed to occur.

8.3.2 Research should be conducted in countries that have enjoyed optimal success with the levy-system so that lessons may be learned (example, Singapore).

8.3.3 It is suggested that the government commission studies in order to continuously monitor and evaluate the implementation of the Skills Development Act to ensure that it is achieving its purpose. In this was government can respond to the needs of companies and enjoy full participation and compliance from these companies.

8.3.4 A study such as this one should be replicated using a larger sample and the inclusion of all sectors and all 23 SETAs.

## 8.4 Limitations of the Study

8.4.**1** The study was conducted in the Pietermaritzburg area due to the convenient proximity of the respondents to the researcher. The results of the study are therefore not generalizable to companies on a national, or even a provincial level.

8.4.2 The respondents were reluctant to participate in the study despite assurance from the researcher regarding confidentiality. This was expected and understandable given the sensitive nature of financial information. Even those respondents that

finally agreed to participate were not at all comfortable in divulging the actual amounts of levies paid. The possible reason for this is: Given a company's levy payment, one can estimate its payroll and therefore determine whether Pay As You Earn (PAYE) taxation is correctly being paid to the South African Revenue Service (SARS). In addition, as a result of this limitation objective 2, as stated in Chapter 7, could not be achieved because the researcher could not obtain the necessary financial information for reasons explained above.

8.4.3 A further limitation of the study was the amount of time available to collect data. Given a theoretical limitless study, the sample could be expanded to include the entire population of companies in the country. This means that, by extrapolation, a longer period of time for data collection would have ensured a larger sample, which reduces the error value proportionally.

8.4.4 A similar argument to that made above is the limitation in terms of finances. More available money for data collection would have ensured a larger geographical sample, in the sense that travel costs and other related costs would not have presented a challenge.

8.4.5 Further restrictions relate to the commissioning of the study. If the study was commissioned by Government and supported by big business, the participation would have been far higher and the data more reliable.

8.4.5 Finally, this study focused on the manufacturing and retail sectors and as such results are only applicable to these sectors. In addition, information on the functioning of the SETAs and are therefore only applicable to the Manufacturing and Engineering SETA and Wholesale and Retail SETA.

## 8.5 Summary

This chapter focused on recommendations to improve the implementation of the training legislation in the country. This was followed by suggestions for future research.

The chapter concluded with limitations of the study.

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Appendix A - Scarce Skills List

| **Main Occupational Category (2004-2009)** | **Minor Occupational Category (2004-2009)** |
|---|---|
| Senior officials and management | Experienced and qualified managers:<br>• Project managers<br>• Financial managers<br>• Sales and marketing managers<br>• General managers<br>• Business leadership<br>• Entrepreneurs |
| Financial<br>E Commerce Specialists | Engineers including<br>• Mining<br>• Agriculture<br>• Chemical<br>• Electrical<br>• Mechanical<br>• Electronic project<br>• Civil<br>• Design<br>• Nuclear<br>• Clinical<br>Financial specialists including<br>• Chartered accountants<br>• Auditors<br>• Actuaries<br>• Financial/business analysts/consultants<br>Researchers including<br>• Marketing<br>• Surveyors<br>• Entrepreneurs |
| Technicians and associate professionals | Insurance brokers<br>Bookkeepers<br>Sales workers<br>Buyers<br>Qualified ETD practitioners<br>Technicians including<br>• Clinical<br>• Phlebotomy<br>• Medical<br>• Water<br>• IT |

| | |
|---|---|
| | • Electrical<br>• Electronic<br>• Aircraft<br>• Mechanical entrepreneurs |
| Clerks | Debt collectors<br>Conveyance secretaries<br>Administrative clerks |
| Service/shop/market sales workers | Qualified recruitment consultants<br>Sales personnel<br>Fire fighters<br>Traffic officers<br>Police officers |
| Skilled agric./fishery workers | Skilled horticulture workers<br>Maintenance |
| Craft and related trade workers | Electricians<br>Plumbers |
| Plant/machine operators | Taxi drivers (10)<br>Machine operators |

Source: Department of Labour (2004b)

**Appendix B - The Research Questionnaire**

The University of Kwazulu-Natal

Note to Participants:

Purpose of the Questionnaire

- The student is currently undertaking research for completion of a Masters of Commerce degree.
- The research project involves an investigation of the Skills Development Act regarding its efficacy in promoting training.
- The questionnaire has no bearing on the company being surveyed and is not being used for any purpose related to the qualitative judgement of the company.
- Your participation in this research project is entirely voluntary.

Confidentiality

- The names of all participants as well as their companies will remain confidential.
- All data generated through the research will only be accessed by the student/researcher.
- Upon completion of the dissertation data will be disposed of in an appropriated manner so that information is not relayed to other persons.

1 wish to thank you for your time and assistance on this project. A copy of the completed dissertation will be available be March 2007. Should you wish to obtain an electronic copy, please contact me at amymoodley@workmail.co.za

Amritha Singh
Student
Contact Details:
Tel: 033 3961196
Cell: 0844874451
Student Number: 203502867
Management Studies: 260 6124

**The University of Kwazulu-Natal**

**Research Questionnaire**

1. Please indicate the number of employees in your company.
2. Please estimate the number of employees that have received skills training in the last year.
3. How much has your company claimed through the skills development refund in the last financial year?
4. Please indicate the percentage of training that you believe is conducted on the job in your company.

| 0% - 20% | 21%-40% | 41%-60% | 61%-80% | 81% - 100% |
|---|---|---|---|---|
| | | | | |

5. Has your company registered with the relevant SETA?
6. Does your company submit a Workplace Skills Plan to SETA?
7. Does your company submit an Implementation of Training Report to SETA?
8. What percentage of training costs has your company recovered from SETA in the last year? Please mark (X) the appropriate column below.

| 0% - 20% | 21%-40% | 41%-60% |
|---|---|---|
| | | |

**Please answer the following questions by marking (X) the appropriate column.**

9. Training in our company occurs on a regular basis.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

10. We regard the payment of the Skills Development Levy as an additional tax.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

11. We are conducting effective training in terms of the performance of our company.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

12. The success of our business depends on effective skills training.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

13. The main reason that we are involved in training is to obtain a refund on the skills levy.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

14. Training of our workforce will have a positive impact on our company.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

15. The refund on the Skills Development Levy is not easily accessible.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

16. We are conducting effective training in terms of the amount of learning achieved by our employees.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

17. The skills development legislation is ineffective.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

18. The amount of training that is being done in our company is satisfactory.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

19. Our employee skills are continuously updated through training.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

20. The skills development refund has assisted in the training of our employees.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

21. Qualified trainers are used for the training of our employees.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

22. The company's involvement has increased significantly in the last five years.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

23. We are conducting effective training in terms of the performance of our employees.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

24. Our company results have improved as a result of training.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

25. Our SETA has assisted us in training our employees to a great extent.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

26. Our SETA administers our refunds promptly.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

27. Information related to courses, programmes and training is readily available from our SETA.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

28. Our SETA is responsive to our queries.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

29. The submission procedures of our SETA are complicated.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

30. The training of our employees is limited due to cost constraints.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

31. The main reason that we are involved in training is to fulfil legislative requirements.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

32. Training programs are evaluated for their effectiveness.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

33. Employees are given the opportunity to apply that which they have learned to their jobs.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

34. Training programs are based on the needs of the company.

| Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|
| | | | | |

END OF QUESTIONNAIRE

Thank you for your participation.

## Appendix C - Results of Pearson's Correlation Analysis

| | | a | b | c | d | e | f | g | gpercent | h | i |
|---|---|---|---|---|---|---|---|---|---|---|---|
| a | Pearson Correlation | 1 | .835(") | .838(**) | -.690(**) | .290(*) | .405(") | .389(**) | .431(") | .400(**) | .7ion |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .041 | .003 | .005 | .002 | .004 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| b | Pearson Correlation | .835(**) | 1 | .868(**) | -.814(") | .408(**) | .373(") | .336(*) | .507(**) | .3440 | .743(**) |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .003 | .008 | .017 | .040 | .004 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| c | Pearson Correlation | .838(") | .868(") | 1 | -.781 (") | .298(*) | .412(") | .422(**) | .513(") | .433(") | .763(**) |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .036 | .003 | .002 | .000 | .002 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| d | Pearson Correlation | -.690(") | -.814(") | -.781 (") | 1 | .442(**) | -.3450 | -.376(") | -.503(") | -.379(") | -.748(") |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .001 | .014 | .007 | .000 | .007 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| e | Pearson Correlation | .290(*) | .408(") | .298(*) | .442(") | 1 | .034 | .006 | .438(**) | -.005 | .407C*) |
| | Sig. (2-tailed) | .041 | .003 | .036 | .001 | | .817 | .969 | .001 | .970 | .003 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| f | Pearson Correlation | .405(") | .373C) | .412(**) | -.3450 | .034 | 1 | .148 | .067 | .155 | .222 |
| | Sig. (2-tailed) | .003 | .008 | .003 | .014 | .817 | | .305 | .644 | .282 | .122 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| g | Pearson Correlation | .389(**) | .336(*) | .422(**) | -.376(") | .006 | .148 | 1 | .263 | .998(") | .479D |
| | Sig. (2-tailed) | .005 | .017 | .002 | .007 | .969 | .305 | | .065 | .000 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| gpercent | Pearson Correlation | .431 (**) | .507(**) | .513(**) | -.503(") | .438(**) | .067 | .263 | 1 | .240 | .606(**) |
| | Sig. (2-tailed) | .002 | .040 | .000 | .000 | .001 | .644 | .065 | | .093 | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| h | Pearson Correlation | .400(") | ,344(*) | .433(**) | -.379(**) | -.005 | .155 | .998(**) | .240 | 1 | .486(**) |
| | Sig. (2-tailed) | .004 | .004 | .002 | .007 | .970 | .282 | .000 | .093 | | .000 |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| i | Pearson Correlation | .710(") | 743(") | .763(**) | -.748(**) | .407(**) | .222 | .479(") | .606(**) | .486(") | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .003 | .122 | .000 | .000 | .000 | |
| | N | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).